

# Monkeybread FileMaker Plugin Documentation

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May 11, 2020

## 0.1 Introduction

This is the PDF version of the documentation for the FileMaker Plug-in from Monkeybread Software Germany.

## 0.2 Content

• 1 List of all topics	5
• 3 List of all functions	13
• 4 Functions for MacOS	225
• 5 Functions for Windows	419
• 6 Functions for Server	559
• 7 New in version 6.0	683
• 8 New in version 6.1	687
• 9 New in version 6.2	693
• 10 New in version 6.3	703
• 11 New in version 6.4	707
• 12 New in version 6.5	711
• 13 New in version 7.0	719
• 14 New in version 7.1	723
• 15 New in version 7.2	727
• 16 New in version 7.3	733
• 17 New in version 7.4	741
• 18 New in version 7.5	747
• 19 New in version 8.0	751
• 20 New in version 8.1	755
• 21 New in version 8.2	757
• 22 New in version 8.3	763
• 23 New in version 8.4	767
• 24 New in version 8.5	771
• 25 New in version 9.0	777

<i>0.2. CONTENT</i>	3
• 26 New in version 9.1	781
• 27 New in version 9.2	785
• 28 New in version 9.3	791
• 29 New in version 9.4	793
• 30 New in version 9.5	797
• 31 New in version 10.0	799
• 32 New in version 10.1	805
• 33 New in version 10.2	807





# Chapter 1

## List of topics

• 34 Addressbook	811
• 35 App	921
• 36 AppleScript	937
• 37 Archive	955
• 38 Audit	967
• 39 AVAsset	999
• 40 AVExport	1041
• 41 AVPlayer	1071
• 42 AVRecorder	1123
• 43 Backdrop	1169
• 44 Barcode	1171
• 45 BinaryFile	1205
• 46 BlueThermProbe	1235
• 47 Bonjour	1257
• 48 Calendar	1263
• 49 Certificates	1379
• 50 CGImageSource	1417
• 51 CLGeocoder	1449
• 52 Clipboard	1469

• 53 ColorPanel	1495
• 54 Compression	1509
• 55 Contacts	1563
• 56 Container	1641
• 57 ContinuityCamera	1697
• 58 CoreImage	1703
• 59 CoreLocation	1705
• 60 CoreML	1745
• 61 CUPS	1771
• 62 CURL	1799
• 63 Debugger	2375
• 64 Dialog	2381
• 65 DialogModifications	2435
• 66 Dictionary	2439
• 67 DirectoryWatcher	2479
• 68 DNSLookup	2493
• 69 DocumentCameraScan	2505
• 70 DragDrop	2521
• 71 DynaPDF	2591
• 72 EIDSDK	3423
• 73 EmailParser	3459
• 74 Encryption	3499
• 75 EnvironmentVariables	3539
• 76 EventMonitor	3547
• 77 Events	3559
• 78 FileDialog	3763
• 79 Files	3825
• 80 FM	3937
• 81 FMSQL	4123

• 82 Folders	4227
• 83 Font	4251
• 84 FSEvents	4263
• 85 GameKit	4297
• 86 GImage	4395
• 87 GraphicsMagick	4399
• 88 Hash	4849
• 89 HealthKit	4881
• 90 HotKey	4895
• 91 IKPictureTaker	4927
• 92 IKSlideShow	4959
• 93 ImageCapture	4989
• 94 ImagePicker	5101
• 95 ImageView	5161
• 96 iOSApp	5183
• 97 iOSDevice	5205
• 98 iOSKeyboard	5219
• 99 Java	5229
• 100 JavaScript	5253
• 101 JavaScriptMac	5287
• 102 JSON	5303
• 103 Keychain	5433
• 104 LDAP	5439
• 105 List	5493
• 106 ListDialog	5647
• 107 MailComposer	5693
• 108 MapView	5721
• 109 Markdown	5835
• 110 Math	5839

• 111 Matrix	5865
• 112 MatrixDongle	5923
• 113 MediaLibraryBrowser	5947
• 114 Menu	5953
• 115 Menubar	6093
• 116 MessageComposer	6105
• 117 MetaDataQuery	6131
• 119 Mutex	6189
• 120 NetworkInterfaces	6197
• 121 Notification	6203
• 122 NSEventFilter	6211
• 123 OCR	6217
• 124 Path	6243
• 125 PDFKit	6261
• 126 PHP	6355
• 127 Plugin	6369
• 128 PortMidi	6449
• 129 Preferences	6481
• 130 PrintDialog	6493
• 131 Printer	6559
• 132 Process	6587
• 133 ProgressDialog	6603
• 134 Proj	6657
• 137 QuickLook	6729
• 138 RegEx	6757
• 139 Registry	6793
• 140 RemoteControl	6807
• 141 RichText	6827
• 142 RunTask	6869

• 143 Schedule	6899
• 144 Screenshot	6951
• 145 ScriptWorkspace	6963
• 146 SendMail	6989
• 147 SerialPort	7045
• 148 ServerSocket	7097
• 149 ServiceProvider	7107
• 150 SharedMemory	7111
• 151 Shell	7115
• 152 Sign	7175
• 153 SmartCard	7203
• 154 SNMP	7239
• 155 Social	7243
• 156 SocialComposer	7275
• 157 Socket	7301
• 158 Speech	7391
• 159 SQL	7407
• 160 SSH	7603
• 161 StoreKit	7663
• 162 SyntaxColoring	7679
• 163 System	7775
• 164 SystemInfo	7779
• 165 SystemUIMode	7847
• 166 TAPI	7853
• 167 Text	7895
• 168 TextView	8005
• 169 Time	8053
• 170 Toolbar	8065
• 171 TouchBar	8087

• 172 Twain	8115
• 173 UNNotification	8193
• 174 Updater	8257
• 175 URLScheme	8269
• 176 USB	8275
• 177 UserNotification	8285
• 178 Utility	8357
• 179 UUID	8375
• 180 Validate	8383
• 181 Variables	8387
• 182 Vision	8401
• 183 WebView	8411
• 184 WIA	8629
• 185 Window	8667
• 186 WindowsScript	8813
• 187 WindowsUserNotification	8849
• 188 WindowTransition	8871
• 189 WinSendMail	8877
• 190 WMFP	8905
• 191 WMIQuery	8939
• 192 WordFile	8951
• 193 XL	8987
• 194 XML	9407

## Chapter 2

# Statistics

Last change: 11.05.20

Number of functions: 6225

Number of components: 161

Number of examples inside reference: 4517

Number of examples databases:597





# Chapter 3

## List of all functions

• 39.1 AVAsset.AvailableMetadataFormats	999
• 39.2 AVAsset.Duration	1001
• 39.3 AVAsset.Framerate	1002
• 39.4 AVAsset.HasProtectedContent	1003
• 39.5 AVAsset.Image	1004
• 39.6 AVAsset.ImageActualTime	1006
• 39.7 AVAsset.IsComposable	1007
• 39.8 AVAsset.IsExportable	1008
• 39.9 AVAsset.IsPlayable	1009
• 39.10 AVAsset.IsReadable	1010
• 39.11 AVAsset.Loaded	1011
• 39.12 AVAsset.Lyrics	1012
• 39.13 AVAsset.Metadata	1013
• 39.14 AVAsset.MetadataKeys	1014
• 39.15 AVAsset.NaturalHeight	1016
• 39.16 AVAsset.NaturalWidth	1017
• 39.17 AVAsset.OpenContainer	1018
• 39.18 AVAsset.OpenFile	1020
• 39.19 AVAsset.OpenURL	1022

• 39.20 AVAsset.PreferredRate	1024
• 39.21 AVAsset.PreferredVolume	1025
• 39.22 AVAsset.Release	1026
• 39.23 AVAsset.ReleaseAll	1028
• 39.24 AVAsset.RequestImageTimePrecision	1029
• 39.25 AVAsset.TimeCodes	1031
• 39.26 AVAsset.TrackCount	1032
• 39.27 AVAsset.TrackInfo	1033
• 39.28 AVAsset.URL	1037
• 39.29 AVAsset.WaitForLoaded	1038
• 40.1 AVExport.AllExportPresets	1041
• 40.2 AVExport.CancelExport	1043
• 40.3 AVExport.Duration	1044
• 40.4 AVExport.Error	1045
• 40.5 AVExport.EstimatedOutputFileLength	1046
• 40.6 AVExport.ExportAsynchronously	1047
• 40.7 AVExport.ExportSession	1049
• 40.8 AVExport.ExportSessionMerge	1052
• 40.9 AVExport.GetOutputFileType	1054
• 40.10 AVExport.GetOutputPath	1055
• 40.11 AVExport.GetOutputURL	1056
• 40.12 AVExport.GetShouldOptimizeForNetworkUse	1057
• 40.13 AVExport.GetTimeRange	1058
• 40.14 AVExport.OutputFileExtension	1059
• 40.15 AVExport.PresetName	1060
• 40.16 AVExport.Progress	1061
• 40.17 AVExport.Release	1062
• 40.18 AVExport.SetOutputFileType	1063
• 40.19 AVExport.SetOutputPath	1064

	15
• 40.20 AVExport.SetOutputURL	1066
• 40.21 AVExport.SetShouldOptimizeForNetworkUse	1067
• 40.22 AVExport.SetTimeRange	1068
• 40.23 AVExport.Status	1069
• 40.24 AVExport.SupportedFileTypes	1070
• 41.1 AVPlayer.AddView	1071
• 41.2 AVPlayer.CloseView	1074
• 41.3 AVPlayer.FindPlayers	1075
• 41.4 AVPlayer.GetAsset	1076
• 41.5 AVPlayer.GetAutoResizingMask	1077
• 41.6 AVPlayer.GetControlsStyle	1078
• 41.7 AVPlayer.GetDuration	1079
• 41.8 AVPlayer.GetFinishedEvaluate	1080
• 41.9 AVPlayer.GetFinishedFileName	1081
• 41.10 AVPlayer.GetFinishedScriptName	1082
• 41.11 AVPlayer.GetMuted	1083
• 41.12 AVPlayer.GetProgressEvaluate	1084
• 41.13 AVPlayer.GetProgressInterval	1085
• 41.14 AVPlayer.GetRate	1086
• 41.15 AVPlayer.GetShowsFrameSteppingButtons	1087
• 41.16 AVPlayer.GetShowsFullScreenToggleButton	1088
• 41.17 AVPlayer.GetTag	1089
• 41.18 AVPlayer.GetTime	1090
• 41.19 AVPlayer.GetVisible	1091
• 41.20 AVPlayer.GetVolume	1092
• 41.21 AVPlayer.GetWindowRef	1093
• 41.22 AVPlayer.OpenContainer	1094
• 41.23 AVPlayer.OpenFile	1096
• 41.24 AVPlayer.OpenURL	1098

- 41.25 AVPlayer.Pause 1099
- 41.26 AVPlayer.Play 1100
- 41.27 AVPlayer.Release 1102
- 41.28 AVPlayer.ReleaseAll 1103
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 41.30 AVPlayer.SetControlsStyle 1106
- 41.31 AVPlayer.SetFinishedEvaluate 1107
- 41.32 AVPlayer.SetFinishedScript 1108
- 41.33 AVPlayer.SetFocus 1109
- 41.34 AVPlayer.SetFrameWithControl 1110
- 41.35 AVPlayer.SetMuted 1111
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 41.37 AVPlayer.SetProgressInterval 1114
- 41.38 AVPlayer.SetRate 1115
- 41.39 AVPlayer.SetShowsFrameSteppingButtons 1116
- 41.40 AVPlayer.SetShowsFullScreenToggleButton 1117
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119
- 41.43 AVPlayer.SetVisible 1120
- 41.44 AVPlayer.SetVolume 1121
- 42.1 AVRecorder.AddPreviewToWindow 1123
- 42.2 AVRecorder.AudioDeviceCount 1125
- 42.3 AVRecorder.AudioDeviceInfo 1126
- 42.4 AVRecorder.AuthorizationStatusForMediaType 1128
- 42.5 AVRecorder.CaptureStillPhoto 1130
- 42.6 AVRecorder.ClosePreview 1132
- 42.7 AVRecorder.CurrentQRCode 1133
- 42.8 AVRecorder.EncoderCount 1134
- 42.9 AVRecorder.EncoderInfo 1135

	17
• 42.10 AVRecorder.GetAudioDevice	1136
• 42.11 AVRecorder.GetAutomaticallyAdjustsVideoMirroring	1137
• 42.12 AVRecorder.GetEncoder	1138
• 42.13 AVRecorder.GetFilePath	1139
• 42.14 AVRecorder.GetVideoDevice	1140
• 42.15 AVRecorder.GetVideoMirrored	1141
• 42.16 AVRecorder.HasQRCode	1142
• 42.17 AVRecorder.Init	1143
• 42.18 AVRecorder.IsRecording	1146
• 42.19 AVRecorder.IsVideoMirroringSupported	1147
• 42.20 AVRecorder.Release	1148
• 42.21 AVRecorder.RequestAccessForMediaType	1149
• 42.22 AVRecorder.SetAudioDevice	1150
• 42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring	1151
• 42.24 AVRecorder.SetEncoder	1152
• 42.25 AVRecorder.SetFilePath	1153
• 42.26 AVRecorder.SetScreenInput	1154
• 42.27 AVRecorder.SetVideoDevice	1156
• 42.28 AVRecorder.SetVideoMirrored	1157
• 42.29 AVRecorder.ShowPropertyDialog	1158
• 42.30 AVRecorder.StartPreview	1160
• 42.31 AVRecorder.StartQRCodeDetection	1161
• 42.32 AVRecorder.StartRecording	1163
• 42.33 AVRecorder.StopQRCodeDetection	1164
• 42.34 AVRecorder.StopRecording	1165
• 42.35 AVRecorder.VideoDeviceCount	1166
• 42.36 AVRecorder.VideoDeviceInfo	1167
• 34.1 Addressbook.Account.Name	811
• 34.2 Addressbook.Account.Type	813

• 34.3 Addressbook.Account.URL	814
• 34.4 Addressbook.Account.isMainAccount	815
• 34.5 Addressbook.LocalizedPropertyOrLabel	816
• 34.6 Addressbook.NewGroup	817
• 34.7 Addressbook.NewPerson	818
• 34.8 Addressbook.Notification.Clear	820
• 34.9 Addressbook.Notification.Evaluate	821
• 34.10 Addressbook.Notification.GetChangedExternally	822
• 34.11 Addressbook.Notification.GetDeletedRecords	823
• 34.12 Addressbook.Notification.GetInsertedRecords	824
• 34.13 Addressbook.Notification.GetProcessID	825
• 34.14 Addressbook.Notification.GetProcessName	826
• 34.15 Addressbook.Notification.GetUpdatedRecords	827
• 34.16 Addressbook.Notification.GetUserUID	828
• 34.17 Addressbook.Notification.Set	829
• 34.18 Addressbook.Record.Account	830
• 34.19 Addressbook.addRecord	831
• 34.20 Addressbook.allAccounts	834
• 34.21 Addressbook.defaultAccount	835
• 34.22 Addressbook.enabledAccounts	836
• 34.23 Addressbook.formattedAddress	837
• 34.24 Addressbook.group.addMember	838
• 34.25 Addressbook.group.addSubgroup	839
• 34.26 Addressbook.group.members	840
• 34.27 Addressbook.group.parentGroups	841
• 34.28 Addressbook.group.removeMember	842
• 34.29 Addressbook.group.removeSubgroup	843
• 34.30 Addressbook.group.subgroups	844
• 34.31 Addressbook.groups	845

	19
• 34.32 Addressbook.hasUnsavedChanges	846
• 34.33 Addressbook.me	847
• 34.34 Addressbook.multivalue.New	849
• 34.35 Addressbook.multivalue.addAddress	851
• 34.36 Addressbook.multivalue.addValue	853
• 34.37 Addressbook.multivalue.count	856
• 34.38 Addressbook.multivalue.identifierAtIndex	858
• 34.39 Addressbook.multivalue.identifiers	859
• 34.40 Addressbook.multivalue.indexForIdentifier	860
• 34.41 Addressbook.multivalue.indexForLabel	861
• 34.42 Addressbook.multivalue.insertValue	862
• 34.43 Addressbook.multivalue.labelAtIndex	863
• 34.44 Addressbook.multivalue.labelForIdentifier	865
• 34.45 Addressbook.multivalue.labels	866
• 34.46 Addressbook.multivalue.primaryIdentifier	867
• 34.47 Addressbook.multivalue.removeValueAndLabelAtIndex	868
• 34.48 Addressbook.multivalue.replaceLabelAtIndex	869
• 34.49 Addressbook.multivalue.replaceValueAtIndex	870
• 34.50 Addressbook.multivalue.setPrimaryIdentifier	872
• 34.51 Addressbook.multivalue.valueAtIndex	874
• 34.52 Addressbook.multivalue.valueForIdentifier	876
• 34.53 Addressbook.multivalue.valueForLabel	877
• 34.54 Addressbook.multivalue.values	878
• 34.55 Addressbook.people	879
• 34.56 Addressbook.persistentAccounts	880
• 34.57 Addressbook.person.EditInAddressbook	881
• 34.58 Addressbook.person.ExternalUID	882
• 34.59 Addressbook.person.GetImage	883
• 34.60 Addressbook.person.SetBirthdayComponents	884

- 34.61 Addressbook.person.SetImage 885
- 34.62 Addressbook.person.ShowInAddressbook 886
- 34.63 Addressbook.person.linkedPeople 887
- 34.64 Addressbook.person.parentGroups 888
- 34.65 Addressbook.person.vCardRepresentation 889
- 34.66 Addressbook.personFromVCardRepresentation 890
- 34.67 Addressbook.personFromVCardTextRepresentation 891
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.69 Addressbook.record.UniqueID 896
- 34.70 Addressbook.record.displayName 897
- 34.71 Addressbook.record.isReadOnly 899
- 34.72 Addressbook.record.removeValueForProperty 900
- 34.73 Addressbook.record.valueForProperty 901
- 34.74 Addressbook.recordsMatchingSearchElement 905
- 34.75 Addressbook.removeRecord 907
- 34.76 Addressbook.save 908
- 34.77 Addressbook.searchElementForConjunction 911
- 34.78 Addressbook.searchElementForProperty 912
- 34.79 Addressbook.searchGroupsWithName 914
- 34.80 Addressbook.searchPeopleWithCreationDate 915
- 34.81 Addressbook.searchPeopleWithEmail 916
- 34.82 Addressbook.searchPeopleWithModificationDate 917
- 34.83 Addressbook.searchPeopleWithName 918
- 34.84 Addressbook.searchPersonWithExternalUID 919
- 34.85 Addressbook.setMe 920
- 35.1 App.CancelUserAttentionRequest 921
- 171.1 App.ClearTouchBar 8087
- 35.3 App.CompactMemory 923
- 35.4 App.EffectiveUserID 924



	21
• 35.5 App.GetDockBadgeLabel	925
• 35.6 App.GetDockIcon	926
• 35.7 App.GetProcessName	927
• 35.8 App.GetProcessPath	928
• 35.9 App.MemoryUsed	929
• 35.10 App.OpenFile	930
• 35.11 App.ProcessID	931
• 35.12 App.RequestUserAttention	932
• 35.13 App.SetDockBadgeLabel	933
• 35.14 App.SetDockIcon	934
• 35.15 App.SetProcessName	935
• 35.16 App.UserID	936
• 36.1 AppleScript.Close	937
• 36.2 AppleScript.Compile	939
• 36.3 AppleScript.Execute	940
• 36.4 AppleScript.GetPropertyName	941
• 36.5 AppleScript.GetPropertyValue	943
• 36.6 AppleScript.LastError	944
• 36.7 AppleScript.LastErrorMessage	945
• 36.8 AppleScript.PropertyCount	946
• 36.9 AppleScript.Run	947
• 36.10 AppleScript.SetPropertyValue	952
• 36.11 Applescript.DeterminePermissionToAutomateTarget	953
• 37.1 Archive.Compress	955
• 37.2 Archive.Content	958
• 37.3 Archive.Extract	960
• 37.4 Archive.FileList	961
• 37.5 Archive.LibVersion	962
• 37.6 Archive.LibVersionDetails	963

- 37.7 Archive.SupportedFormats 964
- 37.8 Archive.Verify 965
- 38.1 Audit.Backup 967
- 38.2 Audit.Backup2 969
- 38.3 Audit.Changed 970
- 38.4 Audit.Changed2 974
- 38.5 Audit.ClearCaches 976
- 38.6 Audit.Delete 977
- 38.7 Audit.Delete2 979
- 38.8 Audit.FieldIDForName 980
- 38.9 Audit.FieldNameForID 981
- 38.10 Audit.GetEnabled 982
- 38.11 Audit.GetIgnoreCalculations 983
- 38.12 Audit.GetIgnoreSummaryFields 984
- 38.13 Audit.GetIgnoreUnderscoreFieldNames 985
- 38.14 Audit.GetIgnoredFieldNames 986
- 38.15 Audit.GetLogAccess 987
- 38.16 Audit.GetUUIDField 988
- 38.17 Audit.SetEnabled 989
- 38.18 Audit.SetIgnoreCalculations 990
- 38.19 Audit.SetIgnoreSummaryFields 991
- 38.20 Audit.SetIgnoreUnderscoreFieldNames 992
- 38.21 Audit.SetIgnoredFieldNames 993
- 38.22 Audit.SetLogAccess 995
- 38.23 Audit.SetUUIDField 996
- 38.24 Audit.TableIDForName 997
- 38.25 Audit.TableNameForID 998
- 43.1 Backdrop.Close 1169
- 43.2 Backdrop.Install 1170

• 44.1 Barcode.Detect	1171
• 44.2 Barcode.DrawBarcode	1174
• 44.3 Barcode.EANChecksum	1176
• 44.4 Barcode.Generate	1177
• 44.5 Barcode.GenerateJSON	1183
• 44.6 Barcode.GetInputMode	1185
• 44.7 Barcode.GetOption	1186
• 44.8 Barcode.GetPrimary	1187
• 44.9 Barcode.ISBNChecksum	1188
• 44.10 Barcode.LibVersion	1190
• 44.11 Barcode.SetInputMode	1191
• 44.12 Barcode.SetOption	1193
• 44.13 Barcode.SetOptions	1195
• 44.14 Barcode.SetPrimary	1198
• 44.15 Barcode.UPCChecksum	1200
• 44.16 Barcode.WriteFile	1201
• 45.1 BinaryFile.Append	1205
• 45.2 BinaryFile.Close	1207
• 45.3 BinaryFile.Create	1208
• 45.4 BinaryFile.EOF	1210
• 45.5 BinaryFile.Length	1211
• 45.6 BinaryFile.Open	1212
• 45.7 BinaryFile.Position	1214
• 45.8 BinaryFile.ReadByte	1215
• 45.9 BinaryFile.ReadContainer	1216
• 45.10 BinaryFile.ReadFloat	1217
• 45.11 BinaryFile.ReadHex	1218
• 45.12 BinaryFile.ReadInt	1220
• 45.13 BinaryFile.ReadPDF	1221

- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225
- 45.16 BinaryFile.WriteByte 1226
- 45.17 BinaryFile.WriteContainer 1227
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 46.1 BlueThermProbe.ConnectToDevice 1235
- 46.2 BlueThermProbe.ConnectedDevices 1237
- 46.3 BlueThermProbe.Device 1238
- 46.4 BlueThermProbe.DeviceSensor 1239
- 46.5 BlueThermProbe.Devices 1241
- 46.6 BlueThermProbe.DisconnectFromDevice 1242
- 46.7 BlueThermProbe.Initialize 1243
- 46.8 BlueThermProbe.IsBluetoothAvailable 1244
- 46.9 BlueThermProbe.IsInitialized 1245
- 46.10 BlueThermProbe.RemoveDevice 1246
- 46.11 BlueThermProbe.SendCommand 1247
- 46.12 BlueThermProbe.SetBatteryLevelScript 1248
- 46.13 BlueThermProbe.SetDeviceUpdatedScript 1249
- 46.14 BlueThermProbe.SetDisconnectedScript 1250
- 46.15 BlueThermProbe.SetNewDeviceScript 1251
- 46.16 BlueThermProbe.SetNotificationReceivedScript 1252
- 46.17 BlueThermProbe.SetSensorUpdatedSScript 1253
- 46.18 BlueThermProbe.StartDeviceScan 1254
- 46.19 BlueThermProbe.StopDeviceScan 1255
- 46.20 BlueThermProbe.VersionNumber 1256
- 47.1 Bonjour.Browse 1257

	25
• 47.2 Bonjour.JSON	1259
• 47.3 Bonjour.Register	1261
• 47.4 Bonjour.RegisteredName	1262
• 50.1 CGImageSource.ClearProperties	1417
• 50.2 CGImageSource.Count	1419
• 50.3 CGImageSource.CreateWithData	1420
• 50.4 CGImageSource.CreateWithPath	1421
• 50.5 CGImageSource.CreateWithURL	1423
• 50.6 CGImageSource.Export	1424
• 50.7 CGImageSource.FileName	1426
• 50.8 CGImageSource.HasProperty	1427
• 50.9 CGImageSource.ImageAtIndex	1428
• 50.10 CGImageSource.Keys	1430
• 50.11 CGImageSource.Properties	1432
• 50.12 CGImageSource.Property	1435
• 50.13 CGImageSource.Release	1437
• 50.14 CGImageSource.SetProperty	1439
• 50.15 CGImageSource.Status	1441
• 50.16 CGImageSource.SupportedExportTypes	1443
• 50.17 CGImageSource.SupportedTypes	1444
• 50.18 CGImageSource.ThumbnailAtIndex	1445
• 50.19 CGImageSource.Type	1447
• 178.1 CGPSCConverter.Convert	8357
• 51.1 CLGeocoder.Cancel	1449
• 51.2 CLGeocoder.Cancelled	1451
• 51.3 CLGeocoder.Close	1452
• 51.4 CLGeocoder.Distance	1453
• 51.5 CLGeocoder.Done	1455
• 51.6 CLGeocoder.Error	1456

• 51.7 CLGeocoder.ErrorMessage	1457
• 51.8 CLGeocoder.GeocodeAddressString	1458
• 51.9 CLGeocoder.JSON	1460
• 51.10 CLGeocoder.PlacemarkCount	1462
• 51.11 CLGeocoder.PlacemarkValue	1463
• 51.12 CLGeocoder.ReverseGeocodeLocation	1466
• 55.1 CNContact.AddEmailAddress	1563
• 55.2 CNContact.AddInstantMessage	1565
• 55.3 CNContact.AddInstantMessageJSON	1566
• 55.4 CNContact.AddPhoneNumber	1567
• 55.5 CNContact.AddPostalAddress	1568
• 55.6 CNContact.AddPostalAddressJSON	1570
• 55.7 CNContact.AddRelation	1571
• 55.8 CNContact.AddSocialProfile	1572
• 55.9 CNContact.AddSocialProfileJSON	1574
• 55.10 CNContact.AddURLAddress	1575
• 55.11 CNContact.DeleteValue	1576
• 55.12 CNContact.EditInAddressbook	1578
• 55.13 CNContact.IsUnifiedWithContact	1579
• 55.14 CNContact.JSON	1580
• 55.15 CNContact.MailingAddress	1582
• 55.16 CNContact.Name	1583
• 55.17 CNContact.SetValue	1584
• 55.18 CNContact.Show	1586
• 55.19 CNContact.ShowInAddressbook	1588
• 55.20 CNContact.UnifiedContacts	1589
• 55.21 CNContact.Value	1590
• 55.22 CNContactPicker.Close	1593
• 55.23 CNContactPicker.Current	1594

• 55.24 CNContactPicker.SetTrigger	1595
• 55.25 CNContactPicker.Show	1596
• 55.26 CNContactStore.AddContact	1598
• 55.27 CNContactStore.AddGroup	1600
• 55.28 CNContactStore.AddMember	1602
• 55.29 CNContactStore.AddSubgroup	1603
• 55.30 CNContactStore.AuthorizationError	1604
• 55.31 CNContactStore.AuthorizationStatus	1605
• 55.32 CNContactStore.Contacts	1606
• 55.33 CNContactStore.ContactsInContainer	1607
• 55.34 CNContactStore.ContactsInGroup	1608
• 55.35 CNContactStore.ContactsMatchingName	1609
• 55.36 CNContactStore.ContactsWithData	1610
• 55.37 CNContactStore.ContainerForContact	1611
• 55.38 CNContactStore.ContainerForGroup	1612
• 55.39 CNContactStore.Containers	1613
• 55.40 CNContactStore.Country	1614
• 55.41 CNContactStore.DataWithContacts	1615
• 55.42 CNContactStore.DefaultContainerIdentifier	1616
• 55.43 CNContactStore.DeleteContact	1617
• 55.44 CNContactStore.DeleteGroup	1618
• 55.45 CNContactStore.GroupHierarchy	1619
• 55.46 CNContactStore.Groups	1621
• 55.47 CNContactStore.GroupsByName	1623
• 55.48 CNContactStore.GroupsForContact	1624
• 55.49 CNContactStore.GroupsInContainer	1625
• 55.50 CNContactStore.NewContact	1626
• 55.51 CNContactStore.RemoveMember	1628
• 55.52 CNContactStore.RemoveSubgroup	1629

• 55.53 CNContactStore.RenameGroup	1630
• 55.54 CNContactStore.RequestAccesss	1631
• 55.55 CNContactStore.SetChangeScript	1633
• 55.56 CNContactStore.Subgroups	1634
• 55.57 CNContactStore.UnifiedMeContact	1635
• 55.58 CNContactStore.UpdateContact	1637
• 55.59 CNContainer.Name	1638
• 55.60 CNContainer.Type	1639
• 55.61 CNGroup.Name	1640
• 61.1 CUPS.CancelJob	1771
• 61.2 CUPS.GetDefaultPrinterName	1773
• 61.3 CUPS.GetJobCompletionTime	1774
• 61.4 CUPS.GetJobCreationTime	1775
• 61.5 CUPS.GetJobFormat	1776
• 61.6 CUPS.GetJobID	1777
• 61.7 CUPS.GetJobIndex	1778
• 61.8 CUPS.GetJobPrinter	1779
• 61.9 CUPS.GetJobPriority	1780
• 61.10 CUPS.GetJobProcessingTime	1781
• 61.11 CUPS.GetJobSize	1782
• 61.12 CUPS.GetJobState	1783
• 61.13 CUPS.GetJobTitle	1784
• 61.14 CUPS.GetJobUser	1785
• 61.15 CUPS.GetJobsCount	1786
• 61.16 CUPS.GetPrinterCount	1788
• 61.17 CUPS.GetPrinterDefault	1789
• 61.18 CUPS.GetPrinterName	1790
• 61.19 CUPS.LastErrorCode	1791
• 61.20 CUPS.LastErrorMessage	1792



• 61.21 CUPS.PrintData	1793
• 61.22 CUPS.PrintDataEncoding	1795
• 61.23 CUPS.PrintFile	1797
• 62.1 CURL.AddInputFile	1799
• 62.2 CURL.AddInputGIF	1801
• 62.3 CURL.AddInputJPEG	1802
• 62.4 CURL.AddInputPDF	1803
• 62.5 CURL.AddInputPNG	1804
• 62.6 CURL.AddInputText	1806
• 62.7 CURL.Cancel	1808
• 62.8 CURL.Check	1809
• 62.9 CURL.CloseDebugFile	1810
• 62.10 CURL.CloseHeaderFile	1811
• 62.11 CURL.CloseInputFile	1812
• 62.12 CURL.CloseOutputFile	1813
• 62.13 CURL.CreateDebugOutputFile	1815
• 62.14 CURL.CreateHeaderOutputFile	1817
• 62.15 CURL.CreateOutputFile	1819
• 62.16 CURL.ErrorCode	1823
• 62.17 CURL.ErrorMessage	1826
• 62.18 CURL.Features	1827
• 62.19 CURL.FileInfos	1828
• 62.20 CURL.FormAddKeyContainer	1831
• 62.21 CURL.FormAddKeyContainerContentType	1833
• 62.22 CURL.FormAddKeyFile	1835
• 62.23 CURL.FormAddKeyFileContentType	1837
• 62.24 CURL.FormAddKeyText	1839
• 62.25 CURL.FormAddKeyTextContentType	1841
• 62.26 CURL.FormAddKeyValue	1843

- 62.27 CURL.FormAddKeyValueContentType 1845
- 62.28 CURL.FormClear 1847
- 62.29 CURL.FormFinish 1848
- 62.30 CURL.GetActiveSocket 1850
- 62.31 CURL.GetAppConnectTime 1851
- 62.32 CURL.GetBatchCurrentFileName 1852
- 62.33 CURL.GetBatchCurrentFilePath 1853
- 62.34 CURL.GetBatchDestinationPath 1854
- 62.35 CURL.GetBatchFileNames 1855
- 62.36 CURL.GetCertInfo 1856
- 62.37 CURL.GetConditionUnmet 1858
- 62.38 CURL.GetConnectTime 1859
- 62.39 CURL.GetContentLengthDownload 1860
- 62.40 CURL.GetContentLengthUpload 1861
- 62.41 CURL.GetContentType 1862
- 62.42 CURL.GetCookieList 1863
- 62.43 CURL.GetDebugAsText 1866
- 62.44 CURL.GetDebugLength 1869
- 62.45 CURL.GetDebugWithData 1870
- 62.46 CURL.GetDebugWithProgress 1871
- 62.47 CURL.GetDebugWithTime 1872
- 62.48 CURL.GetEffectiveURL 1873
- 62.49 CURL.GetFTPEntryPath 1875
- 62.50 CURL.GetFileTime 1876
- 62.51 CURL.GetFinishedEvaluate 1877
- 62.52 CURL.GetFinishedFileName 1878
- 62.53 CURL.GetFinishedScriptName 1879
- 62.54 CURL.GetFormData 1880
- 62.55 CURL.GetHTTPAuthAvail 1882

	31
• 62.56 CURL.GetHTTPConnectCode	1883
• 62.57 CURL.GetHTTPVersion	1884
• 62.58 CURL.GetHeaderAsJSON	1885
• 62.59 CURL.GetHeaderAsText	1887
• 62.60 CURL.GetHeaderLength	1889
• 62.61 CURL.GetHeaderSize	1890
• 62.62 CURL.GetInputAsText	1891
• 62.63 CURL.GetInputLength	1893
• 62.64 CURL.GetLastSocket	1894
• 62.65 CURL.GetLocalIP	1895
• 62.66 CURL.GetLocalPort	1896
• 62.67 CURL.GetMultiOptionChunkLengthPenaltySize	1897
• 62.68 CURL.GetMultiOptionContentLengthPenaltySize	1898
• 62.69 CURL.GetMultiOptionMaxConcurrentStreams	1899
• 62.70 CURL.GetMultiOptionMaxConnects	1900
• 62.71 CURL.GetMultiOptionMaxHostConnections	1901
• 62.72 CURL.GetMultiOptionMaxPipelineLength	1902
• 62.73 CURL.GetMultiOptionMaxTotalConnections	1903
• 62.74 CURL.GetMultiOptionPipelining	1904
• 62.75 CURL.GetMultiRunningTransfers	1905
• 62.76 CURL.GetNameLookupTime	1906
• 62.77 CURL.GetNumConnects	1907
• 62.78 CURL.GetOSErrNo	1908
• 62.79 CURL.GetOptionConnectTo	1909
• 62.80 CURL.GetOptionHTTP200Aliases	1910
• 62.81 CURL.GetOptionHTTPHeader	1911
• 62.82 CURL.GetOptionMailRecipients	1912
• 62.83 CURL.GetOptionPostQuote	1913
• 62.84 CURL.GetOptionPreQuote	1914

- 62.85 CURL.GetOptionProxyHeader 1915
- 62.86 CURL.GetOptionQuote 1916
- 62.87 CURL.GetOptionResolve 1917
- 62.88 CURL.GetOptionTelnetOptions 1918
- 62.89 CURL.GetPreTransferTime 1919
- 62.90 CURL.GetPrimaryIP 1920
- 62.91 CURL.GetPrimaryPort 1921
- 62.92 CURL.GetProgressCurrentDownload 1922
- 62.93 CURL.GetProgressCurrentUpload 1923
- 62.94 CURL.GetProgressEvaluate 1924
- 62.95 CURL.GetProgressFileName 1925
- 62.96 CURL.GetProgressPercent 1926
- 62.97 CURL.GetProgressScriptName 1927
- 62.98 CURL.GetProgressTotalDownload 1928
- 62.99 CURL.GetProgressTotalUpload 1929
- 62.100 CURL.GetProtocol 1930
- 62.101 CURL.GetProxyAuthAvail 1931
- 62.102 CURL.GetProxySSLVerifyResult 1932
- 62.103 CURL.GetRTSPCSEQRecv 1933
- 62.104 CURL.GetRTSPClientCSEQ 1934
- 62.105 CURL.GetRTSPServerCSEQ 1935
- 62.106 CURL.GetRTSPSessionID 1936
- 62.107 CURL.GetRedirectCount 1937
- 62.108 CURL.GetRedirectTime 1938
- 62.109 CURL.GetRedirectURL 1939
- 62.110 CURL.GetRequestSize 1941
- 62.111 CURL.GetResponseCode 1942
- 62.112 CURL.GetResultAsContainer 1944
- 62.113 CURL.GetResultAsData 1947

• 62.114	CURL.GetResultAsEMailList	1949
• 62.115	CURL.GetResultAsEmail	1951
• 62.116	CURL.GetResultAsGIF	1953
• 62.117	CURL.GetResultAsJPEG	1955
• 62.118	CURL.GetResultAsMime	1957
• 62.119	CURL.GetResultAsPDF	1959
• 62.120	CURL.GetResultAsPNG	1961
• 62.121	CURL.GetResultAsText	1963
• 62.122	CURL.GetResultLength	1967
• 62.123	CURL.GetSSLEngines	1968
• 62.124	CURL.GetSSLVerifyResult	1969
• 62.125	CURL.GetScheme	1970
• 62.126	CURL.GetSizeDownload	1971
• 62.127	CURL.GetSizeUpload	1972
• 62.128	CURL.GetSpeedDownload	1973
• 62.129	CURL.GetSpeedUpload	1974
• 62.130	CURL.GetStartTransferTime	1975
• 62.131	CURL.GetTag	1976
• 62.132	CURL.GetTotalTime	1977
• 62.133	CURL.Host	1978
• 62.134	CURL.IsRunning	1979
• 62.135	CURL.LibIDNVersion	1980
• 62.136	CURL.LibSSHVersion	1981
• 62.137	CURL.LibSSLVersion	1982
• 62.138	CURL.List	1983
• 62.139	CURL.LoadLibrary	1984
• 62.140	CURL.New	1985
• 62.141	CURL.NumberOfRunningTransfers	1988
• 62.142	CURL.OpenInputFile	1989

- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001
- 62.145 CURL.PerformInBackground 2003
- 62.146 CURL.Protocols 2005
- 62.147 CURL.ReceiveData 2006
- 62.148 CURL.ReceiveText 2008
- 62.149 CURL.Release 2011
- 62.150 CURL.ReleaseAll 2013
- 62.151 CURL.Reset 2014
- 62.152 CURL.RunningTransfers 2015
- 62.153 CURL.SendData 2016
- 62.154 CURL.SendText 2018
- 62.155 CURL.SetBatchDestinationPath 2020
- 62.156 CURL.SetDebugWithData 2022
- 62.157 CURL.SetDebugWithProgress 2024
- 62.158 CURL.SetDebugWithTime 2026
- 62.159 CURL.SetFinishedEvaluate 2028
- 62.160 CURL.SetFinishedScript 2030
- 62.161 CURL.SetInputFile 2032
- 62.162 CURL.SetInputGIF 2035
- 62.163 CURL.SetInputJPEG 2037
- 62.164 CURL.SetInputPDF 2039
- 62.165 CURL.SetInputPNG 2041
- 62.166 CURL.SetInputText 2043
- 62.167 CURL.SetMultiOptionChunkLengthPenaltySize 2046
- 62.168 CURL.SetMultiOptionContentLengthPenaltySize 2047
- 62.169 CURL.SetMultiOptionMaxConcurrentStreams 2048
- 62.170 CURL.SetMultiOptionMaxConnects 2049
- 62.171 CURL.SetMultiOptionMaxHostConnections 2050

	35
• 62.172 CURL.SetMultiOptionMaxPipelineLength	2051
• 62.173 CURL.SetMultiOptionMaxTotalConnections	2052
• 62.174 CURL.SetMultiOptionPipelining	2053
• 62.175 CURL.SetOptionAbstractUnixSocket	2054
• 62.176 CURL.SetOptionAcceptEncoding	2055
• 62.177 CURL.SetOptionAcceptTimeoutMS	2057
• 62.178 CURL.SetOptionAddressScope	2058
• 62.179 CURL.SetOptionAppend	2059
• 62.180 CURL.SetOptionAutoReferer	2060
• 62.181 CURL.SetOptionBufferSize	2061
• 62.182 CURL.SetOptionCAINFO	2063
• 62.183 CURL.SetOptionCAPATH	2066
• 62.184 CURL.SetOptionCRLF	2068
• 62.185 CURL.SetOptionCRLFFile	2069
• 62.186 CURL.SetOptionCertInfo	2071
• 62.187 CURL.SetOptionConnectOnly	2073
• 62.188 CURL.SetOptionConnectTimeoutMS	2076
• 62.189 CURL.SetOptionConnectTo	2077
• 62.190 CURL.SetOptionConnectionTimeout	2078
• 62.191 CURL.SetOptionCookie	2080
• 62.192 CURL.SetOptionCookieFile	2082
• 62.193 CURL.SetOptionCookieJar	2085
• 62.194 CURL.SetOptionCookieList	2087
• 62.195 CURL.SetOptionCookieSession	2088
• 62.196 CURL.SetOptionCustomRequest	2089
• 62.197 CURL.SetOptionDNSCacheTimeout	2094
• 62.198 CURL.SetOptionDNSInterface	2095
• 62.199 CURL.SetOptionDNSLocalIPv4	2096
• 62.200 CURL.SetOptionDNSLocalIPv6	2097

• 62.201	CURL.SetOptionDNSServers	2098
• 62.202	CURL.SetOptionDNSShuffleAddresses	2099
• 62.203	CURL.SetOptionDOHURL	2100
• 62.204	CURL.SetOptionDefaultProtocol	2102
• 62.205	CURL.SetOptionDirListOnly	2103
• 62.206	CURL.SetOptionDisallowUserNameInURL	2105
• 62.207	CURL.SetOptionEGDSocket	2106
• 62.208	CURL.SetOptionExpect100TimeoutMS	2107
• 62.209	CURL.SetOptionFTPAccount	2108
• 62.210	CURL.SetOptionFTPAlternativeToUser	2109
• 62.211	CURL.SetOptionFTPCreateMissingDirs	2110
• 62.212	CURL.SetOptionFTPFileMethod	2113
• 62.213	CURL.SetOptionFTPPort	2114
• 62.214	CURL.SetOptionFTPResponseTimeout	2116
• 62.215	CURL.SetOptionFTPSSLAAuth	2117
• 62.216	CURL.SetOptionFTPSSLCCC	2119
• 62.217	CURL.SetOptionFTPSkipPasvIP	2120
• 62.218	CURL.SetOptionFTPUseEPRT	2121
• 62.219	CURL.SetOptionFTPUseEPSV	2122
• 62.220	CURL.SetOptionFTPUsePret	2123
• 62.221	CURL.SetOptionFailOnError	2124
• 62.222	CURL.SetOptionFileOnlyMode	2125
• 62.223	CURL.SetOptionFileTime	2126
• 62.224	CURL.SetOptionFollowLocation	2127
• 62.225	CURL.SetOptionForbidReuse	2129
• 62.226	CURL.SetOptionFreshConnect	2130
• 62.227	CURL.SetOptionGSSAPIDelegation	2131
• 62.228	CURL.SetOptionGet	2132
• 62.229	CURL.SetOptionHAProxyProtocol	2134



	37
• 62.230 CURL.SetOptionHTTP200Aliases	2135
• 62.231 CURL.SetOptionHTTPAuth	2136
• 62.232 CURL.SetOptionHTTPContentDecoding	2138
• 62.233 CURL.SetOptionHTTPHeader	2139
• 62.234 CURL.SetOptionHTTPProxyTunnel	2143
• 62.235 CURL.SetOptionHTTPTransferDecoding	2144
• 62.236 CURL.SetOptionHTTPVersion	2145
• 62.237 CURL.SetOptionHappyEyeballsTimeOutMS	2146
• 62.238 CURL.SetOptionHeader	2147
• 62.239 CURL.SetOptionHeaderOptions	2148
• 62.240 CURL.SetOptionIPResolve	2149
• 62.241 CURL.SetOptionIgnoreContentLength	2150
• 62.242 CURL.SetOptionInFileSize	2151
• 62.243 CURL.SetOptionInterface	2153
• 62.244 CURL.SetOptionIssuerCert	2154
• 62.245 CURL.SetOptionKRBLevel	2156
• 62.246 CURL.SetOptionKeepSendingOnError	2157
• 62.247 CURL.SetOptionKeyPassword	2158
• 62.248 CURL.SetOptionLocalPort	2160
• 62.249 CURL.SetOptionLocalPortRange	2161
• 62.250 CURL.SetOptionLoginOptions	2162
• 62.251 CURL.SetOptionLowSpeedLimit	2164
• 62.252 CURL.SetOptionLowSpeedTime	2165
• 62.253 CURL.SetOptionMailAuth	2166
• 62.254 CURL.SetOptionMailFrom	2168
• 62.255 CURL.SetOptionMailRecipients	2169
• 62.256 CURL.SetOptionMaxAgeConn	2170
• 62.257 CURL.SetOptionMaxConnects	2171
• 62.258 CURL.SetOptionMaxFileSize	2172

• 62.259	CURL.SetOptionMaxRecvSpeed	2173
• 62.260	CURL.SetOptionMaxRedirs	2174
• 62.261	CURL.SetOptionMaxSendSpeed	2176
• 62.262	CURL.SetOptionNETRCFile	2177
• 62.263	CURL.SetOptionNetRC	2178
• 62.264	CURL.SetOptionNewDirectoryPerms	2180
• 62.265	CURL.SetOptionNewFilePerms	2181
• 62.266	CURL.SetOptionNoBody	2182
• 62.267	CURL.SetOptionNoProxy	2184
• 62.268	CURL.SetOptionPassword	2186
• 62.269	CURL.SetOptionPathAsIs	2189
• 62.270	CURL.SetOptionPinnedPublicKey	2190
• 62.271	CURL.SetOptionPipeWait	2191
• 62.272	CURL.SetOptionPort	2192
• 62.273	CURL.SetOptionPost	2194
• 62.274	CURL.SetOptionPostFieldSize	2198
• 62.275	CURL.SetOptionPostFields	2199
• 62.276	CURL.SetOptionPostQuote	2203
• 62.277	CURL.SetOptionPostRedir	2205
• 62.278	CURL.SetOptionPreProxy	2207
• 62.279	CURL.SetOptionPreQuote	2208
• 62.280	CURL.SetOptionProtocols	2210
• 62.281	CURL.SetOptionProxy	2212
• 62.282	CURL.SetOptionProxyAuth	2214
• 62.283	CURL.SetOptionProxyCAInfo	2215
• 62.284	CURL.SetOptionProxyCAPath	2216
• 62.285	CURL.SetOptionProxyCRLFile	2217
• 62.286	CURL.SetOptionProxyHeader	2218
• 62.287	CURL.SetOptionProxyKeyPassword	2219

• 62.288	CURL.SetOptionProxyPassword	2220
• 62.289	CURL.SetOptionProxyPinnedPublicKey	2221
• 62.290	CURL.SetOptionProxyPort	2222
• 62.291	CURL.SetOptionProxySSLCert	2223
• 62.292	CURL.SetOptionProxySSLCertType	2224
• 62.293	CURL.SetOptionProxySSLCipherList	2225
• 62.294	CURL.SetOptionProxySSLKey	2226
• 62.295	CURL.SetOptionProxySSLKeyType	2227
• 62.296	CURL.SetOptionProxySSLOptions	2228
• 62.297	CURL.SetOptionProxySSLVerifyHost	2229
• 62.298	CURL.SetOptionProxySSLVerifyPeer	2230
• 62.299	CURL.SetOptionProxySSLVersion	2231
• 62.300	CURL.SetOptionProxyServiceName	2233
• 62.301	CURL.SetOptionProxyTLS13Ciphers	2234
• 62.302	CURL.SetOptionProxyTLSAuthPassword	2235
• 62.303	CURL.SetOptionProxyTLSAuthType	2236
• 62.304	CURL.SetOptionProxyTLSAuthUsername	2237
• 62.305	CURL.SetOptionProxyTransferMode	2238
• 62.306	CURL.SetOptionProxyType	2239
• 62.307	CURL.SetOptionProxyUsername	2241
• 62.308	CURL.SetOptionPut	2242
• 62.309	CURL.SetOptionQuote	2244
• 62.310	CURL.SetOptionRTSPClientCSEQ	2247
• 62.311	CURL.SetOptionRTSPRequest	2248
• 62.312	CURL.SetOptionRTSPServerCSEQ	2249
• 62.313	CURL.SetOptionRTSPSessionID	2250
• 62.314	CURL.SetOptionRTSPStreamURI	2251
• 62.315	CURL.SetOptionRTSPTransport	2252
• 62.316	CURL.SetOptionRandomFile	2253

- 62.317 CURL.SetOptionRange 2254
- 62.318 CURL.SetOptionRedirProtocols 2256
- 62.319 CURL.SetOptionReferer 2258
- 62.320 CURL.SetOptionRequestTarget 2259
- 62.321 CURL.SetOptionResolve 2260
- 62.322 CURL.SetOptionResumeFrom 2261
- 62.323 CURL.SetOptionSASLAUTHZID 2262
- 62.324 CURL.SetOptionSASLIR 2263
- 62.325 CURL.SetOptionSSHAuthTypes 2264
- 62.326 CURL.SetOptionSSHCompression 2266
- 62.327 CURL.SetOptionSSHHostPublicKeyMD5 2267
- 62.328 CURL.SetOptionSSHKnownHosts 2268
- 62.329 CURL.SetOptionSSHPrivateKeyfile 2269
- 62.330 CURL.SetOptionSSHPublicKeyfile 2271
- 62.331 CURL.SetOptionSSLCert 2273
- 62.332 CURL.SetOptionSSLCertType 2277
- 62.333 CURL.SetOptionSSLCipherList 2279
- 62.334 CURL.SetOptionSSEnableALPN 2281
- 62.335 CURL.SetOptionSSEnableNPN 2282
- 62.336 CURL.SetOptionSSLEngine 2283
- 62.337 CURL.SetOptionSSLEngineDefault 2284
- 62.338 CURL.SetOptionSSLFalseStart 2285
- 62.339 CURL.SetOptionSSLKey 2286
- 62.340 CURL.SetOptionSSLKeyType 2288
- 62.341 CURL.SetOptionSSLOptions 2290
- 62.342 CURL.SetOptionSSLSessionIDCache 2291
- 62.343 CURL.SetOptionSSLVerifyHost 2292
- 62.344 CURL.SetOptionSSLVerifyPeer 2295
- 62.345 CURL.SetOptionSSLVerifyStatus 2298

	41
• 62.346 CURL.SetOptionSSLVersion	2299
• 62.347 CURL.SetOptionServiceName	2302
• 62.348 CURL.SetOptionSocks5Auth	2303
• 62.349 CURL.SetOptionSocks5GSSAPINec	2304
• 62.350 CURL.SetOptionSocks5GSSAPIService	2305
• 62.351 CURL.SetOptionStreamDepends	2306
• 62.352 CURL.SetOptionStreamDependsE	2307
• 62.353 CURL.SetOptionStreamWeight	2308
• 62.354 CURL.SetOptionSuppressConnectHeaders	2309
• 62.355 CURL.SetOptionTCPFastOpen	2310
• 62.356 CURL.SetOptionTCPKeepAlive	2311
• 62.357 CURL.SetOptionTCPKeepIdle	2312
• 62.358 CURL.SetOptionTCPKeepInterval	2313
• 62.359 CURL.SetOptionTCPNoDelay	2314
• 62.360 CURL.SetOptionTFTPBlockSize	2315
• 62.361 CURL.SetOptionTFTPNoOptions	2316
• 62.362 CURL.SetOptionTLS13Ciphers	2317
• 62.363 CURL.SetOptionTLSAuthPassword	2318
• 62.364 CURL.SetOptionTLSAuthType	2319
• 62.365 CURL.SetOptionTLSAuthUsername	2320
• 62.366 CURL.SetOptionTelnetOptions	2321
• 62.367 CURL.SetOptionTimeCondition	2322
• 62.368 CURL.SetOptionTimeOut	2323
• 62.369 CURL.SetOptionTimeValue	2325
• 62.370 CURL.SetOptionTimeoutMS	2326
• 62.371 CURL.SetOptionTransferEncoding	2327
• 62.372 CURL.SetOptionTransferText	2328
• 62.373 CURL.SetOptionURL	2329
• 62.374 CURL.SetOptionUnixSocketPath	2337

- 62.375 CURL.SetOptionUnrestrictedAuth 2338
- 62.376 CURL.SetOptionUpkeepIntervalMS 2339
- 62.377 CURL.SetOptionUpload 2340
- 62.378 CURL.SetOptionUploadBufferSize 2342
- 62.379 CURL.SetOptionUseSSL 2343
- 62.380 CURL.SetOptionUserAgent 2345
- 62.381 CURL.SetOptionUsername 2346
- 62.382 CURL.SetOptionVerbose 2348
- 62.383 CURL.SetOptionWildcardMatch 2350
- 62.384 CURL.SetOptionXOAuth2Bearer 2353
- 62.385 CURL.SetProgressEvaluate 2354
- 62.386 CURL.SetProgressScript 2355
- 62.387 CURL.SetTag 2357
- 62.388 CURL.SetUpdateProgressDialog 2359
- 62.389 CURL.SetupAWS 2361
- 62.390 CURL.SetupOAuth 2365
- 62.391 CURL.Upkeep 2370
- 62.392 CURL.UseSystemCertificates 2371
- 62.393 CURL.Version 2373
- 48.1 Calendar.Alarm.Duplicate 1263
- 48.2 Calendar.Alarm.GetAbsoluteTrigger 1265
- 48.3 Calendar.Alarm.GetAcknowledged 1266
- 48.4 Calendar.Alarm.GetAction 1267
- 48.5 Calendar.Alarm.GetEmailAddress 1268
- 48.6 Calendar.Alarm.GetRelatedTo 1269
- 48.7 Calendar.Alarm.GetRelativeTrigger 1270
- 48.8 Calendar.Alarm.GetSound 1271
- 48.9 Calendar.Alarm.GetURL 1272
- 48.10 Calendar.Alarm.SetAbsoluteTrigger 1273

- 48.11 Calendar.Alarm.SetAcknowledged 1274
- 48.12 Calendar.Alarm.SetAction 1275
- 48.13 Calendar.Alarm.SetEmailAddress 1276
- 48.14 Calendar.Alarm.SetRelatedTo 1277
- 48.15 Calendar.Alarm.SetRelativeTrigger 1278
- 48.16 Calendar.Alarm.SetSound 1279
- 48.17 Calendar.Alarm.SetURL 1280
- 48.18 Calendar.Alarm.TriggerDateRelativeTo 1281
- 48.19 Calendar.Attendee.GetAddress 1282
- 48.20 Calendar.Attendee.GetCommonName 1283
- 48.21 Calendar.Attendee.GetStatus 1284
- 48.22 Calendar.Calendar.Duplicate 1285
- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.28 Calendar.Calendar.IsEditable 1293
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.32 Calendar.Calendars 1297
- 48.33 Calendar.Events 1298
- 48.34 Calendar.Initialize 1300
- 48.35 Calendar.Item.AddAlarm 1301
- 48.36 Calendar.Item.Duplicate 1302
- 48.37 Calendar.Item.GetAlarms 1303
- 48.38 Calendar.Item.GetAllDay 1304
- 48.39 Calendar.Item.GetAttendeeCommonName 1305

- 48.40 `Calendar.Item.GetAttendeeCount` 1306
- 48.41 `Calendar.Item.GetAttendeeStatus` 1307
- 48.42 `Calendar.Item.GetAttendeeURL` 1308
- 48.43 `Calendar.Item.GetAttendees` 1309
- 48.44 `Calendar.Item.GetCalendar` 1310
- 48.45 `Calendar.Item.GetCompleted` 1311
- 48.46 `Calendar.Item.GetCompletionDate` 1312
- 48.47 `Calendar.Item.GetDateStamp` 1313
- 48.48 `Calendar.Item.GetDueDate` 1314
- 48.49 `Calendar.Item.GetEndDate` 1315
- 48.50 `Calendar.Item.GetLocation` 1316
- 48.51 `Calendar.Item.GetNotes` 1317
- 48.52 `Calendar.Item.GetPriority` 1318
- 48.53 `Calendar.Item.GetStartDate` 1319
- 48.54 `Calendar.Item.GetTitle` 1320
- 48.55 `Calendar.Item.GetUID` 1321
- 48.56 `Calendar.Item.GetURL` 1323
- 48.57 `Calendar.Item.HasAlarm` 1324
- 48.58 `Calendar.Item.IsDetached` 1325
- 48.59 `Calendar.Item.NextAlarmDate` 1326
- 48.60 `Calendar.Item.Occurrence` 1327
- 48.61 `Calendar.Item.RemoveAlarm` 1328
- 48.62 `Calendar.Item.SetAllDay` 1329
- 48.63 `Calendar.Item.SetCalendar` 1331
- 48.64 `Calendar.Item.SetCompleted` 1333
- 48.65 `Calendar.Item.SetCompletionDate` 1334
- 48.66 `Calendar.Item.SetDueDate` 1335
- 48.67 `Calendar.Item.SetEndDate` 1336
- 48.68 `Calendar.Item.SetLocation` 1337



	45
• 48.69 Calendar.Item.SetNotes	1338
• 48.70 Calendar.Item.SetPriority	1340
• 48.71 Calendar.Item.SetStartDate	1341
• 48.72 Calendar.Item.SetTitle	1342
• 48.73 Calendar.Item.SetURL	1344
• 48.74 Calendar.NewAlarm	1345
• 48.75 Calendar.NewCalendar	1346
• 48.76 Calendar.NewEvent	1347
• 48.77 Calendar.NewReminder	1349
• 48.78 Calendar.Notification.Clear	1353
• 48.79 Calendar.Notification.Evaluate	1354
• 48.80 Calendar.Notification.GetChangedExternally	1355
• 48.81 Calendar.Notification.GetDeletedRecords	1356
• 48.82 Calendar.Notification.GetInsertedRecords	1357
• 48.83 Calendar.Notification.GetProcessID	1358
• 48.84 Calendar.Notification.GetProcessName	1359
• 48.85 Calendar.Notification.GetUpdatedRecords	1360
• 48.86 Calendar.Notification.GetUserUID	1361
• 48.87 Calendar.Notification.GetWhat	1362
• 48.88 Calendar.Notification.Set	1363
• 48.89 Calendar.RemoveCalendar	1364
• 48.90 Calendar.RemoveEvent	1365
• 48.91 Calendar.RemoveReminder	1366
• 48.92 Calendar.SaveCalendar	1367
• 48.93 Calendar.SaveEvent	1368
• 48.94 Calendar.SaveReminder	1370
• 48.95 Calendar.SelectEvent	1374
• 48.96 Calendar.Tasks	1375
• 48.97 Calendar.TasksCompletedSince	1376

• 48.98 Calendar.UncompletedTasks	1377
• 48.99 Calendar.UncompletedTasksDueBefore	1378
• 127.1 ClearRegistration	6369
• 52.1 Clipboard.DetectFileMakerDataType	1469
• 52.2 Clipboard.GetData	1470
• 52.3 Clipboard.GetFileMakerData	1472
• 52.4 Clipboard.GetFiles	1474
• 52.5 Clipboard.GetHTMLText	1475
• 52.6 Clipboard.GetPicture	1476
• 52.7 Clipboard.GetRTFText	1477
• 52.8 Clipboard.GetStyledText	1478
• 52.9 Clipboard.GetText	1479
• 52.10 Clipboard.GetTypes	1481
• 52.11 Clipboard.SetFileMakerData	1482
• 52.12 Clipboard.SetFiles	1484
• 52.13 Clipboard.SetHTMLText	1486
• 52.14 Clipboard.SetPicture	1488
• 52.15 Clipboard.SetRTFText	1489
• 52.16 Clipboard.SetStyledText	1491
• 52.17 Clipboard.SetText	1492
• 53.1 ColorPanel.Choose	1495
• 53.2 ColorPanel.GetColor	1497
• 53.3 ColorPanel.GetColorChangedEvaluate	1498
• 53.4 ColorPanel.GetColorChangedScript	1499
• 53.5 ColorPanel.GetVisible	1500
• 53.6 ColorPanel.Hide	1501
• 53.7 ColorPanel.SetColor	1502
• 53.8 ColorPanel.SetColorChangedEvaluate	1503
• 53.9 ColorPanel.SetColorChangedScript	1504

	47
• 53.10 ColorPanel.SetVisible	1506
• 53.11 ColorPanel.Show	1507
• 127.2 CompileDate	6370
• 127.3 CompileTime	6371
• 56.1 Container.Compress	1641
• 56.2 Container.DecodeFromBase64	1643
• 56.3 Container.DecodeFromHex	1645
• 56.4 Container.Decompress	1646
• 56.5 Container.Deserialize	1648
• 56.6 Container.Export	1649
• 56.7 Container.ExtractStream	1652
• 56.8 Container.GetBase64	1653
• 56.9 Container.GetCount	1655
• 56.10 Container.GetDataURL	1657
• 56.11 Container.GetHeight	1658
• 56.12 Container.GetHex	1659
• 56.17 Container.GetName	1664
• 56.18 Container.GetResolution	1665
• 56.19 Container.GetSize	1667
• 56.20 Container.GetText	1669
• 56.21 Container.GetTotalSize	1671
• 56.22 Container.GetType	1672
• 56.23 Container.GetTypeSize	1674
• 56.24 Container.GetTypes	1676
• 56.25 Container.GetWidth	1678
• 56.26 Container.IsCompressed	1679
• 56.27 Container.ReadArchive	1680
• 56.28 Container.ReadFile	1681
• 56.29 Container.ReadImage	1684

• 56.30 Container.Remove	1686
• 56.31 Container.Rename	1688
• 56.32 Container.RenameStream	1690
• 56.33 Container.Serialize	1691
• 56.34 Container.WriteArchive	1692
• 56.35 Container.WriteFile	1694
• 94.1 ContinuityCamera.Clear	5101
• 94.2 ContinuityCamera.Import	5102
• 94.3 ContinuityCamera.PopupMenu	5103
• 94.4 ContinuityCamera.Result	5105
• 94.5 ContinuityCamera.SetScriptTrigger	5106
• 58.1 CoreImage.Detect	1703
• 59.1 CoreLocation.ClearFailHandler	1705
• 59.2 CoreLocation.ClearUpdateLocationHandler	1706
• 59.3 CoreLocation.RegionMonitoringAvailable	1707
• 59.4 CoreLocation.RegionMonitoringEnabled	1708
• 59.5 CoreLocation.SetFailEvaluate	1709
• 59.6 CoreLocation.SetFailHandler	1710
• 59.7 CoreLocation.SetUpdateLocationEvaluate	1711
• 59.8 CoreLocation.SetUpdateLocationHandler	1712
• 59.9 CoreLocation.altitude	1714
• 59.10 CoreLocation.authorizationStatus	1715
• 59.11 CoreLocation.course	1716
• 59.12 CoreLocation.description	1717
• 59.13 CoreLocation.desiredAccuracy	1718
• 59.14 CoreLocation.dismissHeadingCalibrationDisplay	1719
• 59.15 CoreLocation.distanceFilter	1720
• 59.16 CoreLocation.distanceFromLocation	1721
• 59.17 CoreLocation.hasLocation	1722

• 59.18 CoreLocation.headingAvailable	1723
• 59.19 CoreLocation.horizontalAccuracy	1724
• 59.20 CoreLocation.latitude	1725
• 59.21 CoreLocation.locationServicesEnabled	1726
• 59.22 CoreLocation.longitude	1727
• 59.23 CoreLocation.purpose	1728
• 59.24 CoreLocation.requestAlwaysAuthorization	1729
• 59.25 CoreLocation.requestLocation	1730
• 59.26 CoreLocation.requestWhenInUseAuthorization	1731
• 59.27 CoreLocation.setDesiredAccuracy	1732
• 59.28 CoreLocation.setDistanceFilter	1733
• 59.29 CoreLocation.setPurpose	1734
• 59.30 CoreLocation.significantLocationChangeMonitoringAvailable	1735
• 59.31 CoreLocation.speed	1736
• 59.32 CoreLocation.startMonitoringSignificantLocationChanges	1737
• 59.33 CoreLocation.startUpdatingHeading	1738
• 59.34 CoreLocation.startUpdatingLocation	1739
• 59.35 CoreLocation.stopMonitoringSignificantLocationChanges	1740
• 59.36 CoreLocation.stopUpdatingHeading	1741
• 59.37 CoreLocation.stopUpdatingLocation	1742
• 59.38 CoreLocation.timestamp	1743
• 59.39 CoreLocation.verticalAccuracy	1744
• 60.1 CoreML.Add2DArrayParameter	1745
• 60.2 CoreML.AddArrayParameter	1747
• 60.3 CoreML.AddDoubleParameter	1748
• 60.4 CoreML.AddImageParameter	1749
• 60.5 CoreML.AddIntegerParameter	1751
• 60.6 CoreML.AddTextParameter	1752
• 60.7 CoreML.AddUndefinedParameter	1753

- 60.8 CoreML.Available 1754
- 60.9 CoreML.Clear 1755
- 60.10 CoreML.CompileModel 1756
- 60.11 CoreML.Description 1758
- 60.12 CoreML.GetUsesCPUOnly 1761
- 60.13 CoreML.OpenModel 1762
- 60.14 CoreML.PredictionFromFeatures 1764
- 60.15 CoreML.Release 1766
- 60.16 CoreML.ResultImage 1767
- 60.17 CoreML.SetUsesCPUOnly 1768
- 60.18 CoreML.Update 1769
- 68.1 DNSLookup.Address 2493
- 68.2 DNSLookup.AddressCount 2495
- 68.3 DNSLookup.Alias 2496
- 68.4 DNSLookup.AliasCount 2497
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.6 DNSLookup.LookupHostByName 2500
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 63.1 Debugger.BringToFront 2375
- 63.2 Debugger.CurrentLineNumber 2376
- 63.3 Debugger.GetCallStack 2377
- 63.4 Debugger.IsVisible 2378
- 63.5 Debugger.Title 2379
- 63.6 Debugger.Window 2380
- 64.1 Dialog.AddField 2381
- 64.2 Dialog.ClearFields 2383
- 64.3 Dialog.CloseSheet 2384
- 64.4 Dialog.GetAlternateButton 2385

• 64.5 Dialog.GetButton	2386
• 64.6 Dialog.GetButtonPressed	2387
• 64.7 Dialog.GetButtons	2388
• 64.8 Dialog.GetDefaultButton	2389
• 64.9 Dialog.GetFieldText	2390
• 64.10 Dialog.GetIcon	2391
• 64.11 Dialog.GetInformativeText	2392
• 64.12 Dialog.GetLastResult	2393
• 64.13 Dialog.GetLeft	2394
• 64.14 Dialog.GetMessage	2395
• 64.15 Dialog.GetMode	2396
• 64.16 Dialog.GetOtherButton	2397
• 64.17 Dialog.GetSheetEvaluate	2398
• 64.18 Dialog.GetSheetFileName	2399
• 64.19 Dialog.GetSheetRunning	2400
• 64.20 Dialog.GetSheetScriptName	2401
• 64.21 Dialog.GetShowsSuppressionButton	2402
• 64.22 Dialog.GetSuppressionButtonTitle	2403
• 64.23 Dialog.GetSuppressionState	2404
• 64.24 Dialog.GetTimeout	2405
• 64.25 Dialog.GetTop	2406
• 64.26 Dialog.GetWindowTitle	2407
• 64.27 Dialog.Reset	2408
• 64.28 Dialog.Run	2409
• 64.29 Dialog.RunSheet	2411
• 64.30 Dialog.SetAlternateButton	2412
• 64.31 Dialog.SetButton	2413
• 64.32 Dialog.SetButtons	2415
• 64.33 Dialog.SetDefaultButton	2416

- 64.34 Dialog.SetFieldText 2417
- 64.35 Dialog.SetIcon 2418
- 64.36 Dialog.SetInformativeText 2419
- 64.37 Dialog.SetLeft 2420
- 64.38 Dialog.SetMessage 2421
- 64.39 Dialog.SetMode 2422
- 64.40 Dialog.SetOtherButton 2423
- 64.41 Dialog.SetSheetEvaluate 2424
- 64.42 Dialog.SetSheetFileName 2425
- 64.43 Dialog.SetSheetScriptName 2426
- 64.44 Dialog.SetShowsSuppressionButton 2427
- 64.45 Dialog.SetSuppressionButtonTitle 2428
- 64.46 Dialog.SetTimeout 2429
- 64.47 Dialog.SetTop 2431
- 64.48 Dialog.SetWindowTitle 2433
- 65.1 DialogModifications.Clear 2435
- 65.2 DialogModifications.Install 2436
- 65.3 DialogModifications.Set 2437
- 65.4 DialogModifications.Uninstall 2438
- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 66.4 Dictionary.Clear 2446
- 66.5 Dictionary.Clone 2447
- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449
- 66.8 Dictionary.CreateNamed 2452
- 66.9 Dictionary.Deserialize 2453
- 66.10 Dictionary.HasKey 2455



• 66.11 Dictionary.KeyAtIndex	2456
• 66.12 Dictionary.Keys	2457
• 66.13 Dictionary.List	2458
• 66.14 Dictionary.Release	2459
• 66.15 Dictionary.RemoveKey	2460
• 66.16 Dictionary.Serialize	2461
• 66.17 Dictionary.SetList	2463
• 66.18 Dictionary.SetQuickList	2464
• 66.19 Dictionary.SetValueForKey	2465
• 66.20 Dictionary.SetVariables	2468
• 102.1 Dictionary.ToJSON	5303
• 66.22 Dictionary.ToText	2471
• 194.1 Dictionary.ToXML	9407
• 66.24 Dictionary.ValueForKey	2475
• 66.25 Dictionary.ValueTypeForKey	2477
• 66.26 Dictionary.Values	2478
• 67.1 DirectoryWatcher.AddDirectory	2479
• 67.2 DirectoryWatcher.ChangeCount	2481
• 67.3 DirectoryWatcher.Create	2482
• 67.4 DirectoryWatcher.GetEvaluate	2483
• 67.5 DirectoryWatcher.GetFileName	2484
• 67.6 DirectoryWatcher.GetScriptName	2485
• 67.7 DirectoryWatcher.NextChange	2486
• 67.8 DirectoryWatcher.Release	2487
• 67.9 DirectoryWatcher.ReleaseAll	2488
• 67.10 DirectoryWatcher.SetEvaluate	2489
• 67.11 DirectoryWatcher.SetFileName	2490
• 67.12 DirectoryWatcher.SetScriptName	2491
• 69.1 DocumentCameraScan.Clear	2505

• 69.2 DocumentCameraScan.Close	2507
• 69.3 DocumentCameraScan.ErrorMessage	2508
• 69.4 DocumentCameraScan.Initialize	2509
• 69.5 DocumentCameraScan.IsInitialized	2511
• 69.6 DocumentCameraScan.PageCount	2512
• 69.7 DocumentCameraScan.PageImage	2513
• 69.8 DocumentCameraScan.Scan	2515
• 69.9 DocumentCameraScan.SetScript	2516
• 69.10 DocumentCameraScan.Supported	2518
• 69.11 DocumentCameraScan.Title	2519
• 69.12 DocumentCameraScan.Visible	2520
• 78.1 DocumentPicker.Dismiss	3763
• 78.2 DocumentPicker.Export	3764
• 78.3 DocumentPicker.File	3765
• 78.4 DocumentPicker.FileCount	3766
• 78.5 DocumentPicker.Files	3767
• 78.6 DocumentPicker.Import	3768
• 78.7 DocumentPicker.IsVisible	3769
• 78.8 DocumentPicker.Move	3770
• 78.9 DocumentPicker.Open	3771
• 78.10 DocumentPicker.SetTrigger	3772
• 70.1 DragDrop.ClearDragActionHandler	2521
• 70.2 DragDrop.ClearDragEnterHandler	2523
• 70.3 DragDrop.ClearDragExitHandler	2524
• 70.4 DragDrop.CreateOnPopoverWithControl	2525
• 70.5 DragDrop.CreateOnPopoverWithSize	2527
• 70.6 DragDrop.CreateWithControl	2529
• 70.7 DragDrop.CreateWithSize	2532
• 70.8 DragDrop.CreateWithWindow	2534

	55
• 70.9 DragDrop.GetAutoResizingMask	2536
• 70.10 DragDrop.GetEmailAccount	2537
• 70.11 DragDrop.GetEmailCount	2538
• 70.12 DragDrop.GetEmailID	2539
• 70.13 DragDrop.GetEmailMailbox	2540
• 70.14 DragDrop.GetEmailSubject	2541
• 70.15 DragDrop.GetFileDescriptor	2542
• 70.16 DragDrop.GetFileDescriptorCount	2544
• 70.17 DragDrop.GetHTML	2545
• 70.18 DragDrop.GetHeight	2546
• 70.19 DragDrop.GetLeft	2547
• 70.20 DragDrop.GetMouseX	2548
• 70.21 DragDrop.GetMouseY	2549
• 70.22 DragDrop.GetPath	2550
• 70.23 DragDrop.GetPathCount	2553
• 70.24 DragDrop.GetPicture	2555
• 70.25 DragDrop.GetRTF	2557
• 70.26 DragDrop.GetTag	2558
• 70.27 DragDrop.GetText	2559
• 70.28 DragDrop.GetTop	2561
• 70.29 DragDrop.GetTypes	2562
• 70.30 DragDrop.GetURL	2563
• 70.31 DragDrop.GetVisible	2564
• 70.32 DragDrop.GetWidth	2565
• 70.33 DragDrop.GetWindowRef	2566
• 70.34 DragDrop.List	2567
• 70.35 DragDrop.RegisterDropTypes	2568
• 70.36 DragDrop.Release	2570
• 70.37 DragDrop.ReleaseAll	2572

• 70.38 DragDrop.SetAutoResizingMask	2573
• 70.39 DragDrop.SetCursor	2575
• 70.40 DragDrop.SetDragActionHandler	2577
• 70.41 DragDrop.SetDragEnterHandler	2579
• 70.42 DragDrop.SetDragExitHandler	2581
• 70.43 DragDrop.SetFrame	2583
• 70.44 DragDrop.SetFrameWithControl	2584
• 70.45 DragDrop.SetImage	2586
• 70.46 DragDrop.SetTag	2588
• 70.47 DragDrop.SetVisible	2589
• 70.48 DragDrop.UnregisterDropTypes	2590
• 71.1 DynaPDF.AddActionToObj	2591
• 71.2 DynaPDF.AddAnnotToPage	2594
• 71.3 DynaPDF.AddBookmark	2595
• 71.4 DynaPDF.AddBookmarkEx	2597
• 71.5 DynaPDF.AddButtonImage	2599
• 71.6 DynaPDF.AddContinueText	2601
• 71.7 DynaPDF.AddDeviceNProcessColorants	2602
• 71.8 DynaPDF.AddDeviceNSeparations	2604
• 71.9 DynaPDF.AddFontSearchPath	2607
• 71.10 DynaPDF.AddOutputIntent	2608
• 71.11 DynaPDF.AddOutputIntentEx	2609
• 71.12 DynaPDF.AddValToChoiceField	2611
• 71.13 DynaPDF.AllowPageBreak	2613
• 71.14 DynaPDF.AppendImagePage	2615
• 71.15 DynaPDF.AppendImagePages	2617
• 71.16 DynaPDF.AppendPage	2619
• 71.17 DynaPDF.ApplyShading	2621
• 71.18 DynaPDF.AssociateEmbFile	2622

• 71.19 DynaPDF.AttachFile	2624
• 71.20 DynaPDF.AttachFileContainer	2626
• 71.21 DynaPDF.AttachFileText	2627
• 71.22 DynaPDF.BeginContinueText	2629
• 71.23 DynaPDF.BeginLayer	2631
• 71.24 DynaPDF.BeginPattern	2632
• 71.25 DynaPDF.BeginTemplate	2633
• 71.26 DynaPDF.Bezier123	2634
• 71.27 DynaPDF.Bezier13	2636
• 71.28 DynaPDF.Bezier23	2637
• 71.29 DynaPDF.CMYK	2638
• 71.30 DynaPDF.ChangeAnnotName	2640
• 71.31 DynaPDF.ChangeAnnotPos	2641
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.33 DynaPDF.ChangeFont	2644
• 71.34 DynaPDF.ChangeFontSize	2645
• 71.35 DynaPDF.ChangeFontStyle	2646
• 71.36 DynaPDF.ChangeFontStyleEx	2647
• 71.37 DynaPDF.ChangeLinkAnnot	2648
• 71.38 DynaPDF.ChangeSeparationColor	2649
• 71.39 DynaPDF.CheckConformance	2650
• 71.40 DynaPDF.CheckFieldNames	2653
• 71.41 DynaPDF.CircleAnnot	2654
• 71.42 DynaPDF.Clear	2656
• 71.43 DynaPDF.ClipPath	2657
• 71.44 DynaPDF.CloseImportFile	2659
• 71.45 DynaPDF.ClosePath	2660
• 71.46 DynaPDF.ConvertColors	2662
• 71.47 DynaPDF.ConvertStyledText	2664

• 71.48 DynaPDF.CreateAxialShading	2665
• 71.49 DynaPDF.CreateButton	2667
• 71.50 DynaPDF.CreateCheckBox	2670
• 71.51 DynaPDF.CreateComboBox	2672
• 71.52 DynaPDF.CreateDeviceNColorSpace	2675
• 71.53 DynaPDF.CreateGoToAction	2677
• 71.54 DynaPDF.CreateGoToActionEx	2679
• 71.55 DynaPDF.CreateGoToRAction	2681
• 71.56 DynaPDF.CreateGoToRActionEx	2683
• 71.57 DynaPDF.CreateGroupField	2685
• 71.58 DynaPDF.CreateJSAction	2687
• 71.59 DynaPDF.CreateListBox	2690
• 71.60 DynaPDF.CreateNamedDest	2693
• 71.61 DynaPDF.CreateRadialShading	2695
• 71.62 DynaPDF.CreateRadioButton	2697
• 71.63 DynaPDF.CreateSeparationCS	2699
• 71.64 DynaPDF.CreateSigField	2702
• 71.65 DynaPDF.CreateSigFieldAP	2705
• 71.66 DynaPDF.CreateStructureTree	2707
• 71.67 DynaPDF.CreateTextField	2709
• 71.68 DynaPDF.CreateXFASStream	2711
• 71.69 DynaPDF.DeleteAcroForm	2712
• 71.70 DynaPDF.DeleteActionFromObjEx	2713
• 71.71 DynaPDF.DeleteAnnotation	2714
• 71.72 DynaPDF.DeleteBookmark	2715
• 71.73 DynaPDF.DeleteEmbeddedFile	2716
• 71.74 DynaPDF.DeleteField	2717
• 71.75 DynaPDF.DeleteFieldEx	2718
• 71.76 DynaPDF.DeleteJavaScripts	2719

• 71.77 DynaPDF.DeletePage	2720
• 71.78 DynaPDF.DeletePageLabels	2721
• 71.79 DynaPDF.DeleteSeparationInfo	2722
• 71.80 DynaPDF.DeleteTemplate	2723
• 71.81 DynaPDF.DeleteTemplateEx	2724
• 71.82 DynaPDF.DeleteXFAForm	2725
• 71.83 DynaPDF.DrawArc	2726
• 71.84 DynaPDF.DrawArcEx	2728
• 71.85 DynaPDF.DrawChord	2730
• 71.86 DynaPDF.DrawCircle	2732
• 71.87 DynaPDF.DrawPie	2734
• 71.88 DynaPDF.EditPage	2736
• 71.89 DynaPDF.EditTemplate	2738
• 71.90 DynaPDF.EditTemplate2	2740
• 71.91 DynaPDF.Ellipse	2741
• 71.92 DynaPDF.EnableEncryption	2743
• 71.93 DynaPDF.EndLayer	2746
• 71.94 DynaPDF.EndPage	2747
• 71.95 DynaPDF.EndPattern	2749
• 71.96 DynaPDF.EndTemplate	2750
• 71.97 DynaPDF.ExchangeBookmarks	2751
• 71.98 DynaPDF.ExchangePages	2752
• 71.99 DynaPDF.ExtractDocumentText	2753
• 71.100 DynaPDF.ExtractImages	2755
• 71.101 DynaPDF.ExtractPageRectText	2757
• 71.102 DynaPDF.ExtractPageText	2759
• 71.103 DynaPDF.ExtractText	2761
• 71.104 DynaPDF.FileAttachAnnot	2764
• 71.105 DynaPDF.FileAttachAnnotEx	2766

• 71.106 DynaPDF.FileLink	2768
• 71.107 DynaPDF.FindBookmark	2770
• 71.108 DynaPDF.FindEmbeddedFile	2772
• 71.109 DynaPDF.FindField	2773
• 71.110 DynaPDF.FindLinkAnnot	2774
• 71.111 DynaPDF.FindNextBookmark	2775
• 71.112 DynaPDF.FindPattern	2776
• 71.113 DynaPDF.FindText	2777
• 71.114 DynaPDF.FlattenAnnotOrField	2779
• 71.115 DynaPDF.FlattenAnnots	2780
• 71.116 DynaPDF.FlattenForm	2782
• 71.117 DynaPDF.FlushPages	2784
• 71.118 DynaPDF.FontInfo	2786
• 71.119 DynaPDF.FreeTextAnnot	2788
• 71.120 DynaPDF.GeneratePreview	2790
• 71.121 DynaPDF.GetAnnotCount	2793
• 71.122 DynaPDF.GetAnnotFlags	2794
• 71.123 DynaPDF.GetAnnotLink	2795
• 71.124 DynaPDF.GetAnnotType	2796
• 71.125 DynaPDF.GetAnnotation	2798
• 71.126 DynaPDF.GetAscent	2800
• 71.127 DynaPDF.GetBBox	2801
• 71.128 DynaPDF.GetBookmark	2803
• 71.129 DynaPDF.GetBookmarkCount	2805
• 71.130 DynaPDF.GetBorderStyle	2806
• 71.131 DynaPDF.GetCMapCount	2807
• 71.132 DynaPDF.GetCharacterSpacing	2808
• 71.133 DynaPDF.GetCheckBoxChar	2809
• 71.134 DynaPDF.GetCheckBoxCharEx	2810



• 71.135 DynaPDF.GetCheckBoxDefState	2811
• 71.136 DynaPDF.GetColorSpace	2812
• 71.137 DynaPDF.GetColorSpaceCount	2813
• 71.138 DynaPDF.GetColorSpaceInfo	2814
• 71.139 DynaPDF.GetCompressionFilter	2815
• 71.140 DynaPDF.GetCompressionLevel	2816
• 71.141 DynaPDF.GetContent	2817
• 71.142 DynaPDF.GetDocInfo	2818
• 71.143 DynaPDF.GetDocInfoCount	2820
• 71.144 DynaPDF.GetDocUsesTransparency	2821
• 71.145 DynaPDF.GetDrawDirection	2822
• 71.146 DynaPDF.GetDynaPDFVersion	2823
• 71.147 DynaPDF.GetEmbeddedFile	2824
• 71.148 DynaPDF.GetEmbeddedFileAsContainer	2826
• 71.149 DynaPDF.GetEmbeddedFileCount	2827
• 71.150 DynaPDF.GetFTextHeight	2829
• 71.151 DynaPDF.GetFTextHeightEx	2831
• 71.152 DynaPDF.GetField	2833
• 71.153 DynaPDF.GetFieldBackColor	2835
• 71.154 DynaPDF.GetFieldBorderColor	2836
• 71.155 DynaPDF.GetFieldBorderStyle	2837
• 71.156 DynaPDF.GetFieldBorderWidth	2838
• 71.157 DynaPDF.GetFieldChoiceValue	2839
• 71.158 DynaPDF.GetFieldColor	2840
• 71.159 DynaPDF.GetFieldCount	2841
• 71.160 DynaPDF.GetFieldExpValCount	2842
• 71.161 DynaPDF.GetFieldExpValue	2843
• 71.162 DynaPDF.GetFieldExpValueEx	2844
• 71.163 DynaPDF.GetFieldFlags	2846

• 71.164 DynaPDF.GetFieldGroupType	2847
• 71.165 DynaPDF.GetFieldHighlightMode	2848
• 71.166 DynaPDF.GetFieldIndex	2849
• 71.167 DynaPDF.GetFieldMapName	2850
• 71.168 DynaPDF.GetFieldName	2851
• 71.169 DynaPDF.GetFieldOrientation	2852
• 71.170 DynaPDF.GetFieldTextAlign	2853
• 71.171 DynaPDF.GetFieldTextColor	2854
• 71.172 DynaPDF.GetFieldToolTip	2855
• 71.173 DynaPDF.GetFieldType	2856
• 71.174 DynaPDF.GetFontCount	2857
• 71.175 DynaPDF.GetFontOrigin	2858
• 71.176 DynaPDF.GetFontSelMode	2859
• 71.177 DynaPDF.GetFontWeight	2860
• 71.178 DynaPDF.GetGStateFlags	2861
• 71.179 DynaPDF.GetImage	2862
• 71.180 DynaPDF.GetImageCount	2866
• 71.181 DynaPDF.GetImportDocInfo	2868
• 71.182 DynaPDF.GetImportFlags	2870
• 71.183 DynaPDF.GetImportFlags2	2871
• 71.184 DynaPDF.GetImportOrientation	2872
• 71.185 DynaPDF.GetImportPDFVersion	2873
• 71.186 DynaPDF.GetImportPageBounds	2874
• 71.187 DynaPDF.GetImportPageCount	2876
• 71.188 DynaPDF.GetInDocInfoCount	2879
• 71.189 DynaPDF.GetInFieldCount	2880
• 71.190 DynaPDF.GetInIsCollection	2881
• 71.191 DynaPDF.GetInIsEncrypted	2882
• 71.192 DynaPDF.GetInIsSigned	2883

• 71.193 DynaPDF.GetInIsTrapped	2884
• 71.194 DynaPDF.GetInIsXFAForm	2885
• 71.195 DynaPDF.GetInMetadata	2886
• 71.196 DynaPDF.GetInPrintSettings	2888
• 71.197 DynaPDF.GetInRepairMode	2889
• 71.198 DynaPDF.GetIsFixedPitch	2890
• 71.199 DynaPDF.GetIsTaggingEnabled	2891
• 71.200 DynaPDF.GetJPEGQuality	2892
• 71.201 DynaPDF.GetJavaScriptCount	2893
• 71.202 DynaPDF.GetLanguage	2894
• 71.203 DynaPDF.GetLastErrorMessage	2895
• 71.204 DynaPDF.GetLastTextPosX	2896
• 71.205 DynaPDF.GetLastTextPosY	2897
• 71.206 DynaPDF.GetLeading	2898
• 71.207 DynaPDF.GetLineWidth	2899
• 71.208 DynaPDF.GetLinkHighlightMode	2900
• 71.209 DynaPDF.GetLogMetafileSize	2901
• 71.210 DynaPDF.GetLogMetafileSizeEx	2902
• 71.211 DynaPDF.GetMetaConvFlags	2903
• 71.212 DynaPDF.GetMetadata	2904
• 71.213 DynaPDF.GetOCG	2906
• 71.214 DynaPDF.GetOCGContUsage	2909
• 71.215 DynaPDF.GetOCGCount	2911
• 71.216 DynaPDF.GetOCGUsageUserName	2912
• 71.217 DynaPDF.GetOpacity	2913
• 71.218 DynaPDF.GetOrientation	2914
• 71.219 DynaPDF.GetOutputIntent	2915
• 71.220 DynaPDF.GetOutputIntentCount	2917
• 71.221 DynaPDF.GetPDFVersion	2918

• 71.222 DynaPDF.GetPageAnnotCount	2919
• 71.223 DynaPDF.GetPageAnnotation	2920
• 71.224 DynaPDF.GetPageBBox	2921
• 71.225 DynaPDF.GetPageCoords	2923
• 71.226 DynaPDF.GetPageCount	2924
• 71.227 DynaPDF.GetPageFieldCount	2926
• 71.228 DynaPDF.GetPageHeight	2927
• 71.229 DynaPDF.GetPageLabel	2929
• 71.230 DynaPDF.GetPageLabelCount	2931
• 71.231 DynaPDF.GetPageLayout	2932
• 71.232 DynaPDF.GetPageMode	2933
• 71.233 DynaPDF.GetPageNum	2934
• 71.234 DynaPDF.GetPageWidth	2935
• 71.235 DynaPDF.GetPrintSettings	2937
• 71.236 DynaPDF.GetReplaceICCProfile	2938
• 71.237 DynaPDF.GetReplaceICCProfileData	2939
• 71.238 DynaPDF.GetReplaceICCProfilesCounter	2940
• 71.239 DynaPDF.GetResolution	2941
• 71.240 DynaPDF.GetSaveNewImageFormat	2942
• 71.241 DynaPDF.GetTemplCount	2943
• 71.242 DynaPDF.GetTemplHeight	2944
• 71.243 DynaPDF.GetTemplWidth	2945
• 71.244 DynaPDF.GetTextDrawMode	2946
• 71.245 DynaPDF.GetTextFieldDefaultValue	2947
• 71.246 DynaPDF.GetTextFieldValue	2948
• 71.247 DynaPDF.GetTextRise	2949
• 71.248 DynaPDF.GetTextScaling	2950
• 71.249 DynaPDF.GetTextWidth	2951
• 71.250 DynaPDF.GetTransparentColor	2953

• 71.251 DynaPDF.GetTrapped	2954
• 71.252 DynaPDF.GetUseExactPwd	2955
• 71.253 DynaPDF.GetUseGlobalImpFiles	2956
• 71.254 DynaPDF.GetUseStdFonts	2957
• 71.255 DynaPDF.GetUseSystemFonts	2958
• 71.256 DynaPDF.GetUseTransparency	2959
• 71.257 DynaPDF.GetUseVisibleCoords	2960
• 71.258 DynaPDF.GetUserRights	2961
• 71.259 DynaPDF.GetUserUnit	2962
• 71.260 DynaPDF.GetUsesTransparency	2963
• 71.261 DynaPDF.GetViewerPreferences	2965
• 71.262 DynaPDF.GetWMFDefExtent	2966
• 71.263 DynaPDF.GetWMFPixelPerInch	2967
• 71.264 DynaPDF.GetWordSpacing	2968
• 71.265 DynaPDF.GetXFASStream	2969
• 71.266 DynaPDF.GetXFASStreamCount	2971
• 71.267 DynaPDF.HaveOpenDocument	2972
• 71.268 DynaPDF.HaveOpenPage	2973
• 71.269 DynaPDF.HighlightAnnot	2974
• 71.270 DynaPDF.HighlightPattern	2976
• 71.271 DynaPDF.ImportEncryptionSettings	2978
• 71.272 DynaPDF.ImportPDFFile	2979
• 71.273 DynaPDF.ImportPDFPage	2982
• 71.274 DynaPDF.ImportPageAsTemplate	2985
• 71.275 DynaPDF.InitColorManagement	2987
• 71.276 DynaPDF.InitColorManagementEx	2990
• 71.277 DynaPDF.Initialize	2992
• 71.278 DynaPDF.InsertBookmark	2999
• 71.279 DynaPDF.InsertBookmarkEx	3001

• 71.280 DynaPDF.InsertImage	3003
• 71.281 DynaPDF.InsertImageFile	3007
• 71.282 DynaPDF.InsertMetafile	3010
• 71.283 DynaPDF.InsertMetafileEx	3012
• 71.284 DynaPDF.IsColorPage	3014
• 71.285 DynaPDF.IsEmptyPage	3016
• 71.286 DynaPDF.IsInitialized	3017
• 71.287 DynaPDF.LineAnnot	3020
• 71.288 DynaPDF.LineTo	3022
• 71.289 DynaPDF.List	3024
• 71.290 DynaPDF.ListImages	3025
• 71.291 DynaPDF.LockLayer	3028
• 71.292 DynaPDF.MovePage	3029
• 71.293 DynaPDF.MoveTo	3030
• 71.294 DynaPDF.New	3032
• 71.295 DynaPDF.OpenOutputFile	3035
• 71.296 DynaPDF.OpenOutputFileEncrypted	3037
• 71.297 DynaPDF.OpenPDFFromContainer	3039
• 71.298 DynaPDF.OpenPDFFromFile	3043
• 71.299 DynaPDF.Optimize	3046
• 71.300 DynaPDF.PageLink	3052
• 71.301 DynaPDF.PageLinkEx	3055
• 71.302 DynaPDF.PageStatistics	3059
• 71.303 DynaPDF.ParseContent	3062
• 71.304 DynaPDF.PlaceSigFieldValidateIcon	3064
• 71.305 DynaPDF.PlaceTemplate	3066
• 71.306 DynaPDF.PlaceTemplateEx	3068
• 71.307 DynaPDF.Print	3070
• 71.308 DynaPDF.Print.GetDevMode	3074

• 71.309 DynaPDF.Print.GetDevNames	3075
• 71.310 DynaPDF.Print.SetDevMode	3076
• 71.311 DynaPDF.Print.SetDevNames	3078
• 71.312 DynaPDF.RGB	3079
• 71.313 DynaPDF.ReadImageFormat	3081
• 71.314 DynaPDF.ReadImageResolution	3083
• 71.315 DynaPDF.Rectangle	3084
• 71.316 DynaPDF.Release	3086
• 71.317 DynaPDF.RenameSpotColor	3088
• 71.318 DynaPDF.RenderPDFFile	3089
• 71.319 DynaPDF.RenderPDFFileEx	3091
• 71.320 DynaPDF.RenderPage	3093
• 71.321 DynaPDF.ReplaceImage	3097
• 71.322 DynaPDF.ReplacePattern	3100
• 71.323 DynaPDF.ResetEncryptionSettings	3103
• 71.324 DynaPDF.RestoreGraphicState	3104
• 71.325 DynaPDF.RotateCoords	3106
• 71.326 DynaPDF.RotateTemplate	3109
• 71.327 DynaPDF.RoundRect	3112
• 71.328 DynaPDF.RoundRectEx	3114
• 71.329 DynaPDF.Save	3116
• 71.330 DynaPDF.SaveAndSignFile	3119
• 71.331 DynaPDF.SaveAndSignFileWinCrypt	3121
• 71.332 DynaPDF.SaveAndSignFileWinCryptDialog	3123
• 71.333 DynaPDF.SaveGraphicState	3125
• 71.334 DynaPDF.ScaleCoords	3126
• 71.335 DynaPDF.SetAlpha	3128
• 71.336 DynaPDF.SetAnnotBorderStyle	3130
• 71.337 DynaPDF.SetAnnotBorderWidth	3132

• 71.338 DynaPDF.SetAnnotColor	3133
• 71.339 DynaPDF.SetAnnotDate	3135
• 71.340 DynaPDF.SetAnnotFlags	3137
• 71.341 DynaPDF.SetAnnotFlagsEx	3139
• 71.342 DynaPDF.SetAnnotHighlightMode	3140
• 71.343 DynaPDF.SetAnnotIcon	3141
• 71.344 DynaPDF.SetAnnotLineEndStyle	3142
• 71.345 DynaPDF.SetAnnotOpacity	3143
• 71.346 DynaPDF.SetAnnotOpenState	3144
• 71.347 DynaPDF.SetAnnotString	3145
• 71.348 DynaPDF.SetAnnotSubject	3146
• 71.349 DynaPDF.SetBBox	3147
• 71.350 DynaPDF.SetBookmarkDest	3149
• 71.351 DynaPDF.SetBookmarkStyle	3151
• 71.352 DynaPDF.SetBorderStyle	3153
• 71.353 DynaPDF.SetCMapDir	3154
• 71.354 DynaPDF.SetCharacterSpacing	3155
• 71.355 DynaPDF.SetCheckBoxChar	3156
• 71.356 DynaPDF.SetCheckBoxDefState	3157
• 71.357 DynaPDF.SetCheckBoxState	3158
• 71.358 DynaPDF.SetColorSpace	3159
• 71.359 DynaPDF.SetCompressionFilter	3161
• 71.360 DynaPDF.SetCompressionLevel	3163
• 71.361 DynaPDF.SetContent	3164
• 71.362 DynaPDF.SetDocInfo	3165
• 71.363 DynaPDF.SetDocInfoEx	3167
• 71.364 DynaPDF.SetDrawDirection	3169
• 71.365 DynaPDF.SetExtColorSpace	3170
• 71.366 DynaPDF.SetExtFillColorSpace	3172



• 71.367 DynaPDF.SetExtStrokeColorSpace	3173
• 71.368 DynaPDF.SetFieldBBox	3174
• 71.369 DynaPDF.SetFieldBackColor	3176
• 71.370 DynaPDF.SetFieldBorderColor	3177
• 71.371 DynaPDF.SetFieldBorderStyle	3178
• 71.372 DynaPDF.SetFieldBorderWidth	3179
• 71.373 DynaPDF.SetFieldColor	3181
• 71.374 DynaPDF.SetFieldDate	3183
• 71.375 DynaPDF.SetFieldExpValue	3184
• 71.376 DynaPDF.SetFieldExpValueEx	3186
• 71.377 DynaPDF.SetFieldFlags	3188
• 71.378 DynaPDF.SetFieldFont	3190
• 71.379 DynaPDF.SetFieldFontEx	3192
• 71.380 DynaPDF.SetFieldFontSize	3194
• 71.381 DynaPDF.SetFieldHighlightMode	3195
• 71.382 DynaPDF.SetFieldIndex	3196
• 71.383 DynaPDF.SetFieldMapName	3197
• 71.384 DynaPDF.SetFieldName	3198
• 71.385 DynaPDF.SetFieldOrientation	3200
• 71.386 DynaPDF.SetFieldTextAlign	3201
• 71.387 DynaPDF.SetFieldTextColor	3202
• 71.388 DynaPDF.SetFieldToolTip	3203
• 71.389 DynaPDF.SetFillColor	3204
• 71.390 DynaPDF.SetFloatPrecision	3207
• 71.391 DynaPDF.SetFont	3208
• 71.392 DynaPDF.SetFontEx	3210
• 71.393 DynaPDF.SetFontOrigin	3212
• 71.394 DynaPDF.SetFontSearchOrder	3213
• 71.395 DynaPDF.SetFontSelMode	3215

• 71.396 DynaPDF.SetFontWeight	3216
• 71.397 DynaPDF.SetGStateFlags	3218
• 71.398 DynaPDF.SetImportFlags	3220
• 71.399 DynaPDF.SetImportFlags2	3224
• 71.400 DynaPDF.SetJPEGQuality	3226
• 71.401 DynaPDF.SetLanguage	3228
• 71.402 DynaPDF.SetLeading	3230
• 71.403 DynaPDF.SetLineJoinStyle	3231
• 71.404 DynaPDF.SetLineWidth	3232
• 71.405 DynaPDF.SetLinkHighlightMode	3234
• 71.406 DynaPDF.SetMetaConvFlags	3236
• 71.407 DynaPDF.SetMetadata	3238
• 71.408 DynaPDF.SetMiterLimit	3240
• 71.409 DynaPDF.SetNumberFormat	3241
• 71.410 DynaPDF.SetOCGState	3243
• 71.411 DynaPDF.SetOpacity	3245
• 71.412 DynaPDF.SetOrientation	3246
• 71.413 DynaPDF.SetOrientationEx	3247
• 71.414 DynaPDF.SetPDFVersion	3250
• 71.415 DynaPDF.SetPageBBox	3252
• 71.416 DynaPDF.SetPageCoords	3254
• 71.417 DynaPDF.SetPageFormat	3256
• 71.418 DynaPDF.SetPageHeight	3258
• 71.419 DynaPDF.SetPageLayout	3261
• 71.420 DynaPDF.SetPageMode	3262
• 71.421 DynaPDF.SetPageWidth	3263
• 71.422 DynaPDF.SetPrintSettings	3266
• 71.423 DynaPDF.SetReplaceICCPProfile	3268
• 71.424 DynaPDF.SetReplaceICCPProfileData	3270

• 71.425 DynaPDF.SetResolution	3272
• 71.426 DynaPDF.SetSaveNewImageFormat	3274
• 71.427 DynaPDF.SetSeparationInfo	3276
• 71.428 DynaPDF.SetStrokeColor	3277
• 71.429 DynaPDF.SetTextDrawMode	3279
• 71.430 DynaPDF.SetTextFieldValue	3281
• 71.431 DynaPDF.SetTextFieldValueEx	3283
• 71.432 DynaPDF.SetTextRect	3284
• 71.433 DynaPDF.SetTextRise	3286
• 71.434 DynaPDF.SetTextScaling	3287
• 71.435 DynaPDF.SetTransparentColor	3288
• 71.436 DynaPDF.SetTrapped	3289
• 71.437 DynaPDF.SetUseExactPwd	3290
• 71.438 DynaPDF.SetUseGlobalImpFiles	3291
• 71.439 DynaPDF.SetUseStdFonts	3292
• 71.440 DynaPDF.SetUseSystemFonts	3294
• 71.441 DynaPDF.SetUseTransparency	3296
• 71.442 DynaPDF.SetUseVisibleCoords	3298
• 71.443 DynaPDF.SetUserUnit	3299
• 71.444 DynaPDF.SetViewerPreferences	3300
• 71.445 DynaPDF.SetWMFDefExtent	3301
• 71.446 DynaPDF.SetWMFPixelPerInch	3302
• 71.447 DynaPDF.SetWordSpacing	3303
• 71.448 DynaPDF.SetXFASStream	3304
• 71.449 DynaPDF.ShowDifferences	3305
• 71.450 DynaPDF.SkewCoords	3307
• 71.451 DynaPDF.SquareAnnot	3309
• 71.452 DynaPDF.StampAnnot	3311
• 71.453 DynaPDF.StrokePath	3313

• 71.454 DynaPDF.SysFontInfo	3315
• 71.455 DynaPDF.Table.AddColumn	3317
• 71.456 DynaPDF.Table.AddRow	3318
• 71.457 DynaPDF.Table.AddRows	3320
• 71.458 DynaPDF.Table.ClearColumn	3321
• 71.459 DynaPDF.Table.ClearContent	3322
• 71.460 DynaPDF.Table.ClearRow	3324
• 71.461 DynaPDF.Table.Create	3326
• 71.462 DynaPDF.Table.DeleteCol	3329
• 71.463 DynaPDF.Table.DeleteRow	3330
• 71.464 DynaPDF.Table.DeleteRows	3331
• 71.465 DynaPDF.Table.Draw	3332
• 71.466 DynaPDF.Table.GetFirstRow	3335
• 71.467 DynaPDF.Table.GetNextHeight	3336
• 71.468 DynaPDF.Table.GetNextHeightRow	3337
• 71.469 DynaPDF.Table.GetNextRow	3338
• 71.470 DynaPDF.Table.GetNumCols	3339
• 71.471 DynaPDF.Table.GetNumRows	3340
• 71.472 DynaPDF.Table.GetPDF	3341
• 71.473 DynaPDF.Table.GetTableHeight	3342
• 71.474 DynaPDF.Table.GetTableWidth	3343
• 71.475 DynaPDF.Table.HaveMore	3344
• 71.476 DynaPDF.Table.Release	3345
• 71.477 DynaPDF.Table.SetBorderWidth	3346
• 71.478 DynaPDF.Table.SetBoxProperty	3348
• 71.479 DynaPDF.Table.SetCellAction	3350
• 71.480 DynaPDF.Table.SetCellImage	3352
• 71.481 DynaPDF.Table.SetCellImageEx	3355
• 71.482 DynaPDF.Table.SetCellOrientation	3357

• 71.483 DynaPDF.Table.SetCellPadding	3359
• 71.484 DynaPDF.Table.SetCellSpacing	3361
• 71.485 DynaPDF.Table.SetCellTable	3363
• 71.486 DynaPDF.Table.SetCellTemplate	3365
• 71.487 DynaPDF.Table.SetCellText	3368
• 71.488 DynaPDF.Table.SetColWidth	3370
• 71.489 DynaPDF.Table.SetColor	3372
• 71.490 DynaPDF.Table.SetColorFloat	3374
• 71.491 DynaPDF.Table.SetFlags	3376
• 71.492 DynaPDF.Table.SetFont	3378
• 71.493 DynaPDF.Table.SetFontSelMode	3380
• 71.494 DynaPDF.Table.SetFontSize	3381
• 71.495 DynaPDF.Table.SetGridWidth	3383
• 71.496 DynaPDF.Table.SetPDF	3385
• 71.497 DynaPDF.Table.SetRGBColor	3386
• 71.498 DynaPDF.Table.SetRowHeight	3388
• 71.499 DynaPDF.Table.SetTableWidth	3389
• 71.500 DynaPDF.TextAnnot	3391
• 71.501 DynaPDF.TranslateCoords	3393
• 71.502 DynaPDF.Triangle	3395
• 71.503 DynaPDF.UnlockLayer	3397
• 71.504 DynaPDF.Uninitialize	3398
• 71.505 DynaPDF.WatermarkAnnot	3399
• 71.506 DynaPDF.WebLink	3401
• 71.507 DynaPDF.WriteDemoText	3404
• 71.508 DynaPDF.WriteFText	3406
• 71.509 DynaPDF.WriteFTextEx	3408
• 71.510 DynaPDF.WriteFTextExRotated	3412
• 71.511 DynaPDF.WriteStyledText	3414

- 71.512 DynaPDF.WriteStyledTextEx 3416
- 71.513 DynaPDF.WriteStyledTextExRotated 3418
- 71.514 DynaPDF.WriteText 3420
- 152.1 ECKey.BuiltInCurves 7175
- 152.2 ECKey.CanSign 7177
- 152.3 ECKey.Description 7178
- 152.4 ECKey.Duplicate 7179
- 152.5 ECKey.Generate 7180
- 152.6 ECKey.PrivateKey 7182
- 152.7 ECKey.PublicKey 7183
- 152.8 ECKey.ReadPrivateKey 7184
- 152.9 ECKey.ReadPublicKey 7185
- 152.10 ECKey.Release 7186
- 152.11 ECKey.Sign 7187
- 152.12 ECKey.Size 7188
- 152.13 ECKey.Valid 7189
- 152.14 ECKey.Verify 7190
- 72.1 EIDSDK.Address 3423
- 72.2 EIDSDK.BeginTransaction 3424
- 72.3 EIDSDK.CardDeliveryMunicipality 3425
- 72.4 EIDSDK.CardNumber 3426
- 72.5 EIDSDK.CardValidFrom 3427
- 72.6 EIDSDK.CardValidTo 3428
- 72.7 EIDSDK.ChipNumber 3429
- 72.8 EIDSDK.Close 3430
- 72.9 EIDSDK.DateOfBirth 3431
- 72.10 EIDSDK.DocTypeInt 3432
- 72.11 EIDSDK.Duplicate 3433
- 72.12 EIDSDK.EndTransaction 3434

• 72.13 EIDSDK.FirstName	3435
• 72.14 EIDSDK.Initialize	3436
• 72.15 EIDSDK.LastName	3437
• 72.16 EIDSDK.MemberOfFamily	3438
• 72.17 EIDSDK.Municipality	3439
• 72.18 EIDSDK.NatNumber	3440
• 72.19 EIDSDK.Nationality	3441
• 72.20 EIDSDK.NobleCondition	3442
• 72.21 EIDSDK.Open	3443
• 72.22 EIDSDK.PhotoDigest	3444
• 72.23 EIDSDK.Picture	3445
• 72.24 EIDSDK.PlaceOfBirth	3446
• 72.25 EIDSDK.PostalCode	3447
• 72.26 EIDSDK.SDKReleaseDate	3448
• 72.27 EIDSDK.SDKVersion	3449
• 72.28 EIDSDK.SetTrigger	3450
• 72.29 EIDSDK.Sex	3451
• 72.30 EIDSDK.SpecialOrganisation	3452
• 72.31 EIDSDK.SpecialStatus	3453
• 72.32 EIDSDK.StartScan	3454
• 72.33 EIDSDK.StopScan	3455
• 72.34 EIDSDK.SupportsPinPad	3456
• 72.35 EIDSDK.ThirdName	3457
• 72.36 EIDSDK.Version	3458
• 178.2 Email.Verify	8359
• 73.1 EmailParser.Address	3459
• 73.2 EmailParser.AddressCount	3461
• 73.3 EmailParser.AttachedEmails	3462
• 73.4 EmailParser.Attachment	3463

- 73.5 EmailParser.AttachmentCount 3465
- 73.6 EmailParser.Free 3466
- 73.7 EmailParser.HTMLText 3468
- 73.8 EmailParser.HTMLToPlainText 3470
- 73.9 EmailParser.HasHeader 3471
- 73.10 EmailParser.Hash 3472
- 73.11 EmailParser.Header 3473
- 73.12 EmailParser.HeaderCount 3475
- 73.13 EmailParser.HeaderValue 3476
- 73.14 EmailParser.Inline 3477
- 73.15 EmailParser.InlineCount 3479
- 73.16 EmailParser.List 3480
- 73.17 EmailParser.MessageID 3481
- 73.18 EmailParser.Parse 3482
- 73.19 EmailParser.ParseContainer 3486
- 73.20 EmailParser.ParseFile 3487
- 73.21 EmailParser.PlainText 3488
- 73.22 EmailParser.ProcessImageReferences 3490
- 73.23 EmailParser.ReceiveDate 3491
- 73.24 EmailParser.SentDate 3492
- 73.25 EmailParser.Source 3493
- 73.26 EmailParser.SourceWithoutAttachments 3494
- 73.27 EmailParser.Subject 3495
- 73.28 EmailParser.WriteAttachment 3497
- 73.29 EmailParser.WriteInline 3498
- 74.1 Encryption.Cipher 3499
- 74.2 Encryption.CipherNames 3505
- 74.3 Encryption.DecryptAES 3506
- 74.4 Encryption.DecryptBlowfish 3508



- 74.5 Encryption.DecryptContainerAES 3510
- 74.6 Encryption.DecryptContainerBlowfish 3512
- 74.7 Encryption.DigestNames 3514
- 74.8 Encryption.EncryptAES 3515
- 74.9 Encryption.EncryptBlowfish 3517
- 74.10 Encryption.EncryptContainerAES 3519
- 74.11 Encryption.EncryptContainerBlowfish 3521
- 75.1 EnvironmentVariables.ClearValue 3539
- 75.2 EnvironmentVariables.Count 3541
- 75.3 EnvironmentVariables.Name 3542
- 75.4 EnvironmentVariables.Names 3543
- 75.5 EnvironmentVariables.SetValue 3544
- 75.6 EnvironmentVariables.Value 3545
- 76.1 EventMonitor.Clear 3547
- 76.2 EventMonitor.ClearCardWindow 3548
- 76.3 EventMonitor.GetEnabled 3549
- 76.4 EventMonitor.Install 3550
- 76.5 EventMonitor.LastMouseClickedButton 3551
- 76.6 EventMonitor.LastMouseClickedIsDoubleClick 3552
- 76.7 EventMonitor.LastMousePositionX 3553
- 76.8 EventMonitor.LastMousePositionY 3554
- 76.9 EventMonitor.SetCardWindow 3555
- 76.10 EventMonitor.SetEnabled 3558
- 77.1 Events.Alarm.Copy 3559
- 77.2 Events.Alarm.GetAbsoluteDate 3561
- 77.3 Events.Alarm.GetEmailAddress 3562
- 77.4 Events.Alarm.GetProximity 3563
- 77.5 Events.Alarm.GetRelativeOffset 3564
- 77.6 Events.Alarm.GetSound 3565

• 77.7 Events.Alarm.GetStructuredLocation	3566
• 77.8 Events.Alarm.GetURL	3567
• 77.9 Events.Alarm.SetAbsoluteDate	3568
• 77.10 Events.Alarm.SetEmailAddress	3569
• 77.11 Events.Alarm.SetProximity	3570
• 77.12 Events.Alarm.SetRelativeOffset	3571
• 77.13 Events.Alarm.SetSound	3573
• 77.14 Events.Alarm.SetStructuredLocation	3575
• 77.15 Events.Alarm.SetURL	3577
• 77.16 Events.Alarm.TriggerDateRelativeTo	3578
• 77.17 Events.Alarm.Type	3579
• 77.18 Events.AuthorizationStatusForEntityType	3580
• 77.19 Events.Calendar.AllowsContentModifications	3582
• 77.20 Events.Calendar.CalendarIdentifier	3583
• 77.21 Events.Calendar.Duplicate	3584
• 77.22 Events.Calendar.GetColor	3585
• 77.23 Events.Calendar.GetSource	3587
• 77.24 Events.Calendar.GetTitle	3588
• 77.25 Events.Calendar.GetType	3589
• 77.26 Events.Calendar.Immutable	3590
• 77.27 Events.Calendar.SetColor	3591
• 77.28 Events.Calendar.SetSource	3592
• 77.29 Events.Calendar.SetTitle	3593
• 77.30 Events.Calendar.Subscribed	3594
• 77.31 Events.Calendar.allowedEntityTypes	3595
• 77.32 Events.Calendar.supportedEventAvailabilities	3596
• 77.33 Events.CalendarCount	3597
• 77.34 Events.CalendarItemsWithExternalIdentifier	3598
• 77.35 Events.Calendars	3599

• 77.36 Events.ClearNotification	3600
• 77.37 Events.Commit	3601
• 77.38 Events.CompletedReminders	3602
• 77.39 Events.DelegateSources	3603
• 77.40 Events.Event.BirthdayPersonUniqueID	3604
• 77.41 Events.Event.GetAllDay	3605
• 77.42 Events.Event.GetAvailability	3606
• 77.43 Events.Event.GetEndDate	3607
• 77.44 Events.Event.GetStartDate	3608
• 77.45 Events.Event.GetStructuredLocation	3609
• 77.46 Events.Event.IsDetached	3610
• 77.47 Events.Event.OccurrenceDate	3611
• 77.48 Events.Event.Refresh	3612
• 77.49 Events.Event.SetAllDay	3613
• 77.50 Events.Event.SetAvailability	3614
• 77.51 Events.Event.SetEndDate	3615
• 77.52 Events.Event.SetStartDate	3617
• 77.53 Events.Event.SetStructuredLocation	3619
• 77.54 Events.Event.Status	3620
• 77.55 Events.Event.compareStartDateWithEvent	3621
• 77.56 Events.Event.organizer	3622
• 77.57 Events.EventStoreIdentifier	3623
• 77.58 Events.Events	3624
• 77.59 Events.IncompleteReminders	3625
• 77.60 Events.Initialize	3626
• 77.61 Events.Item.AddAlarm	3627
• 77.62 Events.Item.AddRecurrenceRule	3629
• 77.63 Events.Item.Alarms	3630
• 77.64 Events.Item.Attendees	3631

• 77.65 Events.Item.CalendarItemExternalIdentifier	3632
• 77.66 Events.Item.CalendarItemIdentifier	3634
• 77.67 Events.Item.Duplicate	3635
• 77.68 Events.Item.GetCalendar	3636
• 77.69 Events.Item.GetLocation	3637
• 77.70 Events.Item.GetNotes	3638
• 77.71 Events.Item.GetTimeZone	3639
• 77.72 Events.Item.GetTitle	3640
• 77.73 Events.Item.GetURL	3641
• 77.74 Events.Item.HasAlarms	3642
• 77.75 Events.Item.HasAttendees	3643
• 77.76 Events.Item.HasNotes	3644
• 77.77 Events.Item.HasRecurrenceRules	3645
• 77.78 Events.Item.RecurrenceRules	3646
• 77.79 Events.Item.RemoveAlarm	3647
• 77.80 Events.Item.RemoveRecurrenceRule	3648
• 77.81 Events.Item.SetCalendar	3649
• 77.82 Events.Item.SetLocation	3651
• 77.83 Events.Item.SetNotes	3653
• 77.84 Events.Item.SetTimeZone	3655
• 77.85 Events.Item.SetTitle	3656
• 77.86 Events.Item.SetURL	3658
• 77.87 Events.Item.creationDate	3660
• 77.88 Events.Item.lastModifiedDate	3661
• 77.89 Events.NewAlarm	3662
• 77.90 Events.NewAlarmWithAbsoluteDate	3664
• 77.91 Events.NewAlarmWithRelativeOffset	3665
• 77.92 Events.NewCalendar	3666
• 77.93 Events.NewEvent	3667

• 77.94 Events.NewReminder	3669
• 77.95 Events.Object.HasChanges	3671
• 77.96 Events.Object.IsNew	3672
• 77.97 Events.Object.Refresh	3673
• 77.98 Events.Object.Reset	3674
• 77.99 Events.Object.Rollback	3675
• 77.100 Events.Participant.GetName	3676
• 77.101 Events.Participant.GetStatus	3677
• 77.102 Events.Participant.IsCurrentUser	3678
• 77.103 Events.Participant.Name	3679
• 77.104 Events.Participant.Person	3680
• 77.105 Events.Participant.Role	3681
• 77.106 Events.Participant.Status	3682
• 77.107 Events.Participant.Type	3683
• 77.108 Events.Participant.URL	3684
• 77.109 Events.RecurrenceDayOfWeek.Copy	3685
• 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek	3686
• 77.111 Events.RecurrenceDayOfWeek.NewWithDayOfWeek	3687
• 77.112 Events.RecurrenceDayOfWeek.WeekNumber	3688
• 77.113 Events.RecurrenceEnd.Copy	3689
• 77.114 Events.RecurrenceEnd.EndDate	3690
• 77.115 Events.RecurrenceEnd.NewWithEndDate	3691
• 77.116 Events.RecurrenceEnd.NewWithOccurrenceCount	3692
• 77.117 Events.RecurrenceEnd.OccurrenceCount	3693
• 77.118 Events.RecurrenceRule.CalendarIdentifier	3694
• 77.119 Events.RecurrenceRule.Copy	3695
• 77.120 Events.RecurrenceRule.DaysOfTheMonth	3696
• 77.121 Events.RecurrenceRule.DaysOfTheWeek	3697
• 77.122 Events.RecurrenceRule.DaysOfTheYear	3698

• 77.123 Events.RecurrenceRule.Description	3699
• 77.124 Events.RecurrenceRule.FirstDayOfTheWeek	3700
• 77.125 Events.RecurrenceRule.Frequency	3701
• 77.126 Events.RecurrenceRule.GetRecurrenceEnd	3702
• 77.127 Events.RecurrenceRule.Interval	3703
• 77.128 Events.RecurrenceRule.MonthsOfTheYear	3704
• 77.129 Events.RecurrenceRule.NewWithFrequency	3705
• 77.130 Events.RecurrenceRule.SetPositions	3708
• 77.131 Events.RecurrenceRule.SetRecurrenceEnd	3709
• 77.132 Events.RecurrenceRule.WeeksOfTheYear	3710
• 77.133 Events.RefreshSourcesIfNecessary	3711
• 77.134 Events.Reminder.GetCompleted	3712
• 77.135 Events.Reminder.GetCompletionDate	3713
• 77.136 Events.Reminder.GetDueDate	3714
• 77.137 Events.Reminder.GetDueTimestamp	3715
• 77.138 Events.Reminder.GetPriority	3716
• 77.139 Events.Reminder.GetStartDate	3717
• 77.140 Events.Reminder.GetStartTimestamp	3718
• 77.141 Events.Reminder.SetCompleted	3719
• 77.142 Events.Reminder.SetCompletionDate	3720
• 77.143 Events.Reminder.SetDueDate	3721
• 77.144 Events.Reminder.SetDueDateComponents	3723
• 77.145 Events.Reminder.SetPriority	3725
• 77.146 Events.Reminder.SetStartDate	3727
• 77.147 Events.Reminder.SetStartDateComponents	3729
• 77.148 Events.Reminders	3731
• 77.149 Events.RemoveCalendar	3732
• 77.150 Events.RemoveEvent	3733
• 77.151 Events.RemoveReminder	3734

• 77.152 Events.Reset	3735
• 77.153 Events.SaveCalendar	3736
• 77.154 Events.SaveEvent	3737
• 77.155 Events.SaveReminder	3739
• 77.156 Events.SelectEvent	3742
• 77.157 Events.SetNotification	3743
• 77.158 Events.SetNotificationEvaluate	3745
• 77.159 Events.Source.Calendars	3746
• 77.160 Events.Source.Title	3747
• 77.161 Events.Source.Type	3748
• 77.162 Events.SourceWithType	3749
• 77.163 Events.Sources	3750
• 77.164 Events.StructuredLocation.Copy	3751
• 77.165 Events.StructuredLocation.GetGeoLocation	3752
• 77.166 Events.StructuredLocation.GetRadius	3753
• 77.167 Events.StructuredLocation.NewLocationWithTitle	3754
• 77.168 Events.StructuredLocation.SetGeoLocation	3756
• 77.169 Events.StructuredLocation.SetRadius	3757
• 77.170 Events.StructuredLocation.Title	3758
• 77.171 Events.defaultCalendarForNewEvents	3759
• 77.172 Events.defaultCalendarForNewReminders	3760
• 77.173 Events.requestAccessToEntityType	3761
• 80.1 FM.AllowFileDragDrop	3937
• 80.2 FM.Argument	3939
• 80.3 FM.ArgumentCount	3940
• 80.4 FM.Beep	3941
• 80.5 FM.ChooseDictionary	3942
• 81.3 FM.CompareTables	4127
• 80.7 FM.CurrentLayoutID	3947

• 80.8 FM.CurrentLayoutName	3948
• 80.9 FM.CurrentScriptID	3949
• 80.10 FM.CurrentScriptName	3950
• 80.11 FM.CurrentThreadID	3951
• 80.12 FM.DataType	3952
• 80.13 FM.DataViewerContent	3953
• 81.4 FM.DeleteRecord	4131
• 81.5 FM.DeleteRecords	4134
• 80.16 FM.DisableMouseWheel	3960
• 80.17 FM.DisableRuntimeEndWindow	3961
• 80.18 FM.EnableMouseWheel	3962
• 80.19 FM.Evaluate	3963
• 81.6 FM.ExecuteFileSQL	4137
• 81.7 FM.ExecuteFileSQLOnIdle	4144
• 81.8 FM.ExecuteSQL	4146
• 81.9 FM.ExecuteSQL.LastError	4152
• 81.10 FM.ExecuteSQL.LastErrorMessage	4154
• 81.11 FM.ExecuteSQL.LastSQL	4157
• 81.12 FM.ExecuteSQLOnIdle	4158
• 80.27 FM.GetDictionary	3988
• 80.28 FM.GetDictionaryList	3989
• 80.29 FM.GetDisableContextualMenus	3990
• 81.13 FM.GetSQLBatchMode	4161
• 80.31 FM.InitMessageFilter	3992
• 81.14 FM.InsertOrUpdateRecord	4162
• 81.15 FM.InsertOrUpdateRecord2	4165
• 81.16 FM.InsertOrUpdateRecord3	4168
• 81.17 FM.InsertOrUpdateRecordQuery	4171
• 81.18 FM.InsertRecord	4173



	85
• 81.19 FM.InsertRecordCSV	4177
• 81.20 FM.InsertRecordQuery	4180
• 81.21 FM.InsertRecordQueryIgnoreDuplicates	4184
• 81.22 FM.InsertRecordTSV	4187
• 81.23 FM.InsertSetUpdateProgressDialog	4190
• 80.42 FM.IsMainThread	4023
• 80.43 FM.LayoutIDForLayoutName	4024
• 80.44 FM.LayoutNameForLayoutID	4025
• 80.45 FM.LayoutNames	4026
• 80.46 FM.Loop	4027
• 80.47 FM.MainThreadID	4031
• 80.48 FM.MouseWheelScriptTrigger	4032
• 81.24 FM.NULL	4192
• 80.50 FM.PatchNotificationProblem	4036
• 80.51 FM.QueryBaseTableNames	4037
• 80.52 FM.QueryFieldsForBaseTableName	4038
• 80.53 FM.QueryFieldsForTableName	4039
• 80.54 FM.QueryTableNames	4041
• 80.55 FM.RunDatabaseDesignReport	4042
• 80.56 FM.RunSaveAsXML	4044
• 80.57 FM.RunScript	4045
• 80.58 FM.RunScriptIdle	4047
• 80.59 FM.RunScriptLater	4049
• 80.60 FM.SQL.Avg	4051
• 81.25 FM.SQL.CSV	4193
• 81.26 FM.SQL.Execute	4196
• 81.27 FM.SQL.Field	4199
• 81.28 FM.SQL.FieldCount	4201
• 81.29 FM.SQL.FieldType	4203

• 81.30 FM.SQL.InsertRecords	4204
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 102.2 FM.SQL.JSONRecord	5306
• 102.3 FM.SQL.JSONRecords	5308
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.34 FM.SQL.Release	4213
• 81.35 FM.SQL.RowCount	4215
• 80.74 FM.SQL.Sum	4081
• 81.36 FM.SQL.Text	4217
• 80.76 FM.ScriptIDForScriptName	4086
• 80.77 FM.ScriptNameForScriptID	4087
• 80.78 FM.ScriptNames	4088
• 80.79 FM.SetDisableContextualMenus	4089
• 81.37 FM.SetSQLBatchMode	4220
• 80.81 FM.SetThreadName	4092
• 80.82 FM.StopScriptIdle	4093
• 80.83 FM.TableStatistics	4094
• 81.38 FM.UpdateRecord	4222
• 80.85 FM.UpdateRecord2	4100
• 80.86 FM.UpdateRecord3	4102
• 81.39 FM.UpdateRecords	4225
• 80.88 FM.UpdateRecords2	4107
• 80.89 FM.UpdateRecords3	4109
• 181.1 FM.VariableAdd	8387
• 181.2 FM.VariableAppend	8389
• 181.3 FM.VariableClear	8390
• 181.4 FM.VariableClearAll	8391
• 181.5 FM.VariableExists	8392

• 181.6 FM.VariableGet	8393
• 181.7 FM.VariableList	8395
• 181.8 FM.VariableNames	8396
• 181.9 FM.VariableReset	8397
• 181.10 FM.VariableSet	8398
• 84.1 FSEvents.Create	4263
• 84.2 FSEvents.CreateRelativeToDevice	4267
• 84.3 FSEvents.CurrentEventId	4268
• 84.4 FSEvents.Description	4269
• 84.5 FSEvents.DeviceBeingWatched	4270
• 84.6 FSEvents.DeviceID	4271
• 84.7 FSEvents.EventCount	4272
• 84.8 FSEvents.FlushASync	4273
• 84.9 FSEvents.FlushSync	4274
• 84.10 FSEvents.GetEvaluate	4275
• 84.11 FSEvents.GetExclusionPaths	4276
• 84.12 FSEvents.GetFileName	4277
• 84.13 FSEvents.GetScriptName	4278
• 84.14 FSEvents.HasNextEvent	4279
• 84.15 FSEvents.LastEventIdForDeviceBeforeTime	4280
• 84.16 FSEvents.LatestEventId	4281
• 84.17 FSEvents.NextEvent	4282
• 84.18 FSEvents.PathsBeingWatched	4286
• 84.19 FSEvents.Release	4287
• 84.20 FSEvents.SetEvaluate	4288
• 84.21 FSEvents.SetExclusionPaths	4289
• 84.22 FSEvents.SetFileName	4290
• 84.23 FSEvents.SetScriptName	4291
• 84.24 FSEvents.Show	4292

- 84.25 FSEvents.Start 4293
- 84.26 FSEvents.Started 4294
- 84.27 FSEvents.Stop 4295
- 84.28 FSEvents.UUIDForDevice 4296
- 78.11 FileDialog.GetAllowMulti 3773
- 78.12 FileDialog.GetAllowsOtherFileTypes 3774
- 78.13 FileDialog.GetCanSelectHiddenExtension 3775
- 78.14 FileDialog.GetFilter 3776
- 78.15 FileDialog.GetInitialDirectory 3777
- 78.16 FileDialog.GetMessage 3778
- 78.17 FileDialog.GetNameFieldLabel 3779
- 78.18 FileDialog.GetNameFieldStringValue 3780
- 78.19 FileDialog.GetPath 3781
- 78.20 FileDialog.GetPathCount 3784
- 78.21 FileDialog.GetPrompt 3785
- 78.22 FileDialog.GetResolvesAliases 3786
- 78.23 FileDialog.GetShowHidden 3787
- 78.24 FileDialog.GetTreatsFilePackagesAsDirectories 3788
- 78.25 FileDialog.GetUseSheet 3789
- 78.26 FileDialog.GetWindowTitle 3790
- 78.27 FileDialog.OpenFileDialog 3791
- 78.28 FileDialog.Reset 3794
- 78.29 FileDialog.SaveFileDialog 3796
- 78.30 FileDialog.SelectFolderDialog 3798
- 78.31 FileDialog.SelectItemDialog 3801
- 78.32 FileDialog.SetAllowMulti 3803
- 78.33 FileDialog.SetAllowsOtherFileTypes 3805
- 78.34 FileDialog.SetCanSelectHiddenExtension 3806
- 78.35 FileDialog.SetFilter 3807

- 78.36 `FileDialog.SetInitialDirectory` 3809
- 78.37 `FileDialog.SetMessage` 3811
- 78.38 `FileDialog.SetNameFieldLabel` 3813
- 78.39 `FileDialog.SetNameFieldStringValue` 3814
- 78.40 `FileDialog.SetPrompt` 3815
- 78.41 `FileDialog.SetResolvesAliases` 3817
- 78.42 `FileDialog.SetSheetScriptTrigger` 3818
- 78.43 `FileDialog.SetShowHidden` 3819
- 78.44 `FileDialog.SetTreatsFilePackagesAsDirectories` 3820
- 78.45 `FileDialog.SetUseSheet` 3821
- 78.46 `FileDialog.SetWindowTitle` 3822
- 78.47 `FileDialogWatcher.GetLastPath` 3823
- 78.48 `FileDialogWatcher.Install` 3824
- 79.1 `Files.AccessDate` 3825
- 79.2 `Files.AddedToDirectoryDate` 3827
- 79.3 `Files.AppPath` 3828
- 79.4 `Files.AudioTags` 3829
- 79.5 `Files.CanOpenFile` 3831
- 79.6 `Files.CopyFile` 3832
- 79.7 `Files.CopyFiles` 3834
- 79.8 `Files.CreateAlias` 3836
- 79.9 `Files.CreateBookmark` 3838
- 79.10 `Files.CreateDirectory` 3839
- 79.11 `Files.CreateHardLink` 3841
- 79.12 `Files.CreateSymbolicLink` 3843
- 79.13 `Files.CreationDate` 3844
- 79.14 `Files.Delete` 3846
- 79.15 `Files.DeleteFolder` 3848
- 79.16 `Files.DirectoryExists` 3850

- 79.17 Files.DiskInfo 3852
- 79.18 Files.FileDisplayName 3854
- 79.19 Files.FileExists 3855
- 79.20 Files.FileExtension 3857
- 79.21 Files.FileInfo 3858
- 79.22 Files.FileKind 3860
- 79.23 Files.FileName 3861
- 79.24 Files.FileSize 3862
- 79.25 Files.FileUTITypes 3864
- 79.26 Files.FolderSize 3865
- 79.27 Files.GetComment 3867
- 79.28 Files.GetFinderLabel 3868
- 79.29 Files.GetNodeID 3869
- 79.30 Files.GetPathFromNodeID 3871
- 79.31 Files.GetPosixPermissions 3873
- 79.32 Files.GetTagNames 3874
- 79.33 Files.IsHidden 3875
- 79.34 Files.ItemExists 3876
- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 79.37 Files.List 3882
- 79.38 Files.ListRecursive 3885
- 79.39 Files.ListVolumes 3887
- 79.40 Files.ModificationDate 3888
- 79.41 Files.Mount 3890
- 79.42 Files.MountPath 3893
- 79.43 Files.MoveFile 3894
- 79.44 Files.MoveToTrash 3896
- 79.45 Files.ReadFile 3898

	91
• 79.46 Files.ReadJPEG	3901
• 79.47 Files.ReadPDF	3903
• 79.48 Files.ReadPNG	3905
• 79.49 Files.RenameFile	3907
• 79.50 Files.ResolveAlias	3909
• 79.51 Files.ResolveBookmark	3911
• 79.52 Files.RevealFile	3912
• 79.53 Files.SetAudioTags	3914
• 79.54 Files.SetComment	3916
• 79.55 Files.SetCreationDate	3917
• 79.56 Files.SetFinderLabel	3918
• 79.57 Files.SetHidden	3919
• 79.58 Files.SetModificationDate	3920
• 79.59 Files.SetPosixPermissions	3921
• 79.60 Files.SetTagNames	3923
• 79.61 Files.Unmount	3924
• 79.62 Files.WriteFile	3925
• 82.1 Folders.Applications	4227
• 82.2 Folders.LocalFonts	4228
• 82.3 Folders.LocalPreferences	4229
• 82.4 Folders.SharedDocuments	4230
• 82.5 Folders.System	4231
• 82.6 Folders.SystemFonts	4232
• 82.7 Folders.SystemTemporary	4233
• 82.8 Folders.UserDesktop	4235
• 82.9 Folders.UserDocuments	4237
• 82.10 Folders.UserDownloads	4239
• 82.11 Folders.UserFonts	4240
• 82.12 Folders.UserHome	4241

- 82.13 Folders.UserMusic 4242
- 82.14 Folders.UserPictures 4243
- 82.15 Folders.UserPreferences 4244
- 82.16 Folders.UserTemporary 4245
- 82.17 Folders.UserTrash 4247
- 82.18 Folders.UserVideo 4248
- 82.19 Folders.Windows 4249
- 83.1 Font.Activate 4251
- 83.2 Font.CalculateTextFits 4253
- 83.3 Font.CalculateTextHeight 4255
- 83.4 Font.CalculateTextWidth 4257
- 83.5 Font.Deactivate 4259
- 83.6 FontManager.FontFile 4260
- 83.7 FontManager.ListFontFamilies 4261
- 83.8 FontManager.ListFonts 4262
- 87.1 GMImage.AdaptiveThreshold 4399
- 87.2 GMImage.AddNoise 4401
- 87.3 GMImage.AddNoiseChannel 4402
- 87.4 GMImage.AddPathArcAbs 4403
- 87.5 GMImage.AddPathArcRel 4405
- 87.6 GMImage.AddPathClosePath 4407
- 87.7 GMImage.AddPathCurvetoAbs 4408
- 87.8 GMImage.AddPathCurvetoRel 4410
- 87.9 GMImage.AddPathLinetoAbs 4412
- 87.10 GMImage.AddPathLinetoHorizontalAbs 4413
- 87.11 GMImage.AddPathLinetoHorizontalRel 4414
- 87.12 GMImage.AddPathLinetoRel 4415
- 87.13 GMImage.AddPathLinetoVerticalAbs 4416
- 87.14 GMImage.AddPathLinetoVerticalRel 4417



- 87.15 GMImage.AddPathMovetoAbs 4418
- 87.16 GMImage.AddPathMovetoRel 4419
- 87.17 GMImage.AddPathQuadraticCurvetoAbs 4420
- 87.18 GMImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GMImage.AddPathSmoothCurvetoAbs 4422
- 87.20 GMImage.AddPathSmoothCurvetoRel 4423
- 87.21 GMImage.AddPathSmoothQuadraticCurvetoAbs 4424
- 87.22 GMImage.AddPathSmoothQuadraticCurvetoRel 4425
- 87.23 GMImage.Affine 4426
- 87.24 GMImage.Annotate 4427
- 87.25 GMImage.AutoOrient 4431
- 87.26 GMImage.AveragePixelValue 4432
- 87.27 GMImage.BaseColumns 4434
- 87.28 GMImage.BaseFilename 4435
- 87.29 GMImage.BaseRows 4436
- 87.30 GMImage.Blur 4437
- 87.31 GMImage.BlurChannel 4439
- 87.32 GMImage.Border 4440
- 87.33 GMImage.BoundingBox 4442
- 87.34 GMImage.Channel 4443
- 87.35 GMImage.Charcoal 4445
- 87.36 GMImage.Chop 4447
- 87.37 GMImage.ClipMask 4448
- 87.38 GMImage.ClipPath 4449
- 87.39 GMImage.Coders 4450
- 87.40 GMImage.Colorize 4451
- 87.41 GMImage.ColorizeRGB 4453
- 87.42 GMImage.Columns 4455
- 87.43 GMImage.Compare 4456

- 87.44 GImage.Composite 4458
- 87.45 GImage.CompositeXY 4460
- 87.46 GImage.Contrast 4462
- 87.47 GImage.Copy 4463
- 87.48 GImage.CopyChannel 4464
- 87.49 GImage.Crop 4467
- 87.50 GImage.CycleColormap 4469
- 87.51 GImage.Despeckle 4470
- 87.52 GImage.Directory 4471
- 87.53 GImage.DrawArc 4472
- 87.54 GImage.DrawCircle 4474
- 87.55 GImage.DrawEllipse 4476
- 87.56 GImage.DrawLine 4478
- 87.57 GImage.DrawPath 4480
- 87.58 GImage.DrawRectangle 4481
- 87.59 GImage.DrawRoundRectangle 4484
- 87.60 GImage.Edge 4486
- 87.61 GImage.Emboss 4487
- 87.62 GImage.Enhance 4489
- 87.63 GImage.Equalize 4490
- 87.64 GImage.Erase 4491
- 87.65 GImage.ExifThumbnail 4492
- 87.66 GImage.Extent 4493
- 87.67 GImage.FillPattern 4495
- 87.68 GImage.FindColorInColumn 4496
- 87.69 GImage.FindColorInRow 4498
- 87.70 GImage.Flip 4500
- 87.71 GImage.FloodFillColor 4502
- 87.72 GImage.FloodFillColorXY 4504

	95
• 87.73 GMImage.FloodFillOpacity	4506
• 87.74 GMImage.FloodFillTexture	4507
• 87.75 GMImage.FloodFillTextureXY	4508
• 87.76 GMImage.Flop	4509
• 87.77 GMImage.FontMap	4511
• 87.78 GMImage.FontTypeMetrics	4512
• 87.79 GMImage.Format	4514
• 87.80 GMImage.Frame	4515
• 87.81 GMImage.Free	4517
• 87.82 GMImage.FreeAll	4519
• 87.83 GMImage.Gamma	4520
• 87.84 GMImage.GaussianBlur	4521
• 87.85 GMImage.GaussianBlurChannel	4522
• 87.86 GMImage.Geometry	4523
• 87.87 GMImage.GetAdjoin	4524
• 87.88 GMImage.GetAnimationDelay	4525
• 87.89 GMImage.GetAnimationIterations	4526
• 87.90 GMImage.GetAntiAlias	4527
• 87.91 GMImage.GetAttribute	4528
• 87.92 GMImage.GetAttributeNames	4530
• 87.93 GMImage.GetAttributesJSON	4531
• 87.94 GMImage.GetBackgroundColor	4533
• 87.95 GMImage.GetBackgroundTexture	4534
• 87.96 GMImage.GetBorderColor	4535
• 87.97 GMImage.GetBoxColor	4536
• 87.98 GMImage.GetChannelDepth	4537
• 87.99 GMImage.GetClassType	4538
• 87.100 GMImage.GetClipMask	4539
• 87.101 GMImage.GetColorFuzz	4540

• 87.102 GImage.GetColorMapSize	4541
• 87.103 GImage.GetColorSpace	4542
• 87.104 GImage.GetComment	4544
• 87.105 GImage.GetCompose	4545
• 87.106 GImage.GetCompressType	4546
• 87.107 GImage.GetDebug	4547
• 87.108 GImage.GetDefineSet	4548
• 87.109 GImage.GetDefineValue	4549
• 87.110 GImage.GetDensity	4550
• 87.111 GImage.GetDepth	4551
• 87.112 GImage.GetEXIFOrientation	4552
• 87.113 GImage.GetEndian	4553
• 87.114 GImage.GetFileName	4554
• 87.115 GImage.GetFileSize	4555
• 87.116 GImage.GetFillColor	4556
• 87.117 GImage.GetFillRule	4557
• 87.118 GImage.GetFilterType	4558
• 87.119 GImage.GetFont	4559
• 87.120 GImage.GetFontPointsize	4560
• 87.121 GImage.GetGamma	4561
• 87.122 GImage.GetGifDisposeMethod	4562
• 87.123 GImage.GetHeight	4563
• 87.124 GImage.GetICCColorProfile	4565
• 87.125 GImage.GetIPTCProfile	4566
• 87.126 GImage.GetIPTCProfileValues	4567
• 87.127 GImage.GetInterlaceType	4568
• 87.128 GImage.GetIsValid	4569
• 87.129 GImage.GetJPEGAsBase64	4570
• 87.130 GImage.GetJPEGAsHex	4571

- 87.131 GImage.GetLabel 4572
- 87.132 GImage.GetLineWidth 4573
- 87.133 GImage.GetMagick 4574
- 87.134 GImage.GetMatte 4575
- 87.135 GImage.GetMatteColor 4576
- 87.136 GImage.GetModulusDepth 4577
- 87.137 GImage.GetMonochrome 4578
- 87.138 GImage.GetOrientation 4579
- 87.139 GImage.GetPNGAsBase64 4581
- 87.140 GImage.GetPNGAsHex 4582
- 87.141 GImage.GetPage 4583
- 87.142 GImage.GetPixelColor 4584
- 87.143 GImage.GetProfile 4586
- 87.144 GImage.GetQuality 4587
- 87.145 GImage.GetQuantizeColorSpace 4588
- 87.146 GImage.GetQuantizeColors 4589
- 87.147 GImage.GetQuantizeDither 4590
- 87.148 GImage.GetQuantizeTreeDepth 4591
- 87.149 GImage.GetQuiet 4592
- 87.150 GImage.GetRenderingIntent 4593
- 87.151 GImage.GetResolutionUnits 4594
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.154 GImage.GetStrokeAntiAlias 4597
- 87.155 GImage.GetStrokeColor 4598
- 87.156 GImage.GetStrokeDashArray 4599
- 87.157 GImage.GetStrokeDashOffset 4600
- 87.158 GImage.GetStrokeLineCap 4601
- 87.159 GImage.GetStrokeLineJoin 4602

- 87.160 GImage.GetStrokeMiterLimit 4603
- 87.161 GImage.GetStrokeWidth 4604
- 87.162 GImage.GetSubImage 4605
- 87.163 GImage.GetSubRange 4606
- 87.164 GImage.GetTextEncoding 4607
- 87.165 GImage.GetTileName 4608
- 87.166 GImage.GetType 4609
- 87.167 GImage.GetVerbose 4610
- 87.168 GImage.GetView 4611
- 87.169 GImage.GetWidth 4612
- 87.170 GImage.GetXMP 4614
- 87.171 GImage.GetcolorMap 4616
- 87.172 GImage.Hash 4617
- 87.173 GImage.ImageCount 4619
- 87.174 GImage.Implode 4620
- 87.175 GImage.InvertChannel 4621
- 87.176 GImage.IsGray 4623
- 87.177 GImage.Level 4624
- 87.178 GImage.LevelChannel 4625
- 87.179 GImage.List 4627
- 87.180 GImage.Magnify 4628
- 87.181 GImage.Map 4629
- 87.182 GImage.MatteFloodfill 4630
- 87.183 GImage.MeanErrorPerPixel 4631
- 87.184 GImage.MedianFilter 4632
- 87.185 GImage.Minify 4633
- 87.186 GImage.Modulate 4634
- 87.187 GImage.MontageGeometry 4636
- 87.188 GImage.MotionBlur 4637

• 87.189 GImage.MultiplyChannel	4638
• 87.190 GImage.Negate	4640
• 87.191 GImage.New	4642
• 87.192 GImage.NewFromBase64	4645
• 87.193 GImage.NewFromContainer	4646
• 87.194 GImage.NewFromFile	4648
• 87.195 GImage.NewFromHex	4650
• 87.196 GImage.NewImagesFromContainer	4651
• 87.197 GImage.NewImagesFromFile	4652
• 87.198 GImage.Normalize	4654
• 87.199 GImage.NormalizedMaxError	4655
• 87.200 GImage.NormalizedMeanError	4657
• 87.201 GImage.OilPaint	4658
• 87.202 GImage.Opacity	4659
• 87.203 GImage.Opaque	4660
• 87.204 GImage.PopClipPath	4661
• 87.205 GImage.PurgeTemporaryFiles	4662
• 87.206 GImage.PushClipPath	4663
• 87.207 GImage.Quantize	4664
• 87.208 GImage.QuantumDepth	4666
• 87.209 GImage.Raise	4667
• 87.210 GImage.RandomThreshold	4669
• 87.211 GImage.RandomThresholdChannel	4670
• 87.212 GImage.Read	4671
• 86.1 GImage.ReadFromContainer	4395
• 87.213 GImage.ReduceNoise	4673
• 87.214 GImage.Release	4674
• 87.215 GImage.ReleaseAll	4676
• 87.216 GImage.Repage	4677

- 87.217 GImage.ReplaceColor 4678
- 87.218 GImage.Resize 4681
- 87.219 GImage.Roll 4683
- 87.220 GImage.Rollxy 4684
- 87.221 GImage.Rotate 4685
- 87.222 GImage.Rotating 4687
- 87.223 GImage.Rows 4688
- 87.224 GImage.Sample 4689
- 87.225 GImage.Scale 4690
- 87.226 GImage.Scaling 4694
- 87.227 GImage.Segment 4695
- 87.228 GImage.SetAdjoin 4696
- 87.229 GImage.SetAnimationDelay 4697
- 87.230 GImage.SetAnimationIterations 4698
- 87.231 GImage.SetAntiAlias 4699
- 87.232 GImage.SetAttribute 4700
- 87.233 GImage.SetBackgroundColor 4701
- 87.234 GImage.SetBackgroundTexture 4703
- 87.235 GImage.SetBorderColor 4704
- 87.236 GImage.SetBoxColor 4706
- 87.237 GImage.SetCacheThreshold 4707
- 87.238 GImage.SetClassType 4708
- 87.239 GImage.SetColorFuzz 4709
- 87.240 GImage.SetColorMapSize 4711
- 87.241 GImage.SetColorSpace 4712
- 87.242 GImage.SetComment 4713
- 87.243 GImage.SetCompose 4714
- 87.244 GImage.SetCompressType 4715
- 87.245 GImage.SetDebug 4717



	101
• 87.246 GImage.SetDefineSet	4718
• 87.247 GImage.SetDefineValue	4719
• 87.248 GImage.SetDensity	4720
• 87.249 GImage.SetDepth	4722
• 87.250 GImage.SetEXIFOrientation	4723
• 87.251 GImage.SetEndian	4724
• 87.252 GImage.SetFileName	4725
• 87.253 GImage.SetFillColor	4726
• 87.254 GImage.SetFillRule	4728
• 87.255 GImage.SetFilterType	4729
• 87.256 GImage.SetFont	4730
• 87.257 GImage.SetFontPointsize	4731
• 87.258 GImage.SetGifDisposeMethod	4732
• 87.259 GImage.SetICCColorProfile	4733
• 87.260 GImage.SetIPTCProfile	4735
• 87.261 GImage.SetInterlaceType	4736
• 87.262 GImage.SetIsValid	4737
• 87.263 GImage.SetLabel	4738
• 87.264 GImage.SetLineWidth	4739
• 87.265 GImage.SetMagick	4740
• 87.266 GImage.SetMatte	4742
• 87.267 GImage.SetMatteColor	4744
• 87.268 GImage.SetModulusDepth	4745
• 87.269 GImage.SetMonochrome	4746
• 87.270 GImage.SetOrientation	4747
• 87.271 GImage.SetPage	4749
• 87.272 GImage.SetPixelColor	4750
• 87.273 GImage.SetProfile	4752
• 87.274 GImage.SetQuality	4754

- 87.275 GImage.SetQuantizeColorSpace 4756
- 87.276 GImage.SetQuantizeColors 4757
- 87.277 GImage.SetQuantizeDither 4758
- 87.278 GImage.SetQuantizeTreeDepth 4759
- 87.279 GImage.SetQuiet 4760
- 87.280 GImage.SetRenderingIntent 4761
- 87.281 GImage.SetResolutionUnits 4762
- 87.282 GImage.SetScene 4764
- 87.283 GImage.SetSize 4765
- 87.284 GImage.SetStrokeAntiAlias 4766
- 87.285 GImage.SetStrokeColor 4768
- 87.286 GImage.SetStrokeDashArray 4770
- 87.287 GImage.SetStrokeDashOffset 4771
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773
- 87.290 GImage.SetStrokeMiterLimit 4774
- 87.291 GImage.SetStrokeWidth 4775
- 87.292 GImage.SetSubImage 4776
- 87.293 GImage.SetSubRange 4777
- 87.294 GImage.SetTextEncoding 4778
- 87.295 GImage.SetTileName 4779
- 87.296 GImage.SetType 4780
- 87.297 GImage.SetVerbose 4783
- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.300 GImage.SetchannelDepth 4786
- 87.301 GImage.SetcolorMap 4787
- 87.302 GImage.Shade 4788
- 87.303 GImage.Sharpen 4789

	103
• 87.304 GImage.SharpenChannel	4791
• 87.305 GImage.Shave	4792
• 87.306 GImage.Shear	4794
• 87.307 GImage.Signature	4795
• 87.308 GImage.SkewX	4796
• 87.309 GImage.SkewY	4797
• 87.310 GImage.Solarize	4798
• 87.311 GImage.Spread	4800
• 87.312 GImage.Stegano	4801
• 87.313 GImage.Stereo	4802
• 87.314 GImage.Strip	4803
• 87.315 GImage.StrokePattern	4804
• 87.316 GImage.Swirl	4805
• 87.317 GImage.Texture	4806
• 87.318 GImage.Threshold	4807
• 87.319 GImage.TotalColors	4809
• 87.320 GImage.Transform	4810
• 87.321 GImage.TransformOrigin	4811
• 87.322 GImage.TransformReset	4813
• 87.323 GImage.TransformRotation	4814
• 87.324 GImage.TransformScale	4815
• 87.325 GImage.TransformSkewX	4816
• 87.326 GImage.TransformSkewY	4817
• 87.327 GImage.Translation	4818
• 87.328 GImage.Transparent	4819
• 87.329 GImage.Trim	4821
• 87.330 GImage.Unsharpmask	4823
• 87.331 GImage.UnsharpmaskChannel	4824
• 87.332 GImage.Wave	4825

- 87.333 GImage.WriteImages 4826
- 87.334 GImage.WriteToBMPContainer 4828
- 87.335 GImage.WriteToContainer 4829
- 87.336 GImage.WriteToFile 4831
- 87.337 GImage.WriteToGIFContainer 4834
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.339 GImage.WriteToPDFContainer 4838
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843
- 87.342 GImage.XResolution 4845
- 87.343 GImage.YResolution 4846
- 87.344 GImage.Zoom 4847
- 54.1 GZipFile.Compress 1509
- 54.2 GZipFile.Decompress 1511
- 85.1 GameKit.Achievement.Completed 4297
- 85.2 GameKit.Achievement.GetPercentComplete 4298
- 85.3 GameKit.Achievement.GetShowsCompletionBanner 4299
- 85.4 GameKit.Achievement.LastReportedDate 4300
- 85.5 GameKit.Achievement.New 4301
- 85.6 GameKit.Achievement.Player 4302
- 85.7 GameKit.Achievement.SetPercentComplete 4303
- 85.8 GameKit.Achievement.SetShowsCompletionBanner 4304
- 85.9 GameKit.AchievementDescription.AchievedDescription 4305
- 85.10 GameKit.AchievementDescription.GroupIdentifier 4306
- 85.11 GameKit.AchievementDescription.Hidden 4307
- 85.12 GameKit.AchievementDescription.Image 4308
- 85.13 GameKit.AchievementDescription.IncompleteAchievementImage 4309
- 85.14 GameKit.AchievementDescription.MaximumPoints 4310
- 85.15 GameKit.AchievementDescription.PlaceholderCompletedAchievementImage 4311

	105
• 85.16 GameKit.AchievementDescription.Replayable	4312
• 85.17 GameKit.AchievementDescription.Title	4313
• 85.18 GameKit.AchievementDescription.UnachievedDescription	4314
• 85.19 GameKit.AnonymousGuestPlayer	4315
• 85.20 GameKit.Challenge.Achievement	4316
• 85.21 GameKit.Challenge.CompletionDate	4317
• 85.22 GameKit.Challenge.Decline	4318
• 85.23 GameKit.Challenge.IssueDate	4319
• 85.24 GameKit.Challenge.IssuingPlayer	4320
• 85.25 GameKit.Challenge.Message	4321
• 85.26 GameKit.Challenge.ReceivingPlayer	4322
• 85.27 GameKit.Challenge.Score	4323
• 85.28 GameKit.Challenge.State	4324
• 85.29 GameKit.DefaultLeaderboardIdentifier	4325
• 85.30 GameKit.GameCenterView.Dismiss	4326
• 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier	4327
• 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope	4328
• 85.33 GameKit.GameCenterView.GetViewState	4329
• 85.34 GameKit.GameCenterView.Initialize	4330
• 85.35 GameKit.GameCenterView.Present	4331
• 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier	4332
• 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope	4333
• 85.38 GameKit.GameCenterView.SetScriptTrigger	4334
• 85.39 GameKit.GameCenterView.SetViewState	4335
• 85.40 GameKit.GameCenterView.ShowBannerWithTitle	4336
• 85.41 GameKit.Initialize	4337
• 85.42 GameKit.Leaderboard.GetPlayerScope	4338
• 85.43 GameKit.Leaderboard.GetRange	4339
• 85.44 GameKit.Leaderboard.GetTimeScope	4340

- 85.45 GameKit.Leaderboard.GroupIdentifier 4341
- 85.46 GameKit.Leaderboard.Image 4342
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.49 GameKit.Leaderboard.LocalPlayerScore 4345
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.51 GameKit.Leaderboard.New 4347
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.53 GameKit.Leaderboard.SetPlayerScope 4349
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.55 GameKit.Leaderboard.SetTimeScope 4351
- 85.56 GameKit.Leaderboard.Title 4352
- 85.57 GameKit.LeaderboardSet.GroupIdentifier 4353
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355
- 85.60 GameKit.LoadAchievementDescriptions 4356
- 85.61 GameKit.LoadAchievements 4357
- 85.62 GameKit.LoadLeaderboardSets 4358
- 85.63 GameKit.LoadLeaderboards 4359
- 85.64 GameKit.LoadPlayers 4360
- 85.65 GameKit.LoadReceivedChallenges 4361
- 85.66 GameKit.LocalPlayer 4362
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364
- 85.69 GameKit.LocalPlayer.ClearAuthenticateHandler 4365
- 85.70 GameKit.LocalPlayer.isAuthenticated 4366
- 85.71 GameKit.LocalPlayer.isUnderage 4367
- 85.72 GameKit.Player.Alias 4368
- 85.73 GameKit.Player.DisplayName 4369

	107
• 85.74 GameKit.Player.GuestIdentifier	4370
• 85.75 GameKit.Player.Photo	4371
• 85.76 GameKit.RecentPlayers	4372
• 85.77 GameKit.ReportAchievements	4373
• 85.78 GameKit.ReportAchievementsWithEligibleChallenges	4374
• 85.79 GameKit.ReportScores	4375
• 85.80 GameKit.ReportScoresWithEligibleChallenges	4376
• 85.81 GameKit.ResetAchievements	4377
• 85.82 GameKit.Score.Date	4378
• 85.83 GameKit.Score.FormattedValue	4379
• 85.84 GameKit.Score.GetContext	4380
• 85.85 GameKit.Score.GetShouldSetDefaultLeaderboard	4381
• 85.86 GameKit.Score.GetValue	4382
• 85.87 GameKit.Score.LeaderboardIdentifier	4383
• 85.88 GameKit.Score.New	4384
• 85.89 GameKit.Score.Player	4385
• 85.90 GameKit.Score.Rank	4386
• 85.91 GameKit.Score.SetContext	4387
• 85.92 GameKit.Score.SetShouldSetDefaultLeaderboard	4388
• 85.93 GameKit.Score.SetValue	4389
• 85.94 GameKit.SelectChallengeablePlayers	4390
• 85.95 GameKit.SetDefaultLeaderboardIdentifier	4391
• 85.96 GameKit.SetPlayerDidChangeScriptTrigger	4392
• 85.97 GameKit.ShowChallengeComposeDialog	4393
• 165.1 GetSystemUIMode	7847
• 165.2 GetSystemUIModeOptions	7848
• 88.1 Hash.CRC32	4849
• 88.2 Hash.Digest	4851
• 88.3 Hash.DigestFile	4855

- 88.4 Hash.MD5 4857
- 88.5 Hash.MD5.HMAC 4859
- 88.6 Hash.PBKDF2.HMAC 4861
- 88.7 Hash.RandomHexString 4863
- 88.8 Hash.RandomString 4864
- 88.9 Hash.SHA1 4866
- 88.10 Hash.SHA1.HMAC 4869
- 88.11 Hash.SHA256 4871
- 88.12 Hash.SHA256.HMAC 4873
- 88.13 Hash.SHA512 4876
- 88.14 Hash.SHA512.HMAC 4878
- 89.1 HealthKit.AuthorizationStatusForType 4881
- 89.2 HealthKit.BiologicalSex 4883
- 89.3 HealthKit.BloodType 4884
- 89.4 HealthKit.DateOfBirth 4885
- 89.5 HealthKit.DateOfBirthComponents 4886
- 89.6 HealthKit.FitzpatrickSkinType 4887
- 89.7 HealthKit.RequestAuthorizationToShareTypes 4888
- 89.8 HealthKit.SampleQuery 4891
- 89.9 HealthKit.WheelchairUse 4893
- 89.10 HealthKit.isHealthDataAvailable 4894
- 90.1 HotKey.GetEnabled 4895
- 90.2 HotKey.GetEvaluate 4896
- 90.3 HotKey.GetIgnoreOnModal 4897
- 90.4 HotKey.GetKeyCode 4898
- 90.5 HotKey.GetKeyUp 4899
- 90.6 HotKey.GetLocal 4900
- 90.7 HotKey.GetModifiers 4901
- 90.8 HotKey.GetName 4902



	109
• 90.9 HotKey.GetPermanent	4903
• 90.10 HotKey.GetScriptFileName	4904
• 90.11 HotKey.GetScriptName	4905
• 90.12 HotKey.GetScriptWorkspaceOnly	4906
• 90.13 HotKey.GetTag	4907
• 90.14 HotKey.List	4908
• 90.15 HotKey.Register	4909
• 90.16 HotKey.SetEnabled	4913
• 90.17 HotKey.SetEvaluate	4914
• 90.18 HotKey.SetIgnoreOnModal	4917
• 90.19 HotKey.SetKeyUp	4918
• 90.20 HotKey.SetLocal	4919
• 90.21 HotKey.SetName	4920
• 90.22 HotKey.SetPermanent	4921
• 90.23 HotKey.SetScript	4922
• 90.24 HotKey.SetScriptWorkspaceOnly	4924
• 90.25 HotKey.SetTag	4925
• 90.26 HotKey.Unregister	4926
• 93.1 IKDeviceBrowserPanel.Close	4989
• 93.2 IKDeviceBrowserPanel.GetCancelButtonLabel	4991
• 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras	4992
• 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners	4993
• 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras	4994
• 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners	4995
• 93.7 IKDeviceBrowserPanel.GetHeight	4996
• 93.8 IKDeviceBrowserPanel.GetMode	4997
• 93.9 IKDeviceBrowserPanel.GetPrompt	4998
• 93.10 IKDeviceBrowserPanel.GetSelectButtonLabel	4999
• 93.11 IKDeviceBrowserPanel.GetWidth	5000

- 93.12 IKDeviceBrowserPanel.GetWindowTitle 5001
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.15 IKDeviceBrowserPanel.SelectedDeviceID 5004
- 93.16 IKDeviceBrowserPanel.SelectedDeviceName 5005
- 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel 5006
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel 5014
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.28 IKDeviceBrowserPanel.SetWindowTitle 5018
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021
- 91.1 IKPictureTaker.ClearNotification 4927
- 91.2 IKPictureTaker.GetAllowsEditing 4928
- 91.3 IKPictureTaker.GetAllowsFileChoosing 4929
- 91.4 IKPictureTaker.GetAllowsVideoCapture 4930
- 91.5 IKPictureTaker.GetInformationalText 4931
- 91.6 IKPictureTaker.GetInputImage 4932
- 91.7 IKPictureTaker.GetMirroring 4933
- 91.8 IKPictureTaker.GetOutputImage 4934
- 91.9 IKPictureTaker.GetOutputImageMaxHeight 4935
- 91.10 IKPictureTaker.GetOutputImageMaxWidth 4936

	111
• 91.11 IKPictureTaker.GetRemainOpenAfterValidate	4937
• 91.12 IKPictureTaker.GetShowAddressBookPicture	4938
• 91.13 IKPictureTaker.GetShowEffects	4939
• 91.14 IKPictureTaker.GetShowEmptyPicture	4940
• 91.15 IKPictureTaker.GetShowRecentPicture	4941
• 91.16 IKPictureTaker.GetUpdateRecentPicture	4942
• 91.17 IKPictureTaker.Run	4943
• 91.18 IKPictureTaker.SetAllowsEditing	4944
• 91.19 IKPictureTaker.SetAllowsFileChoosing	4945
• 91.20 IKPictureTaker.SetAllowsVideoCapture	4946
• 91.21 IKPictureTaker.SetInformationalText	4947
• 91.22 IKPictureTaker.SetInputImage	4948
• 91.23 IKPictureTaker.SetMirroring	4949
• 91.24 IKPictureTaker.SetNotification	4950
• 91.25 IKPictureTaker.SetOutputImageMaxSize	4951
• 91.26 IKPictureTaker.SetRemainOpenAfterValidate	4952
• 91.27 IKPictureTaker.SetShowAddressBookPicture	4953
• 91.28 IKPictureTaker.SetShowEffects	4954
• 91.29 IKPictureTaker.SetShowEmptyPicture	4955
• 91.30 IKPictureTaker.SetShowRecentPicture	4956
• 91.31 IKPictureTaker.SetUpdateRecentPicture	4957
• 93.31 IKScannerDevicePanel.ClearImage	5022
• 93.32 IKScannerDevicePanel.Close	5023
• 93.33 IKScannerDevicePanel.GetCombine	5024
• 93.34 IKScannerDevicePanel.GetDocumentName	5025
• 93.35 IKScannerDevicePanel.GetDownloadsDirectory	5026
• 93.36 IKScannerDevicePanel.GetHeight	5027
• 93.37 IKScannerDevicePanel.GetMode	5028
• 93.38 IKScannerDevicePanel.GetOverviewControlLabel	5029

- 93.39 IKScannerDevicePanel.GetScanControlLabel 5030
- 93.40 IKScannerDevicePanel.GetScannerDeviceID 5031
- 93.41 IKScannerDevicePanel.GetScannerDeviceName 5032
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.43 IKScannerDevicePanel.GetWindowTitle 5034
- 93.44 IKScannerDevicePanel.Hide 5035
- 93.45 IKScannerDevicePanel.ImageCount 5036
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.50 IKScannerDevicePanel.SetDocumentName 5042
- 93.51 IKScannerDevicePanel.SetDownloadsDirectory 5043
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.54 IKScannerDevicePanel.SetOverviewControlLabel 5046
- 93.55 IKScannerDevicePanel.SetScanControlLabel 5047
- 93.56 IKScannerDevicePanel.SetScannerDeviceID 5048
- 93.57 IKScannerDevicePanel.SetScannerDeviceName 5049
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056
- 92.1 IKSlideShow.Add 4959
- 92.2 IKSlideShow.AddImage 4961
- 92.3 IKSlideShow.AddPDF 4962
- 92.4 IKSlideShow.AddPath 4963
- 92.5 IKSlideShow.AddURL 4964

	113
• 92.6 IKSideshow.Clear	4965
• 92.7 IKSideshow.Count	4966
• 92.8 IKSideshow.GetAudioFile	4967
• 92.9 IKSideshow.GetMode	4968
• 92.10 IKSideshow.GetPDFDisplayBox	4969
• 92.11 IKSideshow.GetPDFDisplayMode	4970
• 92.12 IKSideshow.GetPDFDisplaysAsBook	4971
• 92.13 IKSideshow.GetScreen	4972
• 92.14 IKSideshow.GetStartIndex	4973
• 92.15 IKSideshow.GetStartPaused	4974
• 92.16 IKSideshow.GetWrapAround	4975
• 92.17 IKSideshow.ItemAtIndex	4976
• 92.18 IKSideshow.Run	4978
• 92.19 IKSideshow.SetAudioFile	4979
• 92.20 IKSideshow.SetMode	4980
• 92.21 IKSideshow.SetPDFDisplayBox	4981
• 92.22 IKSideshow.SetPDFDisplayMode	4982
• 92.23 IKSideshow.SetPDFDisplaysAsBook	4983
• 92.24 IKSideshow.SetScreen	4984
• 92.25 IKSideshow.SetStartIndex	4985
• 92.26 IKSideshow.SetStartPaused	4986
• 92.27 IKSideshow.SetWrapAround	4987
• 137.1 Icon.ClearIcon	6729
• 137.2 Icon.GetIcon	6731
• 137.3 Icon.GetIconWithQuickLook	6733
• 137.4 Icon.SetIcon	6735
• 93.63 ImageCapture.CameraInfo	5057
• 93.64 ImageCapture.CloseDevice	5059
• 93.65 ImageCapture.Contents	5060

- 93.66 ImageCapture.DeviceInfo 5061
- 93.67 ImageCapture.Devices 5063
- 93.68 ImageCapture.DevicesJSON 5065
- 93.69 ImageCapture.Download 5066
- 93.70 ImageCapture.Features 5067
- 93.71 ImageCapture.GetFeatureValue 5068
- 93.72 ImageCapture.GetFeatures 5069
- 93.73 ImageCapture.GetParameter 5070
- 93.74 ImageCapture.GetParameters 5073
- 93.75 ImageCapture.ImagePaths 5074
- 93.76 ImageCapture.Initialize 5075
- 93.77 ImageCapture.MediaFileNames 5076
- 93.78 ImageCapture.MediaFiles 5077
- 93.79 ImageCapture.OpenDevice 5078
- 93.80 ImageCapture.PDF 5080
- 93.81 ImageCapture.PreferredDevice 5081
- 93.82 ImageCapture.RequestDeleteFiles 5082
- 93.83 ImageCapture.RequestDisableTethering 5083
- 93.84 ImageCapture.RequestEnableTethering 5084
- 93.85 ImageCapture.RequestOverviewScan 5085
- 93.86 ImageCapture.RequestScan 5086
- 93.87 ImageCapture.RequestSelectFunctionalUnit 5089
- 93.88 ImageCapture.RequestSyncClock 5091
- 93.89 ImageCapture.RequestTakePicture 5092
- 93.90 ImageCapture.SetFeatureValue 5093
- 93.91 ImageCapture.SetParameter 5094
- 93.92 ImageCapture.Thumbnail 5098
- 93.93 ImageCapture.cancelScan 5099
- 94.6 ImagePicker.AvailableCaptureModesForCameraDevice 5107

	115
• 94.7 ImagePicker.AvailableMediaTypesForSourceType	5108
• 94.8 ImagePicker.ClearMedia	5109
• 94.9 ImagePicker.ClearOverlay	5110
• 94.10 ImagePicker.Dismiss	5111
• 94.11 ImagePicker.GetAllowsEditing	5112
• 94.12 ImagePicker.GetCameraCaptureMode	5113
• 94.13 ImagePicker.GetCameraDevice	5114
• 94.14 ImagePicker.GetCameraFlashMode	5115
• 94.15 ImagePicker.GetEvaluate	5116
• 94.16 ImagePicker.GetFileName	5117
• 94.17 ImagePicker.GetScriptName	5118
• 94.18 ImagePicker.GetShowsCameraControls	5119
• 94.19 ImagePicker.GetSourceType	5120
• 94.20 ImagePicker.GetVideoMaximumDuration	5121
• 94.21 ImagePicker.HasMedia	5122
• 94.22 ImagePicker.IsCameraDeviceAvailable	5123
• 94.23 ImagePicker.IsFlashAvailableForCameraDevice	5124
• 94.24 ImagePicker.IsPresented	5125
• 94.25 ImagePicker.IsSourceTypeAvailable	5126
• 94.26 ImagePicker.MediaCropRect	5128
• 94.27 ImagePicker.MediaEditedImage	5129
• 94.28 ImagePicker.MediaIsImage	5130
• 94.29 ImagePicker.MediaIsVideo	5131
• 94.30 ImagePicker.MediaMetadata	5132
• 94.31 ImagePicker.MediaOriginalImage	5133
• 94.32 ImagePicker.MediaPath	5135
• 94.33 ImagePicker.MediaReferenceURL	5136
• 94.34 ImagePicker.MediaType	5137
• 94.35 ImagePicker.MediaTypes	5138

- 94.36 `ImagePicker.MediaURL` 5139
- 94.37 `ImagePicker.New` 5140
- 94.38 `ImagePicker.Present` 5142
- 94.39 `ImagePicker.SetAllowsEditing` 5144
- 94.40 `ImagePicker.SetCameraCaptureMode` 5145
- 94.41 `ImagePicker.SetCameraDevice` 5146
- 94.42 `ImagePicker.SetCameraFlashMode` 5147
- 94.43 `ImagePicker.SetEvaluate` 5148
- 94.44 `ImagePicker.SetOverlayImage` 5149
- 94.45 `ImagePicker.SetScript` 5150
- 94.46 `ImagePicker.SetShowsCameraControls` 5151
- 94.47 `ImagePicker.SetSourceType` 5152
- 94.48 `ImagePicker.SetVideoMaximumDuration` 5153
- 94.49 `ImagePicker.StartVideoCapture` 5154
- 94.50 `ImagePicker.StopVideoCapture` 5155
- 94.51 `ImagePicker.TakePicture` 5156
- 94.52 `ImagePicker.VideoIsCompatibleWithSavedPhotosAlbum` 5157
- 94.53 `ImagePicker.WriteImageToSavedPhotosAlbum` 5158
- 94.54 `ImagePicker.WriteVideoToSavedPhotosAlbum` 5160
- 95.1 `ImageView.Clear` 5161
- 95.2 `ImageView.CreateWithControl` 5162
- 95.3 `ImageView.CreateWithSize` 5164
- 95.4 `ImageView.CreateWithWindow` 5166
- 95.5 `ImageView.GetHeight` 5167
- 95.6 `ImageView.GetLeft` 5168
- 95.7 `ImageView.GetTag` 5169
- 95.8 `ImageView.GetToolTip` 5170
- 95.9 `ImageView.GetTop` 5171
- 95.10 `ImageView.GetVisible` 5172



	117
• 95.11 ImageView.GetWidth	5173
• 95.12 ImageView.Release	5174
• 95.13 ImageView.ReleaseAll	5175
• 95.14 ImageView.SetFrame	5176
• 95.15 ImageView.SetFrameWithControl	5177
• 95.16 ImageView.SetImage	5178
• 95.17 ImageView.SetTag	5179
• 95.18 ImageView.SetToolTip	5180
• 95.19 ImageView.SetVisible	5181
• 127.4 Is64bit	6372
• 127.5 IsClient	6373
• 127.6 IsError	6374
• 127.7 IsIOS	6376
• 127.8 IsIOSDevice	6377
• 127.9 IsIOSSimulator	6378
• 127.10 IsLinux	6379
• 127.11 IsMacOS	6380
• 127.12 IsMobile	6381
• 127.13 IsRegistered	6382
• 127.14 IsRuntime	6385
• 127.15 IsServer	6386
• 127.16 IsWindows	6388
• 100.1 JS.AddFileMakerEvaluateFunction	5253
• 100.2 JS.AddFileMakerRunScriptFunction	5255
• 100.3 JS.AddFileMakerSQLFunction	5257
• 100.4 JS.AddFunction	5258
• 100.5 JS.CallFunction	5260
• 100.6 JS.Evaluate	5262
• 100.7 JS.EvaluateToString	5266

- 100.8 JS.Free 5268
- 100.9 JS.GetGlobalProperty 5270
- 100.10 JS.GetGlobalPropertyValue 5272
- 100.11 JS.New 5273
- 100.12 JS.Now 5275
- 100.13 JS.ObjectCount 5276
- 100.14 JS.SetGlobalProperty 5277
- 100.15 JS.SetGlobalPropertyValue 5279
- 100.16 JS.StringCount 5281
- 100.17 JS.TimeToDateComponents 5282
- 100.18 JS.TimeToUTCDate 5284
- 100.19 JS.UTCDateToTime 5285
- 102.4 JSON.AddArrayToArray 5310
- 102.5 JSON.AddBooleanToObject 5311
- 102.6 JSON.AddFalseToObject 5313
- 102.7 JSON.AddItemToArray 5315
- 102.8 JSON.AddItemToObject 5317
- 102.9 JSON.AddNullToObject 5320
- 102.10 JSON.AddNumberToArray 5322
- 102.11 JSON.AddNumberToObject 5324
- 102.12 JSON.AddStringToArray 5326
- 102.13 JSON.AddStringToObject 5328
- 102.14 JSON.AddTrueToObject 5331
- 102.15 JSON.Clone 5333
- 102.16 JSON.Colorize 5334
- 102.17 JSON.Compact 5336
- 102.18 JSON.CreateArray 5337
- 102.19 JSON.CreateArrayRef 5338
- 102.20 JSON.CreateBool 5341

	119
• 102.21 JSON.CreateBoolean	5342
• 102.22 JSON.CreateDoubleArray	5343
• 102.23 JSON.CreateFalse	5344
• 102.24 JSON.CreateIntegerArray	5345
• 102.25 JSON.CreateNull	5346
• 102.26 JSON.CreateNumber	5347
• 102.27 JSON.CreateObject	5349
• 102.28 JSON.CreateObjectRef	5351
• 102.29 JSON.CreateString	5354
• 102.30 JSON.CreateStringArray	5355
• 102.31 JSON.CreateStringArrayWithList	5356
• 102.32 JSON.CreateTrue	5357
• 102.33 JSON.CreateValue	5358
• 102.34 JSON.DeleteItemFromArray	5359
• 102.35 JSON.DeleteItemFromObject	5360
• 102.36 JSON.EqualContent	5361
• 102.37 JSON.Equals	5362
• 102.38 JSON.FindValueInArray	5364
• 102.39 JSON.FindValueInObjectArray	5366
• 102.40 JSON.Format	5368
• 102.41 JSON.GetArrayItem	5370
• 102.42 JSON.GetArrayItemsAsList	5372
• 102.43 JSON.GetArrayPathItems	5374
• 102.44 JSON.GetArraySize	5376
• 102.45 JSON.GetDoubleValue	5377
• 102.46 JSON.GetIntegerValue	5378
• 102.47 JSON.GetObjectItem	5379
• 102.48 JSON.GetObjectItemTree	5382
• 102.49 JSON.GetObjectItemTreeRef	5383

- 102.50 JSON.GetObjectName 5384
- 102.51 JSON.GetObjectNameList 5385
- 102.52 JSON.GetObjectSize 5386
- 102.53 JSON.GetPathItem 5387
- 102.54 JSON.GetStringValue 5390
- 102.55 JSON.GetType 5392
- 102.56 JSON.GetValue 5393
- 102.57 JSON.Import 5395
- 102.58 JSON.Import.Cancel 5398
- 102.59 JSON.Import.ErrorCount 5399
- 102.60 JSON.Import.Errors 5400
- 102.61 JSON.Import.Status 5401
- 102.62 JSON.Import.TODO 5402
- 102.63 JSON.Import.Total 5403
- 102.64 JSON.Import.Work 5404
- 102.65 JSON.IsValid 5405
- 102.66 JSON.Parse 5406
- 102.67 JSON.Release 5409
- 102.68 JSON.ReleaseAll 5411
- 102.69 JSON.ReplaceItemInArray 5412
- 102.70 JSON.ReplaceItemInObject 5413
- 102.71 JSON.SetPathItem 5414
- 102.72 JSON.Sort 5416
- 102.73 JSON.SortWithEvaluate 5417
- 102.74 JSON.ToHTML 5419
- 99.1 Java.CallObjectMethod 5229
- 99.2 Java.CallStaticMethod 5231
- 99.3 Java.GetContainerFileName 5233
- 99.4 Java.GetObjectField 5234

	121
• 99.5 Java.GetStaticField	5236
• 99.6 Java.Initialize	5238
• 99.7 Java.Initialized	5241
• 99.8 Java.NewClassObject	5242
• 99.9 Java.ObjectClassName	5244
• 99.10 Java.Release	5245
• 99.11 Java.ReleaseAll	5246
• 99.12 Java.SetContainerFileName	5247
• 99.13 Java.SetObjectField	5248
• 99.14 Java.SetStaticField	5250
• 101.1 JavaScript.CheckScriptSyntax	5287
• 101.2 JavaScript.EvaluateScript	5289
• 101.3 JavaScript.GetProperty	5292
• 101.4 JavaScript.HasProperty	5293
• 101.5 JavaScript.New	5294
• 101.6 JavaScript.RegisterEvaluateFunction	5295
• 101.7 JavaScript.RegisterFunction	5297
• 101.8 JavaScript.RegisterRunScriptFunction	5299
• 101.9 JavaScript.RegisterSQLQueryFunction	5300
• 101.10 JavaScript.Release	5301
• 101.11 JavaScript.SetProperty	5302
• 103.1 Keychain.AddPassword	5433
• 103.2 Keychain.DeletePassword	5435
• 103.3 Keychain.ListAccounts	5436
• 103.4 Keychain.ListDatabases	5437
• 103.5 Keychain.UpdatePassword	5438
• 178.3 LCMS.ProfileInfo	8360
• 104.1 LDAP.Add	5439
• 104.2 LDAP.AddJSON	5441

• 104.3 LDAP.AddList	5445
• 104.4 LDAP.AddRecord	5447
• 104.5 LDAP.Bind	5449
• 104.6 LDAP.Connect	5451
• 104.7 LDAP.Delete	5454
• 104.8 LDAP.GetNetworkTimeOut	5455
• 104.9 LDAP.GetProtocolVersion	5456
• 104.10 LDAP.GetReferrals	5457
• 104.11 LDAP.GetTimeOut	5458
• 104.12 LDAP.JSON	5459
• 104.13 LDAP.Modify	5464
• 104.14 LDAP.ModifyJSON	5465
• 104.15 LDAP.ModifyRecord	5467
• 104.16 LDAP.Release	5469
• 104.17 LDAP.Rename	5470
• 104.18 LDAP.Search	5471
• 104.19 LDAP.SearchResult.AttributeCount	5473
• 104.20 LDAP.SearchResult.AttributeName	5475
• 104.21 LDAP.SearchResult.AttributeNames	5476
• 104.22 LDAP.SearchResult.AttributeValue	5477
• 104.23 LDAP.SearchResult.AttributeValueCount	5478
• 104.24 LDAP.SearchResult.AttributeValues	5479
• 104.25 LDAP.SearchResult.AttributeValuesByName	5481
• 104.26 LDAP.SearchResult.Count	5483
• 104.27 LDAP.SearchResult.DistinguishedName	5485
• 104.28 LDAP.SetNetworkTimeOut	5486
• 104.29 LDAP.SetProtocolVersion	5487
• 104.30 LDAP.SetReferrals	5488
• 104.31 LDAP.SetTimeOut	5489

	123
• 104.32 LDAP.SimpleBind	5490
• 104.33 LDAP.StartTLS	5491
• 105.1 List.AddPostfix	5493
• 105.2 List.AddPrefix	5495
• 105.3 List.AddValue	5496
• 105.4 List.And	5497
• 105.5 List.AndColumn	5499
• 105.6 List.BestMatch	5501
• 105.7 List.CSVSplit	5502
• 105.8 List.CountValues	5504
• 105.9 List.CountValuesMatching	5505
• 105.10 List.CrossProduct	5506
• 105.11 List.DeCombine	5508
• 105.12 List.Deserialize	5510
• 105.13 List.FindEquals	5511
• 105.14 List.FindUnequals	5512
• 105.15 List.GetValue	5514
• 105.16 List.HasDuplicateItems	5515
• 105.17 List.HasValue	5516
• 105.18 List.IndexOfFirstValueMatching	5518
• 105.19 List.InsertValue	5519
• 105.20 List.MatchesPostfix	5520
• 105.21 List.MatchesPrefix	5521
• 105.22 List.Not	5522
• 105.23 List.NotColumn	5523
• 105.24 List.Or	5525
• 105.25 List.OrColumn	5526
• 105.26 List.RegExMatch	5528
• 105.27 List.Remove	5530

• 105.28 List.RemoveDuplicateItems	5531
• 105.29 List.RemoveEmptyItems	5533
• 105.30 List.RemovePostfix	5534
• 105.31 List.RemovePrefix	5536
• 105.32 List.RemoveValue	5538
• 105.33 List.Reverse	5540
• 105.34 List.Serialize	5541
• 105.35 List.SetValue	5542
• 105.36 List.Sort	5543
• 105.37 List.SortWithEvaluate	5546
• 105.38 List.SubList	5548
• 105.39 List.Trim	5550
• 105.40 List.ValueIndex	5551
• 105.41 List.XOr	5552
• 105.42 List.XOrColumn	5553
• 106.1 ListDialog.AddItemToList	5647
• 106.2 ListDialog.AddItemsToList	5649
• 106.3 ListDialog.AddSQL	5650
• 106.4 ListDialog.ClearColumnHeaders	5651
• 106.5 ListDialog.ClearList	5652
• 106.6 ListDialog.ColumnCount	5653
• 106.7 ListDialog.GetAllowEmptySelection	5654
• 106.8 ListDialog.GetAllowMultipleSelection	5655
• 106.9 ListDialog.GetCancelButtonLabel	5656
• 106.10 ListDialog.GetColumnHeader	5657
• 106.11 ListDialog.GetHeight	5658
• 106.12 ListDialog.GetOtherButtonEvaluate	5659
• 106.13 ListDialog.GetOtherButtonLabel	5660
• 106.14 ListDialog.GetPositionX	5661



	125
• 106.15 ListDialog.GetPositionY	5662
• 106.16 ListDialog.GetPrompt	5663
• 106.17 ListDialog.GetSelectButtonLabel	5664
• 106.18 ListDialog.GetSelectedTag	5665
• 106.19 ListDialog.GetSelectedTitle	5666
• 106.20 ListDialog.GetWidth	5667
• 106.21 ListDialog.GetWindowTitle	5668
• 106.22 ListDialog.ListCount	5669
• 106.23 ListDialog.ListItem	5670
• 106.24 ListDialog.ListTag	5671
• 106.25 ListDialog.Reset	5672
• 106.26 ListDialog.SetAllowEmptySelection	5673
• 106.27 ListDialog.SetAllowMultipleSelection	5674
• 106.28 ListDialog.SetCancelButtonLabel	5675
• 106.29 ListDialog.SetColumnCount	5676
• 106.30 ListDialog.SetColumnHeader	5677
• 106.31 ListDialog.SetHeight	5678
• 106.32 ListDialog.SetOtherButtonEvaluate	5679
• 106.33 ListDialog.SetOtherButtonLabel	5680
• 106.34 ListDialog.SetPosition	5681
• 106.35 ListDialog.SetPositionX	5682
• 106.36 ListDialog.SetPositionY	5683
• 106.37 ListDialog.SetPrompt	5684
• 106.38 ListDialog.SetSelectButtonLabel	5685
• 106.39 ListDialog.SetSelectedTag	5686
• 106.40 ListDialog.SetSelectedTitle	5687
• 106.41 ListDialog.SetWidth	5688
• 106.42 ListDialog.SetWindowTitle	5689
• 106.43 ListDialog.ShowDialog	5690

• 106.44 ListDialog.Sort	5692
• 178.4 Log	8361
• 107.1 MailComposer.AddAttachmentContainer	5693
• 107.2 MailComposer.AddAttachmentFile	5695
• 107.3 MailComposer.AddAttachmentText	5696
• 107.4 MailComposer.CanSendMail	5697
• 107.5 MailComposer.Dismiss	5698
• 107.6 MailComposer.Error	5699
• 107.7 MailComposer.GetBCCRecipients	5700
• 107.8 MailComposer.GetCCRecipients	5701
• 107.9 MailComposer.GetEvaluate	5702
• 107.10 MailComposer.GetFileName	5703
• 107.11 MailComposer.GetMessageBody	5704
• 107.12 MailComposer.GetScriptName	5705
• 107.13 MailComposer.GetSubject	5706
• 107.14 MailComposer.GetTORecipients	5707
• 107.15 MailComposer.IsPresented	5708
• 107.16 MailComposer.New	5709
• 107.17 MailComposer.Present	5710
• 107.18 MailComposer.Result	5712
• 107.19 MailComposer.SetBCCRecipients	5713
• 107.20 MailComposer.SetCCRecipients	5714
• 107.21 MailComposer.SetEvaluate	5715
• 107.22 MailComposer.SetMessageBody	5716
• 107.23 MailComposer.SetScript	5717
• 107.24 MailComposer.SetSubject	5719
• 107.25 MailComposer.SetTORecipients	5720
• 108.1 MapView.AddCircle	5721
• 108.2 MapView.AddPin	5723

	127
• 108.3 MapView.AddPinWithAddress	5725
• 108.4 MapView.AddPoint	5727
• 108.5 MapView.AddPolygon	5730
• 108.6 MapView.AddPolyline	5732
• 108.7 MapView.Annotations	5734
• 108.8 MapView.CreateWithControl	5735
• 108.9 MapView.CreateWithSize	5737
• 108.10 MapView.FormatDistance	5739
• 108.11 MapView.GetAnnotationCoordinate	5740
• 108.12 MapView.GetAnnotationDragImage	5741
• 108.13 MapView.GetAnnotationImage	5742
• 108.14 MapView.GetAnnotationSelectedImage	5743
• 108.15 MapView.GetAutoResizingMask	5744
• 108.16 MapView.GetCenterCoordinateLatitude	5746
• 108.17 MapView.GetCenterCoordinateLongitude	5747
• 108.18 MapView.GetHeight	5748
• 108.19 MapView.GetLeft	5749
• 108.20 MapView.GetMapType	5750
• 108.21 MapView.GetOverlayFillColor	5751
• 108.22 MapView.GetOverlayLineWidth	5752
• 108.23 MapView.GetOverlayPoints	5753
• 108.24 MapView.GetOverlayStrokeColor	5755
• 108.25 MapView.GetPitchEnabled	5756
• 108.26 MapView.GetRegion	5757
• 108.27 MapView.GetRegionLatitude	5758
• 108.28 MapView.GetRegionLatitudeSpan	5759
• 108.29 MapView.GetRegionLongitude	5760
• 108.30 MapView.GetRegionLongitudeSpan	5761
• 108.31 MapView.GetRotateEnabled	5762

- 108.32 MapView.GetScrollEnabled 5763
- 108.33 MapView.GetShowsBuildings 5764
- 108.34 MapView.GetShowsCompass 5765
- 108.35 MapView.GetShowsPointsOfInterest 5766
- 108.36 MapView.GetShowsScale 5767
- 108.37 MapView.GetShowsTraffic 5768
- 108.38 MapView.GetShowsUserLocation 5769
- 108.39 MapView.GetShowsZoomControls 5770
- 108.40 MapView.GetTag 5771
- 108.41 MapView.GetToolTip 5772
- 108.42 MapView.GetTop 5773
- 108.43 MapView.GetVisible 5774
- 108.44 MapView.GetVisibleMapRect 5775
- 108.45 MapView.GetWidth 5776
- 108.46 MapView.GetZoomEnabled 5777
- 108.47 MapView.GetZoomLevel 5778
- 108.48 MapView.IsUserLocationVisible 5779
- 108.49 MapView.MouseCoordinate 5780
- 108.50 MapView.Overlays 5781
- 108.51 MapView.ParseDistance 5782
- 108.52 MapView.PlanRoute 5783
- 108.53 MapView.Release 5785
- 108.54 MapView.ReleaseAll 5786
- 108.55 MapView.RemoveAnnotation 5787
- 108.56 MapView.RemoveAnnotations 5788
- 108.57 MapView.RemoveOverlay 5789
- 108.58 MapView.RemoveOverlays 5790
- 108.59 MapView.Screenshot 5791
- 108.60 MapView.SelectedAnnotations 5793

	129
• 108.61 MapView.SetAnnotationCoordinate	5794
• 108.62 MapView.SetAnnotationDragImage	5795
• 108.63 MapView.SetAnnotationImage	5796
• 108.64 MapView.SetAnnotationSelectedImage	5797
• 108.65 MapView.SetAutoResizingMask	5798
• 108.66 MapView.SetColor	5800
• 108.67 MapView.SetCoordinate	5801
• 108.68 MapView.SetFrame	5802
• 108.69 MapView.SetFrameWithControl	5803
• 108.70 MapView.SetMapType	5804
• 108.71 MapView.SetOverlayFillColor	5805
• 108.72 MapView.SetOverlayLineWidth	5806
• 108.73 MapView.SetOverlayPoints	5807
• 108.74 MapView.SetOverlayStrokeColor	5808
• 108.75 MapView.SetPitchEnabled	5809
• 108.76 MapView.SetRegion	5810
• 108.77 MapView.SetRotateEnabled	5811
• 108.78 MapView.SetScript	5812
• 108.79 MapView.SetScrollEnabled	5814
• 108.80 MapView.SetShowsBuildings	5815
• 108.81 MapView.SetShowsCompass	5816
• 108.82 MapView.SetShowsPointsOfInterest	5817
• 108.83 MapView.SetShowsScale	5818
• 108.84 MapView.SetShowsTraffic	5819
• 108.85 MapView.SetShowsUserLocation	5820
• 108.86 MapView.SetShowsZoomControls	5822
• 108.87 MapView.SetTag	5823
• 108.88 MapView.SetToolTip	5824
• 108.89 MapView.SetVisible	5825

- 108.90 `MapView.SetVisibleMapRect` 5826
- 108.91 `MapView.SetZoomEnabled` 5827
- 108.92 `MapView.SetZoomLevel` 5828
- 108.93 `MapView.ShowAddress` 5829
- 108.94 `MapView.ShowAllAnnotations` 5831
- 108.95 `MapView.Snapshot` 5832
- 109.1 `Markdown.CSS` 5835
- 109.2 `Markdown.Create` 5836
- 109.3 `Markdown.HTML` 5837
- 109.4 `Markdown.Release` 5838
- 110.1 `Math.BitwiseAND` 5839
- 110.2 `Math.BitwiseNOT` 5841
- 110.3 `Math.BitwiseOR` 5842
- 110.4 `Math.BitwiseShiftLeft` 5843
- 110.5 `Math.BitwiseShiftRight` 5844
- 110.6 `Math.BitwiseXOR` 5845
- 110.7 `Math.DecToHex` 5846
- 110.8 `Math.DecodeNumber` 5847
- 110.9 `Math.EncodeNumber` 5849
- 110.10 `Math.HexToDec` 5851
- 110.11 `Math.InchToPixel` 5852
- 110.12 `Math.InsidePolygon` 5853
- 110.13 `Math.IsValidCC` 5854
- 110.14 `Math.MillimeterToPixel` 5855
- 110.15 `Math.NumberToText` 5856
- 110.16 `Math.PixelToInch` 5857
- 110.17 `Math.PixelToMillimeter` 5858
- 110.18 `Math.PolylineDecode` 5859
- 110.19 `Math.PolylineEncode` 5860

	131
• 110.20 Math.TextToNumber	5862
• 111.1 Matrix.Add	5865
• 111.2 Matrix.AddColumn	5868
• 111.3 Matrix.AddColumns	5869
• 111.4 Matrix.AddRow	5870
• 111.5 Matrix.AddRows	5871
• 111.6 Matrix.Avg	5872
• 111.7 Matrix.CSV	5873
• 111.8 Matrix.Clear	5875
• 111.9 Matrix.ClearValues	5876
• 111.10 Matrix.Clone	5877
• 111.11 Matrix.CopyColumn	5878
• 111.12 Matrix.CopyRow	5879
• 111.13 Matrix.DataType	5880
• 111.14 Matrix.Evaluate	5881
• 111.15 Matrix.Free	5883
• 111.16 Matrix.GetColumn	5884
• 111.17 Matrix.GetColumnName	5885
• 111.18 Matrix.GetColumnNames	5886
• 111.19 Matrix.GetRow	5887
• 111.20 Matrix.GetRowName	5888
• 111.21 Matrix.GetRowNames	5889
• 111.22 Matrix.GetText	5890
• 111.23 Matrix.GetValue	5891
• 111.24 Matrix.Height	5893
• 111.25 Matrix.InsertRecords	5894
• 111.26 Matrix.InsertRecordsToSQL	5896
• 111.27 Matrix.JSONRecord	5898
• 111.28 Matrix.JSONRecords	5899

- 111.29 Matrix.Max 5900
- 111.30 Matrix.Min 5901
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.33 Matrix.RemoveColumn 5905
- 111.34 Matrix.RemoveRow 5906
- 111.35 Matrix.Resize 5907
- 111.36 Matrix.SetColumn 5908
- 111.37 Matrix.SetColumnName 5910
- 111.38 Matrix.SetRow 5912
- 111.39 Matrix.SetRowName 5914
- 111.40 Matrix.SetValue 5916
- 111.41 Matrix.Sum 5918
- 111.42 Matrix.Text 5920
- 111.43 Matrix.Width 5922
- 112.1 MatrixDongle.Count 5923
- 112.2 MatrixDongle.Find 5925
- 112.3 MatrixDongle.GetDriverFlag 5926
- 112.4 MatrixDongle.GetVersionAPI 5927
- 112.5 MatrixDongle.GetVersionDRV 5928
- 112.6 MatrixDongle.GetVersionDRV.USB 5929
- 112.7 MatrixDongle.Initialize 5930
- 112.8 MatrixDongle.Initialized 5932
- 112.9 MatrixDongle.MemorySize 5933
- 112.10 MatrixDongle.Model 5934
- 112.11 MatrixDongle.ReadHex 5935
- 112.12 MatrixDongle.ReadSerialNumber 5937
- 112.13 MatrixDongle.ReadText 5938
- 112.14 MatrixDongle.Release 5940



	133
• 112.15 MatrixDongle.SetDriverFlag	5941
• 112.16 MatrixDongle.Version	5943
• 112.17 MatrixDongle.WriteHex	5944
• 112.18 MatrixDongle.WriteText	5945
• 113.1 MediaLibraryBrowser.getMediaLibraries	5947
• 113.2 MediaLibraryBrowser.getVisible	5948
• 113.3 MediaLibraryBrowser.setFrame	5949
• 113.4 MediaLibraryBrowser.setMediaLibraries	5950
• 113.5 MediaLibraryBrowser.setVisible	5951
• 113.6 MediaLibraryBrowser.togglePanel	5952
• 114.1 Menu.AddItem	5953
• 114.2 Menu.AddItems	5956
• 114.3 Menu.CreateMenu	5959
• 114.4 Menu.DefineQuickMenu	5961
• 114.5 Menu.DefineQuickMenuXML	5964
• 114.6 Menu.FindItemWithTag	5966
• 114.7 Menu.FindItemWithTitle	5967
• 114.8 Menu.GetAllowsContextMenuPlugIns	5968
• 114.9 Menu.GetEvaluate	5969
• 114.10 Menu.GetMinimumWidth	5970
• 114.11 Menu.GetScriptFileName	5971
• 114.12 Menu.GetScriptName	5972
• 114.13 Menu.GetShowsStateColumn	5973
• 114.14 Menu.GetTag	5974
• 114.15 Menu.GetTitle	5975
• 114.16 Menu.GetURL	5976
• 114.17 Menu.InsertItem	5977
• 114.18 Menu.ItemAtIndex	5978
• 114.19 Menu.Items	5979

- 114.20 Menu.List 5980
- 114.21 Menu.NumberOfItems 5981
- 114.22 Menu.PopUp 5982
- 114.23 Menu.Release 5986
- 114.24 Menu.ReleaseAll 5988
- 114.25 Menu.RemoveAllItems 5989
- 114.26 Menu.RemoveItem 5990
- 114.27 Menu.RemoveItemAtIndex 5991
- 114.28 Menu.SelectedItem 5992
- 114.29 Menu.SetAllowsContextMenuPlugIns 5994
- 114.30 Menu.SetEvaluate 5995
- 114.31 Menu.SetMinimumWidth 5996
- 114.32 Menu.SetScriptAction 5997
- 114.33 Menu.SetShowsStateColumn 5999
- 114.34 Menu.SetTag 6000
- 114.35 Menu.SetTitle 6001
- 114.36 Menu.SetURL 6002
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.39 MenuItem.GetAlternate 6006
- 114.40 MenuItem.GetAttributedTitle 6007
- 114.41 MenuItem.GetBackColor 6008
- 114.42 MenuItem.GetBold 6009
- 114.43 MenuItem.GetEnabled 6010
- 114.44 MenuItem.GetEvaluate 6011
- 114.45 MenuItem.GetFontColor 6012
- 114.46 MenuItem.GetFontName 6013
- 114.47 MenuItem.GetFontSize 6014
- 114.48 MenuItem.GetGroupID 6015

	135
• 114.49 MenuItem.GetHidden	6016
• 114.50 MenuItem.GetImage	6017
• 114.51 MenuItem.GetItalic	6018
• 114.52 MenuItem.GetKeyEquivalent	6019
• 114.53 MenuItem.GetKeyEquivalentModifierMask	6020
• 114.54 MenuItem.GetMixedStateImage	6021
• 114.55 MenuItem.GetOffStateImage	6022
• 114.56 MenuItem.GetOnStateImage	6023
• 114.57 MenuItem.GetParentItem	6024
• 114.58 MenuItem.GetParentMenu	6025
• 114.59 MenuItem.GetPath	6026
• 114.60 MenuItem.GetRequireCommand	6027
• 114.61 MenuItem.GetRequireControl	6028
• 114.62 MenuItem.GetRequireOption	6029
• 114.63 MenuItem.GetRequireShift	6030
• 114.64 MenuItem.GetScriptFileName	6031
• 114.65 MenuItem.GetScriptName	6032
• 114.66 MenuItem.GetSelectable	6033
• 114.67 MenuItem.GetState	6034
• 114.68 MenuItem.GetStrikeOut	6035
• 114.69 MenuItem.GetSubMenu	6036
• 114.70 MenuItem.GetTag	6037
• 114.71 MenuItem.GetTitle	6039
• 114.72 MenuItem.GetToolTip	6040
• 114.73 MenuItem.GetURL	6041
• 114.74 MenuItem.GetUnderline	6042
• 114.75 MenuItem.GetUserKeyEquivalent	6043
• 114.76 MenuItem.HasSubmenu	6044
• 114.77 MenuItem.IsSeparatorItem	6045

- 114.78 MenuItem.List 6046
- 114.79 MenuItem.Release 6047
- 114.80 MenuItem.SetAlternate 6048
- 114.81 MenuItem.SetAttributedTitle 6049
- 114.82 MenuItem.SetBackColor 6050
- 114.83 MenuItem.SetBold 6052
- 114.84 MenuItem.SetEnabled 6054
- 114.85 MenuItem.SetEvaluate 6055
- 114.86 MenuItem.SetFontColor 6056
- 114.87 MenuItem.SetFontName 6058
- 114.88 MenuItem.SetFontSize 6060
- 114.89 MenuItem.SetGroupID 6062
- 114.90 MenuItem.SetHidden 6063
- 114.91 MenuItem.SetImage 6064
- 114.92 MenuItem.SetItalic 6066
- 114.93 MenuItem.SetKeyEquivalent 6068
- 114.94 MenuItem.SetKeyEquivalentModifierMask 6070
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.96 MenuItem.SetOffStateImage 6073
- 114.97 MenuItem.SetOnStateImage 6074
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078
- 114.102 MenuItem.SetScriptAction 6079
- 114.103 MenuItem.SetSelectable 6081
- 114.104 MenuItem.SetState 6082
- 114.105 MenuItem.SetStrikeOut 6084
- 114.106 MenuItem.SetSubMenu 6085

	137
• 114.107 MenuItem.SetTag	6086
• 114.108 MenuItem.SetTitle	6087
• 114.109 MenuItem.SetToolTip	6088
• 114.110 MenuItem.SetURL	6089
• 114.111 MenuItem.SetUnderline	6090
• 115.1 Menubar.HasMenuCommand	6093
• 115.2 Menubar.IsMenuCommandChecked	6095
• 115.3 Menubar.ListMenuCommands	6097
• 115.4 Menubar.RemoveMenuCommand	6098
• 115.5 Menubar.RunMenuCommand	6099
• 115.6 Menubar.SetMenuCommandShortcut	6102
• 115.7 Menubar.SetMenuCommandTitle	6103
• 115.8 Menubar.SetMenuCommandVisible	6104
• 116.1 MessageComposer.AddAttachmentContainer	6105
• 116.2 MessageComposer.AddAttachmentFile	6107
• 116.3 MessageComposer.AttachmentCount	6108
• 116.4 MessageComposer.CanSendAttachments	6109
• 116.5 MessageComposer.CanSendSubject	6110
• 116.6 MessageComposer.CanSendText	6111
• 116.7 MessageComposer.Dismiss	6112
• 116.8 MessageComposer.GetEvaluate	6113
• 116.9 MessageComposer.GetFileName	6114
• 116.10 MessageComposer.GetMessageBody	6115
• 116.11 MessageComposer.GetRecipients	6116
• 116.12 MessageComposer.GetScriptName	6117
• 116.13 MessageComposer.GetSubject	6118
• 116.14 MessageComposer.IsPresented	6119
• 116.15 MessageComposer.New	6120
• 116.16 MessageComposer.Present	6121

- 116.17 MessageComposer.Result 6123
- 116.18 MessageComposer.SetEvaluate 6124
- 116.19 MessageComposer.SetMessageBody 6125
- 116.20 MessageComposer.SetRecipients 6126
- 116.21 MessageComposer.SetScript 6127
- 116.22 MessageComposer.SetSubject 6129
- 116.23 MessageComposer.disableUserAttachments 6130
- 117.1 MetaDataQuery.AttributesForFile 6131
- 117.2 MetaDataQuery.Close 6133
- 117.3 MetaDataQuery.Create 6134
- 117.4 MetaDataQuery.GetEvaluate 6135
- 117.5 MetaDataQuery.GetScriptFileName 6136
- 117.6 MetaDataQuery.GetScriptName 6137
- 117.7 MetaDataQuery.IsGathering 6138
- 117.8 MetaDataQuery.IsStarted 6139
- 117.9 MetaDataQuery.IsStopped 6140
- 117.10 MetaDataQuery.PathAtIndex 6141
- 117.11 MetaDataQuery.Paths 6143
- 117.12 MetaDataQuery.QueryString 6144
- 117.13 MetaDataQuery.ResultAtIndex 6145
- 117.14 MetaDataQuery.ResultCount 6146
- 117.15 MetaDataQuery.Results 6147
- 117.16 MetaDataQuery.SearchScopes 6148
- 117.17 MetaDataQuery.SetEvaluate 6149
- 117.18 MetaDataQuery.SetQueryString 6150
- 117.19 MetaDataQuery.SetScript 6152
- 117.20 MetaDataQuery.SetSearchScopes 6153
- 117.21 MetaDataQuery.StartQuery 6155
- 117.22 MetaDataQuery.StopQuery 6156

	139
• 178.5 Modbus.CalculateRTUMessageCRC	8362
• 79.67 MountNotification.Install	3934
• 79.68 MountNotification.Uninstall	3936
• 178.6 MouseCursor.Hide	8363
• 178.7 MouseCursor.HideUntilMouseMoves	8364
• 178.8 MouseCursor.Set	8365
• 178.9 MouseCursor.Show	8368
• 178.10 MsgBox	8369
• 119.1 Mutex.Create	6189
• 119.2 Mutex.Free	6191
• 119.3 Mutex.List	6192
• 119.4 Mutex.Lock	6193
• 119.5 Mutex.Name	6194
• 119.6 Mutex.TryLock	6195
• 119.7 Mutex.Unlock	6196
• 122.1 NSEventFilter.DisableEvents	6211
• 122.2 NSEventFilter.EnableAllEvents	6213
• 122.3 NSEventFilter.EnableEvents	6214
• 120.1 NetworkInterfaces.Count	6197
• 120.2 NetworkInterfaces.Default	6198
• 120.3 NetworkInterfaces.JSON	6199
• 120.4 NetworkInterfaces.Update	6200
• 120.5 NetworkInterfaces.Value	6201
• 121.1 Notification.List	6203
• 121.2 Notification.Listen	6205
• 121.3 Notification.Send	6207
• 121.4 Notification.SendDirect	6208
• 121.5 Notification.Unlisten	6209
• 121.6 Notification.UnlistenAll	6210

- 123.1 OCR.Cleanup 6217
- 123.2 OCR.Clear 6218
- 123.3 OCR.GetBoxText 6219
- 123.4 OCR.GetHOCText 6220
- 123.5 OCR.GetPageSegMode 6221
- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224
- 123.8 OCR.GetVariable 6226
- 123.9 OCR.Initialize 6227
- 123.10 OCR.IsInitialized 6229
- 123.11 OCR.Language 6230
- 123.12 OCR.MeanTextConf 6231
- 123.13 OCR.Recognize 6232
- 123.14 OCR.SetImage 6233
- 123.15 OCR.SetPageSegMode 6235
- 123.16 OCR.SetRectangle 6237
- 123.17 OCR.SetResolution 6238
- 123.18 OCR.SetVariable 6239
- 123.19 OCR.WriteToPDF 6240
- 125.1 PDFKit.AddEmptyPage 6261
- 125.2 PDFKit.AddImageFilePage 6263
- 125.3 PDFKit.AddImagePage 6265
- 125.4 PDFKit.AppendPages 6267
- 125.5 PDFKit.Combine 6268
- 125.6 PDFKit.CombineRef 6270
- 125.7 PDFKit.GeneratePreview 6272
- 125.8 PDFKit.GetCurrentFilter 6274
- 125.9 PDFKit.GetIgnoreCombineErrors 6275
- 125.10 PDFKit.GetPDFAttribute 6276



	141
• 125.11 PDFKit.GetPDFDocument	6279
• 125.12 PDFKit.GetPDFPageCount	6281
• 125.13 PDFKit.GetPDFPageDisplayAnnotation	6283
• 125.14 PDFKit.GetPDFPageFormattedText	6284
• 125.15 PDFKit.GetPDFPageImage	6285
• 125.16 PDFKit.GetPDFPagePDF	6288
• 125.17 PDFKit.GetPDFPagePDFRef	6290
• 125.18 PDFKit.GetPDFPageRotation	6291
• 125.19 PDFKit.GetPDFPageText	6292
• 125.20 PDFKit.GetPDFPageValue	6294
• 125.21 PDFKit.GetPDFPagesPDF	6296
• 125.22 PDFKit.GetPDFPagesPDFRef	6298
• 125.23 PDFKit.GetPDFText	6299
• 125.24 PDFKit.GetPrintLastSettings	6300
• 125.25 PDFKit.GetPrintOption	6301
• 125.26 PDFKit.GetPrintSetting	6302
• 125.27 PDFKit.NewPDFDocument	6304
• 125.28 PDFKit.Open	6306
• 125.29 PDFKit.OpenContainer	6308
• 125.30 PDFKit.OpenPath	6310
• 125.31 PDFKit.OpenURL	6312
• 125.32 PDFKit.PageBounds	6313
• 125.33 PDFKit.Print	6315
• 125.34 PDFKit.Release	6317
• 125.35 PDFKit.ResetPrintSettings	6319
• 125.36 PDFKit.RestorePrintSettings	6320
• 125.37 PDFKit.SavePrintSettings	6321
• 125.38 PDFKit.SetCurrentFilter	6322
• 125.39 PDFKit.SetIgnoreCombineErrors	6324

- 125.40 PDFKit.SetPDFAttribute 6325
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328
- 125.42 PDFKit.SetPDFPageRotation 6330
- 125.43 PDFKit.SetPrintOption 6332
- 125.44 PDFKit.SetPrintSetting 6334
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341
- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.49 PDFKit.isEncrypted 6347
- 125.50 PDFKit.isLocked 6349
- 126.1 PHP.Execute 6355
- 126.2 PHP.ExistsVariable 6357
- 126.3 PHP.GetResultContainer 6358
- 126.4 PHP.GetResultString 6359
- 126.5 PHP.GetVariable 6360
- 126.6 PHP.Init 6361
- 126.7 PHP.IsInitialized 6363
- 126.8 PHP.Load 6364
- 126.9 PHP.Run 6365
- 126.10 PHP.SetVariable 6366
- 126.11 PHP.ShutDown 6367
- 49.1 PKCS12.CA 1379
- 49.2 PKCS12.CACount 1381
- 49.3 PKCS12.Cert 1382
- 49.4 PKCS12.PKey 1383
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388

	143
• 49.8 PKCS12.ShowDialog	1389
• 49.9 PKCS7.ReadFromContainer	1390
• 49.10 PKCS7.ReadFromFile	1391
• 49.11 PKCS7.Release	1392
• 49.12 PKCS7.SignedDataCert	1393
• 49.13 PKCS7.SignedDataCertCount	1394
• 49.14 PKCS7.SignedDataContent	1395
• 49.15 PKey.Bits	1396
• 49.16 PKey.DescriptionPrivateKey	1397
• 49.17 PKey.DescriptionPublicKey	1398
• 49.18 PKey.GetPrivateKey	1399
• 49.19 PKey.GetPublicKey	1400
• 49.20 PKey.Release	1401
• 49.21 PKey.Type	1402
• 130.1 PageSetupDialog.ClearOption	6493
• 130.2 PageSetupDialog.ClearOptions	6494
• 130.3 PageSetupDialog.Disable	6495
• 130.4 PageSetupDialog.Enable	6496
• 130.5 PageSetupDialog.GetLastSettings	6498
• 130.6 PageSetupDialog.GetNoDialog	6499
• 130.7 PageSetupDialog.GetOption	6500
• 130.8 PageSetupDialog.GetPaperName	6501
• 130.9 PageSetupDialog.GetPaperOrientation	6502
• 130.10 PageSetupDialog.GetPrinterName	6503
• 130.11 PageSetupDialog.GetScalingFactor	6504
• 130.12 PageSetupDialog.Install	6505
• 130.13 PageSetupDialog.SetNoDialog	6507
• 130.14 PageSetupDialog.SetOption	6508
• 130.15 PageSetupDialog.SetPaperName	6509

- 130.16 PageSetupDialog.SetPaperOrientation 6510
- 130.17 PageSetupDialog.SetPrinterName 6511
- 130.18 PageSetupDialog.SetScalingFactor 6512
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.3 Path.FilePathToFileURL 6249
- 124.4 Path.FileURLToFilePath 6251
- 124.5 Path.LastPathComponent 6252
- 124.6 Path.LongPath 6254
- 124.7 Path.NativePathToFileMakerPath 6255
- 124.8 Path.RemoveLastPathComponent 6257
- 124.9 Path.ShortPath 6259
- 127.17 Platform 6389
- 127.18 Plugin.BuildNumber 6391
- 127.19 Plugin.CallCounter 6392
- 127.20 Plugin.CallErrorScriptTrigger 6393
- 127.21 Plugin.CompileDate 6394
- 127.22 Plugin.DisableFunction 6395
- 127.23 Plugin.FunctionCount 6396
- 127.24 Plugin.Functions 6397
- 127.25 Plugin.GetSuccessReturn 6398
- 127.26 Plugin.InstallSignalHandlers 6399
- 127.27 Plugin.IsPrerelease 6400
- 127.28 Plugin.JasperVersion 6401
- 127.29 Plugin.LibSSHVersion 6402
- 127.30 Plugin.LicenseeName 6403
- 127.31 Plugin.LimitFunction 6405
- 127.32 Plugin.LockFunction 6407
- 127.33 Plugin.OpenSSLVersion 6408

	145
• 127.34 Plugin.PNGVersion	6409
• 127.35 Plugin.Path	6410
• 127.36 Plugin.ScriptStepParameter	6412
• 127.37 Plugin.ScriptStepParameterCount	6413
• 127.38 Plugin.Seats	6414
• 127.39 Plugin.SetErrorScriptTrigger	6415
• 127.40 Plugin.SetFunctions	6417
• 127.41 Plugin.SetPreviewSize	6419
• 127.42 Plugin.SetSuccessReturn	6420
• 127.43 Plugin.StartTimeStamp	6421
• 127.44 Plugin.TiffVersion	6422
• 127.45 Plugin.UnlockFunction	6423
• 127.46 Plugin.UsedFunctions	6424
• 127.47 Plugin.ZLibVersion	6425
• 127.48 Plugin.isDebug	6426
• 128.1 PortMidi.Abort	6449
• 128.2 PortMidi.CheckHostError	6450
• 128.3 PortMidi.ClearDataAvailableHandler	6451
• 128.4 PortMidi.Close	6452
• 128.5 PortMidi.CurrentEvent	6453
• 128.6 PortMidi.DeviceCount	6454
• 128.7 PortMidi.GetChannelMask	6455
• 128.8 PortMidi.GetDefaultInputDeviceID	6456
• 128.9 PortMidi.GetDefaultOutputDeviceID	6457
• 128.10 PortMidi.GetDeviceID	6458
• 128.11 PortMidi.GetDeviceInfo	6459
• 128.12 PortMidi.GetDeviceName	6461
• 128.13 PortMidi.GetFilter	6462
• 128.14 PortMidi.OpenInput	6463

- 128.15 PortMidi.OpenOutput 6464
- 128.16 PortMidi.Poll 6466
- 128.17 PortMidi.ReadMessage 6467
- 128.18 PortMidi.Rescan 6468
- 128.19 PortMidi.SendMessage 6469
- 128.20 PortMidi.SendMessageRaw 6471
- 128.21 PortMidi.SendSysExHex 6472
- 128.22 PortMidi.SetChannelMask 6473
- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 128.24 PortMidi.SetDataAvailableHandler 6476
- 128.25 PortMidi.SetFilter 6478
- 128.26 PortMidi.TimeStamp 6480
- 129.1 Preferences.ClearRecentFiles 6481
- 129.2 Preferences.DeleteValue 6482
- 129.3 Preferences.GetTextSelectionWithDragAndDrop 6483
- 129.4 Preferences.GetValue 6484
- 129.5 Preferences.GetValueType 6487
- 129.6 Preferences.HasValue 6488
- 129.7 Preferences.SetTextSelectionWithDragAndDrop 6489
- 129.8 Preferences.SetValue 6490
- 130.19 PrintDialog.ClearOption 6513
- 130.20 PrintDialog.ClearOptions 6514
- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.23 PrintDialog.GetAllPages 6518
- 130.24 PrintDialog.GetConfiguration 6519
- 130.25 PrintDialog.GetCopies 6520
- 130.26 PrintDialog.GetDestinationPath 6521
- 130.27 PrintDialog.GetDuplex 6522

	147
• 130.28 PrintDialog.GetFirstPage	6523
• 130.29 PrintDialog.GetLastPage	6524
• 130.30 PrintDialog.GetLastSettings	6525
• 130.31 PrintDialog.GetNoDialog	6527
• 130.32 PrintDialog.GetOption	6528
• 130.33 PrintDialog.GetPageNumberingOffset	6529
• 130.34 PrintDialog.GetPaperName	6530
• 130.35 PrintDialog.GetPrintToPDF	6531
• 130.36 PrintDialog.GetPrinterName	6532
• 130.37 PrintDialog.GetReset	6533
• 130.38 PrintDialog.GetResetDestination	6534
• 130.39 PrintDialog.GetTray	6535
• 130.40 PrintDialog.Install	6536
• 130.41 PrintDialog.SetAllPages	6538
• 130.42 PrintDialog.SetConfiguration	6539
• 130.43 PrintDialog.SetCopies	6540
• 130.44 PrintDialog.SetDestinationPath	6542
• 130.45 PrintDialog.SetDuplex	6543
• 130.46 PrintDialog.SetFirstPage	6544
• 130.47 PrintDialog.SetLastPage	6545
• 130.48 PrintDialog.SetNoDialog	6546
• 130.49 PrintDialog.SetOption	6548
• 130.50 PrintDialog.SetPageNumberingOffset	6550
• 130.51 PrintDialog.SetPaperName	6551
• 130.52 PrintDialog.SetPrintToPDF	6552
• 130.53 PrintDialog.SetPrintType	6553
• 130.54 PrintDialog.SetPrinterName	6555
• 130.55 PrintDialog.SetReset	6556
• 130.56 PrintDialog.SetResetDestination	6557

- 130.57 `PrintDialog.SetTray` 6558
- 131.1 `Printer.CurrentNumberOfCopies` 6559
- 131.2 `Printer.CurrentPaperFormat` 6560
- 131.3 `Printer.CurrentPaperSource` 6562
- 131.4 `Printer.CurrentPrintWhat` 6564
- 131.5 `Printer.CurrentPrinterName` 6566
- 131.6 `Printer.ErrorLog` 6568
- 131.7 `Printer.GetDefaultPrinter` 6569
- 131.8 `Printer.PaperFormats` 6570
- 131.9 `Printer.PaperSources` 6572
- 131.10 `Printer.Print` 6574
- 131.11 `Printer.PrinterCount` 6577
- 131.12 `Printer.PrinterInfo` 6578
- 131.13 `Printer.PrinterName` 6580
- 131.14 `Printer.PrinterNames` 6582
- 131.15 `Printer.SetPrinter` 6584
- 132.1 `Process.FrontProcessBundleID` 6587
- 132.2 `Process.FrontProcessName` 6588
- 132.3 `Process.FrontWindowTitle` 6589
- 132.4 `Process.GetCurrentDirectory` 6590
- 132.5 `Process.IsFrontMost` 6591
- 132.6 `Process.IsRunning` 6592
- 132.7 `Process.KeepFrontMost` 6593
- 132.8 `Process.LoadLibrary` 6594
- 132.9 `Process.SetCurrentDirectory` 6595
- 132.10 `Process.SetFrontMost` 6596
- 132.11 `ProcessActivity.List` 6597
- 132.12 `ProcessActivity.Options` 6598
- 132.13 `ProcessActivity.Reason` 6599



	149
• 132.14 ProcessActivity.beginActivity	6600
• 132.15 ProcessActivity.endActivity	6602
• 133.1 ProgressDialog.ClearImage	6603
• 133.2 ProgressDialog.GetBottomText	6605
• 133.3 ProgressDialog.GetButtonCaption	6606
• 133.4 ProgressDialog.GetCancel	6607
• 133.5 ProgressDialog.GetImageHeight	6609
• 133.6 ProgressDialog.GetImageWidth	6610
• 133.7 ProgressDialog.GetPositionX	6611
• 133.8 ProgressDialog.GetPositionY	6612
• 133.9 ProgressDialog.GetProgress	6613
• 133.10 ProgressDialog.GetShowButton	6614
• 133.11 ProgressDialog.GetTitle	6615
• 133.12 ProgressDialog.GetTopMost	6616
• 133.13 ProgressDialog.GetTopText	6617
• 133.14 ProgressDialog.Hide	6618
• 133.15 ProgressDialog.Reset	6620
• 133.16 ProgressDialog.SetBottomText	6621
• 133.17 ProgressDialog.SetButtonCaption	6623
• 133.18 ProgressDialog.SetCancel	6625
• 133.19 ProgressDialog.SetFont	6627
• 133.20 ProgressDialog.SetImage	6629
• 133.21 ProgressDialog.SetImageHeight	6631
• 133.22 ProgressDialog.SetImageWidth	6632
• 133.23 ProgressDialog.SetPosition	6633
• 133.24 ProgressDialog.SetPositionCentered	6634
• 133.25 ProgressDialog.SetProgress	6635
• 133.26 ProgressDialog.SetShowButton	6637
• 133.27 ProgressDialog.SetTitle	6639

- 133.28 ProgressDialog.SetTitleIcon 6641
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647
- 133.32 ProgressDialog.Update 6649
- 133.33 Progressdialog.GetEvaluate 6651
- 133.34 Progressdialog.GetFileName 6652
- 133.35 Progressdialog.GetScriptName 6653
- 133.36 Progressdialog.SetEvaluate 6654
- 133.37 Progressdialog.SetScript 6655
- 134.1 Proj.BatchTransform 6657
- 134.2 Proj.Initialize 6659
- 134.3 Proj.IsInitialized 6660
- 134.4 Proj.Transform 6661
- 137.5 QLPreviewPanel.AddContainer 6736
- 137.6 QLPreviewPanel.AddFile 6738
- 137.7 QLPreviewPanel.AddImage 6739
- 137.8 QLPreviewPanel.AddPDF 6740
- 137.9 QLPreviewPanel.Clear 6741
- 137.10 QLPreviewPanel.CurrentPreviewItemIndex 6742
- 137.11 QLPreviewPanel.CurrentPreviewItemPath 6743
- 137.12 QLPreviewPanel.CurrentPreviewItemTitle 6744
- 137.13 QLPreviewPanel.GetHeight 6745
- 137.14 QLPreviewPanel.GetLeft 6746
- 137.15 QLPreviewPanel.GetTop 6747
- 137.16 QLPreviewPanel.GetWidth 6748
- 137.17 QLPreviewPanel.Hide 6749
- 137.18 QLPreviewPanel.IsVisible 6750
- 137.19 QLPreviewPanel.Move 6751

	151
• 137.20 QLPreviewPanel.Resize	6752
• 137.21 QLPreviewPanel.SetCurrentPreviewItemIndex	6754
• 137.22 QLPreviewPanel.Show	6755
• 125.51 QuartzFilterManager.Filters	6351
• 125.52 QuartzFilterManager.HidePanel	6352
• 125.53 QuartzFilterManager.ShowPanel	6353
• 105.43 QuickList.AddList	5555
• 105.44 QuickList.AddMultiValue	5557
• 105.45 QuickList.AddPostfix	5559
• 105.46 QuickList.AddPrefix	5561
• 105.47 QuickList.AddQuickList	5563
• 105.48 QuickList.AddSQL	5564
• 105.49 QuickList.AddValue	5566
• 105.50 QuickList.And	5568
• 105.51 QuickList.AndColumn	5570
• 105.52 QuickList.BestMatch	5572
• 105.53 QuickList.CSVSplit	5573
• 105.54 QuickList.Clear	5574
• 105.55 QuickList.Clone	5575
• 105.56 QuickList.Count	5576
• 105.57 QuickList.CountValuesMatching	5578
• 105.58 QuickList.CrossProduct	5579
• 105.59 QuickList.DeCombine	5581
• 105.60 QuickList.Deserialize	5583
• 105.61 QuickList.FindEquals	5584
• 105.62 QuickList.FindUnequals	5585
• 105.63 QuickList.Free	5586
• 105.64 QuickList.GetList	5588
• 105.65 QuickList.GetValue	5590

- 105.66 QuickList.HasDuplicateItems 5592
- 105.67 QuickList.HasValue 5593
- 105.68 QuickList.IndexOfFirstValueMatching 5595
- 105.69 QuickList.InsertValue 5596
- 105.70 QuickList.List 5597
- 105.71 QuickList.MatchesPostfix 5598
- 105.72 QuickList.MatchesPrefix 5600
- 105.73 QuickList.MatchesSubString 5602
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606
- 105.76 QuickList.NotColumn 5608
- 105.77 QuickList.Or 5610
- 105.78 QuickList.OrColumn 5612
- 105.79 QuickList.Pop 5614
- 105.80 QuickList.PopFirst 5615
- 105.81 QuickList.Push 5616
- 105.82 QuickList.RegExMatch 5617
- 105.83 QuickList.Remove 5618
- 105.84 QuickList.RemoveDuplicateItems 5619
- 105.85 QuickList.RemoveEmptyItems 5620
- 105.86 QuickList.RemovePostfix 5621
- 105.87 QuickList.RemovePrefix 5623
- 105.88 QuickList.RemoveValue 5625
- 105.89 QuickList.Reserve 5626
- 105.90 QuickList.Reverse 5627
- 105.91 QuickList.Serialize 5628
- 105.92 QuickList.SetList 5630
- 105.93 QuickList.SetValue 5631
- 105.94 QuickList.Sort 5633

	153
• 105.95 QuickList.SortWith	5635
• 105.96 QuickList.SortWithEvaluate	5638
• 105.97 QuickList.SubList	5639
• 105.98 QuickList.Trim	5641
• 105.99 QuickList.ValueIndex	5642
• 105.100 QuickList.XOr	5643
• 105.101 QuickList.XOrColumn	5644
• 74.12 RSA.DecryptPrivateKey	3523
• 74.13 RSA.EncryptPrivateKey	3525
• 152.15 RSA.GeneratePrivateKey	7191
• 152.16 RSA.GetPublicKey	7193
• 74.14 RSA.PrivateDecrypt	3527
• 74.15 RSA.PrivateEncrypt	3530
• 74.16 RSA.PublicDecrypt	3533
• 74.17 RSA.PublicEncrypt	3536
• 152.17 RSA.Sign	7195
• 152.18 RSA.Verify	7200
• 138.1 RegEx.CaptureCount	6757
• 138.2 RegEx.Compile	6759
• 138.3 RegEx.Execute	6762
• 138.4 RegEx.FindMatches	6765
• 138.5 RegEx.Free	6768
• 138.6 RegEx.List	6769
• 138.7 RegEx.Match	6770
• 138.8 RegEx.MatchList	6772
• 138.9 RegEx.MinimumLength	6774
• 138.10 RegEx.NameCount	6775
• 138.11 RegEx.NamedSubstring	6776
• 138.12 RegEx.Options	6777

- 138.13 RegEx.Pattern 6778
- 138.14 RegEx.Quote 6779
- 138.15 RegEx.Replace 6780
- 138.16 RegEx.ReplaceAll 6782
- 138.17 RegEx.Results 6784
- 138.18 RegEx.Size 6786
- 138.19 RegEx.StringNumber 6787
- 138.20 RegEx.Study 6788
- 138.21 RegEx.Substring 6789
- 138.22 RegEx.SubstringList 6791
- 138.23 RegEx.Version 6792
- 127.49 Register 6428
- 127.50 Registration 6431
- 139.1 Registry.CreateKey 6793
- 139.2 Registry.DeleteKey 6795
- 139.3 Registry.DeleteTree 6796
- 139.4 Registry.DeleteValue 6797
- 139.5 Registry.FlushKey 6798
- 139.6 Registry.GetValue 6799
- 139.7 Registry.GetValueType 6801
- 139.8 Registry.ListKeys 6802
- 139.9 Registry.ListValues 6803
- 139.10 Registry.SetValue 6804
- 140.1 RemoteControl.ClickMouse 6807
- 140.2 RemoteControl.FindWindow 6809
- 140.3 RemoteControl.GetWindowsList 6810
- 140.4 RemoteControl.HideCursor 6811
- 140.5 RemoteControl.MouseX 6812
- 140.6 RemoteControl.MouseY 6813

	155
• 140.7 RemoteControl.MoveMouse	6814
• 140.8 RemoteControl.PressCommandKey	6815
• 140.9 RemoteControl.PressControlKey	6816
• 140.10 RemoteControl.PressDialogButton	6817
• 140.11 RemoteControl.PressDialogButton.Clear	6818
• 140.12 RemoteControl.PressKey	6819
• 140.13 RemoteControl.PressKeyLater	6822
• 140.14 RemoteControl.PressOptionKey	6823
• 140.15 RemoteControl.PressShiftKey	6824
• 140.16 RemoteControl.ShowCursor	6825
• 141.1 RichText.AppendFormattedText	6827
• 141.2 RichText.AppendText	6828
• 141.3 RichText.Attribute	6829
• 141.4 RichText.Clear	6830
• 141.5 RichText.FormattedText	6831
• 141.6 RichText.GeneratePDF	6833
• 141.7 RichText.HTMLText	6834
• 141.8 RichText.RTF	6835
• 141.9 RichText.ReadContainer	6836
• 141.10 RichText.ReadFile	6838
• 141.11 RichText.ReadHTML	6840
• 141.12 RichText.ReadRTF	6842
• 141.13 RichText.ReadText	6843
• 141.14 RichText.ReadURL	6845
• 141.15 RichText.ReadWebviewer	6846
• 141.16 RichText.Release	6847
• 141.17 RichText.ReplaceText	6848
• 141.18 RichText.ReplaceTexts	6850
• 141.19 RichText.SetAttribute	6851

- 141.20 RichText.SetFormattedText 6852
- 141.21 RichText.SetText 6854
- 141.22 RichText.Text 6855
- 141.23 RichText.TextLength 6856
- 141.24 RichText.WriteContainer 6857
- 141.25 RichText.WriteDOC 6859
- 141.26 RichText.WriteFile 6861
- 141.27 RichText.WritePDF 6864
- 141.28 RichText.WriteRTF 6866
- 142.1 RunTask.AddArgument 6869
- 142.2 RunTask.GetArgument 6871
- 142.3 RunTask.GetArgumentCount 6872
- 142.4 RunTask.GetCurrentDirectoryPath 6873
- 142.5 RunTask.GetLaunchPath 6874
- 142.6 RunTask.GetVerb 6875
- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.9 RunTask.NewTask 6880
- 142.10 RunTask.ProcessIdentifier 6882
- 142.11 RunTask.ReadErrorText 6883
- 142.12 RunTask.ReadOutputText 6884
- 142.13 RunTask.SetArguments 6885
- 142.14 RunTask.SetCurrentDirectoryPath 6888
- 142.15 RunTask.SetLaunchPath 6889
- 142.16 RunTask.SetVerb 6891
- 142.17 RunTask.Terminate 6892
- 142.18 RunTask.TerminationReason 6893
- 142.19 RunTask.TerminationStatus 6894
- 142.20 RunTask.Wait 6895



	157
• 142.21 RunTask.WriteInputText	6897
• 154.1 SNMP.Get	7239
• 154.2 SNMP.SetRetries	7241
• 154.3 SNMP.SetTimeout	7242
• 159.2 SQL.Cancel	7411
• 159.3 SQL.ClientVersion	7412
• 159.4 SQL.Close	7413
• 159.5 SQL.CommandText	7414
• 159.6 SQL.CommandType	7415
• 159.7 SQL.Commit	7416
• 159.8 SQL.Connect	7418
• 159.9 SQL.Disconnect	7424
• 159.10 SQL.Execute	7425
• 159.11 SQL.FetchFirst	7429
• 159.12 SQL.FetchLast	7430
• 159.13 SQL.FetchNext	7432
• 159.14 SQL.FetchPos	7435
• 159.15 SQL.FetchPrior	7436
• 159.16 SQL.FieldCount	7437
• 159.17 SQL.FreeAllConnections	7439
• 159.18 SQL.FreeCommand	7440
• 159.19 SQL.FreeConnection	7442
• 159.20 SQL.GetAutoCommit	7444
• 159.21 SQL.GetCommandOption	7445
• 159.22 SQL.GetCommandOptions	7446
• 159.23 SQL.GetCommandTag	7447
• 159.24 SQL.GetConnectionOption	7448
• 159.25 SQL.GetConnectionOptions	7449
• 159.26 SQL.GetConnectionTag	7450

- 159.27 SQL.GetFieldAsBoolean 7451
- 159.28 SQL.GetFieldAsContainer 7452
- 159.29 SQL.GetFieldAsDate 7453
- 159.30 SQL.GetFieldAsDateTime 7455
- 159.31 SQL.GetFieldAsFloat 7456
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.33 SQL.GetFieldAsNumber 7460
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.38 SQL.GetFieldDataType 7469
- 159.39 SQL.GetFieldIsNull 7470
- 159.40 SQL.GetFieldName 7471
- 159.41 SQL.GetFieldNameList 7473
- 159.42 SQL.GetFieldOption 7475
- 159.43 SQL.GetFieldOptions 7476
- 159.44 SQL.GetFieldValue 7477
- 159.45 SQL.GetFieldValueList 7478
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.47 SQL.GetIsolationLevel 7482
- 159.48 SQL.GetParamAsBoolean 7483
- 159.49 SQL.GetParamAsContainer 7484
- 159.50 SQL.GetParamAsDate 7485
- 159.51 SQL.GetParamAsDateTime 7486
- 159.52 SQL.GetParamAsFloat 7487
- 159.53 SQL.GetParamAsJPEG 7489
- 159.54 SQL.GetParamAsNumber 7491
- 159.55 SQL.GetParamAsPDF 7493

	159
• 159.56 SQL.GetParamAsPNG	7495
• 159.57 SQL.GetParamAsText	7497
• 159.58 SQL.GetParamAsTime	7498
• 159.59 SQL.GetParamDataType	7499
• 159.60 SQL.GetParamIsDefault	7500
• 159.61 SQL.GetParamIsNull	7501
• 159.62 SQL.GetParamName	7502
• 159.63 SQL.GetParamNameList	7503
• 159.64 SQL.GetParamOption	7505
• 159.65 SQL.GetParamOptions	7506
• 159.66 SQL.GetParamValue	7507
• 159.67 SQL.GetParamValueList	7508
• 159.68 SQL.GetParamsAsJSON	7510
• 159.69 SQL.GetRecordsAsJSON	7512
• 159.70 SQL.GetRecordsAsText	7514
• 159.71 SQL.InsertOrUpdateRecords	7516
• 159.72 SQL.InsertRecords	7519
• 159.73 SQL.InternalSQLiteLibrary.Activate	7521
• 159.74 SQL.InternalSQLiteLibrary.Activated	7522
• 159.75 SQL.InternalSQLiteLibrary.Deactivate	7523
• 159.76 SQL.InternalSQLiteLibrary.SourceID	7524
• 159.77 SQL.InternalSQLiteLibrary.Version	7525
• 159.78 SQL.InternalSQLiteLibrary.VersionNumber	7526
• 159.79 SQL.ListCommands	7527
• 159.80 SQL.ListConnections	7528
• 159.81 SQL.MySQL.InsertID	7529
• 159.82 SQL.NewCommand	7530
• 159.83 SQL.NewConnection	7534
• 159.84 SQL.Open	7537

- 159.85 SQL.ParamCount 7538
- 159.86 SQL.Prepare 7539
- 159.87 SQL.ResetCommand 7540
- 159.88 SQL.ResetConnection 7541
- 159.89 SQL.Rollback 7542
- 159.90 SQL.RowsAffected 7543
- 159.91 SQL.SQLite3.EnableLoadExtension 7545
- 159.92 SQL.SQLite3.LastInsertRowID 7546
- 159.93 SQL.SQLite3.MemoryHighwater 7547
- 159.94 SQL.SQLite3.MemoryUsed 7548
- 159.95 SQL.SQLite3.ReKey 7549
- 159.96 SQL.SQLite3.SetKey 7551
- 159.97 SQL.ServerVersion 7553
- 159.98 SQL.ServerVersionString 7554
- 159.99 SQL.SetAutoCommit 7555
- 159.100 SQL.SetClient 7556
- 159.101 SQL.SetCommandOption 7558
- 159.102 SQL.SetCommandTag 7560
- 159.103 SQL.SetCommandText 7561
- 159.104 SQL.SetConnectionOption 7563
- 159.105 SQL.SetConnectionTag 7568
- 159.106 SQL.SetFieldOption 7569
- 159.107 SQL.SetIsolationLevel 7570
- 159.108 SQL.SetParamAsBoolean 7571
- 159.109 SQL.SetParamAsContainer 7572
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576
- 159.112 SQL.SetParamAsFloat 7578
- 159.113 SQL.SetParamAsNumber 7580

	161
• 159.114 SQL.SetParamAsText	7582
• 159.115 SQL.SetParamAsTime	7584
• 159.116 SQL.SetParamDataType	7585
• 159.117 SQL.SetParamDefault	7586
• 159.118 SQL.SetParamNull	7587
• 159.119 SQL.SetParamOption	7588
• 159.120 SQL.SetParamTypesValues	7589
• 159.121 SQL.SetParamUnknown	7591
• 159.122 SQL.SetParamValue	7592
• 159.123 SQL.SetParamValues	7594
• 159.124 SQL.SetParamsWithJSON	7596
• 159.125 SQL.isAlive	7598
• 159.126 SQL.isConnected	7599
• 159.127 SQL.isExecuted	7600
• 159.128 SQL.isOpened	7601
• 159.129 SQL.isResultSet	7602
• 160.1 SSH.CloseChannel	7603
• 160.2 SSH.Connect	7605
• 160.3 SSH.Disconnect	7609
• 160.4 SSH.EOF	7610
• 160.5 SSH.Execute	7611
• 160.6 SSH.Flush	7614
• 160.7 SSH.FreeChannel	7615
• 160.8 SSH.GetExitState	7616
• 160.9 SSH.GetIP	7617
• 160.10 SSH.GetPort	7618
• 160.11 SSH.GetTag	7619
• 160.12 SSH.GetTimeout	7620
• 160.13 SSH.GetUserName	7621

- 160.14 SSH.HostKey 7622
- 160.15 SSH.HostKeyHash 7623
- 160.16 SSH.IsAuthenticated 7624
- 160.17 SSH.New 7625
- 160.18 SSH.OpenSession 7628
- 160.19 SSH.ReadHex 7629
- 160.20 SSH.ReadText 7630
- 160.21 SSH.Release 7632
- 160.22 SSH.RequestPTY 7633
- 160.23 SSH.SendEOF 7634
- 160.24 SSH.SessionHandshake 7635
- 160.25 SSH.SetEnv 7636
- 160.26 SSH.SetTag 7637
- 160.27 SSH.SetTimeout 7638
- 160.28 SSH.Shell 7639
- 160.29 SSH.Tunnel.BytesReceived 7640
- 160.30 SSH.Tunnel.BytesSent 7641
- 160.31 SSH.Tunnel.Cancel 7642
- 160.32 SSH.Tunnel.Cancelled 7643
- 160.33 SSH.Tunnel.GetKeepAlive 7644
- 160.34 SSH.Tunnel.Messages 7645
- 160.35 SSH.Tunnel.Run 7646
- 160.36 SSH.Tunnel.Running 7648
- 160.37 SSH.Tunnel.SetKeepAlive 7649
- 160.38 SSH.UserAuthKeyboardInteractive 7650
- 160.39 SSH.UserAuthList 7651
- 160.40 SSH.UserAuthPassword 7652
- 160.41 SSH.UserAuthPublicKey 7653
- 160.42 SSH.UserAuthPublicKeyFile 7655

	163
• 160.43 SSH.WaitClosed	7657
• 160.44 SSH.WaitEOF	7658
• 160.45 SSH.WaitSocket	7659
• 160.46 SSH.WriteHex	7660
• 160.47 SSH.WriteText	7661
• 143.1 Schedule.Check	6899
• 143.2 Schedule.ClearEvaluateResult	6900
• 143.3 Schedule.ClearSQLResult	6901
• 143.4 Schedule.EvaluateAfterDelay	6902
• 143.5 Schedule.EvaluateAtTime	6904
• 143.6 Schedule.EvaluateAtTimeStamp	6906
• 143.7 Schedule.EvaluateOnIdle	6908
• 143.8 Schedule.ExecuteSQLAfterDelay	6909
• 143.9 Schedule.ExecuteSQLAtTime	6911
• 143.10 Schedule.ExecuteSQLAtTimeStamp	6913
• 143.11 Schedule.ExecuteSQLOnIdle	6915
• 143.12 Schedule.GetAutoRelease	6917
• 143.13 Schedule.GetEvaluate	6918
• 143.14 Schedule.GetEvaluateResult	6919
• 143.15 Schedule.GetFileName	6920
• 143.16 Schedule.GetLastTimeStamp	6921
• 143.17 Schedule.GetRepeatDelay	6922
• 143.18 Schedule.GetRunCount	6923
• 143.19 Schedule.GetSQL	6924
• 143.20 Schedule.GetSQLResult	6925
• 143.21 Schedule.GetScriptName	6926
• 143.22 Schedule.GetScriptParameter	6927
• 143.23 Schedule.GetTimeStamp	6928
• 143.24 Schedule.GetURL	6929

- 143.25 Schedule.List 6930
- 143.26 Schedule.Release 6931
- 143.27 Schedule.ReleaseAll 6933
- 143.28 Schedule.SetAutoRelease 6934
- 143.29 Schedule.SetEvaluate 6935
- 143.30 Schedule.SetFileName 6936
- 143.31 Schedule.SetRepeatDelay 6937
- 143.32 Schedule.SetSQL 6938
- 143.33 Schedule.SetScriptName 6939
- 143.34 Schedule.SetScriptParameter 6940
- 143.35 Schedule.SetTimeStamp 6941
- 143.36 Schedule.SetURL 6942
- 143.37 Schedule.StartScriptAfterDelay 6943
- 143.38 Schedule.StartScriptAtTime 6945
- 143.39 Schedule.StartScriptAtTimeStamp 6947
- 143.40 Schedule.StartScriptOnIdle 6949
- 144.1 Screen.Count 6951
- 144.2 Screen.DockHeight 6952
- 144.3 Screen.DockWidth 6953
- 144.4 Screen.Height 6954
- 144.5 Screen.Left 6955
- 144.6 Screen.Scale 6956
- 144.7 Screen.Top 6957
- 144.8 Screen.Width 6958
- 144.9 Screenshot 6959
- 144.10 ScreenshotRect 6961
- 145.1 ScriptWorkspace.BringToFront 6963
- 145.2 ScriptWorkspace.CopyScriptText 6964
- 145.3 ScriptWorkspace.CurrentTab 6965



	165
• 145.4 ScriptWorkspace.ExpandScriptFolders	6966
• 145.5 ScriptWorkspace.GetScriptListSearch	6967
• 145.6 ScriptWorkspace.IsActive	6968
• 145.7 ScriptWorkspace.IsVisible	6969
• 145.8 ScriptWorkspace.LineCount	6970
• 145.9 ScriptWorkspace.OpenScript	6971
• 145.10 ScriptWorkspace.ScriptNames	6972
• 145.11 ScriptWorkspace.ScriptText	6973
• 145.12 ScriptWorkspace.ScriptsVisible	6974
• 145.13 ScriptWorkspace.ScrollToLine	6975
• 145.14 ScriptWorkspace.ScrollToSelection	6976
• 145.15 ScriptWorkspace.SelectLine	6977
• 145.16 ScriptWorkspace.SelectLines	6978
• 145.17 ScriptWorkspace.SelectedLine	6979
• 145.18 ScriptWorkspace.SelectedLines	6980
• 145.19 ScriptWorkspace.SetScriptListSearch	6981
• 145.20 ScriptWorkspace.StepsVisible	6982
• 145.21 ScriptWorkspace.StyledScriptText	6983
• 145.22 ScriptWorkspace.Tabs	6984
• 145.23 ScriptWorkspace.Title	6985
• 145.24 ScriptWorkspace.TriggerScripts	6986
• 145.25 ScriptWorkspace.TriggerSteps	6987
• 145.26 ScriptWorkspace.Window	6988
• 178.11 SendCommand	8370
• 146.1 SendMail.AddAttachmentContainer	6989
• 146.2 SendMail.AddAttachmentFile	6992
• 146.3 SendMail.AddAttachmentText	6995
• 146.4 SendMail.AddBCC	6997
• 146.5 SendMail.AddCC	6999

- 146.6 SendMail.AddHeader 7001
- 146.7 SendMail.AddRecipient 7003
- 146.8 SendMail.AddReplyTo 7005
- 146.9 SendMail.AddTo 7006
- 146.10 SendMail.AttachmentCount 7008
- 146.11 SendMail.ClearAttachments 7009
- 146.12 SendMail.ClearHeaders 7010
- 146.13 SendMail.ClearRecipients 7011
- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.16 SendMail.GetInReplyTo 7015
- 146.17 SendMail.GetMessageID 7016
- 146.18 SendMail.GetPlainText 7017
- 146.19 SendMail.GetRichText 7018
- 146.20 SendMail.GetSMTPPassword 7019
- 146.21 SendMail.GetSMTPServer 7020
- 146.22 SendMail.GetSMTPUserName 7021
- 146.23 SendMail.GetSource 7022
- 146.24 SendMail.GetSubject 7023
- 146.25 SendMail.PrepareCURL 7024
- 146.26 SendMail.Release 7026
- 146.27 SendMail.SetFrom 7027
- 146.28 SendMail.SetHTMLText 7029
- 146.29 SendMail.SetInReplyTo 7031
- 146.30 SendMail.SetMessageID 7032
- 146.31 SendMail.SetPlainText 7033
- 146.32 SendMail.SetRichText 7035
- 146.33 SendMail.SetSMTPPassword 7037
- 146.34 SendMail.SetSMTPServer 7039

	167
• 146.35 SendMail.SetSMTPUserName	7041
• 146.36 SendMail.SetSubject	7043
• 147.1 SerialPort.AvailableBytes	7045
• 147.2 SerialPort.Clear	7047
• 147.3 SerialPort.ClearDataAvailableHandler	7048
• 147.4 SerialPort.Close	7049
• 147.5 SerialPort.CloseAll	7050
• 147.6 SerialPort.GetBaudRate	7051
• 147.7 SerialPort.GetCTS	7052
• 147.8 SerialPort.GetDSR	7053
• 147.9 SerialPort.GetDTR	7054
• 147.10 SerialPort.GetDataBits	7055
• 147.11 SerialPort.GetParity	7056
• 147.12 SerialPort.GetRTS	7057
• 147.13 SerialPort.GetStopBits	7058
• 147.14 SerialPort.GetXON	7059
• 147.15 SerialPort.HasLine	7060
• 147.16 SerialPort.IsSuspended	7061
• 147.17 SerialPort.LastError	7062
• 147.18 SerialPort.List	7063
• 147.19 SerialPort.Open	7064
• 147.20 SerialPort.Read	7070
• 147.21 SerialPort.ReadByte	7073
• 147.22 SerialPort.ReadHex	7074
• 147.23 SerialPort.ReadLine	7075
• 147.24 SerialPort.Resume	7076
• 147.25 SerialPort.SetBaudRate	7077
• 147.26 SerialPort.SetCTS	7078
• 147.27 SerialPort.SetDSR	7079

- 147.28 SerialPort.SetDTR 7080
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 147.31 SerialPort.SetDataBits 7084
- 147.32 SerialPort.SetParity 7085
- 147.33 SerialPort.SetRTS 7086
- 147.34 SerialPort.SetStopBits 7087
- 147.35 SerialPort.SetXON 7088
- 147.36 SerialPort.Suspend 7090
- 147.37 SerialPort.Write 7091
- 147.38 SerialPort.WriteByte 7093
- 147.39 SerialPort.WriteHex 7094
- 148.1 ServerSocket.Check 7097
- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.3 ServerSocket.GetAllowedTypes 7099
- 148.4 ServerSocket.SendQuery 7100
- 148.5 ServerSocket.SetAllowedScripts 7102
- 148.6 ServerSocket.SetAllowedTypes 7103
- 148.7 ServerSocket.Start 7104
- 148.8 ServerSocket.Stop 7106
- 149.1 ServiceProvider.Install 7107
- 149.2 ServiceProvider.Uninstall 7109
- 149.3 ServiceProvider.Value 7110
- 165.3 SetSystemUIMode 7849
- 150.1 SharedMemory.Exists 7111
- 150.2 SharedMemory.GetValue 7112
- 150.3 SharedMemory.SetValue 7113
- 151.1 Shell.AddArgument 7115
- 151.2 Shell.AddEnvironment 7118

	169
• 151.3 Shell.AvailableBytesError	7119
• 151.4 Shell.AvailableBytesOutput	7120
• 151.5 Shell.ClearArguments	7121
• 151.6 Shell.ClearEnvironment	7122
• 151.7 Shell.CloseInput	7123
• 151.8 Shell.CloseStreams	7124
• 151.9 Shell.Execute	7125
• 151.10 Shell.ExitCode	7133
• 151.11 Shell.GetApplicationName	7134
• 151.12 Shell.GetArgument	7135
• 151.13 Shell.GetArgumentCount	7136
• 151.14 Shell.GetArguments	7137
• 151.15 Shell.GetCompletedEvaluate	7138
• 151.16 Shell.GetCompletedScriptFileName	7139
• 151.17 Shell.GetCompletedScriptName	7140
• 151.18 Shell.GetCurrentDirectory	7141
• 151.19 Shell.GetDataAvailableEvaluate	7142
• 151.20 Shell.GetDataAvailableScriptFileName	7143
• 151.21 Shell.GetDataAvailableScriptName	7144
• 151.22 Shell.GetDomain	7145
• 151.23 Shell.GetEnvironment	7146
• 151.24 Shell.GetPassword	7147
• 151.25 Shell.GetUsername	7148
• 151.26 Shell.IsRunning	7149
• 151.27 Shell.New	7150
• 151.28 Shell.PeekErrorText	7151
• 151.29 Shell.PeekOutputText	7152
• 151.30 Shell.ProcessIdentifier	7153
• 151.31 Shell.ReadErrorText	7154

- 151.32 Shell.ReadOutputText 7155
- 151.33 Shell.Release 7157
- 151.34 Shell.SetApplicationName 7158
- 151.35 Shell.SetArguments 7159
- 151.36 Shell.SetArgumentsList 7160
- 151.37 Shell.SetCompletedEvaluate 7161
- 151.38 Shell.SetCompletedScript 7162
- 151.39 Shell.SetCurrentDirectory 7163
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 151.41 Shell.SetDataAvailableScript 7165
- 151.42 Shell.SetDomain 7166
- 151.43 Shell.SetPassword 7167
- 151.44 Shell.SetUsername 7168
- 151.45 Shell.Terminate 7169
- 151.46 Shell.TerminationReason 7170
- 151.47 Shell.Wait 7171
- 151.48 Shell.WriteInputText 7173
- 178.12 ShowURL 8371
- 153.1 SmartCard.Available 7203
- 153.2 SmartCard.BeginTransaction 7204
- 153.3 SmartCard.Cancel 7205
- 153.4 SmartCard.CancelTransaction 7206
- 153.5 SmartCard.Connect 7207
- 153.6 SmartCard.Control 7209
- 153.7 SmartCard.Disconnect 7210
- 153.8 SmartCard.EndTransaction 7211
- 153.9 SmartCard.GetActiveProtocol 7212
- 153.10 SmartCard.GetAttribute 7213
- 153.11 SmartCard.HeaderTemplate 7215

	171
• 153.12 SmartCard.Init	7216
• 153.13 SmartCard.ListReaderGroups	7219
• 153.14 SmartCard.ListReaders	7220
• 153.15 SmartCard.PerformSignature	7222
• 153.16 SmartCard.ReadCertificate	7223
• 153.17 SmartCard.ReadFile	7224
• 153.18 SmartCard.Reconnect	7227
• 153.19 SmartCard.Release	7228
• 153.20 SmartCard.SetAttribute	7229
• 153.21 SmartCard.SplitValues	7230
• 153.22 SmartCard.Status	7232
• 153.23 SmartCard.Transmit	7233
• 153.24 SmartCard.TransmitReceiveHeader	7236
• 153.25 SmartCard.Valid	7237
• 155.1 Social.AccountProperty	7243
• 155.2 Social.Accounts	7245
• 155.3 Social.HasAccessForAccountType	7247
• 155.4 Social.RequestAccessForAccountType	7248
• 156.1 SocialComposer.AddImageContainer	7275
• 156.2 SocialComposer.AddImageFile	7277
• 156.3 SocialComposer.AddURL	7278
• 156.4 SocialComposer.Dismiss	7279
• 156.5 SocialComposer.GetEvaluate	7280
• 156.6 SocialComposer.GetFileName	7281
• 156.7 SocialComposer.GetInitialText	7282
• 156.8 SocialComposer.GetScriptName	7283
• 156.9 SocialComposer.ImageCount	7284
• 156.10 SocialComposer.IsAvailableForServiceType	7285
• 156.11 SocialComposer.IsPresented	7286

- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289
- 156.14 SocialComposer.RemoveAllImages 7291
- 156.15 SocialComposer.RemoveAllURLs 7292
- 156.16 SocialComposer.Result 7293
- 156.17 SocialComposer.ServiceType 7294
- 156.18 SocialComposer.SetEvaluate 7295
- 156.19 SocialComposer.SetInitialText 7296
- 156.20 SocialComposer.SetScript 7297
- 156.21 SocialComposer.URLCount 7299
- 155.5 SocialRequest.AddParameter 7250
- 155.6 SocialRequest.ClearMultipartData 7252
- 155.7 SocialRequest.ClearParameter 7253
- 155.8 SocialRequest.GetAccount 7254
- 155.9 SocialRequest.GetMultiPartDataCount 7255
- 155.10 SocialRequest.GetParameterCount 7256
- 155.11 SocialRequest.GetRequestMethod 7257
- 155.12 SocialRequest.GetResponse 7258
- 155.13 SocialRequest.GetServiceType 7260
- 155.14 SocialRequest.GetURL 7261
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264
- 155.17 SocialRequest.Release 7266
- 155.18 SocialRequest.SetAccount 7267
- 155.19 SocialRequest.SetRequestMethod 7269
- 155.20 SocialRequest.SetServiceType 7270
- 155.21 SocialRequest.SetURL 7271
- 155.22 SocialRequest.addMultipartContainer 7272
- 155.23 SocialRequest.addMultipartText 7273



	173
• 157.1 Socket.AcceptNewConnection	7301
• 157.2 Socket.AddMembership	7303
• 157.3 Socket.AvailableBytes	7304
• 157.4 Socket.Check	7305
• 157.5 Socket.CheckAll	7306
• 157.6 Socket.ClearDataAvailableHandler	7307
• 157.7 Socket.ClearErrorHandler	7308
• 157.8 Socket.ClearNewConnectionHandler	7309
• 157.9 Socket.Close	7310
• 157.10 Socket.CloseAll	7312
• 157.11 Socket.Connect	7313
• 157.12 Socket.DropMembership	7318
• 157.13 Socket.GetBroadcast	7319
• 157.14 Socket.GetMulticastInterface	7320
• 157.15 Socket.GetMulticastLoop	7321
• 157.16 Socket.GetMulticastTimeToLive	7322
• 157.17 Socket.GetTag	7323
• 157.18 Socket.GetTimeToLive	7324
• 157.19 Socket.IsClosed	7325
• 157.20 Socket.IsListening	7326
• 157.21 Socket.LastError	7327
• 157.22 Socket.LastMessageIP	7328
• 157.23 Socket.LastMessagePort	7329
• 157.24 Socket.List	7330
• 157.25 Socket.Listen	7331
• 157.26 Socket.LocalIP	7333
• 157.27 Socket.LocalPort	7334
• 157.28 Socket.NewTCPSocket	7335
• 157.29 Socket.NewUDPSocket	7337

- 157.30 Socket.Peek 7339
- 157.31 Socket.PeekAll 7340
- 157.32 Socket.PeekAllHex 7341
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353
- 157.41 Socket.RemoteIP 7354
- 157.42 Socket.RemotePort 7355
- 157.43 Socket.SSL.Accept 7356
- 157.44 Socket.SSL.Connect 7357
- 157.45 Socket.SSL.GetMethod 7358
- 157.46 Socket.SSL.Initialize 7359
- 157.47 Socket.SSL.Prepare 7360
- 157.48 Socket.SSL.SetMethod 7361
- 157.49 Socket.SSL.UseCertificateFile 7362
- 157.50 Socket.SSL.UsePrivateKeyFile 7363
- 157.51 Socket.SendMessage 7364
- 157.52 Socket.SendMessageHex 7366
- 157.53 Socket.SetBroadcast 7367
- 157.54 Socket.SetDataAvailableEvaluate 7368
- 157.55 Socket.SetDataAvailableHandler 7369
- 157.56 Socket.SetDataAvailableURL 7371
- 157.57 Socket.SetErrorEvaluate 7372
- 157.58 Socket.SetErrorHandler 7373

	175
• 157.59 Socket.SetErrorURL	7375
• 157.60 Socket.SetMulticastInterface	7376
• 157.61 Socket.SetMulticastLoop	7377
• 157.62 Socket.SetMulticastTimeToLive	7378
• 157.63 Socket.SetNewConnectionEvaluate	7379
• 157.64 Socket.SetNewConnectionHandler	7380
• 157.65 Socket.SetNewConnectionURL	7382
• 157.66 Socket.SetTag	7383
• 157.67 Socket.SetTimeToLive	7384
• 157.68 Socket.Write	7385
• 157.69 Socket.WriteByte	7387
• 157.70 Socket.WriteHex	7388
• 157.71 Socket.WriteMLLP	7390
• 158.1 Speech.AvailableVoices	7391
• 158.2 Speech.IsPaused	7392
• 158.3 Speech.IsSpeaking	7393
• 158.4 Speech.Pause	7394
• 158.5 Speech.Resume	7395
• 158.6 Speech.Speak	7396
• 158.7 SpeechRecognition.AuthorizationStatus	7398
• 158.8 SpeechRecognition.Initialize	7399
• 158.9 SpeechRecognition.IsInitialized	7400
• 158.10 SpeechRecognition.Recognize	7401
• 158.11 SpeechRecognition.RequestAuthorization	7403
• 158.12 SpeechRecognition.SupportedLocales	7404
• 158.13 SpeechRecognition.SupportsOnDeviceRecognition	7406
• 161.1 StoreKit.AddPayment	7663
• 161.2 StoreKit.CanMakePayments	7665
• 161.3 StoreKit.FinishTransaction	7666

- 161.4 StoreKit.InvalidProductIdentifiers 7667
- 161.5 StoreKit.IsProductViewVisible 7668
- 161.6 StoreKit.ProductQueryRunning 7669
- 161.7 StoreKit.Products 7670
- 161.8 StoreKit.QueryProducts 7671
- 161.9 StoreKit.RequestReview 7672
- 161.10 StoreKit.RestoreCompletedTransactions 7673
- 161.11 StoreKit.SetProductViewFinishedTrigger 7674
- 161.12 StoreKit.SetRestoreCompletedTransactionsTrigger 7675
- 161.13 StoreKit.SetUpdatedTransactionsTrigger 7676
- 161.14 StoreKit.ShowProductView 7677
- 161.15 StoreKit.Transactions 7678
- 127.51 StoreRegistration 6432
- 162.1 SyntaxColoring.AddContextMenuCommand 7679
- 162.2 SyntaxColoring.AddTag 7686
- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable 7691
- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits 7696
- 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable 7697
- 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable 7698
- 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled 7699
- 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits 7700
- 162.11 SyntaxColoring.Clear 7701
- 162.12 SyntaxColoring.ClearContextMenuCommands 7702
- 162.13 SyntaxColoring.ContextualMenuEnabled.GetEnabled 7703
- 162.14 SyntaxColoring.ContextualMenuEnabled.SetEnabled 7704
- 162.15 SyntaxColoring.CopyButton.GetEnabled 7705
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706

	177
• 162.17 SyntaxColoring.Disable	7708
• 162.18 SyntaxColoring.Enable	7709
• 162.19 SyntaxColoring.Enabled	7710
• 162.20 SyntaxColoring.FactoryDefaults	7711
• 162.21 SyntaxColoring.Format	7712
• 162.22 SyntaxColoring.GetAddFindbars	7713
• 162.23 SyntaxColoring.GetBlackFieldPicker	7714
• 162.24 SyntaxColoring.GetFontName	7715
• 162.25 SyntaxColoring.GetFontSize	7716
• 162.26 SyntaxColoring.GetFormulasWithLinks	7717
• 162.27 SyntaxColoring.GetMinCalcFontSize	7718
• 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize	7719
• 162.29 SyntaxColoring.GetRememberColumnWidths	7720
• 162.30 SyntaxColoring.GetResizeFieldPicker	7721
• 162.31 SyntaxColoring.GetScriptHighlightColor	7722
• 162.32 SyntaxColoring.GetScriptIfColor	7723
• 162.33 SyntaxColoring.GetScriptLoopColor	7724
• 162.34 SyntaxColoring.GetScriptSearchColor	7725
• 162.35 SyntaxColoring.GetShowFieldAndTableIDs	7726
• 162.36 SyntaxColoring.GetShowLayoutIDs	7727
• 162.37 SyntaxColoring.GetShowScriptIDs	7728
• 162.38 SyntaxColoring.GetTag	7729
• 162.39 SyntaxColoring.GetTags	7730
• 162.40 SyntaxColoring.GetUseBoldFont	7731
• 162.41 SyntaxColoring.LineNumbers.Disable	7732
• 162.42 SyntaxColoring.LineNumbers.Enable	7733
• 162.43 SyntaxColoring.LineNumbers.Enabled	7735
• 162.44 SyntaxColoring.LineNumbers.GetColor	7736
• 162.45 SyntaxColoring.LineNumbers.SetColor	7737

- 162.46 SyntaxColoring.ListContextMenuCommand 7738
- 162.47 SyntaxColoring.RelationshipGraphSearchBox.GetEnabled 7739
- 162.48 SyntaxColoring.RelationshipGraphSearchBox.SetEnabled 7740
- 162.49 SyntaxColoring.RemoveContextMenuCommand 7741
- 162.50 SyntaxColoring.RemoveTag 7742
- 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled 7743
- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.53 SyntaxColoring.ScriptIfLoopHighlight.GetEnabled 7746
- 162.54 SyntaxColoring.ScriptIfLoopHighlight.SetEnabled 7747
- 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled 7748
- 162.56 SyntaxColoring.ScriptSearchBox.GetText 7749
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.58 SyntaxColoring.ScriptSearchBox.SetText 7752
- 162.59 SyntaxColoring.SetAddFindbars 7753
- 162.60 SyntaxColoring.SetBlackFieldPicker 7754
- 162.61 SyntaxColoring.SetFontName 7755
- 162.62 SyntaxColoring.SetFontSize 7756
- 162.63 SyntaxColoring.SetFormulasWithLinks 7757
- 162.64 SyntaxColoring.SetMinCalcFontSize 7758
- 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize 7759
- 162.66 SyntaxColoring.SetRememberColumnWidths 7760
- 162.67 SyntaxColoring.SetResizeFieldPicker 7761
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.70 SyntaxColoring.SetScriptLoopColor 7765
- 162.71 SyntaxColoring.SetScriptSearchColor 7766
- 162.72 SyntaxColoring.SetShowFieldAndTableIDs 7767
- 162.73 SyntaxColoring.SetShowLayoutIDs 7768
- 162.74 SyntaxColoring.SetShowScriptIDs 7769

	179
• 162.75 SyntaxColoring.SetUseBoldFont	7770
• 162.76 SyntaxColoring.ShowTextPositions.GetEnabled	7771
• 162.77 SyntaxColoring.ShowTextPositions.SetEnabled	7772
• 162.78 SyntaxColoring.ZoomButton.GetEnabled	7773
• 162.79 SyntaxColoring.ZoomButton.SetEnabled	7774
• 163.1 System.Logout	7775
• 163.2 System.Restart	7776
• 163.3 System.Shutdown	7777
• 163.4 System.Sleep	7778
• 164.1 SystemInfo.ADSystemInfo	7779
• 164.2 SystemInfo.AvailableRAM	7781
• 164.3 SystemInfo.CPUBrandString	7782
• 164.4 SystemInfo.ComputerName	7783
• 164.5 SystemInfo.DomainName	7784
• 164.6 SystemInfo.DoubleClickTime	7785
• 164.7 SystemInfo.HardDiscSerial	7786
• 164.8 SystemInfo.HostDNSName	7787
• 164.9 SystemInfo.HostName	7788
• 164.10 SystemInfo.IdleTime	7789
• 164.11 SystemInfo.Is64bitWindows	7790
• 164.12 SystemInfo.IsAdminUser	7791
• 164.13 SystemInfo.MACAddress	7792
• 164.14 SystemInfo.MacAppDarkMode	7793
• 164.15 SystemInfo.MacBoardID	7794
• 164.16 SystemInfo.MacBugFixVersion	7795
• 164.17 SystemInfo.MacHasHardwareAcceleratedCoreImage	7796
• 164.18 SystemInfo.MacMajorVersion	7797
• 164.19 SystemInfo.MacMinorVersion	7798
• 164.20 SystemInfo.MacModel	7799

- 164.21 SystemInfo.MacROMBootVersion 7800
- 164.22 SystemInfo.MacSerialNumber 7801
- 164.23 SystemInfo.MacSystemDarkMode 7802
- 164.24 SystemInfo.MacUUID 7803
- 164.25 SystemInfo.MacVRAMSize 7804
- 164.26 SystemInfo.NetworkStats 7805
- 164.27 SystemInfo.OSName 7808
- 164.28 SystemInfo.OSVersionString 7809
- 164.29 SystemInfo.PhysicalRAM 7810
- 164.30 SystemInfo.ProcessorCount 7811
- 164.31 SystemInfo.SystemFont 7812
- 164.32 SystemInfo.Time 7813
- 164.33 SystemInfo.UserName 7814
- 164.34 SystemInfo.UserShortName 7815
- 164.35 SystemInfo.WinBuildNumber 7816
- 164.36 SystemInfo.WinCSDVersion 7817
- 164.37 SystemInfo.WinMajorVersion 7818
- 164.38 SystemInfo.WinMinorVersion 7819
- 164.39 SystemInfo.WinPlatformId 7820
- 164.40 SystemInfo.WinProductKey 7821
- 164.41 SystemInfo.WinProductType 7822
- 164.42 SystemInfo.WinServicePackMajor 7823
- 164.43 SystemInfo.WinServicePackMinor 7824
- 164.44 SystemInfo.WinSuiteMask 7825
- 164.45 SystemInfo.WinSystemMetrics 7826
- 164.46 SystemInfo.WindowsAero 7828
- 164.47 SystemInfo.isCatalina 7829
- 164.48 SystemInfo.isElCapitan 7830
- 164.49 SystemInfo.isHighSierra 7831



	181
• 164.50 SystemInfo.isLeopard	7832
• 164.51 SystemInfo.isLion	7833
• 164.52 SystemInfo.isMacOSX	7834
• 164.53 SystemInfo.isMavericks	7835
• 164.54 SystemInfo.isMojave	7836
• 164.55 SystemInfo.isMountainLion	7837
• 164.56 SystemInfo.isSierra	7838
• 164.57 SystemInfo.isSnowLeopard	7839
• 164.58 SystemInfo.isWindows10	7840
• 164.59 SystemInfo.isWindows2000	7841
• 164.60 SystemInfo.isWindows7	7842
• 164.61 SystemInfo.isWindows8	7843
• 164.62 SystemInfo.isWindowsVista	7844
• 164.63 SystemInfo.isWindowsXP	7845
• 164.64 SystemInfo.isYosemite	7846
• 166.1 TAPI.AddressCount	7853
• 166.2 TAPI.AddressValue	7855
• 166.3 TAPI.Answer	7856
• 166.4 TAPI.BlindTransfer	7857
• 166.5 TAPI.CallInfo	7858
• 166.6 TAPI.Connect	7860
• 166.7 TAPI.CreateCall	7861
• 166.8 TAPI.Dial	7863
• 166.9 TAPI.Disconnect	7864
• 166.10 TAPI.Finish	7865
• 166.11 TAPI.GetCallStateEvaluate	7866
• 166.12 TAPI.GetCallStateScriptFileName	7867
• 166.13 TAPI.GetCallStateScriptName	7868
• 166.14 TAPI.GetCallStateURL	7869

- 166.15 TAPI.GetNewCallEvaluate 7870
- 166.16 TAPI.GetNewCallScriptFileName 7871
- 166.17 TAPI.GetNewCallScriptName 7872
- 166.18 TAPI.GetNewCallURL 7873
- 166.19 TAPI.HandoffDirect 7874
- 166.20 TAPI.Hold 7875
- 166.21 TAPI.Initialize 7876
- 166.22 TAPI.IsInitialized 7877
- 166.23 TAPI.ListenOnAddress 7878
- 166.24 TAPI.ListenOnAllAddresses 7879
- 166.25 TAPI.ParkDirect 7880
- 166.26 TAPI.ParkIndirect 7881
- 166.27 TAPI.Pickup 7882
- 166.28 TAPI.Release 7883
- 166.29 TAPI.ReleaseAll 7884
- 166.30 TAPI.RemoveFromConference 7885
- 166.31 TAPI.SetCallStateEvaluate 7886
- 166.32 TAPI.SetCallStateScript 7887
- 166.33 TAPI.SetCallStateURL 7888
- 166.34 TAPI.SetNewCallEvaluate 7889
- 166.35 TAPI.SetNewCallScript 7890
- 166.36 TAPI.SetNewCallURL 7891
- 166.37 TAPI.Shutdown 7892
- 166.38 TAPI.Transfer 7893
- 166.39 TAPI.Unpark 7894
- 167.1 Text.AddLineNumbers 7895
- 167.2 Text.AppendTextFile 7897
- 167.3 Text.CapitalCase 7899
- 167.4 Text.Character 7901

	183
• 167.5 Text.Characters	7903
• 167.6 Text.Code	7904
• 167.7 Text.ConvertFromTextEncoding	7905
• 167.8 Text.ConvertToTextEncoding	7911
• 167.9 Text.ConvertUnicodeToCharacterComposition	7918
• 167.10 Text.ConvertUnicodeToCharacterDecomposition	7920
• 167.11 Text.CountWords	7921
• 167.12 Text.DecodeBytesFromBase64	7922
• 167.13 Text.DecodeFromBase64	7923
• 167.14 Text.DecodeFromBase64URL	7924
• 167.15 Text.DecodeFromBytes	7925
• 167.16 Text.DecodeFromHTML	7926
• 167.17 Text.DecodeFromHex	7928
• 167.18 Text.DecodeFromQuotedPrintable	7930
• 167.19 Text.DecodeFromURL	7931
• 167.20 Text.DecodeFromXML	7933
• 167.21 Text.DecodeHexFromBase64	7934
• 167.22 Text.DecodeIMAPFolderName	7935
• 167.23 Text.DecodeURLComponent	7936
• 167.24 Text.Deserialize	7937
• 167.25 Text.EncodeBytesToBase64	7938
• 167.26 Text.EncodeEmailSubject	7939
• 167.27 Text.EncodeHexToBase64	7940
• 167.28 Text.EncodeToBase64	7941
• 167.29 Text.EncodeToBase64URL	7942
• 167.30 Text.EncodeToBytes	7944
• 167.31 Text.EncodeToHTML	7945
• 167.32 Text.EncodeToHex	7947
• 167.33 Text.EncodeToQuotedPrintable	7949

- 167.34 Text.EncodeToURL 7950
- 167.35 Text.EncodeToXML 7952
- 167.36 Text.EncodeURLComponent 7954
- 167.37 Text.FileExtensionToMimeType 7956
- 167.38 Text.FilterUTF16 7958
- 167.39 Text.FindBetween 7959
- 167.40 Text.InvalidCharactersForEncoding 7961
- 167.41 Text.JaroWinklerDistance 7962
- 167.42 Text.Length 7963
- 167.43 Text.LevenshteinDistance 7964
- 167.44 Text.ListWords 7965
- 167.45 Text.LowerCase 7966
- 167.46 Text.MergeFields 7967
- 167.47 Text.MimeTypeToFileExtension 7969
- 167.48 Text.ReadEMLXFile 7970
- 167.49 Text.ReadTextFile 7971
- 167.50 Text.ReadTextFromContainer 7975
- 167.51 Text.RedefineEncoding 7976
- 167.52 Text.RemoveAccents 7977
- 167.53 Text.RemoveAccentsCaseInsensitive 7978
- 167.54 Text.RemoveControlCharacters 7979
- 167.55 Text.RemoveNewLine 7980
- 167.56 Text.RemovePostfix 7981
- 167.57 Text.RemovePrefix 7982
- 167.58 Text.ReplaceAll 7984
- 167.59 Text.ReplaceNewline 7985
- 167.60 Text.Serialize 7988
- 167.61 Text.SoundEx 7989
- 167.62 Text.SoundExGerman 7990

	185
• 167.63 Text.Styles	7991
• 167.64 Text.TextToHTML	7993
• 167.65 Text.TextToRTF	7995
• 167.66 Text.Trim	7997
• 167.67 Text.UpperCase	7998
• 167.68 Text.WriteTextFile	7999
• 167.69 Text.WriteToContainer	8003
• 168.1 TextView.CanUndo	8005
• 168.2 TextView.Copy	8006
• 168.3 TextView.CreateOnPopoverWithControl	8007
• 168.4 TextView.CreateOnPopoverWithSize	8009
• 168.5 TextView.CreateWithControl	8010
• 168.6 TextView.CreateWithSize	8012
• 168.7 TextView.CreateWithWindow	8013
• 168.8 TextView.Cut	8014
• 168.9 TextView.GetAutoCorrectionEnabled	8015
• 168.10 TextView.GetAutoResizingMask	8016
• 168.11 TextView.GetHTMLText	8017
• 168.12 TextView.GetHeight	8018
• 168.13 TextView.GetLeft	8019
• 168.14 TextView.GetPlainText	8020
• 168.15 TextView.GetRTF	8021
• 168.16 TextView.GetReadOnly	8022
• 168.17 TextView.GetRulerVisible	8023
• 168.18 TextView.GetSpellCheckingEnabled	8024
• 168.19 TextView.GetStyled	8025
• 168.20 TextView.GetTag	8026
• 168.21 TextView.GetTop	8027
• 168.22 TextView.GetVisible	8028

- 168.23 `TextView.GetWidth` 8029
- 168.24 `TextView.GetWindowRef` 8030
- 168.25 `TextView.List` 8031
- 168.26 `TextView.Paste` 8032
- 168.27 `TextView.Release` 8033
- 168.28 `TextView.ReleaseAll` 8034
- 168.29 `TextView.SetAutoCorrectionEnabled` 8035
- 168.30 `TextView.SetAutoResizingMask` 8036
- 168.31 `TextView.SetFocus` 8038
- 168.32 `TextView.SetFrame` 8039
- 168.33 `TextView.SetFrameWithControl` 8040
- 168.34 `TextView.SetHTMLText` 8041
- 168.35 `TextView.SetPlainText` 8042
- 168.36 `TextView.SetRTF` 8043
- 168.37 `TextView.SetReadOnly` 8044
- 168.38 `TextView.SetRulerVisible` 8045
- 168.39 `TextView.SetSpellCheckingEnabled` 8046
- 168.40 `TextView.SetStyled` 8047
- 168.41 `TextView.SetTag` 8048
- 168.42 `TextView.SetVisible` 8049
- 168.43 `TextView.ShowFontPanel` 8050
- 168.44 `TextView.Undo` 8051
- 169.1 `Time.Format` 8053
- 169.2 `Time.Parse` 8057
- 178.13 `Time.Sleep` 8372
- 169.3 `Time.TimeStampToUTC` 8061
- 169.4 `Time.TimeZoneOffset` 8062
- 178.14 `Time.UnixTimeStamp` 8373
- 169.5 `Time.UnixTimeStampToFileMaker` 8063

	187
• 185.1 Toolbar.Install	8667
• 185.2 Toolbar.InstallBackground	8669
• 185.3 Toolbar.Register	8670
• 170.4 Toolbar.SetImage	8070
• 170.5 Toolbar.SetLabel	8072
• 170.6 Toolbar.SetPaletteLabel	8074
• 170.7 Toolbar.SetTooltip	8075
• 185.4 Toolbar.Unregister	8672
• 171.2 TouchBar.AddButton	8088
• 171.3 TouchBar.AssignToApp	8091
• 171.4 TouchBar.AssignToWindow	8093
• 171.5 TouchBar.Available	8095
• 171.6 TouchBar.Clear	8096
• 171.7 TouchBar.Create	8097
• 171.8 TouchBar.GetAutomaticCustomizeTouchBarItemEnabled	8098
• 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers	8099
• 171.10 TouchBar.GetCustomizationIdentifier	8100
• 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers	8101
• 171.12 TouchBar.GetDefaultItemIdentifiers	8102
• 171.13 TouchBar.GetItemIdentifiers	8103
• 171.14 TouchBar.GetPrincipalItemIdentifier	8104
• 171.15 TouchBar.Release	8105
• 171.16 TouchBar.SetAutomaticCustomizeTouchBarItemEnabled	8106
• 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers	8107
• 171.18 TouchBar.SetCustomizationIdentifier	8108
• 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers	8109
• 171.20 TouchBar.SetDefaultItemIdentifiers	8110
• 171.21 TouchBar.SetPrincipalItemIdentifier	8111
• 171.22 TouchBar.ToggleCustomizationPalette	8112

- 171.23 TouchBar.Visible 8113
- 127.52 Trace 6434
- 127.53 Trace.AreErrorNotificationsEnabled 6437
- 127.54 Trace.DisableErrorNotifications 6438
- 127.55 Trace.EnableErrorNotifications 6439
- 127.56 Trace.GetErrorsOnly 6440
- 127.57 Trace.GetWithTimes 6441
- 127.58 Trace.Off 6442
- 127.59 Trace.SetErrorsOnly 6443
- 127.60 Trace.SetWithTimes 6444
- 127.61 Trace.WriteLine 6445
- 172.1 Twain.Acquire 8115
- 172.2 Twain.ClearCancelScript 8117
- 172.3 Twain.ClearNotificationScript 8118
- 172.4 Twain.CloseDS 8119
- 172.5 Twain.CloseDSM 8120
- 172.6 Twain.CurrentDSIdentity 8121
- 172.7 Twain.CurrentImage 8122
- 172.8 Twain.DisableDS 8123
- 172.9 Twain.GetAutofeed 8124
- 172.10 Twain.GetAutomaticBorderDetection 8125
- 172.11 Twain.GetAutomaticBrightness 8126
- 172.12 Twain.GetAutomaticRotate 8127
- 172.13 Twain.GetBrightness 8128
- 172.14 Twain.GetCloseAfterTransfer 8129
- 172.15 Twain.GetCompressionQuality 8130
- 172.16 Twain.GetContrast 8131
- 172.17 Twain.GetDSIdentitiesCount 8132
- 172.18 Twain.GetDSIdentity 8133



	189
• 172.19 Twain.GetDefaultIdentity	8134
• 172.20 Twain.GetDiscardBlankPages	8135
• 172.21 Twain.GetDuplexEnabled	8136
• 172.22 Twain.GetFeededEnabled	8137
• 172.23 Twain.GetFilePaths	8138
• 172.24 Twain.GetFileType	8139
• 172.25 Twain.GetFolderPath	8140
• 172.26 Twain.GetGamma	8141
• 172.27 Twain.GetHighlight	8142
• 172.28 Twain.GetImageCount	8143
• 172.29 Twain.GetOrientation	8144
• 172.30 Twain.GetPaper	8145
• 172.31 Twain.GetPixelType	8146
• 172.32 Twain.GetResolutionX	8147
• 172.33 Twain.GetResolutionY	8148
• 172.34 Twain.GetShadow	8149
• 172.35 Twain.GetUIVisible	8150
• 172.36 Twain.ImageInfo	8151
• 172.37 Twain.Initialize	8153
• 172.38 Twain.IsDSEnabled	8155
• 172.39 Twain.IsInitialized	8156
• 172.40 Twain.OpenDS	8157
• 172.41 Twain.OpenDSM	8158
• 172.42 Twain.SelectDS	8159
• 172.43 Twain.SelectDSIdentity	8160
• 172.44 Twain.SetAutofeed	8161
• 172.45 Twain.SetAutomaticBorderDetection	8162
• 172.46 Twain.SetAutomaticBrightness	8163
• 172.47 Twain.SetAutomaticRotate	8164

- 172.48 Twain.SetBrightness 8165
- 172.49 Twain.SetCancelScript 8166
- 172.50 Twain.SetCloseAfterTransfer 8167
- 172.51 Twain.SetCompressionQuality 8168
- 172.52 Twain.SetContrast 8169
- 172.53 Twain.SetDefaultDSIdentity 8170
- 172.54 Twain.SetDiscardBlankPages 8171
- 172.55 Twain.SetDuplexEnabled 8172
- 172.56 Twain.SetFeededEnabled 8173
- 172.57 Twain.SetFileType 8175
- 172.58 Twain.SetFolderPath 8176
- 172.59 Twain.SetGamma 8177
- 172.60 Twain.SetHighlight 8178
- 172.61 Twain.SetNotificationScript 8179
- 172.62 Twain.SetOrientation 8180
- 172.63 Twain.SetPaper 8181
- 172.64 Twain.SetPaperSize 8183
- 172.65 Twain.SetPixelType 8184
- 172.66 Twain.SetResolutionX 8185
- 172.67 Twain.SetResolutionY 8186
- 172.68 Twain.SetShadow 8187
- 172.69 Twain.SupportsBW 8188
- 172.70 Twain.SupportsGray 8189
- 172.71 Twain.SupportsMemoryTransfer 8190
- 172.72 Twain.SupportsRGB 8191
- 172.73 Twain.TransferImage 8192
- 173.1 UNNotification.Action 8193
- 173.2 UNNotification.AddUserInfo 8195
- 173.3 UNNotification.AuthorizationError 8196

	191
• 173.4 UNNotification.AuthorizationGranted	8197
• 173.5 UNNotification.Badge	8198
• 173.6 UNNotification.Body	8199
• 173.7 UNNotification.CategoryIdentifier	8200
• 173.8 UNNotification.Date	8201
• 173.9 UNNotification.Deliver	8202
• 173.10 UNNotification.DeliveredNotifications	8203
• 173.11 UNNotification.GetDescription	8204
• 173.12 UNNotification.Identifier	8205
• 173.13 UNNotification.IsRegisteredForRemoteNotifications	8206
• 173.14 UNNotification.LaunchImageName	8207
• 173.15 UNNotification.New	8208
• 173.16 UNNotification.NextTriggerDate	8210
• 173.17 UNNotification.NotificationSettings	8211
• 173.18 UNNotification.PendingNotificationRequests	8213
• 173.19 UNNotification.Region	8214
• 173.20 UNNotification.Release	8216
• 173.21 UNNotification.ReleaseAll	8217
• 173.22 UNNotification.RemoteNotificationsDeviceToken	8218
• 173.23 UNNotification.RemoteNotificationsError	8219
• 173.24 UNNotification.RemoveAllDeliveredNotifications	8220
• 173.25 UNNotification.RemoveAllPendingNotificationRequests	8221
• 173.26 UNNotification.RemoveDeliveredNotificationsWithIdentifiers	8222
• 173.27 UNNotification.RemovePendingNotificationRequestsWithIdentifiers	8223
• 173.28 UNNotification.Repeats	8224
• 173.29 UNNotification.Schedule	8225
• 173.30 UNNotification.SetActionScript	8227
• 173.31 UNNotification.SetBadge	8228
• 173.32 UNNotification.SetBody	8230

- 173.33 UNNotification.SetCalendarDateTrigger 8232
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.35 UNNotification.SetCategoryIdentifier 8235
- 173.36 UNNotification.SetLaunchImageName 8236
- 173.37 UNNotification.SetLocationTrigger 8237
- 173.38 UNNotification.SetNFCScript 8239
- 173.39 UNNotification.SetScript 8240
- 173.40 UNNotification.SetSound 8242
- 173.41 UNNotification.SetSubTitle 8243
- 173.42 UNNotification.SetThreadIdentifier 8244
- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 173.46 UNNotification.ThreadIdentifier 8250
- 173.47 UNNotification.TimeInterval 8251
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254
- 173.50 UNNotification.UserInfoKeys 8255
- 173.51 UNNotification.UserInfoValue 8256
- 175.1 URLScheme.GetDefaultHandler 8269
- 175.2 URLScheme.InstallURLEventHandler 8271
- 175.3 URLScheme.SetDefaultHandler 8272
- 176.1 USB.Count 8275
- 176.2 USB.FindDevice 8277
- 176.3 USB.FindSerialNumber 8278
- 176.4 USB.GetProductID 8279
- 176.5 USB.GetProductName 8280
- 176.6 USB.GetSerialNumber 8281
- 176.7 USB.GetVendorID 8282

	193
• 176.8 USB.GetVendorName	8283
• 179.1 UUID.Formatted	8375
• 179.2 UUID.FromNumber	8377
• 179.3 UUID.Hex	8379
• 179.4 UUID.Number	8380
• 179.5 UUID.Raw	8381
• 179.6 UUID.ToNumber	8382
• 54.3 UnZipFile.Close	1512
• 54.4 UnZipFile.ExtractFiles	1513
• 54.5 UnZipFile.GlobalComment	1515
• 54.6 UnZipFile.ItemCRC	1516
• 54.7 UnZipFile.ItemComment	1517
• 54.8 UnZipFile.ItemCompressedSize	1518
• 54.9 UnZipFile.ItemCompressionMethod	1519
• 54.10 UnZipFile.ItemCount	1520
• 54.11 UnZipFile.ItemDate	1521
• 54.12 UnZipFile.ItemDiskNumberStart	1522
• 54.13 UnZipFile.ItemExternalFileAttributes	1523
• 54.14 UnZipFile.ItemFlag	1524
• 54.15 UnZipFile.ItemInternalFileAttributes	1526
• 54.16 UnZipFile.ItemName	1527
• 54.17 UnZipFile.ItemSizeFileComment	1528
• 54.18 UnZipFile.ItemSizeFileExtra	1529
• 54.19 UnZipFile.ItemSizeFileName	1530
• 54.20 UnZipFile.ItemUncompressedSize	1531
• 54.21 UnZipFile.ItemVersion	1532
• 54.22 UnZipFile.ItemVersionNeeded	1533
• 54.23 UnZipFile.OpenContainer	1534
• 54.24 UnZipFile.OpenFile	1535

• 54.25 UnZipFile.ReadAsFileContainer	1537
• 54.26 UnZipFile.ReadAsGIFContainer	1538
• 54.27 UnZipFile.ReadAsHex	1539
• 54.28 UnZipFile.ReadAsJPEGContainer	1540
• 54.29 UnZipFile.ReadAsPNGContainer	1541
• 54.30 UnZipFile.ReadAsText	1542
• 54.31 UnZipFile.ReadToFile	1543
• 54.32 UnZipFile.UsePassword	1544
• 174.1 Updater.CheckForUpdates	8257
• 174.2 Updater.CheckForUpdatesInBackground	8258
• 174.3 Updater.GetAutomaticallyChecksForUpdates	8259
• 174.4 Updater.GetAutomaticallyDownloadsUpdates	8260
• 174.5 Updater.GetFeedURL	8261
• 174.6 Updater.GetSendsSystemProfile	8262
• 174.7 Updater.LastUpdateCheckDate	8263
• 174.8 Updater.SetAutomaticallyChecksForUpdates	8264
• 174.9 Updater.SetAutomaticallyDownloadsUpdates	8265
• 174.10 Updater.SetSendsSystemProfile	8266
• 174.11 Updater.UpdateInProgress	8267
• 177.1 UserNotification.ClearDidActivateNotificationScript	8285
• 177.2 UserNotification.ClearDidDeliverNotificationScript	8287
• 177.3 UserNotification.ContentImage	8288
• 177.4 UserNotification.Create	8289
• 177.5 UserNotification.GetActionButtonTitle	8290
• 177.6 UserNotification.GetActivationType	8291
• 177.7 UserNotification.GetActualDeliveryDate	8292
• 177.8 UserNotification.GetDeliveryDate	8293
• 177.9 UserNotification.GetDeliveryTimeZone	8294
• 177.10 UserNotification.GetDescription	8295

	195
• 177.11 UserNotification.GetIdentifier	8296
• 177.12 UserNotification.GetInformativeText	8297
• 177.13 UserNotification.GetOtherButtonTitle	8298
• 177.14 UserNotification.GetResponse	8299
• 177.15 UserNotification.GetResponsePlaceholder	8300
• 177.16 UserNotification.GetSoundName	8301
• 177.17 UserNotification.GetSubTitle	8302
• 177.18 UserNotification.GetTitle	8303
• 177.19 UserNotification.GetUserInfo	8304
• 177.20 UserNotification.HasReplyButton	8305
• 177.21 UserNotification.Release	8306
• 177.22 UserNotification.SetActionButtonTitle	8307
• 177.23 UserNotification.SetContentImage	8308
• 177.24 UserNotification.SetDeliveryDate	8309
• 177.25 UserNotification.SetDeliveryTimeZone	8310
• 177.26 UserNotification.SetDidActivateNotificationScript	8311
• 177.27 UserNotification.SetDidDeliverNotificationScript	8313
• 177.28 UserNotification.SetHasActionButton	8315
• 177.29 UserNotification.SetHasReplyButton	8316
• 177.30 UserNotification.SetIdentifier	8317
• 177.31 UserNotification.SetInformativeText	8318
• 177.32 UserNotification.SetOtherButtonTitle	8319
• 177.33 UserNotification.SetResponsePlaceholder	8320
• 177.34 UserNotification.SetSoundName	8321
• 177.35 UserNotification.SetSubTitle	8322
• 177.36 UserNotification.SetTitle	8323
• 177.37 UserNotification.SetUserInfo	8324
• 177.38 UserNotification.deliverNotification	8325
• 177.39 UserNotification.deliveredNotifications	8326

- 177.40 UserNotification.hasActionButton 8327
- 177.41 UserNotification.isPresented 8328
- 177.42 UserNotification.isRemote 8329
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.47 UserNotification.scheduleNotification 8334
- 177.48 UserNotification.scheduledNotifications 8335
- 180.1 Validate.CheckReceipt 8383
- 180.2 Validate.Exit 8385
- 180.3 Validate.FindReceipt 8386
- 127.62 Version 6446
- 127.63 VersionAutoUpdate 6448
- 182.1 Vision.ClassifyImage 8401
- 182.2 Vision.DetectBarcode 8403
- 182.3 Vision.KnownClassifications 8405
- 182.4 Vision.RecognizeText 8406
- 182.5 Vision.SupportedRecognitionLanguages 8408
- 182.6 Vision.SupportedSymbologies 8409
- 184.1 WIA.ClearCurrentDevice 8629
- 184.2 WIA.DeviceCount 8630
- 184.3 WIA.DeviceProperties 8631
- 184.4 WIA.DevicePropertyKeys 8633
- 184.5 WIA.DevicePropertyValue 8636
- 184.6 WIA.GetCurrentDevice 8639
- 184.7 WIA.GetCurrentItem 8640
- 184.8 WIA.Image 8641
- 184.9 WIA.ImageCount 8643



	197
• 184.10 WIA.ImageDialog	8644
• 184.11 WIA.Images	8646
• 184.12 WIA.Initialize	8647
• 184.13 WIA.ItemProperties	8648
• 184.14 WIA.ItemPropertyKeys	8650
• 184.15 WIA.ItemPropertyValue	8653
• 184.16 WIA.ListItems	8656
• 184.17 WIA.Scan	8657
• 184.18 WIA.SelectDeviceDialog	8659
• 184.19 WIA.SetCurrentDevice	8660
• 184.20 WIA.SetDevicePropertyValue	8661
• 184.21 WIA.SetItemPropertyValue	8663
• 190.1 WMFP.Create	8905
• 190.2 WMFP.FrameStep	8908
• 190.3 WMFP.GetBalance	8909
• 190.4 WMFP.GetDuration	8910
• 190.5 WMFP.GetIdealVideoSize	8911
• 190.6 WMFP.GetLoop	8912
• 190.7 WMFP.GetMute	8913
• 190.8 WMFP.GetNativeVideoSize	8914
• 190.9 WMFP.GetPosition	8915
• 190.10 WMFP.GetRate	8916
• 190.11 WMFP.GetState	8917
• 190.12 WMFP.GetTag	8918
• 190.13 WMFP.GetVisible	8919
• 190.14 WMFP.GetVolume	8920
• 190.15 WMFP.Pause	8921
• 190.16 WMFP.Play	8922
• 190.17 WMFP.Release	8923

- 190.18 WMFP.Screenshot 8924
- 190.19 WMFP.SetBalance 8925
- 190.20 WMFP.SetBorder 8926
- 190.21 WMFP.SetFrame 8927
- 190.22 WMFP.SetLoop 8928
- 190.23 WMFP.SetMute 8929
- 190.24 WMFP.SetPlaybackEndedScriptTrigger 8930
- 190.25 WMFP.SetPosition 8931
- 190.26 WMFP.SetRate 8932
- 190.27 WMFP.SetTag 8933
- 190.28 WMFP.SetVisible 8934
- 190.29 WMFP.SetVolume 8935
- 190.30 WMFP.Stop 8936
- 190.31 WMFP.UpdateVideo 8937
- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.3 WMIQuery.Next 8944
- 191.4 WMIQuery.PropertyNames 8945
- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948
- 191.8 WMIQuery.Release 8950
- 183.1 WebDownloadDelegate.Cancel 8411
- 183.2 WebDownloadDelegate.ClearBeginDownloadHandler 8412
- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.4 WebDownloadDelegate.ClearFailHandler 8414
- 183.5 WebDownloadDelegate.ClearFolder 8415
- 183.6 WebDownloadDelegate.ClearProgressHandler 8416
- 183.7 WebDownloadDelegate.DownloadedLength 8417

	199
• 183.8 WebDownloadDelegate.ErrorMessage	8418
• 183.9 WebDownloadDelegate.GetFolder	8419
• 183.10 WebDownloadDelegate.Install	8420
• 183.11 WebDownloadDelegate.MIMETYPE	8421
• 183.12 WebDownloadDelegate.Path	8422
• 183.13 WebDownloadDelegate.SetBeginDownloadHandler	8423
• 183.14 WebDownloadDelegate.SetDidDownloadHandler	8424
• 183.15 WebDownloadDelegate.SetFailHandler	8426
• 183.16 WebDownloadDelegate.SetFolder	8427
• 183.17 WebDownloadDelegate.SetProgressHandler	8429
• 183.18 WebDownloadDelegate.URL	8431
• 183.19 WebDownloadDelegate.expectedContentLength	8432
• 183.20 WebDownloadDelegate.suggestedFilename	8433
• 183.21 WebDownloadDelegate.textEncodingName	8434
• 183.22 WebPolicyDelegate.AddMimeType	8435
• 183.23 WebPolicyDelegate.Install	8436
• 183.24 WebPolicyDelegate.RemoveMimeType	8437
• 183.25 WebView.AddScriptMessageHandler	8438
• 183.26 WebView.AddUserScript	8440
• 183.27 WebView.AllCookies	8442
• 183.28 WebView.AllowsAnyHTTPSCertificateForHost	8444
• 183.29 WebView.CallFunction	8445
• 183.30 WebView.ClearBrowserSession	8446
• 183.31 WebView.ClearSelection	8447
• 183.32 WebView.ClickInput	8448
• 183.33 WebView.Close	8450
• 183.34 WebView.Cookies.ClearForURL	8451
• 183.35 WebView.Cookies.Count	8452
• 183.36 WebView.Cookies.Query	8453

- 183.37 WebView.Copy 8454
- 183.38 WebView.CopyFormattedText 8455
- 183.39 WebView.Create 8456
- 183.40 WebView.CreateOnPopover 8458
- 183.41 WebView.Cut 8460
- 183.42 WebView.DisableJavascriptAlerts 8461
- 183.43 WebView.EstimatedProgress 8462
- 183.44 WebView.Evaluate 8463
- 183.45 WebView.ExecCommand 8467
- 183.46 WebView.FindByName 8469
- 183.47 WebView.FindWindowByIndex 8471
- 183.48 WebView.FindWindowByTitle 8472
- 183.49 WebView.FormReset 8474
- 183.50 WebView.FormSubmit 8475
- 183.51 WebView.GetAllowsLinkPreview 8476
- 183.52 WebView.GetAutoResizingMask 8477
- 183.53 WebView.GetCustomUserAgent 8479
- 183.54 WebView.GetEditable 8480
- 183.55 WebView.GetForm 8481
- 183.56 WebView.GetFormButtonValue 8482
- 183.57 WebView.GetFormCount 8483
- 183.58 WebView.GetFormInputChecked 8484
- 183.59 WebView.GetFormInputValue 8485
- 183.60 WebView.GetFormSelectOptions 8487
- 183.61 WebView.GetFormSelectValue 8488
- 183.62 WebView.GetFormTextAreaValue 8490
- 183.63 WebView.GetFormValue 8492
- 183.64 WebView.GetFormattedText 8494
- 183.65 WebView.GetHTMLText 8496

	201
• 183.66 WebView.GetHidden	8498
• 183.67 WebView.GetIcon	8499
• 183.68 WebView.GetImage	8500
• 183.69 WebView.GetImageCount	8502
• 183.70 WebView.GetInternetExplorerHiDPI	8503
• 183.71 WebView.GetInternetExplorerVersion	8504
• 183.72 WebView.GetLink	8505
• 183.73 WebView.GetLinkCount	8506
• 183.74 WebView.GetPlainText	8507
• 183.75 WebView.GetPreferences	8509
• 183.76 WebView.GetPrintParameter	8511
• 183.77 WebView.GetPrivateBrowsing	8512
• 183.78 WebView.GetSilent	8513
• 183.79 WebView.GetSource	8514
• 183.80 WebView.GetSourceData	8515
• 183.81 WebView.GetTitle	8516
• 183.82 WebView.GetURL	8517
• 183.83 WebView.GoBack	8518
• 183.84 WebView.GoForward	8519
• 183.85 WebView.HasOnlySecureContent	8520
• 183.86 WebView.InstallCallback	8521
• 183.87 WebView.InstallMultiFileOpenDialog	8523
• 183.88 WebView.InstallUserMediaAccess	8524
• 183.89 WebView.IsLoading	8526
• 183.90 WebView.LoadHTML	8528
• 183.91 WebView.LoadJavascriptURL	8529
• 183.92 WebView.LoadURL	8530
• 183.93 WebView.MakeTextLarger	8532
• 183.94 WebView.MakeTextSmaller	8533

- 183.95 WebView.MakeTextStandardSize 8534
- 183.96 WebView.Passwords.Clear 8535
- 183.97 WebView.Passwords.Install 8536
- 183.98 WebView.Passwords.Set 8538
- 183.99 WebView.Paste 8540
- 183.100 WebView.PostURL 8541
- 183.101 WebView.PressKey 8543
- 183.102 WebView.Print 8544
- 183.103 WebView.PrintPreview 8546
- 183.104 WebView.PrintToFile 8547
- 183.105 WebView.Release 8549
- 183.106 WebView.Reload 8550
- 183.107 WebView.RemoveAllUserScripts 8551
- 183.108 WebView.RemoveScriptMessageHandler 8552
- 183.109 WebView.RenderImage 8553
- 183.110 WebView.RenderPDF 8555
- 183.111 WebView.RunJavaScript 8557
- 183.112 WebView.RunJavaScriptReturnTitle 8567
- 183.113 WebView.Screenshot 8569
- 183.114 WebView.Scrollbar.getHorizontalMaximum 8571
- 183.115 WebView.Scrollbar.getHorizontalPosition 8572
- 183.116 WebView.Scrollbar.getVerticalMaximum 8573
- 183.117 WebView.Scrollbar.getVerticalPosition 8574
- 183.118 WebView.Scrollbar.set 8575
- 183.119 WebView.SearchText 8576
- 183.120 WebView.SelectAll 8578
- 183.121 WebView.SelectedText 8579
- 183.122 WebView.SendCommand 8581
- 183.123 WebView.SetAllowsLinkPreview 8582

	203
• 183.124 WebView.SetAutoResizingMask	8583
• 183.125 WebView.SetCustomUserAgent	8585
• 183.126 WebView.SetEditable	8587
• 183.127 WebView.SetFocus	8588
• 183.128 WebView.SetFormButtonValue	8589
• 183.129 WebView.SetFormInputChecked	8591
• 183.130 WebView.SetFormInputValue	8593
• 183.131 WebView.SetFormSelectValue	8596
• 183.132 WebView.SetFormTextAreaValue	8598
• 183.133 WebView.SetFormValue	8600
• 183.134 WebView.SetHidden	8602
• 183.135 WebView.SetInternetExplorerHiDPI	8603
• 183.136 WebView.SetInternetExplorerVersion	8604
• 183.137 WebView.SetPreferences	8607
• 183.138 WebView.SetPrintParameter	8610
• 183.139 WebView.SetPrivateBrowsing	8612
• 183.140 WebView.SetSilent	8613
• 183.141 WebView.SetTitle	8614
• 183.142 WebView.StopLoading	8615
• 183.143 WebView.UserScripts	8616
• 183.144 WebView.canResetPageZoom	8617
• 183.145 WebView.canZoomPageIn	8618
• 183.146 WebView.canZoomPageOut	8619
• 183.147 WebView.getMediaVolume	8620
• 183.148 WebView.getPageSizeMultiplier	8621
• 183.149 WebView.resetPageZoom	8622
• 183.150 WebView.setMediaVolume	8623
• 183.151 WebView.setPageSizeMultiplier	8624
• 183.152 WebView.setZoom	8625

- 183.153 WebView.zoomPageIn 8626
- 183.154 WebView.zoomPageOut 8627
- 189.1 WinSendMail.AddAttachmentContainer 8877
- 189.2 WinSendMail.AddAttachmentFile 8879
- 189.3 WinSendMail.AddAttachmentText 8881
- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886
- 189.7 WinSendMail.AddTo 8888
- 189.8 WinSendMail.AttachmentCount 8890
- 189.9 WinSendMail.ClearAttachments 8891
- 189.10 WinSendMail.ClearRecipients 8892
- 189.11 WinSendMail.CreateEmail 8893
- 189.12 WinSendMail.GetSubject 8895
- 189.13 WinSendMail.GetText 8896
- 189.14 WinSendMail.Release 8897
- 189.15 WinSendMail.Send 8898
- 189.16 WinSendMail.SendAnsi 8899
- 189.17 WinSendMail.SendAsync 8900
- 189.18 WinSendMail.SetFrom 8901
- 189.19 WinSendMail.SetSubject 8902
- 189.20 WinSendMail.SetText 8903
- 185.5 Window.Activate 8673
- 185.6 Window.AddBottomOverlay 8674
- 185.7 Window.AsPDF 8676
- 185.8 Window.ClearFocus 8678
- 185.9 Window.ClearTouchBar 8679
- 185.10 Window.ConfigureToolbarMenu 8680
- 185.11 Window.Current 8681



	205
• 185.12 Window.DisableScrollbars	8682
• 185.13 Window.EnableScrollbars	8683
• 185.14 Window.Fade	8684
• 185.15 Window.FindByIndex	8686
• 185.16 Window.FindByTitle	8688
• 185.17 Window.FlashWindow	8692
• 185.18 Window.GetAlpha	8694
• 185.19 Window.GetClassName	8695
• 185.20 Window.GetCurrentTag	8696
• 185.21 Window.GetHeight	8697
• 185.22 Window.GetLeft	8698
• 185.23 Window.GetMaxHeight	8699
• 185.24 Window.GetMaxWidth	8700
• 185.25 Window.GetMinHeight	8701
• 185.26 Window.GetMinWidth	8702
• 185.27 Window.GetTag	8703
• 185.28 Window.GetTitle	8704
• 185.29 Window.GetTitleVisible	8705
• 185.30 Window.GetTitlebarAppearsTransparent	8706
• 185.31 Window.GetToolBarConfiguration	8707
• 185.32 Window.GetToolBarCustomizationPaletteIsRunning	8708
• 185.33 Window.GetToolBarVisible	8709
• 185.34 Window.GetTop	8710
• 185.35 Window.GetTopMost	8711
• 185.36 Window.GetWidth	8712
• 185.37 Window.HasCloseButton	8713
• 185.38 Window.HasMiniaturizeButton	8714
• 185.39 Window.HasShadow	8715
• 185.40 Window.HasZoomButton	8716

- 185.41 Window.Hide 8717
- 185.42 Window.HideContent 8719
- 185.43 Window.HideOverlay 8720
- 185.44 Window.HideScrollbars 8721
- 185.45 Window.IgnoresMouseEvents 8723
- 185.46 Window.IsFullScreen 8724
- 185.47 Window.IsFullScreenAuxiliary 8725
- 185.48 Window.IsFullScreenPrimary 8726
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728
- 185.51 Window.IsModified 8729
- 185.52 Window.IsVisible 8730
- 185.53 Window.List 8731
- 185.54 Window.ListCommands 8732
- 185.55 Window.Maximize 8733
- 185.56 Window.Minimize 8734
- 185.57 Window.ModalDialogFront 8735
- 185.58 Window.Move 8736
- 185.59 Window.PositionNextDialog 8738
- 185.60 Window.RemoveMenu 8740
- 185.61 Window.Resizable 8741
- 185.62 Window.Resize 8742
- 185.63 Window.ResizeContentView 8744
- 185.64 Window.RunCommand 8746
- 185.65 Window.RunToolbarCustomizationPalette 8748
- 185.66 Window.Screenshot 8749
- 185.67 Window.Scrollbar.GetScrollElasticity 8751
- 185.68 Window.Scrollbar.SetScrollElasticity 8752
- 185.69 Window.Scrollbar.getHorizontalMaximum 8754

	207
• 185.70 Window.Scrollbar.getHorizontalPosition	8755
• 185.71 Window.Scrollbar.getVerticalMaximum	8756
• 185.72 Window.Scrollbar.getVerticalPosition	8757
• 185.73 Window.Scrollbar.set	8758
• 185.74 Window.ScrollbarsVisible	8759
• 185.75 Window.SetAlpha	8760
• 185.76 Window.SetBounds	8762
• 185.77 Window.SetCloseButton	8764
• 185.78 Window.SetCurrentTag	8766
• 185.79 Window.SetDockImage	8767
• 185.80 Window.SetFocus	8769
• 185.81 Window.SetFullScreenAuxiliary	8770
• 185.82 Window.SetFullScreenPrimary	8771
• 185.83 Window.SetIgnoresMouseEvents	8772
• 185.84 Window.SetMaxHeight	8773
• 185.85 Window.SetMaxWidth	8774
• 185.86 Window.SetMinHeight	8775
• 185.87 Window.SetMinWidth	8776
• 185.88 Window.SetMiniaturizeButton	8777
• 185.89 Window.SetModified	8779
• 185.90 Window.SetProgress	8780
• 185.91 Window.SetResizable	8782
• 185.92 Window.SetShadow	8784
• 185.93 Window.SetShowsToolBarButton	8785
• 185.94 Window.SetTag	8787
• 185.95 Window.SetTitle	8788
• 185.96 Window.SetTitleIcon	8789
• 185.97 Window.SetTitleVisible	8791
• 185.98 Window.SetTitlebarAppearsTransparent	8792

- 185.99 Window.SetToolBarConfiguration 8793
- 185.100 Window.SetToolBarVisible 8794
- 185.101 Window.SetTopMost 8795
- 185.102 Window.SetZoomButton 8796
- 185.103 Window.Show 8798
- 185.104 Window.ShowCharacterPalette 8800
- 185.105 Window.ShowContent 8801
- 185.106 Window.ShowKeyboard 8802
- 185.107 Window.ShowOverlay 8803
- 185.108 Window.ShowScrollbars 8805
- 185.109 Window.ShowTableViewDialog 8807
- 185.110 Window.ShowsToolBarButton 8808
- 185.111 Window.ToggleFullScreen 8809
- 185.112 Window.TopHeight 8810
- 185.113 Window.Update 8811
- 188.1 WindowTransition.Perform 8871
- 188.2 WindowTransition.Prepare 8872
- 188.3 WindowTransition.PrepareWindow 8874
- 186.1 WindowsScript.AddCode 8813
- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822
- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.6 WindowsScript.ErrorDescription 8828
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831
- 186.10 WindowsScript.ErrorText 8832
- 186.11 WindowsScript.Eval 8833

	209
• 186.12 WindowsScript.ExecuteFunction	8834
• 186.13 WindowsScript.ExecuteStatement	8838
• 186.14 WindowsScript.GetAllowUI	8839
• 186.15 WindowsScript.GetLanguage	8840
• 186.16 WindowsScript.GetTimeout	8841
• 186.17 WindowsScript.GetUseSafeSubset	8842
• 186.18 WindowsScript.SetAllowUI	8843
• 186.19 WindowsScript.SetLanguage	8844
• 186.20 WindowsScript.SetTimeout	8847
• 186.21 WindowsScript.SetUseSafeSubset	8848
• 187.1 WindowsUserNotification.Available	8849
• 187.2 WindowsUserNotification.GetFileName	8850
• 187.3 WindowsUserNotification.GetImagePath	8851
• 187.4 WindowsUserNotification.GetScriptName	8852
• 187.5 WindowsUserNotification.GetText	8853
• 187.6 WindowsUserNotification.HideNotification	8854
• 187.7 WindowsUserNotification.Initialize	8855
• 187.8 WindowsUserNotification.Isinitialized	8857
• 187.9 WindowsUserNotification.NewNotification	8858
• 187.10 WindowsUserNotification.Release	8860
• 187.11 WindowsUserNotification.SetFileName	8862
• 187.12 WindowsUserNotification.SetImagePath	8863
• 187.13 WindowsUserNotification.SetScriptName	8864
• 187.14 WindowsUserNotification.SetText	8865
• 187.15 WindowsUserNotification.Setting	8866
• 187.16 WindowsUserNotification.ShowNotification	8868
• 187.17 WindowsUserNotification.XMLUsed	8869
• 192.1 WordFile.AddMediaFile	8951
• 192.2 WordFile.Append	8953

- 192.3 WordFile.AppendTableRow 8954
- 192.4 WordFile.DuplicateTableRow 8956
- 192.5 WordFile.FieldNames 8957
- 192.6 WordFile.GetCaseless 8958
- 192.7 WordFile.GetFieldText 8959
- 192.8 WordFile.GetMediaFile 8960
- 192.9 WordFile.GetXML 8961
- 192.10 WordFile.HasTag 8962
- 192.11 WordFile.MediaFiles 8963
- 192.12 WordFile.OpenContainer 8964
- 192.13 WordFile.OpenFile 8966
- 192.14 WordFile.OpenText 8968
- 192.15 WordFile.Parts 8969
- 192.16 WordFile.Release 8970
- 192.17 WordFile.RemoveTableRow 8971
- 192.18 WordFile.ReplaceTag 8973
- 192.19 WordFile.SetCaseless 8976
- 192.20 WordFile.SetFieldText 8977
- 192.21 WordFile.SetMarkers 8978
- 192.22 WordFile.SetMediaFile 8979
- 192.23 WordFile.SetXML 8981
- 192.24 WordFile.Texts 8982
- 192.25 WordFile.WriteFile 8984
- 49.22 X509.Description 1403
- 49.23 X509.Duplicate 1404
- 49.24 X509.IssuerName 1405
- 49.25 X509.Name 1406
- 49.26 X509.Read 1407
- 49.27 X509.ReadFromContainer 1408

	211
• 49.28 X509.ReadFile	1409
• 49.29 X509.Release	1410
• 49.30 X509.SerialNumber	1411
• 49.31 X509.ShowDialog	1412
• 49.32 X509.SubjectName	1413
• 49.33 X509.Version	1414
• 49.34 X509.Write	1415
• 193.1 XL.Book.AddCustomNumFormat	8987
• 193.2 XL.Book.AddFont	8990
• 193.3 XL.Book.AddFormat	8992
• 193.4 XL.Book.AddPictureContainer	8995
• 193.5 XL.Book.AddPictureFile	8997
• 193.6 XL.Book.AddSheet	8998
• 193.7 XL.Book.BiffVersion	9000
• 193.8 XL.Book.CustomNumFormat	9001
• 193.9 XL.Book.DeleteSheet	9002
• 193.10 XL.Book.DeleteSheetsExcept	9005
• 193.11 XL.Book.FontCount	9006
• 193.12 XL.Book.FormatCount	9007
• 193.13 XL.Book.GetActiveSheet	9008
• 193.14 XL.Book.GetCalcMode	9009
• 193.15 XL.Book.GetDefaultFontName	9010
• 193.16 XL.Book.GetDefaultFontSize	9011
• 193.17 XL.Book.GetPicture	9012
• 193.18 XL.Book.GetPictureType	9013
• 193.19 XL.Book.GetRGBMode	9014
• 193.20 XL.Book.GetRefR1C1	9015
• 193.21 XL.Book.GetText	9016
• 193.22 XL.Book.InsertSheet	9017

- 193.23 XL.Book.IsDate1904 9018
- 193.24 XL.Book.IsTemplate 9019
- 193.25 XL.Book.MoveSheet 9020
- 193.26 XL.Book.PictureCount 9021
- 193.27 XL.Book.Release 9022
- 193.28 XL.Book.ReleaseAll 9024
- 193.29 XL.Book.Save 9025
- 193.30 XL.Book.SaveToFile 9027
- 193.31 XL.Book.SetActiveSheet 9029
- 193.32 XL.Book.SetCalcMode 9030
- 193.33 XL.Book.SetDate1904 9031
- 193.34 XL.Book.SetDefaultFont 9032
- 193.35 XL.Book.SetRGBMode 9033
- 193.36 XL.Book.SetRefR1C1 9034
- 193.37 XL.Book.SetTemplate 9035
- 193.38 XL.Book.SheetCount 9036
- 193.39 XL.Book.SheetIndexForName 9037
- 193.40 XL.Book.Sheets 9038
- 193.41 XL.Book.Version 9039
- 193.42 XL.Color.Pack 9040
- 193.43 XL.Color.UnPack 9042
- 193.44 XL.CopyContent 9044
- 193.45 XL.CopyRow 9046
- 193.46 XL.CopySheet 9048
- 193.47 XL.Date.DoubleToTimeStamp 9050
- 193.48 XL.Date.Pack 9051
- 193.49 XL.Date.TimeStampToDouble 9053
- 193.50 XL.Date.UnPack 9054
- 193.51 XL.Font.GetBold 9055



	213
• 193.52 XL.Font.GetColor	9056
• 193.53 XL.Font.GetItalic	9057
• 193.54 XL.Font.GetName	9058
• 193.55 XL.Font.GetScript	9059
• 193.56 XL.Font.GetSize	9060
• 193.57 XL.Font.GetStrikeOut	9061
• 193.58 XL.Font.GetUnderline	9062
• 193.59 XL.Font.SetBold	9063
• 193.60 XL.Font.SetColor	9065
• 193.61 XL.Font.SetItalic	9068
• 193.62 XL.Font.SetName	9069
• 193.63 XL.Font.SetScript	9071
• 193.64 XL.Font.SetSize	9072
• 193.65 XL.Font.SetStrikeOut	9074
• 193.66 XL.Font.SetUnderline	9075
• 193.67 XL.Format.GetAlignH	9076
• 193.68 XL.Format.GetAlignV	9077
• 193.69 XL.Format.GetBorderBottom	9078
• 193.70 XL.Format.GetBorderBottomColor	9079
• 193.71 XL.Format.GetBorderDiagonal	9080
• 193.72 XL.Format.GetBorderDiagonalColor	9081
• 193.73 XL.Format.GetBorderDiagonalStyle	9082
• 193.74 XL.Format.GetBorderLeft	9083
• 193.75 XL.Format.GetBorderLeftColor	9084
• 193.76 XL.Format.GetBorderRight	9085
• 193.77 XL.Format.GetBorderRightColor	9086
• 193.78 XL.Format.GetBorderTop	9087
• 193.79 XL.Format.GetBorderTopColor	9088
• 193.80 XL.Format.GetFillPattern	9089

- 193.81 XL.Format.GetFont 9090
- 193.82 XL.Format.GetHidden 9091
- 193.83 XL.Format.GetIndent 9092
- 193.84 XL.Format.GetLocked 9093
- 193.85 XL.Format.GetNumFormat 9094
- 193.86 XL.Format.GetPatternBackgroundColor 9095
- 193.87 XL.Format.GetPatternForegroundColor 9096
- 193.88 XL.Format.GetRotation 9097
- 193.89 XL.Format.GetShrinkToFit 9098
- 193.90 XL.Format.GetWrap 9099
- 193.91 XL.Format.SetAlignH 9100
- 193.92 XL.Format.SetAlignV 9103
- 193.93 XL.Format.SetBorder 9105
- 193.94 XL.Format.SetBorderBottom 9107
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.100 XL.Format.SetBorderLeft 9116
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.106 XL.Format.SetFillPattern 9125
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130

	215
• 193.110 XL.Format.SetLocked	9131
• 193.111 XL.Format.SetNumFormat	9133
• 193.112 XL.Format.SetPatternBackgroundColor	9136
• 193.113 XL.Format.SetPatternForegroundColor	9138
• 193.114 XL.Format.SetRotation	9140
• 193.115 XL.Format.SetShrinkToFit	9141
• 193.116 XL.Format.SetWrap	9142
• 193.117 XL.Initialize	9145
• 193.118 XL.IsInitialized	9148
• 193.119 XL.LoadBook	9150
• 193.120 XL.LoadBookPartially	9153
• 193.121 XL.NewBook	9155
• 193.122 XL.Sheet.AddHyperlink	9157
• 193.123 XL.Sheet.AddIgnoredError	9159
• 193.124 XL.Sheet.AddrToRowCol	9161
• 193.125 XL.Sheet.ApplyFilter	9162
• 193.126 XL.Sheet.AutoFilter	9163
• 193.127 XL.Sheet.AutoFilter.AddFilter	9165
• 193.128 XL.Sheet.AutoFilter.Clear	9167
• 193.129 XL.Sheet.AutoFilter.ColumnSize	9168
• 193.130 XL.Sheet.AutoFilter.Filter	9169
• 193.131 XL.Sheet.AutoFilter.FilterSize	9170
• 193.132 XL.Sheet.AutoFilter.FilterType	9171
• 193.133 XL.Sheet.AutoFilter.GetCustomFilter	9173
• 193.134 XL.Sheet.AutoFilter.GetRef	9174
• 193.135 XL.Sheet.AutoFilter.GetSort	9175
• 193.136 XL.Sheet.AutoFilter.GetSortRange	9176
• 193.137 XL.Sheet.AutoFilter.GetTop10	9177
• 193.138 XL.Sheet.AutoFilter.SetCustomFilter	9178

• 193.139 XL.Sheet.AutoFilter.SetRef	9180
• 193.140 XL.Sheet.AutoFilter.SetSort	9182
• 193.141 XL.Sheet.AutoFilter.SetTop10	9183
• 193.142 XL.Sheet.CellIsDate	9185
• 193.143 XL.Sheet.CellIsFormula	9186
• 193.144 XL.Sheet.CellIsStyledText	9187
• 193.145 XL.Sheet.CellReadBlank	9189
• 193.146 XL.Sheet.CellReadBoolean	9190
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.151 XL.Sheet.CellReadDates	9198
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.153 XL.Sheet.CellReadFormulas	9202
• 193.154 XL.Sheet.CellReadNumber	9204
• 193.155 XL.Sheet.CellReadNumbers	9205
• 193.156 XL.Sheet.CellReadStyledText	9207
• 193.157 XL.Sheet.CellReadText	9209
• 193.158 XL.Sheet.CellReadTexts	9211
• 193.159 XL.Sheet.CellType	9213
• 193.160 XL.Sheet.CellWriteBlank	9214
• 193.161 XL.Sheet.CellWriteBlanks	9216
• 193.162 XL.Sheet.CellWriteBoolean	9218
• 193.163 XL.Sheet.CellWriteBooleans	9220
• 193.164 XL.Sheet.CellWriteComment	9222
• 193.165 XL.Sheet.CellWriteComments	9224
• 193.166 XL.Sheet.CellWriteDate	9226
• 193.167 XL.Sheet.CellWriteDates	9228

	217
• 193.168 XL.Sheet.CellWriteError	9230
• 193.169 XL.Sheet.CellWriteFormula	9232
• 193.170 XL.Sheet.CellWriteFormulaBoolean	9235
• 193.171 XL.Sheet.CellWriteFormulaNumber	9237
• 193.172 XL.Sheet.CellWriteFormulaText	9239
• 193.173 XL.Sheet.CellWriteFormulas	9241
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.175 XL.Sheet.CellWriteNumbers	9246
• 193.176 XL.Sheet.CellWriteStyledText	9248
• 193.177 XL.Sheet.CellWriteText	9250
• 193.178 XL.Sheet.CellWriteTexts	9254
• 193.179 XL.Sheet.Clear	9256
• 193.180 XL.Sheet.ClearPrintArea	9257
• 193.181 XL.Sheet.ClearPrintRepeats	9258
• 193.182 XL.Sheet.CopyCell	9259
• 193.183 XL.Sheet.DelHyperlink	9260
• 193.184 XL.Sheet.DelMergeByIndex	9261
• 193.185 XL.Sheet.DeleteMerge	9262
• 193.186 XL.Sheet.DeleteNamedRange	9263
• 193.187 XL.Sheet.GetCellError	9264
• 193.188 XL.Sheet.GetCellErrors	9265
• 193.189 XL.Sheet.GetCellFormat	9267
• 193.190 XL.Sheet.GetCellFormats	9268
• 193.191 XL.Sheet.GetColHidden	9270
• 193.192 XL.Sheet.GetColWidth	9271
• 193.193 XL.Sheet.GetColWidthPixel	9272
• 193.194 XL.Sheet.GetDisplayGridlines	9273
• 193.195 XL.Sheet.GetFirstCol	9274
• 193.196 XL.Sheet.GetFirstRow	9275

- 193.197 XL.Sheet.GetFooter 9276
- 193.198 XL.Sheet.GetFooterMargin 9277
- 193.199 XL.Sheet.GetGroupSummaryBelow 9278
- 193.200 XL.Sheet.GetGroupSummaryRight 9279
- 193.201 XL.Sheet.GetHCenter 9280
- 193.202 XL.Sheet.GetHeader 9281
- 193.203 XL.Sheet.GetHeaderMargin 9282
- 193.204 XL.Sheet.GetHidden 9283
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.206 XL.Sheet.GetHorPageBreakCount 9285
- 193.207 XL.Sheet.GetLandscape 9286
- 193.208 XL.Sheet.GetLastCol 9287
- 193.209 XL.Sheet.GetLastRow 9288
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.214 XL.Sheet.GetMerge 9293
- 193.215 XL.Sheet.GetName 9295
- 193.216 XL.Sheet.GetNamedRange 9296
- 193.217 XL.Sheet.GetPaper 9297
- 193.218 XL.Sheet.GetPicture 9299
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.221 XL.Sheet.GetPrintGridlines 9303
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307

	219
• 193.226 XL.Sheet.GetProtect	9308
• 193.227 XL.Sheet.GetRowHeight	9309
• 193.228 XL.Sheet.GetRowHeightPixel	9310
• 193.229 XL.Sheet.GetRowHidden	9311
• 193.230 XL.Sheet.GetText	9312
• 193.231 XL.Sheet.GetTopLeftView	9313
• 193.232 XL.Sheet.GetVCenter	9314
• 193.233 XL.Sheet.GetVerPageBreak	9315
• 193.234 XL.Sheet.GetVerPageBreakCount	9316
• 193.235 XL.Sheet.GetZoom	9317
• 193.236 XL.Sheet.GroupCols	9318
• 193.237 XL.Sheet.GroupRows	9319
• 193.238 XL.Sheet.Hyperlink	9320
• 193.239 XL.Sheet.HyperlinkSize	9321
• 193.240 XL.Sheet.InsertCol	9322
• 193.241 XL.Sheet.InsertRow	9323
• 193.242 XL.Sheet.Merge	9324
• 193.243 XL.Sheet.MergeSize	9325
• 193.244 XL.Sheet.NamedRange	9326
• 193.245 XL.Sheet.NamedRangeCount	9327
• 193.246 XL.Sheet.PictureCount	9328
• 193.247 XL.Sheet.RemoveCol	9329
• 193.248 XL.Sheet.RemoveComment	9330
• 193.249 XL.Sheet.RemoveComments	9332
• 193.250 XL.Sheet.RemoveFilter	9334
• 193.251 XL.Sheet.RemovePicture	9335
• 193.252 XL.Sheet.RemovePictureByIndex	9336
• 193.253 XL.Sheet.RemoveRow	9337
• 193.254 XL.Sheet.RightToLeft	9339

- 193.255 XL.Sheet.RowColToAddr 9340
- 193.256 XL.Sheet.SetAutoFitArea 9342
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.258 XL.Sheet.SetCellFormats 9345
- 193.259 XL.Sheet.SetCol 9347
- 193.260 XL.Sheet.SetColHidden 9350
- 193.261 XL.Sheet.SetColumn 9351
- 193.262 XL.Sheet.SetDisplayGridlines 9353
- 193.263 XL.Sheet.SetFooter 9354
- 193.264 XL.Sheet.SetGroupSummaryBelow 9356
- 193.265 XL.Sheet.SetGroupSummaryRight 9357
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.268 XL.Sheet.SetHorPageBreak 9361
- 193.269 XL.Sheet.SetLandscape 9362
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366
- 193.274 XL.Sheet.SetMerge 9367
- 193.275 XL.Sheet.SetName 9369
- 193.276 XL.Sheet.SetNamedRange 9370
- 193.277 XL.Sheet.SetPaper 9372
- 193.278 XL.Sheet.SetPictureWithScale 9374
- 193.279 XL.Sheet.SetPictureWithSize 9376
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.282 XL.Sheet.SetPrintGridlines 9382
- 193.283 XL.Sheet.SetPrintRepeatCols 9383



	221
• 193.284 XL.Sheet.SetPrintRepeatRows	9384
• 193.285 XL.Sheet.SetPrintRow	9385
• 193.286 XL.Sheet.SetPrintZoom	9386
• 193.287 XL.Sheet.SetProtect	9387
• 193.288 XL.Sheet.SetProtectEx	9388
• 193.289 XL.Sheet.SetRightToLeft	9390
• 193.290 XL.Sheet.SetRow	9391
• 193.291 XL.Sheet.SetRowHidden	9393
• 193.292 XL.Sheet.SetTabColor	9394
• 193.293 XL.Sheet.SetTabColorRGB	9395
• 193.294 XL.Sheet.SetTopLeftView	9396
• 193.295 XL.Sheet.SetVCenter	9397
• 193.296 XL.Sheet.SetVerPageBreak	9398
• 193.297 XL.Sheet.SetZoom	9399
• 193.298 XL.Sheet.Split	9400
• 193.299 XL.Sheet.SplitInfo	9401
• 193.300 XL.Sheet.Table	9402
• 193.301 XL.Sheet.TableSize	9403
• 193.302 XL.Sheet.Type	9404
• 193.303 XL.Uninitialize	9405
• 194.2 XML.ApplyStylesheet	9410
• 194.3 XML.Canonical	9412
• 194.4 XML.ClearVariables	9414
• 194.5 XML.Colorize	9415
• 194.6 XML.Compact	9417
• 194.7 XML.DeletePath	9418
• 194.8 XML.ExtractText	9420
• 194.9 XML.Format	9422
• 194.10 XML.GetAttribute	9424

- 194.11 XML.GetPathValue 9425
- 194.12 XML.HasAttribute 9427
- 194.13 XML.Import 9428
- 194.14 XML.Import.Cancel 9432
- 194.15 XML.Import.ErrorCount 9433
- 194.16 XML.Import.Errors 9434
- 194.17 XML.Import.SetBaseFields 9435
- 194.18 XML.Import.SetExtraField 9436
- 194.19 XML.Import.Status 9437
- 194.20 XML.Import.TODO 9438
- 194.21 XML.Import.Total 9439
- 194.22 XML.Import.Work 9440
- 194.23 XML.ListAttributes 9442
- 194.24 XML.NodeCount 9443
- 194.25 XML.NodeNames 9444
- 194.26 XML.Parse 9446
- 194.27 XML.Query 9448
- 194.28 XML.ReadContainer 9451
- 194.29 XML.ReadFile 9452
- 194.30 XML.Release 9454
- 194.31 XML.ReleaseAll 9455
- 194.32 XML.SetPathValue 9456
- 194.33 XML.SetPathXML 9458
- 194.34 XML.SetVariables 9460
- 194.35 XML.SubTree 9462
- 194.36 XML.ToJSON 9465
- 194.37 XML.Validate 9466
- 194.38 XML.ValidateFile 9468
- 54.33 ZipFile.CRCFile 1545

	223
• 54.34 ZipFile.Close	1546
• 54.35 ZipFile.CompressFiles	1547
• 54.36 ZipFile.CreateFile	1549
• 54.37 ZipFile.Open	1551
• 54.38 ZipFile.SetCompressionLevel	1553
• 54.39 ZipFile.UsePassword	1554
• 54.40 ZipFile.WriteContainer	1556
• 54.41 ZipFile.WriteFile	1557
• 54.42 ZipFile.WriteHex	1559
• 54.43 ZipFile.WriteText	1560
• 96.1 iOSApp.GetDidBecomeActiveEvaluate	5183
• 96.2 iOSApp.GetDidEnterBackgroundEvaluate	5184
• 96.3 iOSApp.GetDidReceiveMemoryWarningEvaluate	5185
• 96.4 iOSApp.GetIdleTimerDisabled	5186
• 96.5 iOSApp.GetSignificantTimeChangeEvaluate	5187
• 96.6 iOSApp.GetWillEnterForegroundEvaluate	5188
• 96.7 iOSApp.GetWillResignActiveEvaluate	5189
• 96.8 iOSApp.SetDidBecomeActiveEvaluate	5190
• 96.9 iOSApp.SetDidBecomeActiveScript	5191
• 96.10 iOSApp.SetDidEnterBackgroundEvaluate	5193
• 96.11 iOSApp.SetDidEnterBackgroundScript	5194
• 96.12 iOSApp.SetDidReceiveMemoryWarningEvaluate	5195
• 96.13 iOSApp.SetDidReceiveMemoryWarningScript	5196
• 96.14 iOSApp.SetIdleTimerDisabled	5197
• 96.15 iOSApp.SetSignificantTimeChangeEvaluate	5198
• 96.16 iOSApp.SetSignificantTimeChangeScript	5199
• 96.17 iOSApp.SetWillEnterForegroundEvaluate	5200
• 96.18 iOSApp.SetWillEnterForegroundScript	5201
• 96.19 iOSApp.SetWillResignActiveEvaluate	5202

• 96.20 <code>iOSApp.SetWillResignActiveScript</code>	5203
• 97.1 <code>iOSDevice.BatteryLevel</code>	5205
• 97.2 <code>iOSDevice.BatteryState</code>	5206
• 97.3 <code>iOSDevice.IdentifierForVendor</code>	5207
• 97.4 <code>iOSDevice.IsBatteryMonitoringEnabled</code>	5208
• 97.5 <code>iOSDevice.LocalizedModel</code>	5209
• 97.6 <code>iOSDevice.Model</code>	5210
• 97.7 <code>iOSDevice.Name</code>	5211
• 97.8 <code>iOSDevice.Orientation</code>	5212
• 97.9 <code>iOSDevice.OrientationIsLandscape</code>	5213
• 97.10 <code>iOSDevice.OrientationIsPortrait</code>	5214
• 97.11 <code>iOSDevice.SetBatteryMonitoringEnabled</code>	5215
• 97.12 <code>iOSDevice.SystemName</code>	5216
• 97.13 <code>iOSDevice.SystemVersion</code>	5217
• 97.14 <code>iOSDevice.UserInterfaceIdiom</code>	5218
• 98.1 <code>iOSKeyboard.GetDidHideEvaluate</code>	5219
• 98.2 <code>iOSKeyboard.GetDidShowEvaluate</code>	5220
• 98.3 <code>iOSKeyboard.GetWillHideEvaluate</code>	5221
• 98.4 <code>iOSKeyboard.GetWillShowEvaluate</code>	5222
• 98.5 <code>iOSKeyboard.SetDidHideEvaluate</code>	5223
• 98.6 <code>iOSKeyboard.SetDidShowEvaluate</code>	5224
• 98.7 <code>iOSKeyboard.SetWillHideEvaluate</code>	5225
• 98.8 <code>iOSKeyboard.SetWillShowEvaluate</code>	5226
• 98.9 <code>iOSKeyboard.State</code>	5227

6133 functions.

## Chapter 4

# Functions compatible with MacOS

• 39.1 AVAsset.AvailableMetadataFormats	999
• 39.2 AVAsset.Duration	1001
• 39.3 AVAsset.Framerate	1002
• 39.4 AVAsset.HasProtectedContent	1003
• 39.5 AVAsset.Image	1004
• 39.6 AVAsset.ImageActualTime	1006
• 39.7 AVAsset.IsComposable	1007
• 39.8 AVAsset.IsExportable	1008
• 39.9 AVAsset.IsPlayable	1009
• 39.10 AVAsset.IsReadable	1010
• 39.11 AVAsset.Loaded	1011
• 39.12 AVAsset.Lyrics	1012
• 39.13 AVAsset.Metadata	1013
• 39.14 AVAsset.MetadataKeys	1014
• 39.15 AVAsset.NaturalHeight	1016
• 39.16 AVAsset.NaturalWidth	1017
• 39.17 AVAsset.OpenContainer	1018
• 39.18 AVAsset.OpenFile	1020
• 39.19 AVAsset.OpenURL	1022

- 39.20 AVAsset.PreferredRate 1024
- 39.21 AVAsset.PreferredVolume 1025
- 39.22 AVAsset.Release 1026
- 39.23 AVAsset.ReleaseAll 1028
- 39.24 AVAsset.RequestImageTimePrecision 1029
- 39.25 AVAsset.TimeCodes 1031
- 39.26 AVAsset.TrackCount 1032
- 39.27 AVAsset.TrackInfo 1033
- 39.28 AVAsset.URL 1037
- 39.29 AVAsset.WaitForLoaded 1038
- 40.1 AVExport.AllExportPresets 1041
- 40.2 AVExport.CancelExport 1043
- 40.3 AVExport.Duration 1044
- 40.4 AVExport.Error 1045
- 40.5 AVExport.EstimatedOutputFileLength 1046
- 40.6 AVExport.ExportAsynchronously 1047
- 40.7 AVExport.ExportSession 1049
- 40.8 AVExport.ExportSessionMerge 1052
- 40.9 AVExport.GetOutputFileType 1054
- 40.10 AVExport.GetOutputPath 1055
- 40.11 AVExport.GetOutputURL 1056
- 40.12 AVExport.GetShouldOptimizeForNetworkUse 1057
- 40.13 AVExport.GetTimeRange 1058
- 40.14 AVExport.OutputFileExtension 1059
- 40.15 AVExport.PresetName 1060
- 40.16 AVExport.Progress 1061
- 40.17 AVExport.Release 1062
- 40.18 AVExport.SetOutputFileType 1063
- 40.19 AVExport.SetOutputPath 1064

	227
• 40.20 AVExport.SetOutputURL	1066
• 40.21 AVExport.SetShouldOptimizeForNetworkUse	1067
• 40.22 AVExport.SetTimeRange	1068
• 40.23 AVExport.Status	1069
• 40.24 AVExport.SupportedFileTypes	1070
• 41.1 AVPlayer.AddView	1071
• 41.2 AVPlayer.CloseView	1074
• 41.3 AVPlayer.FindPlayers	1075
• 41.4 AVPlayer.GetAsset	1076
• 41.5 AVPlayer.GetAutoResizingMask	1077
• 41.6 AVPlayer.GetControlsStyle	1078
• 41.7 AVPlayer.GetDuration	1079
• 41.8 AVPlayer.GetFinishedEvaluate	1080
• 41.9 AVPlayer.GetFinishedFileName	1081
• 41.10 AVPlayer.GetFinishedScriptName	1082
• 41.11 AVPlayer.GetMuted	1083
• 41.12 AVPlayer.GetProgressEvaluate	1084
• 41.13 AVPlayer.GetProgressInterval	1085
• 41.14 AVPlayer.GetRate	1086
• 41.15 AVPlayer.GetShowsFrameSteppingButtons	1087
• 41.16 AVPlayer.GetShowsFullScreenToggleButton	1088
• 41.17 AVPlayer.GetTag	1089
• 41.18 AVPlayer.GetTime	1090
• 41.19 AVPlayer.GetVisible	1091
• 41.20 AVPlayer.GetVolume	1092
• 41.21 AVPlayer.GetWindowRef	1093
• 41.22 AVPlayer.OpenContainer	1094
• 41.23 AVPlayer.OpenFile	1096
• 41.24 AVPlayer.OpenURL	1098

- 41.25 AVPlayer.Pause 1099
- 41.26 AVPlayer.Play 1100
- 41.27 AVPlayer.Release 1102
- 41.28 AVPlayer.ReleaseAll 1103
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 41.30 AVPlayer.SetControlsStyle 1106
- 41.31 AVPlayer.SetFinishedEvaluate 1107
- 41.32 AVPlayer.SetFinishedScript 1108
- 41.33 AVPlayer.SetFocus 1109
- 41.34 AVPlayer.SetFrameWithControl 1110
- 41.35 AVPlayer.SetMuted 1111
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 41.37 AVPlayer.SetProgressInterval 1114
- 41.38 AVPlayer.SetRate 1115
- 41.39 AVPlayer.SetShowsFrameSteppingButtons 1116
- 41.40 AVPlayer.SetShowsFullScreenToggleButton 1117
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119
- 41.43 AVPlayer.SetVisible 1120
- 41.44 AVPlayer.SetVolume 1121
- 42.1 AVRecorder.AddPreviewToWindow 1123
- 42.2 AVRecorder.AudioDeviceCount 1125
- 42.3 AVRecorder.AudioDeviceInfo 1126
- 42.4 AVRecorder.AuthorizationStatusForMediaType 1128
- 42.5 AVRecorder.CaptureStillPhoto 1130
- 42.6 AVRecorder.ClosePreview 1132
- 42.7 AVRecorder.CurrentQRCode 1133
- 42.10 AVRecorder.GetAudioDevice 1136
- 42.11 AVRecorder.GetAutomaticallyAdjustsVideoMirroring 1137



	229
• 42.13 AVRecorder.GetFilePath	1139
• 42.14 AVRecorder.GetVideoDevice	1140
• 42.15 AVRecorder.GetVideoMirrored	1141
• 42.16 AVRecorder.HasQRCode	1142
• 42.17 AVRecorder.Init	1143
• 42.18 AVRecorder.IsRecording	1146
• 42.19 AVRecorder.IsVideoMirroringSupported	1147
• 42.20 AVRecorder.Release	1148
• 42.21 AVRecorder.RequestAccessForMediaType	1149
• 42.22 AVRecorder.SetAudioDevice	1150
• 42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring	1151
• 42.25 AVRecorder.SetFilePath	1153
• 42.26 AVRecorder.SetScreenInput	1154
• 42.27 AVRecorder.SetVideoDevice	1156
• 42.28 AVRecorder.SetVideoMirrored	1157
• 42.30 AVRecorder.StartPreview	1160
• 42.31 AVRecorder.StartQRCodeDetection	1161
• 42.32 AVRecorder.StartRecording	1163
• 42.33 AVRecorder.StopQRCodeDetection	1164
• 42.34 AVRecorder.StopRecording	1165
• 42.35 AVRecorder.VideoDeviceCount	1166
• 42.36 AVRecorder.VideoDeviceInfo	1167
• 34.1 Addressbook.Account.Name	811
• 34.2 Addressbook.Account.Type	813
• 34.3 Addressbook.Account.URL	814
• 34.4 Addressbook.Account.isMainAccount	815
• 34.5 Addressbook.LocalizedPropertyOrLabel	816
• 34.6 Addressbook.NewGroup	817
• 34.7 Addressbook.NewPerson	818

- 34.8 Addressbook.Notification.Clear 820
- 34.9 Addressbook.Notification.Evaluate 821
- 34.10 Addressbook.Notification.GetChangedExternally 822
- 34.11 Addressbook.Notification.GetDeletedRecords 823
- 34.12 Addressbook.Notification.GetInsertedRecords 824
- 34.13 Addressbook.Notification.GetProcessID 825
- 34.14 Addressbook.Notification.GetProcessName 826
- 34.15 Addressbook.Notification.GetUpdatedRecords 827
- 34.16 Addressbook.Notification.GetUserUID 828
- 34.17 Addressbook.Notification.Set 829
- 34.18 Addressbook.Record.Account 830
- 34.19 Addressbook.addRecord 831
- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836
- 34.23 Addressbook.formattedAddress 837
- 34.24 Addressbook.group.addMember 838
- 34.25 Addressbook.group.addSubgroup 839
- 34.26 Addressbook.group.members 840
- 34.27 Addressbook.group.parentGroups 841
- 34.28 Addressbook.group.removeMember 842
- 34.29 Addressbook.group.removeSubgroup 843
- 34.30 Addressbook.group.subgroups 844
- 34.31 Addressbook.groups 845
- 34.32 Addressbook.hasUnsavedChanges 846
- 34.33 Addressbook.me 847
- 34.34 Addressbook.multivalue.New 849
- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853

	231
• 34.37 Addressbook.multivalue.count	856
• 34.38 Addressbook.multivalue.identifierAtIndex	858
• 34.39 Addressbook.multivalue.identifiers	859
• 34.40 Addressbook.multivalue.indexForIdentifier	860
• 34.41 Addressbook.multivalue.indexForLabel	861
• 34.42 Addressbook.multivalue.insertValue	862
• 34.43 Addressbook.multivalue.labelAtIndex	863
• 34.44 Addressbook.multivalue.labelForIdentifier	865
• 34.45 Addressbook.multivalue.labels	866
• 34.46 Addressbook.multivalue.primaryIdentifier	867
• 34.47 Addressbook.multivalue.removeValueAndLabelAtIndex	868
• 34.48 Addressbook.multivalue.replaceLabelAtIndex	869
• 34.49 Addressbook.multivalue.replaceValueAtIndex	870
• 34.50 Addressbook.multivalue.setPrimaryIdentifier	872
• 34.51 Addressbook.multivalue.valueAtIndex	874
• 34.52 Addressbook.multivalue.valueForIdentifier	876
• 34.53 Addressbook.multivalue.valueForLabel	877
• 34.54 Addressbook.multivalue.values	878
• 34.55 Addressbook.people	879
• 34.56 Addressbook.persistentAccounts	880
• 34.57 Addressbook.person.EditInAddressbook	881
• 34.58 Addressbook.person.ExternalUID	882
• 34.59 Addressbook.person.GetImage	883
• 34.60 Addressbook.person.SetBirthdayComponents	884
• 34.61 Addressbook.person.SetImage	885
• 34.62 Addressbook.person.ShowInAddressbook	886
• 34.63 Addressbook.person.linkedPeople	887
• 34.64 Addressbook.person.parentGroups	888
• 34.65 Addressbook.person.vCardRepresentation	889

- 34.66 Addressbook.personFromVCardRepresentation 890
- 34.67 Addressbook.personFromVCardTextRepresentation 891
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.69 Addressbook.record.UniqueID 896
- 34.70 Addressbook.record.displayName 897
- 34.71 Addressbook.record.isReadOnly 899
- 34.72 Addressbook.record.removeValueForProperty 900
- 34.73 Addressbook.record.valueForProperty 901
- 34.74 Addressbook.recordsMatchingSearchElement 905
- 34.75 Addressbook.removeRecord 907
- 34.76 Addressbook.save 908
- 34.77 Addressbook.searchElementForConjunction 911
- 34.78 Addressbook.searchElementForProperty 912
- 34.79 Addressbook.searchGroupsWithName 914
- 34.80 Addressbook.searchPeopleWithCreationDate 915
- 34.81 Addressbook.searchPeopleWithEmail 916
- 34.82 Addressbook.searchPeopleWithModificationDate 917
- 34.83 Addressbook.searchPeopleWithName 918
- 34.84 Addressbook.searchPersonWithExternalUID 919
- 34.85 Addressbook.setMe 920
- 35.1 App.CancelUserAttentionRequest 921
- 171.1 App.ClearTouchBar 8087
- 35.4 App.EffectiveUserID 924
- 35.5 App.GetDockBadgeLabel 925
- 35.6 App.GetDockIcon 926
- 35.7 App.GetProcessName 927
- 35.8 App.GetProcessPath 928
- 35.9 App.MemoryUsed 929
- 35.10 App.OpenFile 930

	233
• 35.11 App.ProcessID	931
• 35.12 App.RequestUserAttention	932
• 35.13 App.SetDockBadgeLabel	933
• 35.14 App.SetDockIcon	934
• 35.15 App.SetProcessName	935
• 35.16 App.UserID	936
• 36.1 AppleScript.Close	937
• 36.2 AppleScript.Compile	939
• 36.3 AppleScript.Execute	940
• 36.4 AppleScript.GetPropertyName	941
• 36.5 AppleScript.GetPropertyValue	943
• 36.6 AppleScript.LastError	944
• 36.7 AppleScript.LastErrorMessage	945
• 36.8 AppleScript.PropertyCount	946
• 36.9 AppleScript.Run	947
• 36.10 AppleScript.SetPropertyValue	952
• 36.11 Applescript.DeterminePermissionToAutomateTarget	953
• 37.1 Archive.Compress	955
• 37.2 Archive.Content	958
• 37.3 Archive.Extract	960
• 37.4 Archive.FileList	961
• 37.5 Archive.LibVersion	962
• 37.6 Archive.LibVersionDetails	963
• 37.7 Archive.SupportedFormats	964
• 37.8 Archive.Verify	965
• 38.1 Audit.Backup	967
• 38.2 Audit.Backup2	969
• 38.3 Audit.Changed	970
• 38.4 Audit.Changed2	974

- 38.5 Audit.ClearCaches 976
- 38.6 Audit.Delete 977
- 38.7 Audit.Delete2 979
- 38.8 Audit.FieldIDForName 980
- 38.9 Audit.FieldNameForID 981
- 38.10 Audit.GetEnabled 982
- 38.11 Audit.GetIgnoreCalculations 983
- 38.12 Audit.GetIgnoreSummaryFields 984
- 38.13 Audit.GetIgnoreUnderscoreFieldNames 985
- 38.14 Audit.GetIgnoredFieldNames 986
- 38.15 Audit.GetLogAccess 987
- 38.16 Audit.GetUUIDField 988
- 38.17 Audit.SetEnabled 989
- 38.18 Audit.SetIgnoreCalculations 990
- 38.19 Audit.SetIgnoreSummaryFields 991
- 38.20 Audit.SetIgnoreUnderscoreFieldNames 992
- 38.21 Audit.SetIgnoredFieldNames 993
- 38.22 Audit.SetLogAccess 995
- 38.23 Audit.SetUUIDField 996
- 38.24 Audit.TableIDForName 997
- 38.25 Audit.TableNameForID 998
- 43.1 Backdrop.Close 1169
- 43.2 Backdrop.Install 1170
- 44.1 Barcode.Detect 1171
- 44.2 Barcode.DrawBarcode 1174
- 44.3 Barcode.EANChecksum 1176
- 44.4 Barcode.Generate 1177
- 44.5 Barcode.GenerateJSON 1183
- 44.6 Barcode.GetInputMode 1185

	235
• 44.7 Barcode.GetOption	1186
• 44.8 Barcode.GetPrimary	1187
• 44.9 Barcode.ISBNChecksum	1188
• 44.10 Barcode.LibVersion	1190
• 44.11 Barcode.SetInputMode	1191
• 44.12 Barcode.SetOption	1193
• 44.13 Barcode.SetOptions	1195
• 44.14 Barcode.SetPrimary	1198
• 44.15 Barcode.UPCChecksum	1200
• 44.16 Barcode.WriteFile	1201
• 45.1 BinaryFile.Append	1205
• 45.2 BinaryFile.Close	1207
• 45.3 BinaryFile.Create	1208
• 45.4 BinaryFile.EOF	1210
• 45.5 BinaryFile.Length	1211
• 45.6 BinaryFile.Open	1212
• 45.7 BinaryFile.Position	1214
• 45.8 BinaryFile.ReadByte	1215
• 45.9 BinaryFile.ReadContainer	1216
• 45.10 BinaryFile.ReadFloat	1217
• 45.11 BinaryFile.ReadHex	1218
• 45.12 BinaryFile.ReadInt	1220
• 45.13 BinaryFile.ReadPDF	1221
• 45.14 BinaryFile.ReadText	1223
• 45.15 BinaryFile.Seek	1225
• 45.16 BinaryFile.WriteByte	1226
• 45.17 BinaryFile.WriteContainer	1227
• 45.18 BinaryFile.WriteFloat	1228
• 45.19 BinaryFile.WriteHex	1229

- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 47.1 Bonjour.Browse 1257
- 47.2 Bonjour.JSON 1259
- 47.3 Bonjour.Register 1261
- 47.4 Bonjour.RegisteredName 1262
- 50.1 CGImageSource.ClearProperties 1417
- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.7 CGImageSource.FileName 1426
- 50.8 CGImageSource.HasProperty 1427
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435
- 50.13 CGImageSource.Release 1437
- 50.14 CGImageSource.SetProperty 1439
- 50.15 CGImageSource.Status 1441
- 50.16 CGImageSource.SupportedExportTypes 1443
- 50.17 CGImageSource.SupportedTypes 1444
- 50.18 CGImageSource.ThumbnailAtIndex 1445
- 50.19 CGImageSource.Type 1447
- 178.1 CGPSCConverter.Convert 8357
- 51.1 CLGeocoder.Cancel 1449
- 51.2 CLGeocoder.Cancelled 1451
- 51.3 CLGeocoder.Close 1452



	237
• 51.4 CLGeocoder.Distance	1453
• 51.5 CLGeocoder.Done	1455
• 51.6 CLGeocoder.Error	1456
• 51.7 CLGeocoder.ErrorMessage	1457
• 51.8 CLGeocoder.GeocodeAddressString	1458
• 51.9 CLGeocoder.JSON	1460
• 51.10 CLGeocoder.PlacemarkCount	1462
• 51.11 CLGeocoder.PlacemarkValue	1463
• 51.12 CLGeocoder.ReverseGeocodeLocation	1466
• 55.1 CNContact.AddEmailAddress	1563
• 55.2 CNContact.AddInstantMessage	1565
• 55.3 CNContact.AddInstantMessageJSON	1566
• 55.4 CNContact.AddPhoneNumber	1567
• 55.5 CNContact.AddPostalAddress	1568
• 55.6 CNContact.AddPostalAddressJSON	1570
• 55.7 CNContact.AddRelation	1571
• 55.8 CNContact.AddSocialProfile	1572
• 55.9 CNContact.AddSocialProfileJSON	1574
• 55.10 CNContact.AddURLAddress	1575
• 55.11 CNContact.DeleteValue	1576
• 55.12 CNContact.EditInAddressbook	1578
• 55.13 CNContact.IsUnifiedWithContact	1579
• 55.14 CNContact.JSON	1580
• 55.15 CNContact.MailingAddress	1582
• 55.16 CNContact.Name	1583
• 55.17 CNContact.SetValue	1584
• 55.19 CNContact.ShowInAddressbook	1588
• 55.20 CNContact.UnifiedContacts	1589
• 55.21 CNContact.Value	1590

- 55.22 `CNContactPicker.Close` 1593
- 55.23 `CNContactPicker.Current` 1594
- 55.24 `CNContactPicker.SetTrigger` 1595
- 55.25 `CNContactPicker.Show` 1596
- 55.26 `CNContactStore.AddContact` 1598
- 55.27 `CNContactStore.AddGroup` 1600
- 55.28 `CNContactStore.AddMember` 1602
- 55.29 `CNContactStore.AddSubgroup` 1603
- 55.30 `CNContactStore.AuthorizationError` 1604
- 55.31 `CNContactStore.AuthorizationStatus` 1605
- 55.32 `CNContactStore.Contacts` 1606
- 55.33 `CNContactStore.ContactsInContainer` 1607
- 55.34 `CNContactStore.ContactsInGroup` 1608
- 55.35 `CNContactStore.ContactsMatchingName` 1609
- 55.36 `CNContactStore.ContactsWithData` 1610
- 55.37 `CNContactStore.ContainerForContact` 1611
- 55.38 `CNContactStore.ContainerForGroup` 1612
- 55.39 `CNContactStore.Containers` 1613
- 55.40 `CNContactStore.Country` 1614
- 55.41 `CNContactStore.DataWithContacts` 1615
- 55.42 `CNContactStore.DefaultContainerIdentifier` 1616
- 55.43 `CNContactStore.DeleteContact` 1617
- 55.44 `CNContactStore.DeleteGroup` 1618
- 55.45 `CNContactStore.GroupHierarchy` 1619
- 55.46 `CNContactStore.Groups` 1621
- 55.47 `CNContactStore.GroupsByName` 1623
- 55.48 `CNContactStore.GroupsForContact` 1624
- 55.49 `CNContactStore.GroupsInContainer` 1625
- 55.50 `CNContactStore.NewContact` 1626

	239
• 55.51 CNContactStore.RemoveMember	1628
• 55.52 CNContactStore.RemoveSubgroup	1629
• 55.53 CNContactStore.RenameGroup	1630
• 55.54 CNContactStore.RequestAccess	1631
• 55.55 CNContactStore.SetChangeScript	1633
• 55.56 CNContactStore.Subgroups	1634
• 55.57 CNContactStore.UnifiedMeContact	1635
• 55.58 CNContactStore.UpdateContact	1637
• 55.59 CNContainer.Name	1638
• 55.60 CNContainer.Type	1639
• 55.61 CNGroup.Name	1640
• 61.1 CUPS.CancelJob	1771
• 61.2 CUPS.GetDefaultPrinterName	1773
• 61.3 CUPS.GetJobCompletionTime	1774
• 61.4 CUPS.GetJobCreationTime	1775
• 61.5 CUPS.GetJobFormat	1776
• 61.6 CUPS.GetJobID	1777
• 61.7 CUPS.GetJobIndex	1778
• 61.8 CUPS.GetJobPrinter	1779
• 61.9 CUPS.GetJobPriority	1780
• 61.10 CUPS.GetJobProcessingTime	1781
• 61.11 CUPS.GetJobSize	1782
• 61.12 CUPS.GetJobState	1783
• 61.13 CUPS.GetJobTitle	1784
• 61.14 CUPS.GetJobUser	1785
• 61.15 CUPS.GetJobsCount	1786
• 61.16 CUPS.GetPrinterCount	1788
• 61.17 CUPS.GetPrinterDefault	1789
• 61.18 CUPS.GetPrinterName	1790

- 61.19 CUPS.LastErrorCode 1791
- 61.20 CUPS.LastErrorMessage 1792
- 61.21 CUPS.PrintData 1793
- 61.22 CUPS.PrintDataEncoding 1795
- 61.23 CUPS.PrintFile 1797
- 62.1 CURL.AddInputFile 1799
- 62.2 CURL.AddInputGIF 1801
- 62.3 CURL.AddInputJPEG 1802
- 62.4 CURL.AddInputPDF 1803
- 62.5 CURL.AddInputPNG 1804
- 62.6 CURL.AddInputText 1806
- 62.7 CURL.Cancel 1808
- 62.8 CURL.Check 1809
- 62.9 CURL.CloseDebugFile 1810
- 62.10 CURL.CloseHeaderFile 1811
- 62.11 CURL.CloseInputFile 1812
- 62.12 CURL.CloseOutputFile 1813
- 62.13 CURL.CreateDebugOutputFile 1815
- 62.14 CURL.CreateHeaderOutputFile 1817
- 62.15 CURL.CreateOutputFile 1819
- 62.16 CURL.ErrorCode 1823
- 62.17 CURL.ErrorMessage 1826
- 62.18 CURL.Features 1827
- 62.19 CURL.FileInfos 1828
- 62.20 CURL.FormAddKeyContainer 1831
- 62.21 CURL.FormAddKeyContainerContentType 1833
- 62.22 CURL.FormAddKeyFile 1835
- 62.23 CURL.FormAddKeyFileContentType 1837
- 62.24 CURL.FormAddKeyText 1839

	241
• 62.25 CURL.FormAddKeyTextContentType	1841
• 62.26 CURL.FormAddKeyValue	1843
• 62.27 CURL.FormAddKeyValueContentType	1845
• 62.28 CURL.FormClear	1847
• 62.29 CURL.FormFinish	1848
• 62.30 CURL.GetActiveSocket	1850
• 62.31 CURL.GetAppConnectTime	1851
• 62.32 CURL.GetBatchCurrentFileName	1852
• 62.33 CURL.GetBatchCurrentFilePath	1853
• 62.34 CURL.GetBatchDestinationPath	1854
• 62.35 CURL.GetBatchFileNames	1855
• 62.36 CURL.GetCertInfo	1856
• 62.37 CURL.GetConditionUnmet	1858
• 62.38 CURL.GetConnectTime	1859
• 62.39 CURL.GetContentLengthDownload	1860
• 62.40 CURL.GetContentLengthUpload	1861
• 62.41 CURL.GetContentType	1862
• 62.42 CURL.GetCookieList	1863
• 62.43 CURL.GetDebugAsText	1866
• 62.44 CURL.GetDebugLength	1869
• 62.45 CURL.GetDebugWithData	1870
• 62.46 CURL.GetDebugWithProgress	1871
• 62.47 CURL.GetDebugWithTime	1872
• 62.48 CURL.GetEffectiveURL	1873
• 62.49 CURL.GetFTPEntryPath	1875
• 62.50 CURL.GetFileTime	1876
• 62.51 CURL.GetFinishedEvaluate	1877
• 62.52 CURL.GetFinishedFileName	1878
• 62.53 CURL.GetFinishedScriptName	1879

- 62.54 `CURL.GetFormData` 1880
- 62.55 `CURL.GetHTTPAuthAvail` 1882
- 62.56 `CURL.GetHTTPConnectCode` 1883
- 62.57 `CURL.GetHTTPVersion` 1884
- 62.58 `CURL.GetHeaderAsJSON` 1885
- 62.59 `CURL.GetHeaderAsText` 1887
- 62.60 `CURL.GetHeaderLength` 1889
- 62.61 `CURL.GetHeaderSize` 1890
- 62.62 `CURL.GetInputAsText` 1891
- 62.63 `CURL.GetInputLength` 1893
- 62.64 `CURL.GetLastSocket` 1894
- 62.65 `CURL.GetLocalIP` 1895
- 62.66 `CURL.GetLocalPort` 1896
- 62.67 `CURL.GetMultiOptionChunkLengthPenaltySize` 1897
- 62.68 `CURL.GetMultiOptionContentLengthPenaltySize` 1898
- 62.69 `CURL.GetMultiOptionMaxConcurrentStreams` 1899
- 62.70 `CURL.GetMultiOptionMaxConnects` 1900
- 62.71 `CURL.GetMultiOptionMaxHostConnections` 1901
- 62.72 `CURL.GetMultiOptionMaxPipelineLength` 1902
- 62.73 `CURL.GetMultiOptionMaxTotalConnections` 1903
- 62.74 `CURL.GetMultiOptionPipelining` 1904
- 62.75 `CURL.GetMultiRunningTransfers` 1905
- 62.76 `CURL.GetNameLookupTime` 1906
- 62.77 `CURL.GetNumConnects` 1907
- 62.78 `CURL.GetOS_errno` 1908
- 62.79 `CURL.GetOptionConnectTo` 1909
- 62.80 `CURL.GetOptionHTTP200Aliases` 1910
- 62.81 `CURL.GetOptionHTTPHeader` 1911
- 62.82 `CURL.GetOptionMailRecipients` 1912

	243
• 62.83 CURL.GetOptionPostQuote	1913
• 62.84 CURL.GetOptionPreQuote	1914
• 62.85 CURL.GetOptionProxyHeader	1915
• 62.86 CURL.GetOptionQuote	1916
• 62.87 CURL.GetOptionResolve	1917
• 62.88 CURL.GetOptionTelnetOptions	1918
• 62.89 CURL.GetPreTransferTime	1919
• 62.90 CURL.GetPrimaryIP	1920
• 62.91 CURL.GetPrimaryPort	1921
• 62.92 CURL.GetProgressCurrentDownload	1922
• 62.93 CURL.GetProgressCurrentUpload	1923
• 62.94 CURL.GetProgressEvaluate	1924
• 62.95 CURL.GetProgressFileName	1925
• 62.96 CURL.GetProgressPercent	1926
• 62.97 CURL.GetProgressScriptName	1927
• 62.98 CURL.GetProgressTotalDownload	1928
• 62.99 CURL.GetProgressTotalUpload	1929
• 62.100 CURL.GetProtocol	1930
• 62.101 CURL.GetProxyAuthAvail	1931
• 62.102 CURL.GetProxySSLVerifyResult	1932
• 62.103 CURL.GetRTSPCSEQRecv	1933
• 62.104 CURL.GetRTSPClientCSEQ	1934
• 62.105 CURL.GetRTSPServerCSEQ	1935
• 62.106 CURL.GetRTSPSessionID	1936
• 62.107 CURL.GetRedirectCount	1937
• 62.108 CURL.GetRedirectTime	1938
• 62.109 CURL.GetRedirectURL	1939
• 62.110 CURL.GetRequestSize	1941
• 62.111 CURL.GetResponseCode	1942

- 62.112 CURL.GetResultAsContainer 1944
- 62.113 CURL.GetResultAsData 1947
- 62.114 CURL.GetResultAsEMailList 1949
- 62.115 CURL.GetResultAsEmail 1951
- 62.116 CURL.GetResultAsGIF 1953
- 62.117 CURL.GetResultAsJPEG 1955
- 62.118 CURL.GetResultAsMime 1957
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.121 CURL.GetResultAsText 1963
- 62.122 CURL.GetResultLength 1967
- 62.123 CURL.GetSSLEngines 1968
- 62.124 CURL.GetSSLVerifyResult 1969
- 62.125 CURL.GetScheme 1970
- 62.126 CURL.GetSizeDownload 1971
- 62.127 CURL.GetSizeUpload 1972
- 62.128 CURL.GetSpeedDownload 1973
- 62.129 CURL.GetSpeedUpload 1974
- 62.130 CURL.GetStartTransferTime 1975
- 62.131 CURL.GetTag 1976
- 62.132 CURL.GetTotalTime 1977
- 62.133 CURL.Host 1978
- 62.134 CURL.IsRunning 1979
- 62.135 CURL.LibIDNVersion 1980
- 62.136 CURL.LibSSHVersion 1981
- 62.137 CURL.LibSSLVersion 1982
- 62.138 CURL.List 1983
- 62.139 CURL.LoadLibrary 1984
- 62.140 CURL.New 1985



	245
• 62.141 CURL.NumberOfRunningTransfers	1988
• 62.142 CURL.OpenInputFile	1989
• 62.143 CURL.Perform	1992
• 62.144 CURL.PerformAsync	2001
• 62.145 CURL.PerformInBackground	2003
• 62.146 CURL.Protocols	2005
• 62.147 CURL.ReceiveData	2006
• 62.148 CURL.ReceiveText	2008
• 62.149 CURL.Release	2011
• 62.150 CURL.ReleaseAll	2013
• 62.151 CURL.Reset	2014
• 62.152 CURL.RunningTransfers	2015
• 62.153 CURL.SendData	2016
• 62.154 CURL.SendText	2018
• 62.155 CURL.SetBatchDestinationPath	2020
• 62.156 CURL.SetDebugWithData	2022
• 62.157 CURL.SetDebugWithProgress	2024
• 62.158 CURL.SetDebugWithTime	2026
• 62.159 CURL.SetFinishedEvaluate	2028
• 62.160 CURL.SetFinishedScript	2030
• 62.161 CURL.SetInputFile	2032
• 62.162 CURL.SetInputGIF	2035
• 62.163 CURL.SetInputJPEG	2037
• 62.164 CURL.SetInputPDF	2039
• 62.165 CURL.SetInputPNG	2041
• 62.166 CURL.SetInputText	2043
• 62.167 CURL.SetMultiOptionChunkLengthPenaltySize	2046
• 62.168 CURL.SetMultiOptionContentLengthPenaltySize	2047
• 62.169 CURL.SetMultiOptionMaxConcurrentStreams	2048

- 62.170 CURL.SetMultiOptionMaxConnects 2049
- 62.171 CURL.SetMultiOptionMaxHostConnections 2050
- 62.172 CURL.SetMultiOptionMaxPipelineLength 2051
- 62.173 CURL.SetMultiOptionMaxTotalConnections 2052
- 62.174 CURL.SetMultiOptionPipelining 2053
- 62.175 CURL.SetOptionAbstractUnixSocket 2054
- 62.176 CURL.SetOptionAcceptEncoding 2055
- 62.177 CURL.SetOptionAcceptTimeoutMS 2057
- 62.178 CURL.SetOptionAddressScope 2058
- 62.179 CURL.SetOptionAppend 2059
- 62.180 CURL.SetOptionAutoReferer 2060
- 62.181 CURL.SetOptionBufferSize 2061
- 62.182 CURL.SetOptionCAINFO 2063
- 62.183 CURL.SetOptionCAPATH 2066
- 62.184 CURL.SetOptionCRLF 2068
- 62.185 CURL.SetOptionCRLFfile 2069
- 62.186 CURL.SetOptionCertInfo 2071
- 62.187 CURL.SetOptionConnectOnly 2073
- 62.188 CURL.SetOptionConnectTimeoutMS 2076
- 62.189 CURL.SetOptionConnectTo 2077
- 62.190 CURL.SetOptionConnectionTimeout 2078
- 62.191 CURL.SetOptionCookie 2080
- 62.192 CURL.SetOptionCookieFile 2082
- 62.193 CURL.SetOptionCookieJar 2085
- 62.194 CURL.SetOptionCookieList 2087
- 62.195 CURL.SetOptionCookieSession 2088
- 62.196 CURL.SetOptionCustomRequest 2089
- 62.197 CURL.SetOptionDNSSCacheTimeout 2094
- 62.198 CURL.SetOptionDNSInterface 2095

	247
• 62.199 CURL.SetOptionDNSLocalIPv4	2096
• 62.200 CURL.SetOptionDNSLocalIPv6	2097
• 62.201 CURL.SetOptionDNSServers	2098
• 62.202 CURL.SetOptionDNSShuffleAddresses	2099
• 62.203 CURL.SetOptionDOHURL	2100
• 62.204 CURL.SetOptionDefaultProtocol	2102
• 62.205 CURL.SetOptionDirListOnly	2103
• 62.206 CURL.SetOptionDisallowUserNameInURL	2105
• 62.207 CURL.SetOptionEGDSocket	2106
• 62.208 CURL.SetOptionExpect100TimeoutMS	2107
• 62.209 CURL.SetOptionFTPAccount	2108
• 62.210 CURL.SetOptionFTPAlternativeToUser	2109
• 62.211 CURL.SetOptionFTPCreateMissingDirs	2110
• 62.212 CURL.SetOptionFTPFileMethod	2113
• 62.213 CURL.SetOptionFTPPort	2114
• 62.214 CURL.SetOptionFTPResponseTimeout	2116
• 62.215 CURL.SetOptionFTPSSLAUTH	2117
• 62.216 CURL.SetOptionFTPSSLCCC	2119
• 62.217 CURL.SetOptionFTPSkipPasvIP	2120
• 62.218 CURL.SetOptionFTPUseEPRT	2121
• 62.219 CURL.SetOptionFTPUseEPSV	2122
• 62.220 CURL.SetOptionFTPUsePret	2123
• 62.221 CURL.SetOptionFailOnError	2124
• 62.222 CURL.SetOptionFileOnlyMode	2125
• 62.223 CURL.SetOptionFileTime	2126
• 62.224 CURL.SetOptionFollowLocation	2127
• 62.225 CURL.SetOptionForbidReuse	2129
• 62.226 CURL.SetOptionFreshConnect	2130
• 62.227 CURL.SetOptionGSSAPIDelegation	2131

- 62.228 `CURL.SetOptionGet` 2132
- 62.229 `CURL.SetOptionHAProxyProtocol` 2134
- 62.230 `CURL.SetOptionHTTP200Aliases` 2135
- 62.231 `CURL.SetOptionHTTPAuth` 2136
- 62.232 `CURL.SetOptionHTTPContentDecoding` 2138
- 62.233 `CURL.SetOptionHTTPHeader` 2139
- 62.234 `CURL.SetOptionHTTPProxyTunnel` 2143
- 62.235 `CURL.SetOptionHTTPTransferDecoding` 2144
- 62.236 `CURL.SetOptionHTTPVersion` 2145
- 62.237 `CURL.SetOptionHappyEyeballsTimeOutMS` 2146
- 62.238 `CURL.SetOptionHeader` 2147
- 62.239 `CURL.SetOptionHeaderOptions` 2148
- 62.240 `CURL.SetOptionIPResolve` 2149
- 62.241 `CURL.SetOptionIgnoreContentLength` 2150
- 62.242 `CURL.SetOptionInFileSize` 2151
- 62.243 `CURL.SetOptionInterface` 2153
- 62.244 `CURL.SetOptionIssuerCert` 2154
- 62.245 `CURL.SetOptionKRBLevel` 2156
- 62.246 `CURL.SetOptionKeepSendingOnError` 2157
- 62.247 `CURL.SetOptionKeyPassword` 2158
- 62.248 `CURL.SetOptionLocalPort` 2160
- 62.249 `CURL.SetOptionLocalPortRange` 2161
- 62.250 `CURL.SetOptionLoginOptions` 2162
- 62.251 `CURL.SetOptionLowSpeedLimit` 2164
- 62.252 `CURL.SetOptionLowSpeedTime` 2165
- 62.253 `CURL.SetOptionMailAuth` 2166
- 62.254 `CURL.SetOptionMailFrom` 2168
- 62.255 `CURL.SetOptionMailRecipients` 2169
- 62.256 `CURL.SetOptionMaxAgeConn` 2170

	249
• 62.257 CURL.SetOptionMaxConnects	2171
• 62.258 CURL.SetOptionMaxFileSize	2172
• 62.259 CURL.SetOptionMaxRecvSpeed	2173
• 62.260 CURL.SetOptionMaxRedirs	2174
• 62.261 CURL.SetOptionMaxSendSpeed	2176
• 62.262 CURL.SetOptionNETRCFile	2177
• 62.263 CURL.SetOptionNetRC	2178
• 62.264 CURL.SetOptionNewDirectoryPerms	2180
• 62.265 CURL.SetOptionNewFilePerms	2181
• 62.266 CURL.SetOptionNoBody	2182
• 62.267 CURL.SetOptionNoProxy	2184
• 62.268 CURL.SetOptionPassword	2186
• 62.269 CURL.SetOptionPathAsIs	2189
• 62.270 CURL.SetOptionPinnedPublicKey	2190
• 62.271 CURL.SetOptionPipeWait	2191
• 62.272 CURL.SetOptionPort	2192
• 62.273 CURL.SetOptionPost	2194
• 62.274 CURL.SetOptionPostFieldSize	2198
• 62.275 CURL.SetOptionPostFields	2199
• 62.276 CURL.SetOptionPostQuote	2203
• 62.277 CURL.SetOptionPostRedir	2205
• 62.278 CURL.SetOptionPreProxy	2207
• 62.279 CURL.SetOptionPreQuote	2208
• 62.280 CURL.SetOptionProtocols	2210
• 62.281 CURL.SetOptionProxy	2212
• 62.282 CURL.SetOptionProxyAuth	2214
• 62.283 CURL.SetOptionProxyCAInfo	2215
• 62.284 CURL.SetOptionProxyCAPath	2216
• 62.285 CURL.SetOptionProxyCRLFile	2217

- 62.286 CURL.SetOptionProxyHeader 2218
- 62.287 CURL.SetOptionProxyKeyPassword 2219
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.289 CURL.SetOptionProxyPinnedPublicKey 2221
- 62.290 CURL.SetOptionProxyPort 2222
- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.293 CURL.SetOptionProxySSLCipherList 2225
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.296 CURL.SetOptionProxySSLOptions 2228
- 62.297 CURL.SetOptionProxySSLVerifyHost 2229
- 62.298 CURL.SetOptionProxySSLVerifyPeer 2230
- 62.299 CURL.SetOptionProxySSLVersion 2231
- 62.300 CURL.SetOptionProxyServiceName 2233
- 62.301 CURL.SetOptionProxyTLS13Ciphers 2234
- 62.302 CURL.SetOptionProxyTLSAuthPassword 2235
- 62.303 CURL.SetOptionProxyTLSAuthType 2236
- 62.304 CURL.SetOptionProxyTLSAuthUsername 2237
- 62.305 CURL.SetOptionProxyTransferMode 2238
- 62.306 CURL.SetOptionProxyType 2239
- 62.307 CURL.SetOptionProxyUsername 2241
- 62.308 CURL.SetOptionPut 2242
- 62.309 CURL.SetOptionQuote 2244
- 62.310 CURL.SetOptionRTSPClientCSEQ 2247
- 62.311 CURL.SetOptionRTSPRequest 2248
- 62.312 CURL.SetOptionRTSPServerCSEQ 2249
- 62.313 CURL.SetOptionRTSPSessionID 2250
- 62.314 CURL.SetOptionRTSPStreamURI 2251

	251
• 62.315 CURL.SetOptionRTSPTransport	2252
• 62.316 CURL.SetOptionRandomFile	2253
• 62.317 CURL.SetOptionRange	2254
• 62.318 CURL.SetOptionRedirProtocols	2256
• 62.319 CURL.SetOptionReferer	2258
• 62.320 CURL.SetOptionRequestTarget	2259
• 62.321 CURL.SetOptionResolve	2260
• 62.322 CURL.SetOptionResumeFrom	2261
• 62.323 CURL.SetOptionSASLAuthZID	2262
• 62.324 CURL.SetOptionSASLIR	2263
• 62.325 CURL.SetOptionSSHAUTHTypes	2264
• 62.326 CURL.SetOptionSSHCompression	2266
• 62.327 CURL.SetOptionSSHHostPublicKeyMD5	2267
• 62.328 CURL.SetOptionSSHKnownHosts	2268
• 62.329 CURL.SetOptionSSHPrivateKeyfile	2269
• 62.330 CURL.SetOptionSSHPublicKeyfile	2271
• 62.331 CURL.SetOptionSSLCert	2273
• 62.332 CURL.SetOptionSSLCertType	2277
• 62.333 CURL.SetOptionSSLCipherList	2279
• 62.334 CURL.SetOptionSSEnableALPN	2281
• 62.335 CURL.SetOptionSSEnableNPN	2282
• 62.336 CURL.SetOptionSSEngine	2283
• 62.337 CURL.SetOptionSSEngineDefault	2284
• 62.338 CURL.SetOptionSSLFalseStart	2285
• 62.339 CURL.SetOptionSSLKey	2286
• 62.340 CURL.SetOptionSSLKeyType	2288
• 62.341 CURL.SetOptionSSLOptions	2290
• 62.342 CURL.SetOptionSSLSessionIDCache	2291
• 62.343 CURL.SetOptionSSLVerifyHost	2292

- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295
- 62.345 `CURL.SetOptionSSLVerifyStatus` 2298
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.347 `CURL.SetOptionServiceName` 2302
- 62.348 `CURL.SetOptionSocks5Auth` 2303
- 62.349 `CURL.SetOptionSocks5GSSAPINec` 2304
- 62.350 `CURL.SetOptionSocks5GSSAPIService` 2305
- 62.351 `CURL.SetOptionStreamDepends` 2306
- 62.352 `CURL.SetOptionStreamDependsE` 2307
- 62.353 `CURL.SetOptionStreamWeight` 2308
- 62.354 `CURL.SetOptionSuppressConnectHeaders` 2309
- 62.355 `CURL.SetOptionTCPFastOpen` 2310
- 62.356 `CURL.SetOptionTCPKeepAlive` 2311
- 62.357 `CURL.SetOptionTCPKeepIdle` 2312
- 62.358 `CURL.SetOptionTCPKeepInterval` 2313
- 62.359 `CURL.SetOptionTCPNoDelay` 2314
- 62.360 `CURL.SetOptionTFTPBlockSize` 2315
- 62.361 `CURL.SetOptionTFTPNoOptions` 2316
- 62.362 `CURL.SetOptionTLS13Ciphers` 2317
- 62.363 `CURL.SetOptionTLSAuthPassword` 2318
- 62.364 `CURL.SetOptionTLSAuthType` 2319
- 62.365 `CURL.SetOptionTLSAuthUsername` 2320
- 62.366 `CURL.SetOptionTelnetOptions` 2321
- 62.367 `CURL.SetOptionTimeCondition` 2322
- 62.368 `CURL.SetOptionTimeOut` 2323
- 62.369 `CURL.SetOptionTimeValue` 2325
- 62.370 `CURL.SetOptionTimeoutMS` 2326
- 62.371 `CURL.SetOptionTransferEncoding` 2327
- 62.372 `CURL.SetOptionTransferText` 2328



	253
• 62.373 CURL.SetOptionURL	2329
• 62.374 CURL.SetOptionUnixSocketPath	2337
• 62.375 CURL.SetOptionUnrestrictedAuth	2338
• 62.376 CURL.SetOptionUpkeepIntervalMS	2339
• 62.377 CURL.SetOptionUpload	2340
• 62.378 CURL.SetOptionUploadBufferSize	2342
• 62.379 CURL.SetOptionUseSSL	2343
• 62.380 CURL.SetOptionUserAgent	2345
• 62.381 CURL.SetOptionUsername	2346
• 62.382 CURL.SetOptionVerbose	2348
• 62.383 CURL.SetOptionWildCardMatch	2350
• 62.384 CURL.SetOptionXOAuth2Bearer	2353
• 62.385 CURL.SetProgressEvaluate	2354
• 62.386 CURL.SetProgressScript	2355
• 62.387 CURL.SetTag	2357
• 62.388 CURL.SetUpdateProgressDialog	2359
• 62.389 CURL.SetupAWS	2361
• 62.390 CURL.SetupOAuth	2365
• 62.391 CURL.Upkeep	2370
• 62.392 CURL.UseSystemCertificates	2371
• 62.393 CURL.Version	2373
• 48.1 Calendar.Alarm.Duplicate	1263
• 48.2 Calendar.Alarm.GetAbsoluteTrigger	1265
• 48.3 Calendar.Alarm.GetAcknowledged	1266
• 48.4 Calendar.Alarm.GetAction	1267
• 48.5 Calendar.Alarm.GetEmailAddress	1268
• 48.6 Calendar.Alarm.GetRelatedTo	1269
• 48.7 Calendar.Alarm.GetRelativeTrigger	1270
• 48.8 Calendar.Alarm.GetSound	1271

- 48.9 Calendar.Alarm.GetURL 1272
- 48.10 Calendar.Alarm.SetAbsoluteTrigger 1273
- 48.11 Calendar.Alarm.SetAcknowledged 1274
- 48.12 Calendar.Alarm.SetAction 1275
- 48.13 Calendar.Alarm.SetEmailAddress 1276
- 48.14 Calendar.Alarm.SetRelatedTo 1277
- 48.15 Calendar.Alarm.SetRelativeTrigger 1278
- 48.16 Calendar.Alarm.SetSound 1279
- 48.17 Calendar.Alarm.SetURL 1280
- 48.18 Calendar.Alarm.TriggerDateRelativeTo 1281
- 48.19 Calendar.Attendee.GetAddress 1282
- 48.20 Calendar.Attendee.GetCommonName 1283
- 48.21 Calendar.Attendee.GetStatus 1284
- 48.22 Calendar.Calendar.Duplicate 1285
- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.28 Calendar.Calendar.IsEditable 1293
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.32 Calendar.Calendars 1297
- 48.33 Calendar.Events 1298
- 48.34 Calendar.Initialize 1300
- 48.35 Calendar.Item.AddAlarm 1301
- 48.36 Calendar.Item.Duplicate 1302
- 48.37 Calendar.Item.GetAlarms 1303

	255
• 48.38 Calendar.Item.GetAllDay	1304
• 48.39 Calendar.Item.GetAttendeeCommonName	1305
• 48.40 Calendar.Item.GetAttendeeCount	1306
• 48.41 Calendar.Item.GetAttendeeStatus	1307
• 48.42 Calendar.Item.GetAttendeeURL	1308
• 48.43 Calendar.Item.GetAttendees	1309
• 48.44 Calendar.Item.GetCalendar	1310
• 48.45 Calendar.Item.GetCompleted	1311
• 48.46 Calendar.Item.GetCompletionDate	1312
• 48.47 Calendar.Item.GetDateStamp	1313
• 48.48 Calendar.Item.GetDueDate	1314
• 48.49 Calendar.Item.GetEndDate	1315
• 48.50 Calendar.Item.GetLocation	1316
• 48.51 Calendar.Item.GetNotes	1317
• 48.52 Calendar.Item.GetPriority	1318
• 48.53 Calendar.Item.GetStartDate	1319
• 48.54 Calendar.Item.GetTitle	1320
• 48.55 Calendar.Item.GetUID	1321
• 48.56 Calendar.Item.GetURL	1323
• 48.57 Calendar.Item.HasAlarm	1324
• 48.58 Calendar.Item.IsDetached	1325
• 48.59 Calendar.Item.NextAlarmDate	1326
• 48.60 Calendar.Item.Occurrence	1327
• 48.61 Calendar.Item.RemoveAlarm	1328
• 48.62 Calendar.Item.SetAllDay	1329
• 48.63 Calendar.Item.SetCalendar	1331
• 48.64 Calendar.Item.SetCompleted	1333
• 48.65 Calendar.Item.SetCompletionDate	1334
• 48.66 Calendar.Item.SetDueDate	1335

- 48.67 `Calendar.Item.SetEndDate` 1336
- 48.68 `Calendar.Item.SetLocation` 1337
- 48.69 `Calendar.Item.SetNotes` 1338
- 48.70 `Calendar.Item.SetPriority` 1340
- 48.71 `Calendar.Item.SetStartDate` 1341
- 48.72 `Calendar.Item.SetTitle` 1342
- 48.73 `Calendar.Item.SetURL` 1344
- 48.74 `Calendar.NewAlarm` 1345
- 48.75 `Calendar.NewCalendar` 1346
- 48.76 `Calendar.NewEvent` 1347
- 48.77 `Calendar.NewReminder` 1349
- 48.78 `Calendar.Notification.Clear` 1353
- 48.79 `Calendar.Notification.Evaluate` 1354
- 48.80 `Calendar.Notification.GetChangedExternally` 1355
- 48.81 `Calendar.Notification.GetDeletedRecords` 1356
- 48.82 `Calendar.Notification.GetInsertedRecords` 1357
- 48.83 `Calendar.Notification.GetProcessID` 1358
- 48.84 `Calendar.Notification.GetProcessName` 1359
- 48.85 `Calendar.Notification.GetUpdatedRecords` 1360
- 48.86 `Calendar.Notification.GetUserUID` 1361
- 48.87 `Calendar.Notification.GetWhat` 1362
- 48.88 `Calendar.Notification.Set` 1363
- 48.89 `Calendar.RemoveCalendar` 1364
- 48.90 `Calendar.RemoveEvent` 1365
- 48.91 `Calendar.RemoveReminder` 1366
- 48.92 `Calendar.SaveCalendar` 1367
- 48.93 `Calendar.SaveEvent` 1368
- 48.94 `Calendar.SaveReminder` 1370
- 48.95 `Calendar.SelectEvent` 1374

	257
• 48.96 Calendar.Tasks	1375
• 48.97 Calendar.TasksCompletedSince	1376
• 48.98 Calendar.UncompletedTasks	1377
• 48.99 Calendar.UncompletedTasksDueBefore	1378
• 127.1 ClearRegistration	6369
• 52.1 Clipboard.DetectFileMakerDataType	1469
• 52.2 Clipboard.GetData	1470
• 52.3 Clipboard.GetFileMakerData	1472
• 52.4 Clipboard.GetFiles	1474
• 52.5 Clipboard.GetHTMLText	1475
• 52.6 Clipboard.GetPicture	1476
• 52.7 Clipboard.GetRTFText	1477
• 52.8 Clipboard.GetStyledText	1478
• 52.9 Clipboard.GetText	1479
• 52.10 Clipboard.GetTypes	1481
• 52.11 Clipboard.SetFileMakerData	1482
• 52.12 Clipboard.SetFiles	1484
• 52.13 Clipboard.SetHTMLText	1486
• 52.14 Clipboard.SetPicture	1488
• 52.15 Clipboard.SetRTFText	1489
• 52.16 Clipboard.SetStyledText	1491
• 52.17 Clipboard.SetText	1492
• 53.2 ColorPanel.GetColor	1497
• 53.3 ColorPanel.GetColorChangedEvaluate	1498
• 53.4 ColorPanel.GetColorChangedScript	1499
• 53.5 ColorPanel.GetVisible	1500
• 53.6 ColorPanel.Hide	1501
• 53.7 ColorPanel.SetColor	1502
• 53.8 ColorPanel.SetColorChangedEvaluate	1503

- 53.9 ColorPanel.SetColorChangedScript 1504
- 53.10 ColorPanel.SetVisible 1506
- 53.11 ColorPanel.Show 1507
- 127.2 CompileDate 6370
- 127.3 CompileTime 6371
- 56.1 Container.Compress 1641
- 56.2 Container.DecodeFromBase64 1643
- 56.3 Container.DecodeFromHex 1645
- 56.4 Container.Decompress 1646
- 56.5 Container.Deserialize 1648
- 56.6 Container.Export 1649
- 56.7 Container.ExtractStream 1652
- 56.8 Container.GetBase64 1653
- 56.9 Container.GetCount 1655
- 56.10 Container.GetDataURL 1657
- 56.11 Container.GetHeight 1658
- 56.12 Container.GetHex 1659
- 56.17 Container.GetName 1664
- 56.18 Container.GetResolution 1665
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.21 Container.GetTotalSize 1671
- 56.22 Container.GetType 1672
- 56.23 Container.GetTypeSize 1674
- 56.24 Container.GetTypes 1676
- 56.25 Container.GetWidth 1678
- 56.26 Container.IsCompressed 1679
- 56.27 Container.ReadArchive 1680
- 56.28 Container.ReadFile 1681

	259
• 56.29 Container.ReadImage	1684
• 56.30 Container.Remove	1686
• 56.31 Container.Rename	1688
• 56.32 Container.RenameStream	1690
• 56.33 Container.Serialize	1691
• 56.34 Container.WriteArchive	1692
• 56.35 Container.WriteFile	1694
• 94.1 ContinuityCamera.Clear	5101
• 94.2 ContinuityCamera.Import	5102
• 94.3 ContinuityCamera.PopupMenu	5103
• 94.4 ContinuityCamera.Result	5105
• 94.5 ContinuityCamera.SetScriptTrigger	5106
• 58.1 CoreImage.Detect	1703
• 59.1 CoreLocation.ClearFailHandler	1705
• 59.2 CoreLocation.ClearUpdateLocationHandler	1706
• 59.3 CoreLocation.RegionMonitoringAvailable	1707
• 59.4 CoreLocation.RegionMonitoringEnabled	1708
• 59.5 CoreLocation.SetFailEvaluate	1709
• 59.6 CoreLocation.SetFailHandler	1710
• 59.7 CoreLocation.SetUpdateLocationEvaluate	1711
• 59.8 CoreLocation.SetUpdateLocationHandler	1712
• 59.9 CoreLocation.altitude	1714
• 59.10 CoreLocation.authorizationStatus	1715
• 59.11 CoreLocation.course	1716
• 59.12 CoreLocation.description	1717
• 59.13 CoreLocation.desiredAccuracy	1718
• 59.15 CoreLocation.distanceFilter	1720
• 59.16 CoreLocation.distanceFromLocation	1721
• 59.17 CoreLocation.hasLocation	1722

- 59.18 CoreLocation.headingAvailable 1723
- 59.19 CoreLocation.horizontalAccuracy 1724
- 59.20 CoreLocation.latitude 1725
- 59.21 CoreLocation.locationServicesEnabled 1726
- 59.22 CoreLocation.longitude 1727
- 59.23 CoreLocation.purpose 1728
- 59.27 CoreLocation.setDesiredAccuracy 1732
- 59.28 CoreLocation.setDistanceFilter 1733
- 59.29 CoreLocation.setPurpose 1734
- 59.30 CoreLocation.significantLocationChangeMonitoringAvailable 1735
- 59.31 CoreLocation.speed 1736
- 59.32 CoreLocation.startMonitoringSignificantLocationChanges 1737
- 59.34 CoreLocation.startUpdatingLocation 1739
- 59.35 CoreLocation.stopMonitoringSignificantLocationChanges 1740
- 59.37 CoreLocation.stopUpdatingLocation 1742
- 59.38 CoreLocation.timestamp 1743
- 59.39 CoreLocation.verticalAccuracy 1744
- 60.1 CoreML.Add2DArrayParameter 1745
- 60.2 CoreML.AddArrayParameter 1747
- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751
- 60.6 CoreML.AddTextParameter 1752
- 60.7 CoreML.AddUndefinedParameter 1753
- 60.8 CoreML.Available 1754
- 60.9 CoreML.Clear 1755
- 60.10 CoreML.CompileModel 1756
- 60.11 CoreML.Description 1758
- 60.12 CoreML.GetUsesCPUOnly 1761



	261
• 60.13 CoreML.OpenModel	1762
• 60.14 CoreML.PredictionFromFeatures	1764
• 60.15 CoreML.Release	1766
• 60.16 CoreML.ResultImage	1767
• 60.17 CoreML.SetUsesCPUOnly	1768
• 60.18 CoreML.Update	1769
• 68.1 DNSLookup.Address	2493
• 68.2 DNSLookup.AddressCount	2495
• 68.3 DNSLookup.Alias	2496
• 68.4 DNSLookup.AliasCount	2497
• 68.5 DNSLookup.LookupHostByAddress	2498
• 68.6 DNSLookup.LookupHostByName	2500
• 68.7 DNSLookup.Name	2502
• 68.8 DNSLookup.Release	2503
• 63.1 Debugger.BringToFront	2375
• 63.2 Debugger.CurrentLineNumber	2376
• 63.3 Debugger.GetCallStack	2377
• 63.4 Debugger.IsVisible	2378
• 63.5 Debugger.Title	2379
• 63.6 Debugger.Window	2380
• 64.1 Dialog.AddField	2381
• 64.2 Dialog.ClearFields	2383
• 64.3 Dialog.CloseSheet	2384
• 64.4 Dialog.GetAlternateButton	2385
• 64.5 Dialog.GetButton	2386
• 64.6 Dialog.GetButtonPressed	2387
• 64.7 Dialog.GetButtons	2388
• 64.8 Dialog.GetDefaultButton	2389
• 64.9 Dialog.GetFieldText	2390

- 64.10 Dialog.GetIcon 2391
- 64.11 Dialog.GetInformativeText 2392
- 64.12 Dialog.GetLastResult 2393
- 64.13 Dialog.GetLeft 2394
- 64.14 Dialog.GetMessage 2395
- 64.15 Dialog.GetMode 2396
- 64.16 Dialog.GetOtherButton 2397
- 64.17 Dialog.GetSheetEvaluate 2398
- 64.18 Dialog.GetSheetFileName 2399
- 64.19 Dialog.GetSheetRunning 2400
- 64.20 Dialog.GetSheetScriptName 2401
- 64.21 Dialog.GetShowsSuppressionButton 2402
- 64.22 Dialog.GetSuppressionButtonTitle 2403
- 64.23 Dialog.GetSuppressionState 2404
- 64.24 Dialog.GetTimeout 2405
- 64.25 Dialog.GetTop 2406
- 64.26 Dialog.GetWindowTitle 2407
- 64.27 Dialog.Reset 2408
- 64.28 Dialog.Run 2409
- 64.29 Dialog.RunSheet 2411
- 64.30 Dialog.SetAlternateButton 2412
- 64.31 Dialog.SetButton 2413
- 64.32 Dialog.SetButtons 2415
- 64.33 Dialog.SetDefaultButton 2416
- 64.34 Dialog.SetFieldText 2417
- 64.35 Dialog.SetIcon 2418
- 64.36 Dialog.SetInformativeText 2419
- 64.37 Dialog.SetLeft 2420
- 64.38 Dialog.SetMessage 2421

	263
• 64.39 Dialog.SetMode	2422
• 64.40 Dialog.SetOtherButton	2423
• 64.41 Dialog.SetSheetEvaluate	2424
• 64.42 Dialog.SetSheetFileName	2425
• 64.43 Dialog.SetSheetScriptName	2426
• 64.44 Dialog.SetShowsSuppressionButton	2427
• 64.45 Dialog.SetSuppressionButtonTitle	2428
• 64.46 Dialog.SetTimeout	2429
• 64.47 Dialog.SetTop	2431
• 64.48 Dialog.SetWindowTitle	2433
• 65.1 DialogModifications.Clear	2435
• 65.2 DialogModifications.Install	2436
• 65.3 DialogModifications.Set	2437
• 65.4 DialogModifications.Uninstall	2438
• 66.1 Dictionary.AddSQL	2439
• 81.1 Dictionary.AddSQLRecord	4123
• 81.2 Dictionary.AddSQLRecords	4125
• 66.4 Dictionary.Clear	2446
• 66.5 Dictionary.Clone	2447
• 66.6 Dictionary.Count	2448
• 66.7 Dictionary.Create	2449
• 66.8 Dictionary.CreateNamed	2452
• 66.9 Dictionary.Deserialize	2453
• 66.10 Dictionary.HasKey	2455
• 66.11 Dictionary.KeyAtIndex	2456
• 66.12 Dictionary.Keys	2457
• 66.13 Dictionary.List	2458
• 66.14 Dictionary.Release	2459
• 66.15 Dictionary.RemoveKey	2460

- 66.16 Dictionary.Serialize 2461
- 66.17 Dictionary.SetList 2463
- 66.18 Dictionary.SetQuickList 2464
- 66.19 Dictionary.SetValueForKey 2465
- 66.20 Dictionary.SetVariables 2468
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 66.24 Dictionary.ValueForKey 2475
- 66.25 Dictionary.ValueTypeForKey 2477
- 66.26 Dictionary.Values 2478
- 70.1 DragDrop.ClearDragActionHandler 2521
- 70.2 DragDrop.ClearDragEnterHandler 2523
- 70.3 DragDrop.ClearDragExitHandler 2524
- 70.4 DragDrop.CreateOnPopoverWithControl 2525
- 70.5 DragDrop.CreateOnPopoverWithSize 2527
- 70.6 DragDrop.CreateWithControl 2529
- 70.7 DragDrop.CreateWithSize 2532
- 70.8 DragDrop.CreateWithWindow 2534
- 70.9 DragDrop.GetAutoResizingMask 2536
- 70.10 DragDrop.GetEmailAccount 2537
- 70.11 DragDrop.GetEmailCount 2538
- 70.12 DragDrop.GetEmailID 2539
- 70.13 DragDrop.GetEmailMailbox 2540
- 70.14 DragDrop.GetEmailSubject 2541
- 70.17 DragDrop.GetHTML 2545
- 70.18 DragDrop.GetHeight 2546
- 70.19 DragDrop.GetLeft 2547
- 70.20 DragDrop.GetMouseX 2548

	265
• 70.21 DragDrop.GetMouseY	2549
• 70.22 DragDrop.GetPath	2550
• 70.23 DragDrop.GetPathCount	2553
• 70.24 DragDrop.GetPicture	2555
• 70.25 DragDrop.GetRTF	2557
• 70.26 DragDrop.GetTag	2558
• 70.27 DragDrop.GetText	2559
• 70.28 DragDrop.GetTop	2561
• 70.29 DragDrop.GetTypes	2562
• 70.30 DragDrop.GetURL	2563
• 70.31 DragDrop.GetVisible	2564
• 70.32 DragDrop.GetWidth	2565
• 70.33 DragDrop.GetWindowRef	2566
• 70.34 DragDrop.List	2567
• 70.35 DragDrop.RegisterDropTypes	2568
• 70.36 DragDrop.Release	2570
• 70.37 DragDrop.ReleaseAll	2572
• 70.38 DragDrop.SetAutoResizingMask	2573
• 70.39 DragDrop.SetCursor	2575
• 70.40 DragDrop.SetDragActionHandler	2577
• 70.41 DragDrop.SetDragEnterHandler	2579
• 70.42 DragDrop.SetDragExitHandler	2581
• 70.43 DragDrop.SetFrame	2583
• 70.44 DragDrop.SetFrameWithControl	2584
• 70.45 DragDrop.SetImage	2586
• 70.46 DragDrop.SetTag	2588
• 70.47 DragDrop.SetVisible	2589
• 70.48 DragDrop.UnregisterDropTypes	2590
• 71.1 DynaPDF.AddActionToObj	2591

- 71.2 DynaPDF.AddAnnotToPage 2594
- 71.3 DynaPDF.AddBookmark 2595
- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.5 DynaPDF.AddButtonImage 2599
- 71.6 DynaPDF.AddContinueText 2601
- 71.7 DynaPDF.AddDeviceNProcessColorants 2602
- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.9 DynaPDF.AddFontSearchPath 2607
- 71.10 DynaPDF.AddOutputIntent 2608
- 71.11 DynaPDF.AddOutputIntentEx 2609
- 71.12 DynaPDF.AddValToChoiceField 2611
- 71.13 DynaPDF.AllowPageBreak 2613
- 71.14 DynaPDF.AppendImagePage 2615
- 71.15 DynaPDF.AppendImagePages 2617
- 71.16 DynaPDF.AppendPage 2619
- 71.17 DynaPDF.ApplyShading 2621
- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.19 DynaPDF.AttachFile 2624
- 71.20 DynaPDF.AttachFileContainer 2626
- 71.21 DynaPDF.AttachFileText 2627
- 71.22 DynaPDF.BeginContinueText 2629
- 71.23 DynaPDF.BeginLayer 2631
- 71.24 DynaPDF.BeginPattern 2632
- 71.25 DynaPDF.BeginTemplate 2633
- 71.26 DynaPDF.Bezier123 2634
- 71.27 DynaPDF.Bezier13 2636
- 71.28 DynaPDF.Bezier23 2637
- 71.29 DynaPDF.CMYK 2638
- 71.30 DynaPDF.ChangeAnnotName 2640

	267
• 71.31 DynaPDF.ChangeAnnotPos	2641
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.33 DynaPDF.ChangeFont	2644
• 71.34 DynaPDF.ChangeFontSize	2645
• 71.35 DynaPDF.ChangeFontStyle	2646
• 71.36 DynaPDF.ChangeFontStyleEx	2647
• 71.37 DynaPDF.ChangeLinkAnnot	2648
• 71.38 DynaPDF.ChangeSeparationColor	2649
• 71.39 DynaPDF.CheckConformance	2650
• 71.40 DynaPDF.CheckFieldNames	2653
• 71.41 DynaPDF.CircleAnnot	2654
• 71.42 DynaPDF.Clear	2656
• 71.43 DynaPDF.ClipPath	2657
• 71.44 DynaPDF.CloseImportFile	2659
• 71.45 DynaPDF.ClosePath	2660
• 71.46 DynaPDF.ConvertColors	2662
• 71.47 DynaPDF.ConvertStyledText	2664
• 71.48 DynaPDF.CreateAxialShading	2665
• 71.49 DynaPDF.CreateButton	2667
• 71.50 DynaPDF.CreateCheckBox	2670
• 71.51 DynaPDF.CreateComboBox	2672
• 71.52 DynaPDF.CreateDeviceNColorSpace	2675
• 71.53 DynaPDF.CreateGoToAction	2677
• 71.54 DynaPDF.CreateGoToActionEx	2679
• 71.55 DynaPDF.CreateGoToRAction	2681
• 71.56 DynaPDF.CreateGoToRActionEx	2683
• 71.57 DynaPDF.CreateGroupField	2685
• 71.58 DynaPDF.CreateJSAction	2687
• 71.59 DynaPDF.CreateListBox	2690

- 71.60 DynaPDF.CreateNamedDest 2693
- 71.61 DynaPDF.CreateRadialShading 2695
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.64 DynaPDF.CreateSigField 2702
- 71.65 DynaPDF.CreateSigFieldAP 2705
- 71.66 DynaPDF.CreateStructureTree 2707
- 71.67 DynaPDF.CreateTextField 2709
- 71.68 DynaPDF.CreateXFASStream 2711
- 71.69 DynaPDF.DeleteAcroForm 2712
- 71.70 DynaPDF.DeleteActionFromObjEx 2713
- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.73 DynaPDF.DeleteEmbeddedFile 2716
- 71.74 DynaPDF.DeleteField 2717
- 71.75 DynaPDF.DeleteFieldEx 2718
- 71.76 DynaPDF.DeleteJavaScripts 2719
- 71.77 DynaPDF.DeletePage 2720
- 71.78 DynaPDF.DeletePageLabels 2721
- 71.79 DynaPDF.DeleteSeparationInfo 2722
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.82 DynaPDF.DeleteXFAForm 2725
- 71.83 DynaPDF.DrawArc 2726
- 71.84 DynaPDF.DrawArcEx 2728
- 71.85 DynaPDF.DrawChord 2730
- 71.86 DynaPDF.DrawCircle 2732
- 71.87 DynaPDF.DrawPie 2734
- 71.88 DynaPDF.EditPage 2736



	269
• 71.89 DynaPDF.EditTemplate	2738
• 71.90 DynaPDF.EditTemplate2	2740
• 71.91 DynaPDF.Ellipse	2741
• 71.92 DynaPDF.EnableEncryption	2743
• 71.93 DynaPDF.EndLayer	2746
• 71.94 DynaPDF.EndPage	2747
• 71.95 DynaPDF.EndPattern	2749
• 71.96 DynaPDF.EndTemplate	2750
• 71.97 DynaPDF.ExchangeBookmarks	2751
• 71.98 DynaPDF.ExchangePages	2752
• 71.99 DynaPDF.ExtractDocumentText	2753
• 71.100 DynaPDF.ExtractImages	2755
• 71.101 DynaPDF.ExtractPageRectText	2757
• 71.102 DynaPDF.ExtractPageText	2759
• 71.103 DynaPDF.ExtractText	2761
• 71.104 DynaPDF.FileAttachAnnot	2764
• 71.105 DynaPDF.FileAttachAnnotEx	2766
• 71.106 DynaPDF.FileLink	2768
• 71.107 DynaPDF.FindBookmark	2770
• 71.108 DynaPDF.FindEmbeddedFile	2772
• 71.109 DynaPDF.FindField	2773
• 71.110 DynaPDF.FindLinkAnnot	2774
• 71.111 DynaPDF.FindNextBookmark	2775
• 71.112 DynaPDF.FindPattern	2776
• 71.113 DynaPDF.FindText	2777
• 71.114 DynaPDF.FlattenAnnotOrField	2779
• 71.115 DynaPDF.FlattenAnnots	2780
• 71.116 DynaPDF.FlattenForm	2782
• 71.117 DynaPDF.FlushPages	2784

- 71.118 DynaPDF.FontInfo 2786
- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.120 DynaPDF.GeneratePreview 2790
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.124 DynaPDF.GetAnnotType 2796
- 71.125 DynaPDF.GetAnnotation 2798
- 71.126 DynaPDF.GetAscent 2800
- 71.127 DynaPDF.GetBBox 2801
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.131 DynaPDF.GetCMapCount 2807
- 71.132 DynaPDF.GetCharacterSpacing 2808
- 71.133 DynaPDF.GetCheckBoxChar 2809
- 71.134 DynaPDF.GetCheckBoxCharEx 2810
- 71.135 DynaPDF.GetCheckBoxDefState 2811
- 71.136 DynaPDF.GetColorSpace 2812
- 71.137 DynaPDF.GetColorSpaceCount 2813
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.140 DynaPDF.GetCompressionLevel 2816
- 71.141 DynaPDF.GetContent 2817
- 71.142 DynaPDF.GetDocInfo 2818
- 71.143 DynaPDF.GetDocInfoCount 2820
- 71.144 DynaPDF.GetDocUsesTransparency 2821
- 71.145 DynaPDF.GetDrawDirection 2822
- 71.146 DynaPDF.GetDynaPDFVersion 2823

	271
• 71.147 DynaPDF.GetEmbeddedFile	2824
• 71.148 DynaPDF.GetEmbeddedFileAsContainer	2826
• 71.149 DynaPDF.GetEmbeddedFileCount	2827
• 71.150 DynaPDF.GetFTextHeight	2829
• 71.151 DynaPDF.GetFTextHeightEx	2831
• 71.152 DynaPDF.GetField	2833
• 71.153 DynaPDF.GetFieldBackColor	2835
• 71.154 DynaPDF.GetFieldBorderColor	2836
• 71.155 DynaPDF.GetFieldBorderStyle	2837
• 71.156 DynaPDF.GetFieldBorderWidth	2838
• 71.157 DynaPDF.GetFieldChoiceValue	2839
• 71.158 DynaPDF.GetFieldColor	2840
• 71.159 DynaPDF.GetFieldCount	2841
• 71.160 DynaPDF.GetFieldExpValCount	2842
• 71.161 DynaPDF.GetFieldExpValue	2843
• 71.162 DynaPDF.GetFieldExpValueEx	2844
• 71.163 DynaPDF.GetFieldFlags	2846
• 71.164 DynaPDF.GetFieldGroupType	2847
• 71.165 DynaPDF.GetFieldHighlightMode	2848
• 71.166 DynaPDF.GetFieldIndex	2849
• 71.167 DynaPDF.GetFieldMapName	2850
• 71.168 DynaPDF.GetFieldName	2851
• 71.169 DynaPDF.GetFieldOrientation	2852
• 71.170 DynaPDF.GetFieldTextAlign	2853
• 71.171 DynaPDF.GetFieldTextColor	2854
• 71.172 DynaPDF.GetFieldToolTip	2855
• 71.173 DynaPDF.GetFieldType	2856
• 71.174 DynaPDF.GetFontCount	2857
• 71.175 DynaPDF.GetFontOrigin	2858

- 71.176 DynaPDF.GetFontSelMode 2859
- 71.177 DynaPDF.GetFontWeight 2860
- 71.178 DynaPDF.GetGStateFlags 2861
- 71.179 DynaPDF.GetImage 2862
- 71.180 DynaPDF.GetImageCount 2866
- 71.181 DynaPDF.GetImportDocInfo 2868
- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.185 DynaPDF.GetImportPDFVersion 2873
- 71.186 DynaPDF.GetImportPageBounds 2874
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.188 DynaPDF.GetInDocInfoCount 2879
- 71.189 DynaPDF.GetInFieldCount 2880
- 71.190 DynaPDF.GetInIsCollection 2881
- 71.191 DynaPDF.GetInIsEncrypted 2882
- 71.192 DynaPDF.GetInIsSigned 2883
- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.194 DynaPDF.GetInIsXFAForm 2885
- 71.195 DynaPDF.GetInMetadata 2886
- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.197 DynaPDF.GetInRepairMode 2889
- 71.198 DynaPDF.GetIsFixedPitch 2890
- 71.199 DynaPDF.GetIsTaggingEnabled 2891
- 71.200 DynaPDF.GetJPEGQuality 2892
- 71.201 DynaPDF.GetJavaScriptCount 2893
- 71.202 DynaPDF.GetLanguage 2894
- 71.203 DynaPDF.GetLastErrorMessage 2895
- 71.204 DynaPDF.GetLastTextPosX 2896

	273
• 71.205 DynaPDF.GetLastTextPosY	2897
• 71.206 DynaPDF.GetLeading	2898
• 71.207 DynaPDF.GetLineWidth	2899
• 71.208 DynaPDF.GetLinkHighlightMode	2900
• 71.212 DynaPDF.GetMetadata	2904
• 71.213 DynaPDF.GetOCG	2906
• 71.214 DynaPDF.GetOCGContUsage	2909
• 71.215 DynaPDF.GetOCGCount	2911
• 71.216 DynaPDF.GetOCGUsageUserName	2912
• 71.217 DynaPDF.GetOpacity	2913
• 71.218 DynaPDF.GetOrientation	2914
• 71.219 DynaPDF.GetOutputIntent	2915
• 71.220 DynaPDF.GetOutputIntentCount	2917
• 71.221 DynaPDF.GetPDFVersion	2918
• 71.222 DynaPDF.GetPageAnnotCount	2919
• 71.223 DynaPDF.GetPageAnnotation	2920
• 71.224 DynaPDF.GetPageBBox	2921
• 71.225 DynaPDF.GetPageCoords	2923
• 71.226 DynaPDF.GetPageCount	2924
• 71.227 DynaPDF.GetPageFieldCount	2926
• 71.228 DynaPDF.GetPageHeight	2927
• 71.229 DynaPDF.GetPageLabel	2929
• 71.230 DynaPDF.GetPageLabelCount	2931
• 71.231 DynaPDF.GetPageLayout	2932
• 71.232 DynaPDF.GetPageMode	2933
• 71.233 DynaPDF.GetPageNum	2934
• 71.234 DynaPDF.GetPageWidth	2935
• 71.235 DynaPDF.GetPrintSettings	2937
• 71.236 DynaPDF.GetReplaceICCProfile	2938

- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.238 DynaPDF.GetReplaceICCProfilesCounter 2940
- 71.239 DynaPDF.GetResolution 2941
- 71.240 DynaPDF.GetSaveNewImageFormat 2942
- 71.241 DynaPDF.GetTemplCount 2943
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.244 DynaPDF.GetTextDrawMode 2946
- 71.245 DynaPDF.GetTextFieldDefaultValue 2947
- 71.246 DynaPDF.GetTextFieldValue 2948
- 71.247 DynaPDF.GetTextRise 2949
- 71.248 DynaPDF.GetTextScaling 2950
- 71.249 DynaPDF.GetTextWidth 2951
- 71.250 DynaPDF.GetTransparentColor 2953
- 71.251 DynaPDF.GetTrapped 2954
- 71.252 DynaPDF.GetUseExactPwd 2955
- 71.253 DynaPDF.GetUseGlobalImpFiles 2956
- 71.254 DynaPDF.GetUseStdFonts 2957
- 71.255 DynaPDF.GetUseSystemFonts 2958
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.257 DynaPDF.GetUseVisibleCoords 2960
- 71.258 DynaPDF.GetUserRights 2961
- 71.259 DynaPDF.GetUserUnit 2962
- 71.260 DynaPDF.GetUsesTransparency 2963
- 71.261 DynaPDF.GetViewerPreferences 2965
- 71.264 DynaPDF.GetWordSpacing 2968
- 71.265 DynaPDF.GetXFASStream 2969
- 71.266 DynaPDF.GetXFASStreamCount 2971
- 71.267 DynaPDF.HaveOpenDocument 2972

	275
• 71.268 DynaPDF.HaveOpenPage	2973
• 71.269 DynaPDF.HighlightAnnot	2974
• 71.270 DynaPDF.HighlightPattern	2976
• 71.271 DynaPDF.ImportEncryptionSettings	2978
• 71.272 DynaPDF.ImportPDFFile	2979
• 71.273 DynaPDF.ImportPDFPage	2982
• 71.274 DynaPDF.ImportPageAsTemplate	2985
• 71.275 DynaPDF.InitColorManagement	2987
• 71.276 DynaPDF.InitColorManagementEx	2990
• 71.277 DynaPDF.Initialize	2992
• 71.278 DynaPDF.InsertBookmark	2999
• 71.279 DynaPDF.InsertBookmarkEx	3001
• 71.280 DynaPDF.InsertImage	3003
• 71.281 DynaPDF.InsertImageFile	3007
• 71.284 DynaPDF.IsColorPage	3014
• 71.285 DynaPDF.IsEmptyPage	3016
• 71.286 DynaPDF.IsInitialized	3017
• 71.287 DynaPDF.LineAnnot	3020
• 71.288 DynaPDF.LineTo	3022
• 71.289 DynaPDF.List	3024
• 71.290 DynaPDF.ListImages	3025
• 71.291 DynaPDF.LockLayer	3028
• 71.292 DynaPDF.MovePage	3029
• 71.293 DynaPDF.MoveTo	3030
• 71.294 DynaPDF.New	3032
• 71.295 DynaPDF.OpenOutputFile	3035
• 71.296 DynaPDF.OpenOutputFileEncrypted	3037
• 71.297 DynaPDF.OpenPDFFromContainer	3039
• 71.298 DynaPDF.OpenPDFFromFile	3043

- 71.299 DynaPDF.Optimize 3046
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.302 DynaPDF.PageStatistics 3059
- 71.303 DynaPDF.ParseContent 3062
- 71.304 DynaPDF.PlaceSigFieldValidateIcon 3064
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.312 DynaPDF.RGB 3079
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.314 DynaPDF.ReadImageResolution 3083
- 71.315 DynaPDF.Rectangle 3084
- 71.316 DynaPDF.Release 3086
- 71.317 DynaPDF.RenameSpotColor 3088
- 71.318 DynaPDF.RenderPDFFile 3089
- 71.319 DynaPDF.RenderPDFFileEx 3091
- 71.320 DynaPDF.RenderPage 3093
- 71.321 DynaPDF.ReplaceImage 3097
- 71.322 DynaPDF.ReplacePattern 3100
- 71.323 DynaPDF.ResetEncryptionSettings 3103
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.325 DynaPDF.RotateCoords 3106
- 71.326 DynaPDF.RotateTemplate 3109
- 71.327 DynaPDF.RoundRect 3112
- 71.328 DynaPDF.RoundRectEx 3114
- 71.329 DynaPDF.Save 3116
- 71.330 DynaPDF.SaveAndSignFile 3119
- 71.333 DynaPDF.SaveGraphicState 3125
- 71.334 DynaPDF.ScaleCoords 3126



- 71.335 DynaPDF.SetAlpha 3128
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.337 DynaPDF.SetAnnotBorderWidth 3132
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.341 DynaPDF.SetAnnotFlagsEx 3139
- 71.342 DynaPDF.SetAnnotHighlightMode 3140
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.344 DynaPDF.SetAnnotLineEndStyle 3142
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.346 DynaPDF.SetAnnotOpenState 3144
- 71.347 DynaPDF.SetAnnotString 3145
- 71.348 DynaPDF.SetAnnotSubject 3146
- 71.349 DynaPDF.SetBBox 3147
- 71.350 DynaPDF.SetBookmarkDest 3149
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.353 DynaPDF.SetCMapDir 3154
- 71.354 DynaPDF.SetCharacterSpacing 3155
- 71.355 DynaPDF.SetCheckBoxChar 3156
- 71.356 DynaPDF.SetCheckBoxDefState 3157
- 71.357 DynaPDF.SetCheckBoxState 3158
- 71.358 DynaPDF.SetColorSpace 3159
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.360 DynaPDF.SetCompressionLevel 3163
- 71.361 DynaPDF.SetContent 3164
- 71.362 DynaPDF.SetDocInfo 3165
- 71.363 DynaPDF.SetDocInfoEx 3167

- 71.364 DynaPDF.SetDrawDirection 3169
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172
- 71.367 DynaPDF.SetExtStrokeColorSpace 3173
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.376 DynaPDF.SetFieldExpValueEx 3186
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.380 DynaPDF.SetFieldFontSize 3194
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.383 DynaPDF.SetFieldMapName 3197
- 71.384 DynaPDF.SetFieldName 3198
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.386 DynaPDF.SetFieldTextAlign 3201
- 71.387 DynaPDF.SetFieldTextColor 3202
- 71.388 DynaPDF.SetFieldToolTip 3203
- 71.389 DynaPDF.SetFillColor 3204
- 71.390 DynaPDF.SetFloatPrecision 3207
- 71.391 DynaPDF.SetFont 3208
- 71.392 DynaPDF.SetFontEx 3210

	279
• 71.393 DynaPDF.SetFontOrigin	3212
• 71.394 DynaPDF.SetFontSearchOrder	3213
• 71.395 DynaPDF.SetFontSelMode	3215
• 71.396 DynaPDF.SetFontWeight	3216
• 71.397 DynaPDF.SetGStateFlags	3218
• 71.398 DynaPDF.SetImportFlags	3220
• 71.399 DynaPDF.SetImportFlags2	3224
• 71.400 DynaPDF.SetJPEGQuality	3226
• 71.401 DynaPDF.SetLanguage	3228
• 71.402 DynaPDF.SetLeading	3230
• 71.403 DynaPDF.SetLineJoinStyle	3231
• 71.404 DynaPDF.SetLineWidth	3232
• 71.405 DynaPDF.SetLinkHighlightMode	3234
• 71.407 DynaPDF.SetMetadata	3238
• 71.408 DynaPDF.SetMiterLimit	3240
• 71.409 DynaPDF.SetNumberFormat	3241
• 71.410 DynaPDF.SetOCGState	3243
• 71.411 DynaPDF.SetOpacity	3245
• 71.412 DynaPDF.SetOrientation	3246
• 71.413 DynaPDF.SetOrientationEx	3247
• 71.414 DynaPDF.SetPDFVersion	3250
• 71.415 DynaPDF.SetPageBBox	3252
• 71.416 DynaPDF.SetPageCoords	3254
• 71.417 DynaPDF.SetPageFormat	3256
• 71.418 DynaPDF.SetPageHeight	3258
• 71.419 DynaPDF.SetPageLayout	3261
• 71.420 DynaPDF.SetPageMode	3262
• 71.421 DynaPDF.SetPageWidth	3263
• 71.422 DynaPDF.SetPrintSettings	3266

- 71.423 DynaPDF.SetReplaceICCPProfile 3268
- 71.424 DynaPDF.SetReplaceICCPProfileData 3270
- 71.425 DynaPDF.SetResolution 3272
- 71.426 DynaPDF.SetSaveNewImageFormat 3274
- 71.427 DynaPDF.SetSeparationInfo 3276
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.429 DynaPDF.SetTextDrawMode 3279
- 71.430 DynaPDF.SetTextFieldValue 3281
- 71.431 DynaPDF.SetTextFieldValueEx 3283
- 71.432 DynaPDF.SetTextRect 3284
- 71.433 DynaPDF.SetTextRise 3286
- 71.434 DynaPDF.SetTextScaling 3287
- 71.435 DynaPDF.SetTransparentColor 3288
- 71.436 DynaPDF.SetTrapped 3289
- 71.437 DynaPDF.SetUseExactPwd 3290
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291
- 71.439 DynaPDF.SetUseStdFonts 3292
- 71.440 DynaPDF.SetUseSystemFonts 3294
- 71.441 DynaPDF.SetUseTransparency 3296
- 71.442 DynaPDF.SetUseVisibleCoords 3298
- 71.443 DynaPDF.SetUserUnit 3299
- 71.444 DynaPDF.SetViewerPreferences 3300
- 71.447 DynaPDF.SetWordSpacing 3303
- 71.448 DynaPDF.SetXFASStream 3304
- 71.449 DynaPDF.ShowDifferences 3305
- 71.450 DynaPDF.SkewCoords 3307
- 71.451 DynaPDF.SquareAnnot 3309
- 71.452 DynaPDF.StampAnnot 3311
- 71.453 DynaPDF.StrokePath 3313

	281
• 71.454 DynaPDF.SysFontInfo	3315
• 71.455 DynaPDF.Table.AddColumn	3317
• 71.456 DynaPDF.Table.AddRow	3318
• 71.457 DynaPDF.Table.AddRows	3320
• 71.458 DynaPDF.Table.ClearColumn	3321
• 71.459 DynaPDF.Table.ClearContent	3322
• 71.460 DynaPDF.Table.ClearRow	3324
• 71.461 DynaPDF.Table.Create	3326
• 71.462 DynaPDF.Table.DeleteCol	3329
• 71.463 DynaPDF.Table.DeleteRow	3330
• 71.464 DynaPDF.Table.DeleteRows	3331
• 71.465 DynaPDF.Table.Draw	3332
• 71.466 DynaPDF.Table.GetFirstRow	3335
• 71.467 DynaPDF.Table.GetNextHeight	3336
• 71.468 DynaPDF.Table.GetNextHeightRow	3337
• 71.469 DynaPDF.Table.GetNextRow	3338
• 71.470 DynaPDF.Table.GetNumCols	3339
• 71.471 DynaPDF.Table.GetNumRows	3340
• 71.472 DynaPDF.Table.GetPDF	3341
• 71.473 DynaPDF.Table.GetTableHeight	3342
• 71.474 DynaPDF.Table.GetTableWidth	3343
• 71.475 DynaPDF.Table.HaveMore	3344
• 71.476 DynaPDF.Table.Release	3345
• 71.477 DynaPDF.Table.SetBorderWidth	3346
• 71.478 DynaPDF.Table.SetBoxProperty	3348
• 71.479 DynaPDF.Table.SetCellAction	3350
• 71.480 DynaPDF.Table.SetCellImage	3352
• 71.481 DynaPDF.Table.SetCellImageEx	3355
• 71.482 DynaPDF.Table.SetCellOrientation	3357

- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.489 DynaPDF.Table.SetColor 3372
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.491 DynaPDF.Table.SetFlags 3376
- 71.492 DynaPDF.Table.SetFont 3378
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.494 DynaPDF.Table.SetFontSize 3381
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.496 DynaPDF.Table.SetPDF 3385
- 71.497 DynaPDF.Table.SetRGBColor 3386
- 71.498 DynaPDF.Table.SetRowHeight 3388
- 71.499 DynaPDF.Table.SetTableWidth 3389
- 71.500 DynaPDF.TextAnnot 3391
- 71.501 DynaPDF.TranslateCoords 3393
- 71.502 DynaPDF.Triangle 3395
- 71.503 DynaPDF.UnlockLayer 3397
- 71.504 DynaPDF.Uninitialize 3398
- 71.505 DynaPDF.WatermarkAnnot 3399
- 71.506 DynaPDF.WebLink 3401
- 71.507 DynaPDF.WriteDemoText 3404
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.510 DynaPDF.WriteFTextExRotated 3412
- 71.511 DynaPDF.WriteStyledText 3414

	283
• 71.512 DynaPDF.WriteStyledTextEx	3416
• 71.513 DynaPDF.WriteStyledTextExRotated	3418
• 71.514 DynaPDF.WriteText	3420
• 152.1 ECKey.BuiltInCurves	7175
• 152.2 ECKey.CanSign	7177
• 152.3 ECKey.Description	7178
• 152.4 ECKey.Duplicate	7179
• 152.5 ECKey.Generate	7180
• 152.6 ECKey.PrivateKey	7182
• 152.7 ECKey.PublicKey	7183
• 152.8 ECKey.ReadPrivateKey	7184
• 152.9 ECKey.ReadPublicKey	7185
• 152.10 ECKey.Release	7186
• 152.11 ECKey.Sign	7187
• 152.12 ECKey.Size	7188
• 152.13 ECKey.Valid	7189
• 152.14 ECKey.Verify	7190
• 178.2 Email.Verify	8359
• 73.1 EmailParser.Address	3459
• 73.2 EmailParser.AddressCount	3461
• 73.3 EmailParser.AttachedEmails	3462
• 73.4 EmailParser.Attachment	3463
• 73.5 EmailParser.AttachmentCount	3465
• 73.6 EmailParser.Free	3466
• 73.7 EmailParser.HTMLText	3468
• 73.8 EmailParser.HTMLToPlainText	3470
• 73.9 EmailParser.HasHeader	3471
• 73.10 EmailParser.Hash	3472
• 73.11 EmailParser.Header	3473

- 73.12 EmailParser.HeaderCount 3475
- 73.13 EmailParser.HeaderValue 3476
- 73.14 EmailParser.Inline 3477
- 73.15 EmailParser.InlineCount 3479
- 73.16 EmailParser.List 3480
- 73.17 EmailParser.MessageID 3481
- 73.18 EmailParser.Parse 3482
- 73.19 EmailParser.ParseContainer 3486
- 73.20 EmailParser.ParseFile 3487
- 73.21 EmailParser.PlainText 3488
- 73.22 EmailParser.ProcessImageReferences 3490
- 73.23 EmailParser.ReceiveDate 3491
- 73.24 EmailParser.SentDate 3492
- 73.25 EmailParser.Source 3493
- 73.26 EmailParser.SourceWithoutAttachments 3494
- 73.27 EmailParser.Subject 3495
- 73.28 EmailParser.WriteAttachment 3497
- 73.29 EmailParser.WriteInline 3498
- 74.1 Encryption.Cipher 3499
- 74.2 Encryption.CipherNames 3505
- 74.3 Encryption.DecryptAES 3506
- 74.4 Encryption.DecryptBlowfish 3508
- 74.5 Encryption.DecryptContainerAES 3510
- 74.6 Encryption.DecryptContainerBlowfish 3512
- 74.7 Encryption.DigestNames 3514
- 74.8 Encryption.EncryptAES 3515
- 74.9 Encryption.EncryptBlowfish 3517
- 74.10 Encryption.EncryptContainerAES 3519
- 74.11 Encryption.EncryptContainerBlowfish 3521



	285
• 75.1 EnvironmentVariables.ClearValue	3539
• 75.2 EnvironmentVariables.Count	3541
• 75.3 EnvironmentVariables.Name	3542
• 75.4 EnvironmentVariables.Names	3543
• 75.5 EnvironmentVariables.SetValue	3544
• 75.6 EnvironmentVariables.Value	3545
• 76.1 EventMonitor.Clear	3547
• 76.2 EventMonitor.ClearCardWindow	3548
• 76.3 EventMonitor.GetEnabled	3549
• 76.4 EventMonitor.Install	3550
• 76.5 EventMonitor.LastMouseClickedButton	3551
• 76.6 EventMonitor.LastMouseClickedIsDoubleClick	3552
• 76.7 EventMonitor.LastMousePositionX	3553
• 76.8 EventMonitor.LastMousePositionY	3554
• 76.9 EventMonitor.SetCardWindow	3555
• 76.10 EventMonitor.SetEnabled	3558
• 77.1 Events.Alarm.Copy	3559
• 77.2 Events.Alarm.GetAbsoluteDate	3561
• 77.3 Events.Alarm.GetEmailAddress	3562
• 77.4 Events.Alarm.GetProximity	3563
• 77.5 Events.Alarm.GetRelativeOffset	3564
• 77.6 Events.Alarm.GetSound	3565
• 77.7 Events.Alarm.GetStructuredLocation	3566
• 77.8 Events.Alarm.GetURL	3567
• 77.9 Events.Alarm.SetAbsoluteDate	3568
• 77.10 Events.Alarm.SetEmailAddress	3569
• 77.11 Events.Alarm.SetProximity	3570
• 77.12 Events.Alarm.SetRelativeOffset	3571
• 77.13 Events.Alarm.SetSound	3573

- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.15 Events.Alarm.SetURL 3577
- 77.16 Events.Alarm.TriggerDateRelativeTo 3578
- 77.17 Events.Alarm.Type 3579
- 77.18 Events.AuthorizationStatusForEntityType 3580
- 77.19 Events.Calendar.AllowsContentModifications 3582
- 77.20 Events.Calendar.CalendarIdentifier 3583
- 77.21 Events.Calendar.Duplicate 3584
- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589
- 77.26 Events.Calendar.Immutable 3590
- 77.27 Events.Calendar.SetColor 3591
- 77.28 Events.Calendar.SetSource 3592
- 77.29 Events.Calendar.SetTitle 3593
- 77.30 Events.Calendar.Subscribed 3594
- 77.31 Events.Calendar.allowedEntityTypes 3595
- 77.32 Events.Calendar.supportedEventAvailabilities 3596
- 77.33 Events.CalendarCount 3597
- 77.34 Events.CalendarItemsWithExternalIdentifier 3598
- 77.35 Events.Calendars 3599
- 77.36 Events.ClearNotification 3600
- 77.37 Events.Commit 3601
- 77.38 Events.CompletedReminders 3602
- 77.39 Events.DelegateSources 3603
- 77.40 Events.Event.BirthdayPersonUniqueID 3604
- 77.41 Events.Event.GetAllDay 3605
- 77.42 Events.Event.GetAvailability 3606

	287
• 77.43 Events.Event.GetEndDate	3607
• 77.44 Events.Event.GetStartDate	3608
• 77.45 Events.Event.GetStructuredLocation	3609
• 77.46 Events.Event.IsDetached	3610
• 77.47 Events.Event.OccurrenceDate	3611
• 77.48 Events.Event.Refresh	3612
• 77.49 Events.Event.SetAllDay	3613
• 77.50 Events.Event.SetAvailability	3614
• 77.51 Events.Event.SetEndDate	3615
• 77.52 Events.Event.SetStartDate	3617
• 77.53 Events.Event.SetStructuredLocation	3619
• 77.54 Events.Event.Status	3620
• 77.55 Events.Event.compareStartDateWithEvent	3621
• 77.56 Events.Event.organizer	3622
• 77.57 Events.EventStoreIdentifier	3623
• 77.58 Events.Events	3624
• 77.59 Events.IncompleteReminders	3625
• 77.60 Events.Initialize	3626
• 77.61 Events.Item.AddAlarm	3627
• 77.62 Events.Item.AddRecurrenceRule	3629
• 77.63 Events.Item.Alarms	3630
• 77.64 Events.Item.Attendees	3631
• 77.65 Events.Item.CalendarItemExternalIdentifier	3632
• 77.66 Events.Item.CalendarItemIdentifier	3634
• 77.67 Events.Item.Duplicate	3635
• 77.68 Events.Item.GetCalendar	3636
• 77.69 Events.Item.GetLocation	3637
• 77.70 Events.Item.GetNotes	3638
• 77.71 Events.Item.GetTimeZone	3639

- 77.72 Events.Item.GetTitle 3640
- 77.73 Events.Item.GetURL 3641
- 77.74 Events.Item.HasAlarms 3642
- 77.75 Events.Item.HasAttendees 3643
- 77.76 Events.Item.HasNotes 3644
- 77.77 Events.Item.HasRecurrenceRules 3645
- 77.78 Events.Item.RecurrenceRules 3646
- 77.79 Events.Item.RemoveAlarm 3647
- 77.80 Events.Item.RemoveRecurrenceRule 3648
- 77.81 Events.Item.SetCalendar 3649
- 77.82 Events.Item.SetLocation 3651
- 77.83 Events.Item.SetNotes 3653
- 77.84 Events.Item.SetTimeZone 3655
- 77.85 Events.Item.SetTitle 3656
- 77.86 Events.Item.SetURL 3658
- 77.87 Events.Item.creationDate 3660
- 77.88 Events.Item.lastModifiedDate 3661
- 77.89 Events.NewAlarm 3662
- 77.90 Events.NewAlarmWithAbsoluteDate 3664
- 77.91 Events.NewAlarmWithRelativeOffset 3665
- 77.92 Events.NewCalendar 3666
- 77.93 Events.NewEvent 3667
- 77.94 Events.NewReminder 3669
- 77.95 Events.Object.HasChanges 3671
- 77.96 Events.Object.IsNew 3672
- 77.97 Events.Object.Refresh 3673
- 77.98 Events.Object.Reset 3674
- 77.99 Events.Object.Rollback 3675
- 77.100 Events.Participant.GetName 3676

	289
• 77.101 Events.Participant.GetStatus	3677
• 77.102 Events.Participant.IsCurrentUser	3678
• 77.103 Events.Participant.Name	3679
• 77.104 Events.Participant.Person	3680
• 77.105 Events.Participant.Role	3681
• 77.106 Events.Participant.Status	3682
• 77.107 Events.Participant.Type	3683
• 77.108 Events.Participant.URL	3684
• 77.109 Events.RecurrenceDayOfWeek.Copy	3685
• 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek	3686
• 77.111 Events.RecurrenceDayOfWeek.NewWithDayOfWeek	3687
• 77.112 Events.RecurrenceDayOfWeek.WeekNumber	3688
• 77.113 Events.RecurrenceEnd.Copy	3689
• 77.114 Events.RecurrenceEnd.EndDate	3690
• 77.115 Events.RecurrenceEnd.NewWithEndDate	3691
• 77.116 Events.RecurrenceEnd.NewWithOccurrenceCount	3692
• 77.117 Events.RecurrenceEnd.OccurrenceCount	3693
• 77.118 Events.RecurrenceRule.CalendarIdentifier	3694
• 77.119 Events.RecurrenceRule.Copy	3695
• 77.120 Events.RecurrenceRule.DaysOfTheMonth	3696
• 77.121 Events.RecurrenceRule.DaysOfTheWeek	3697
• 77.122 Events.RecurrenceRule.DaysOfTheYear	3698
• 77.123 Events.RecurrenceRule.Description	3699
• 77.124 Events.RecurrenceRule.FirstDayOfTheWeek	3700
• 77.125 Events.RecurrenceRule.Frequency	3701
• 77.126 Events.RecurrenceRule.GetRecurrenceEnd	3702
• 77.127 Events.RecurrenceRule.Interval	3703
• 77.128 Events.RecurrenceRule.MonthsOfTheYear	3704
• 77.129 Events.RecurrenceRule.NewWithFrequency	3705

- 77.130 Events.RecurrenceRule.SetPositions 3708
- 77.131 Events.RecurrenceRule.SetRecurrenceEnd 3709
- 77.132 Events.RecurrenceRule.WeeksOfTheYear 3710
- 77.133 Events.RefreshSourcesIfNecessary 3711
- 77.134 Events.Reminder.GetCompleted 3712
- 77.135 Events.Reminder.GetCompletionDate 3713
- 77.136 Events.Reminder.GetDueDate 3714
- 77.137 Events.Reminder.GetDueTimestamp 3715
- 77.138 Events.Reminder.GetPriority 3716
- 77.139 Events.Reminder.GetStartDate 3717
- 77.140 Events.Reminder.GetStartTimestamp 3718
- 77.141 Events.Reminder.SetCompleted 3719
- 77.142 Events.Reminder.SetCompletionDate 3720
- 77.143 Events.Reminder.SetDueDate 3721
- 77.144 Events.Reminder.SetDueDateComponents 3723
- 77.145 Events.Reminder.SetPriority 3725
- 77.146 Events.Reminder.SetStartDate 3727
- 77.147 Events.Reminder.SetStartDateComponents 3729
- 77.148 Events.Reminders 3731
- 77.149 Events.RemoveCalendar 3732
- 77.150 Events.RemoveEvent 3733
- 77.151 Events.RemoveReminder 3734
- 77.152 Events.Reset 3735
- 77.153 Events.SaveCalendar 3736
- 77.154 Events.SaveEvent 3737
- 77.155 Events.SaveReminder 3739
- 77.156 Events.SelectEvent 3742
- 77.157 Events.SetNotification 3743
- 77.158 Events.SetNotificationEvaluate 3745

	291
• 77.159 Events.Source.Calendars	3746
• 77.160 Events.Source.Title	3747
• 77.161 Events.Source.Type	3748
• 77.162 Events.SourceWithType	3749
• 77.163 Events.Sources	3750
• 77.164 Events.StructuredLocation.Copy	3751
• 77.165 Events.StructuredLocation.GetGeoLocation	3752
• 77.166 Events.StructuredLocation.GetRadius	3753
• 77.167 Events.StructuredLocation.NewLocationWithTitle	3754
• 77.168 Events.StructuredLocation.SetGeoLocation	3756
• 77.169 Events.StructuredLocation.SetRadius	3757
• 77.170 Events.StructuredLocation.Title	3758
• 77.171 Events.defaultCalendarForNewEvents	3759
• 77.172 Events.defaultCalendarForNewReminders	3760
• 77.173 Events.requestAccessToEntityType	3761
• 80.1 FM.AllowFileDragDrop	3937
• 80.2 FM.Argument	3939
• 80.3 FM.ArgumentCount	3940
• 80.4 FM.Beep	3941
• 80.5 FM.ChooseDictionary	3942
• 81.3 FM.CompareTables	4127
• 80.7 FM.CurrentLayoutID	3947
• 80.8 FM.CurrentLayoutName	3948
• 80.9 FM.CurrentScriptID	3949
• 80.10 FM.CurrentScriptName	3950
• 80.11 FM.CurrentThreadID	3951
• 80.12 FM.DataType	3952
• 80.13 FM.DataViewerContent	3953
• 81.4 FM.DeleteRecord	4131

- 81.5 FM.DeleteRecords 4134
- 80.17 FM.DisableRuntimeEndWindow 3961
- 80.19 FM.Evaluate 3963
- 81.6 FM.ExecuteFileSQL 4137
- 81.7 FM.ExecuteFileSQLOnIdle 4144
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.12 FM.ExecuteSQLOnIdle 4158
- 80.27 FM.GetDictionary 3988
- 80.28 FM.GetDictionaryList 3989
- 80.29 FM.GetDisableContextualMenus 3990
- 81.13 FM.GetSQLBatchMode 4161
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.19 FM.InsertRecordCSV 4177
- 81.20 FM.InsertRecordQuery 4180
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.22 FM.InsertRecordTSV 4187
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 80.42 FM.IsMainThread 4023
- 80.43 FM.LayoutIDForLayoutName 4024
- 80.44 FM.LayoutNameForLayoutID 4025
- 80.45 FM.LayoutNames 4026
- 80.46 FM.Loop 4027



	293
• 80.47 FM.MainThreadID	4031
• 80.48 FM.MouseWheelScriptTrigger	4032
• 81.24 FM.NULL	4192
• 80.50 FM.PatchNotificationProblem	4036
• 80.51 FM.QueryBaseTableNames	4037
• 80.52 FM.QueryFieldsForBaseTableName	4038
• 80.53 FM.QueryFieldsForTableName	4039
• 80.54 FM.QueryTableNames	4041
• 80.55 FM.RunDatabaseDesignReport	4042
• 80.56 FM.RunSaveAsXML	4044
• 80.57 FM.RunScript	4045
• 80.58 FM.RunScriptIdle	4047
• 80.59 FM.RunScriptLater	4049
• 80.60 FM.SQL.Avg	4051
• 81.25 FM.SQL.CSV	4193
• 81.26 FM.SQL.Execute	4196
• 81.27 FM.SQL.Field	4199
• 81.28 FM.SQL.FieldCount	4201
• 81.29 FM.SQL.FieldType	4203
• 81.30 FM.SQL.InsertRecords	4204
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 102.2 FM.SQL.JSONRecord	5306
• 102.3 FM.SQL.JSONRecords	5308
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.34 FM.SQL.Release	4213
• 81.35 FM.SQL.RowCount	4215
• 80.74 FM.SQL.Sum	4081
• 81.36 FM.SQL.Text	4217

- 80.76 FM.ScriptIDForScriptName 4086
- 80.77 FM.ScriptNameForScriptID 4087
- 80.78 FM.ScriptNames 4088
- 80.79 FM.SetDisableContextualMenus 4089
- 81.37 FM.SetSQLBatchMode 4220
- 80.81 FM.SetThreadName 4092
- 80.82 FM.StopScriptIdle 4093
- 80.83 FM.TableStatistics 4094
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109
- 181.1 FM.VariableAdd 8387
- 181.2 FM.VariableAppend 8389
- 181.3 FM.VariableClear 8390
- 181.4 FM.VariableClearAll 8391
- 181.5 FM.VariableExists 8392
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397
- 181.10 FM.VariableSet 8398
- 84.1 FSEvents.Create 4263
- 84.2 FSEvents.CreateRelativeToDevice 4267
- 84.3 FSEvents.CurrentEventId 4268
- 84.4 FSEvents.Description 4269
- 84.5 FSEvents.DeviceBeingWatched 4270

	295
• 84.6 FSEvents.DeviceID	4271
• 84.7 FSEvents.EventCount	4272
• 84.8 FSEvents.FlushASync	4273
• 84.9 FSEvents.FlushSync	4274
• 84.10 FSEvents.GetEvaluate	4275
• 84.11 FSEvents.GetExclusionPaths	4276
• 84.12 FSEvents.GetFileName	4277
• 84.13 FSEvents.GetScriptName	4278
• 84.14 FSEvents.HasNextEvent	4279
• 84.15 FSEvents.LastEventIdForDeviceBeforeTime	4280
• 84.16 FSEvents.LatestEventId	4281
• 84.17 FSEvents.NextEvent	4282
• 84.18 FSEvents.PathsBeingWatched	4286
• 84.19 FSEvents.Release	4287
• 84.20 FSEvents.SetEvaluate	4288
• 84.21 FSEvents.SetExclusionPaths	4289
• 84.22 FSEvents.SetFileName	4290
• 84.23 FSEvents.SetScriptName	4291
• 84.24 FSEvents.Show	4292
• 84.25 FSEvents.Start	4293
• 84.26 FSEvents.Started	4294
• 84.27 FSEvents.Stop	4295
• 84.28 FSEvents.UUIDForDevice	4296
• 78.11 FileDialog.GetAllowMulti	3773
• 78.12 FileDialog.GetAllowsOtherFileTypes	3774
• 78.13 FileDialog.GetCanSelectHiddenExtension	3775
• 78.14 FileDialog.GetFilter	3776
• 78.15 FileDialog.GetInitialDirectory	3777
• 78.16 FileDialog.GetMessage	3778

- 78.17 `FileDialog.GetNameFieldLabel` 3779
- 78.18 `FileDialog.GetNameFieldStringValue` 3780
- 78.19 `FileDialog.GetPath` 3781
- 78.20 `FileDialog.GetPathCount` 3784
- 78.21 `FileDialog.GetPrompt` 3785
- 78.22 `FileDialog.GetResolvesAliases` 3786
- 78.23 `FileDialog.GetShowHidden` 3787
- 78.24 `FileDialog.GetTreatsFilePackagesAsDirectories` 3788
- 78.25 `FileDialog.GetUseSheet` 3789
- 78.26 `FileDialog.GetWindowTitle` 3790
- 78.27 `FileDialog.OpenFileDialog` 3791
- 78.28 `FileDialog.Reset` 3794
- 78.29 `FileDialog.SaveFileDialog` 3796
- 78.30 `FileDialog.SelectFolderDialog` 3798
- 78.31 `FileDialog.SelectItemDialog` 3801
- 78.32 `FileDialog.SetAllowMulti` 3803
- 78.33 `FileDialog.SetAllowsOtherFileTypes` 3805
- 78.34 `FileDialog.SetCanSelectHiddenExtension` 3806
- 78.35 `FileDialog.SetFilter` 3807
- 78.36 `FileDialog.SetInitialDirectory` 3809
- 78.37 `FileDialog.SetMessage` 3811
- 78.38 `FileDialog.SetNameFieldLabel` 3813
- 78.39 `FileDialog.SetNameFieldStringValue` 3814
- 78.40 `FileDialog.SetPrompt` 3815
- 78.41 `FileDialog.SetResolvesAliases` 3817
- 78.42 `FileDialog.SetSheetScriptTrigger` 3818
- 78.43 `FileDialog.SetShowHidden` 3819
- 78.44 `FileDialog.SetTreatsFilePackagesAsDirectories` 3820
- 78.45 `FileDialog.SetUseSheet` 3821

	297
• 78.46 FileDialog.SetWindowTitle	3822
• 78.47 FileDialogWatcher.GetLastPath	3823
• 78.48 FileDialogWatcher.Install	3824
• 79.1 Files.AccessDate	3825
• 79.2 Files.AddedToDirectoryDate	3827
• 79.3 Files.AppPath	3828
• 79.4 Files.AudioTags	3829
• 79.5 Files.CanOpenFile	3831
• 79.6 Files.CopyFile	3832
• 79.7 Files.CopyFiles	3834
• 79.8 Files.CreateAlias	3836
• 79.9 Files.CreateBookmark	3838
• 79.10 Files.CreateDirectory	3839
• 79.11 Files.CreateHardLink	3841
• 79.12 Files.CreateSymbolicLink	3843
• 79.13 Files.CreationDate	3844
• 79.14 Files.Delete	3846
• 79.15 Files.DeleteFolder	3848
• 79.16 Files.DirectoryExists	3850
• 79.17 Files.DiskInfo	3852
• 79.18 Files.FileDisplayName	3854
• 79.19 Files.FileExists	3855
• 79.20 Files.FileExtension	3857
• 79.21 Files.FileInfo	3858
• 79.22 Files.FileKind	3860
• 79.23 Files.FileName	3861
• 79.24 Files.FileSize	3862
• 79.25 Files.FileUTITypes	3864
• 79.26 Files.FolderSize	3865

- 79.27 Files.GetComment 3867
- 79.28 Files.GetFinderLabel 3868
- 79.29 Files.GetNodeID 3869
- 79.30 Files.GetPathFromNodeID 3871
- 79.31 Files.GetPosixPermissions 3873
- 79.32 Files.GetTagNames 3874
- 79.33 Files.IsHidden 3875
- 79.34 Files.ItemExists 3876
- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 79.37 Files.List 3882
- 79.38 Files.ListRecursive 3885
- 79.39 Files.ListVolumes 3887
- 79.40 Files.ModificationDate 3888
- 79.41 Files.Mount 3890
- 79.42 Files.MountPath 3893
- 79.43 Files.MoveFile 3894
- 79.44 Files.MoveToTrash 3896
- 79.45 Files.ReadFile 3898
- 79.46 Files.ReadJPEG 3901
- 79.47 Files.ReadPDF 3903
- 79.48 Files.ReadPNG 3905
- 79.49 Files.RenameFile 3907
- 79.50 Files.ResolveAlias 3909
- 79.51 Files.ResolveBookmark 3911
- 79.52 Files.RevealFile 3912
- 79.53 Files.SetAudioTags 3914
- 79.54 Files.SetComment 3916
- 79.55 Files.SetCreationDate 3917

	299
• 79.56 Files.SetFinderLabel	3918
• 79.57 Files.SetHidden	3919
• 79.58 Files.SetModificationDate	3920
• 79.59 Files.SetPosixPermissions	3921
• 79.60 Files.SetTagNames	3923
• 79.61 Files.Unmount	3924
• 79.62 Files.WriteFile	3925
• 82.1 Folders.Applications	4227
• 82.2 Folders.LocalFonts	4228
• 82.3 Folders.LocalPreferences	4229
• 82.4 Folders.SharedDocuments	4230
• 82.5 Folders.System	4231
• 82.6 Folders.SystemFonts	4232
• 82.7 Folders.SystemTemporary	4233
• 82.8 Folders.UserDesktop	4235
• 82.9 Folders.UserDocuments	4237
• 82.10 Folders.UserDownloads	4239
• 82.11 Folders.UserFonts	4240
• 82.12 Folders.UserHome	4241
• 82.13 Folders.UserMusic	4242
• 82.14 Folders.UserPictures	4243
• 82.15 Folders.UserPreferences	4244
• 82.16 Folders.UserTemporary	4245
• 82.17 Folders.UserTrash	4247
• 82.18 Folders.UserVideo	4248
• 83.1 Font.Activate	4251
• 83.2 Font.CalculateTextFits	4253
• 83.3 Font.CalculateTextHeight	4255
• 83.4 Font.CalculateTextWidth	4257

- 83.5 Font.Deactivate 4259
- 83.6 FontManager.FontFile 4260
- 83.7 FontManager.ListFontFamilies 4261
- 83.8 FontManager.ListFonts 4262
- 87.1 GImage.AdaptiveThreshold 4399
- 87.2 GImage.AddNoise 4401
- 87.3 GImage.AddNoiseChannel 4402
- 87.4 GImage.AddPathArcAbs 4403
- 87.5 GImage.AddPathArcRel 4405
- 87.6 GImage.AddPathClosePath 4407
- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.8 GImage.AddPathCurvetoRel 4410
- 87.9 GImage.AddPathLinetoAbs 4412
- 87.10 GImage.AddPathLinetoHorizontalAbs 4413
- 87.11 GImage.AddPathLinetoHorizontalRel 4414
- 87.12 GImage.AddPathLinetoRel 4415
- 87.13 GImage.AddPathLinetoVerticalAbs 4416
- 87.14 GImage.AddPathLinetoVerticalRel 4417
- 87.15 GImage.AddPathMovetoAbs 4418
- 87.16 GImage.AddPathMovetoRel 4419
- 87.17 GImage.AddPathQuadraticCurvetoAbs 4420
- 87.18 GImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GImage.AddPathSmoothCurvetoAbs 4422
- 87.20 GImage.AddPathSmoothCurvetoRel 4423
- 87.21 GImage.AddPathSmoothQuadraticCurvetoAbs 4424
- 87.22 GImage.AddPathSmoothQuadraticCurvetoRel 4425
- 87.23 GImage.Affine 4426
- 87.24 GImage.Annotate 4427
- 87.25 GImage.AutoOrient 4431



	301
• 87.26 GMImage.AveragePixelValue	4432
• 87.27 GMImage.BaseColumns	4434
• 87.28 GMImage.BaseFilename	4435
• 87.29 GMImage.BaseRows	4436
• 87.30 GMImage.Blur	4437
• 87.31 GMImage.BlurChannel	4439
• 87.32 GMImage.Border	4440
• 87.33 GMImage.BoundingBox	4442
• 87.34 GMImage.Channel	4443
• 87.35 GMImage.Charcoal	4445
• 87.36 GMImage.Chop	4447
• 87.37 GMImage.ClipMask	4448
• 87.38 GMImage.ClipPath	4449
• 87.39 GMImage.Coders	4450
• 87.40 GMImage.Colorize	4451
• 87.41 GMImage.ColorizeRGB	4453
• 87.42 GMImage.Columns	4455
• 87.43 GMImage.Compare	4456
• 87.44 GMImage.Composite	4458
• 87.45 GMImage.CompositeXY	4460
• 87.46 GMImage.Contrast	4462
• 87.47 GMImage.Copy	4463
• 87.48 GMImage.CopyChannel	4464
• 87.49 GMImage.Crop	4467
• 87.50 GMImage.CycleColormap	4469
• 87.51 GMImage.Despeckle	4470
• 87.52 GMImage.Directory	4471
• 87.53 GMImage.DrawArc	4472
• 87.54 GMImage.DrawCircle	4474

- 87.55 GImage.DrawEllipse 4476
- 87.56 GImage.DrawLine 4478
- 87.57 GImage.DrawPath 4480
- 87.58 GImage.DrawRectangle 4481
- 87.59 GImage.DrawRoundRectangle 4484
- 87.60 GImage.Edge 4486
- 87.61 GImage.Emboss 4487
- 87.62 GImage.Enhance 4489
- 87.63 GImage.Equalize 4490
- 87.64 GImage.Erase 4491
- 87.65 GImage.ExifThumbnail 4492
- 87.66 GImage.Extent 4493
- 87.67 GImage.FillPattern 4495
- 87.68 GImage.FindColorInColumn 4496
- 87.69 GImage.FindColorInRow 4498
- 87.70 GImage.Flip 4500
- 87.71 GImage.FloodFillColor 4502
- 87.72 GImage.FloodFillColorXY 4504
- 87.73 GImage.FloodFillOpacity 4506
- 87.74 GImage.FloodFillTexture 4507
- 87.75 GImage.FloodFillTextureXY 4508
- 87.76 GImage.Flop 4509
- 87.77 GImage.FontMap 4511
- 87.78 GImage.FontTypeMetrics 4512
- 87.79 GImage.Format 4514
- 87.80 GImage.Frame 4515
- 87.81 GImage.Free 4517
- 87.82 GImage.FreeAll 4519
- 87.83 GImage.Gamma 4520

	303
• 87.84 GMImage.GaussianBlur	4521
• 87.85 GMImage.GaussianBlurChannel	4522
• 87.86 GMImage.Geometry	4523
• 87.87 GMImage.GetAdjoin	4524
• 87.88 GMImage.GetAnimationDelay	4525
• 87.89 GMImage.GetAnimationIterations	4526
• 87.90 GMImage.GetAntiAlias	4527
• 87.91 GMImage.GetAttribute	4528
• 87.92 GMImage.GetAttributeNames	4530
• 87.93 GMImage.GetAttributesJSON	4531
• 87.94 GMImage.GetBackgroundColor	4533
• 87.95 GMImage.GetBackgroundTexture	4534
• 87.96 GMImage.GetBorderColor	4535
• 87.97 GMImage.GetBoxColor	4536
• 87.98 GMImage.GetChannelDepth	4537
• 87.99 GMImage.GetClassType	4538
• 87.100 GMImage.GetClipMask	4539
• 87.101 GMImage.GetColorFuzz	4540
• 87.102 GMImage.GetColorMapSize	4541
• 87.103 GMImage.GetColorSpace	4542
• 87.104 GMImage.GetComment	4544
• 87.105 GMImage.GetCompose	4545
• 87.106 GMImage.GetCompressType	4546
• 87.107 GMImage.GetDebug	4547
• 87.108 GMImage.GetDefineSet	4548
• 87.109 GMImage.GetDefineValue	4549
• 87.110 GMImage.GetDensity	4550
• 87.111 GMImage.GetDepth	4551
• 87.112 GMImage.GetEXIFOrientation	4552

- 87.113 GImage.GetEndian 4553
- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.116 GImage.GetFillColor 4556
- 87.117 GImage.GetFillRule 4557
- 87.118 GImage.GetFilterType 4558
- 87.119 GImage.GetFont 4559
- 87.120 GImage.GetFontPointsize 4560
- 87.121 GImage.GetGamma 4561
- 87.122 GImage.GetGifDisposeMethod 4562
- 87.123 GImage.GetHeight 4563
- 87.124 GImage.GetICCColorProfile 4565
- 87.125 GImage.GetIPTCProfile 4566
- 87.126 GImage.GetIPTCProfileValues 4567
- 87.127 GImage.GetInterlaceType 4568
- 87.128 GImage.GetIsValid 4569
- 87.129 GImage.GetJPEGAsBase64 4570
- 87.130 GImage.GetJPEGAsHex 4571
- 87.131 GImage.GetLabel 4572
- 87.132 GImage.GetLineWidth 4573
- 87.133 GImage.GetMagick 4574
- 87.134 GImage.GetMatte 4575
- 87.135 GImage.GetMatteColor 4576
- 87.136 GImage.GetModulusDepth 4577
- 87.137 GImage.GetMonochrome 4578
- 87.138 GImage.GetOrientation 4579
- 87.139 GImage.GetPNGAsBase64 4581
- 87.140 GImage.GetPNGAsHex 4582
- 87.141 GImage.GetPage 4583

	305
• 87.142 GImage.GetPixelColor	4584
• 87.143 GImage.GetProfile	4586
• 87.144 GImage.GetQuality	4587
• 87.145 GImage.GetQuantizeColorSpace	4588
• 87.146 GImage.GetQuantizeColors	4589
• 87.147 GImage.GetQuantizeDither	4590
• 87.148 GImage.GetQuantizeTreeDepth	4591
• 87.149 GImage.GetQuiet	4592
• 87.150 GImage.GetRenderingIntent	4593
• 87.151 GImage.GetResolutionUnits	4594
• 87.152 GImage.GetScene	4595
• 87.153 GImage.GetSize	4596
• 87.154 GImage.GetStrokeAntiAlias	4597
• 87.155 GImage.GetStrokeColor	4598
• 87.156 GImage.GetStrokeDashArray	4599
• 87.157 GImage.GetStrokeDashOffset	4600
• 87.158 GImage.GetStrokeLineCap	4601
• 87.159 GImage.GetStrokeLineJoin	4602
• 87.160 GImage.GetStrokeMiterLimit	4603
• 87.161 GImage.GetStrokeWidth	4604
• 87.162 GImage.GetSubImage	4605
• 87.163 GImage.GetSubRange	4606
• 87.164 GImage.GetTextEncoding	4607
• 87.165 GImage.GetTileName	4608
• 87.166 GImage.GetType	4609
• 87.167 GImage.GetVerbose	4610
• 87.168 GImage.GetView	4611
• 87.169 GImage.GetWidth	4612
• 87.170 GImage.GetXMP	4614

- 87.171 GImage.GetcolorMap 4616
- 87.172 GImage.Hash 4617
- 87.173 GImage.ImageCount 4619
- 87.174 GImage.Implode 4620
- 87.175 GImage.InvertChannel 4621
- 87.176 GImage.IsGray 4623
- 87.177 GImage.Level 4624
- 87.178 GImage.LevelChannel 4625
- 87.179 GImage.List 4627
- 87.180 GImage.Magnify 4628
- 87.181 GImage.Map 4629
- 87.182 GImage.MatteFloodfill 4630
- 87.183 GImage.MeanErrorPerPixel 4631
- 87.184 GImage.MedianFilter 4632
- 87.185 GImage.Minify 4633
- 87.186 GImage.Modulate 4634
- 87.187 GImage.MontageGeometry 4636
- 87.188 GImage.MotionBlur 4637
- 87.189 GImage.MultiplyChannel 4638
- 87.190 GImage.Negate 4640
- 87.191 GImage.New 4642
- 87.192 GImage.NewFromBase64 4645
- 87.193 GImage.NewFromContainer 4646
- 87.194 GImage.NewFromFile 4648
- 87.195 GImage.NewFromHex 4650
- 87.196 GImage.NewImagesFromContainer 4651
- 87.197 GImage.NewImagesFromFile 4652
- 87.198 GImage.Normalize 4654
- 87.199 GImage.NormalizedMaxError 4655

	307
• 87.200 GImage.NormalizedMeanError	4657
• 87.201 GImage.OilPaint	4658
• 87.202 GImage.Opacity	4659
• 87.203 GImage.Opaque	4660
• 87.204 GImage.PopClipPath	4661
• 87.205 GImage.PurgeTemporaryFiles	4662
• 87.206 GImage.PushClipPath	4663
• 87.207 GImage.Quantize	4664
• 87.208 GImage.QuantumDepth	4666
• 87.209 GImage.Raise	4667
• 87.210 GImage.RandomThreshold	4669
• 87.211 GImage.RandomThresholdChannel	4670
• 87.212 GImage.Read	4671
• 86.1 GImage.ReadFromContainer	4395
• 87.213 GImage.ReduceNoise	4673
• 87.214 GImage.Release	4674
• 87.215 GImage.ReleaseAll	4676
• 87.216 GImage.Repage	4677
• 87.217 GImage.ReplaceColor	4678
• 87.218 GImage.Resize	4681
• 87.219 GImage.Roll	4683
• 87.220 GImage.Rollxy	4684
• 87.221 GImage.Rotate	4685
• 87.222 GImage.Rotating	4687
• 87.223 GImage.Rows	4688
• 87.224 GImage.Sample	4689
• 87.225 GImage.Scale	4690
• 87.226 GImage.Scaling	4694
• 87.227 GImage.Segment	4695

- 87.228 GImage.SetAdjoin 4696
- 87.229 GImage.SetAnimationDelay 4697
- 87.230 GImage.SetAnimationIterations 4698
- 87.231 GImage.SetAntiAlias 4699
- 87.232 GImage.SetAttribute 4700
- 87.233 GImage.SetBackgroundColor 4701
- 87.234 GImage.SetBackgroundTexture 4703
- 87.235 GImage.SetBorderColor 4704
- 87.236 GImage.SetBoxColor 4706
- 87.237 GImage.SetCacheThreshold 4707
- 87.238 GImage.SetClassType 4708
- 87.239 GImage.SetColorFuzz 4709
- 87.240 GImage.SetColorMapSize 4711
- 87.241 GImage.SetColorSpace 4712
- 87.242 GImage.SetComment 4713
- 87.243 GImage.SetCompose 4714
- 87.244 GImage.SetCompressType 4715
- 87.245 GImage.SetDebug 4717
- 87.246 GImage.SetDefineSet 4718
- 87.247 GImage.SetDefineValue 4719
- 87.248 GImage.SetDensity 4720
- 87.249 GImage.SetDepth 4722
- 87.250 GImage.SetEXIFOrientation 4723
- 87.251 GImage.SetEndian 4724
- 87.252 GImage.SetFileName 4725
- 87.253 GImage.SetFillColor 4726
- 87.254 GImage.SetFillRule 4728
- 87.255 GImage.SetFilterType 4729
- 87.256 GImage.SetFont 4730



	309
• 87.257 GImage.SetFontSize	4731
• 87.258 GImage.SetGifDisposeMethod	4732
• 87.259 GImage.SetICCColorProfile	4733
• 87.260 GImage.SetIPTCProfile	4735
• 87.261 GImage.SetInterlaceType	4736
• 87.262 GImage.SetIsValid	4737
• 87.263 GImage.SetLabel	4738
• 87.264 GImage.SetLineWidth	4739
• 87.265 GImage.SetMagick	4740
• 87.266 GImage.SetMatte	4742
• 87.267 GImage.SetMatteColor	4744
• 87.268 GImage.SetModulusDepth	4745
• 87.269 GImage.SetMonochrome	4746
• 87.270 GImage.SetOrientation	4747
• 87.271 GImage.SetPage	4749
• 87.272 GImage.SetPixelColor	4750
• 87.273 GImage.SetProfile	4752
• 87.274 GImage.SetQuality	4754
• 87.275 GImage.SetQuantizeColorSpace	4756
• 87.276 GImage.SetQuantizeColors	4757
• 87.277 GImage.SetQuantizeDither	4758
• 87.278 GImage.SetQuantizeTreeDepth	4759
• 87.279 GImage.SetQuiet	4760
• 87.280 GImage.SetRenderingIntent	4761
• 87.281 GImage.SetResolutionUnits	4762
• 87.282 GImage.SetScene	4764
• 87.283 GImage.SetSize	4765
• 87.284 GImage.SetStrokeAntiAlias	4766
• 87.285 GImage.SetStrokeColor	4768

- 87.286 GImage.SetStrokeDashArray 4770
- 87.287 GImage.SetStrokeDashOffset 4771
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773
- 87.290 GImage.SetStrokeMiterLimit 4774
- 87.291 GImage.SetStrokeWidth 4775
- 87.292 GImage.SetSubImage 4776
- 87.293 GImage.SetSubRange 4777
- 87.294 GImage.SetTextEncoding 4778
- 87.295 GImage.SetTileName 4779
- 87.296 GImage.SetType 4780
- 87.297 GImage.SetVerbose 4783
- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.300 GImage.SetchannelDepth 4786
- 87.301 GImage.SetcolorMap 4787
- 87.302 GImage.Shade 4788
- 87.303 GImage.Sharpen 4789
- 87.304 GImage.SharpenChannel 4791
- 87.305 GImage.Shave 4792
- 87.306 GImage.Shear 4794
- 87.307 GImage.Signature 4795
- 87.308 GImage.SkewX 4796
- 87.309 GImage.SkewY 4797
- 87.310 GImage.Solarize 4798
- 87.311 GImage.Spread 4800
- 87.312 GImage.Stegano 4801
- 87.313 GImage.Stereo 4802
- 87.314 GImage.Strip 4803

	311
• 87.315 GMImage.StrokePattern	4804
• 87.316 GMImage.Swirl	4805
• 87.317 GMImage.Texture	4806
• 87.318 GMImage.Threshold	4807
• 87.319 GMImage.TotalColors	4809
• 87.320 GMImage.Transform	4810
• 87.321 GMImage.TransformOrigin	4811
• 87.322 GMImage.TransformReset	4813
• 87.323 GMImage.TransformRotation	4814
• 87.324 GMImage.TransformScale	4815
• 87.325 GMImage.TransformSkewX	4816
• 87.326 GMImage.TransformSkewY	4817
• 87.327 GMImage.Translation	4818
• 87.328 GMImage.Transparent	4819
• 87.329 GMImage.Trim	4821
• 87.330 GMImage.Unsharpmask	4823
• 87.331 GMImage.UnsharpmaskChannel	4824
• 87.332 GMImage.Wave	4825
• 87.333 GMImage.WriteImages	4826
• 87.334 GMImage.WriteToBMPContainer	4828
• 87.335 GMImage.WriteToContainer	4829
• 87.336 GMImage.WriteToFile	4831
• 87.337 GMImage.WriteToGIFContainer	4834
• 87.338 GMImage.WriteToJPEGContainer	4836
• 87.339 GMImage.WriteToPDFContainer	4838
• 87.340 GMImage.WriteToPNGContainer	4840
• 87.341 GMImage.WriteToTiffContainer	4843
• 87.342 GMImage.XResolution	4845
• 87.343 GMImage.YResolution	4846

- 87.344 GImage.Zoom 4847
- 54.1 GZipFile.Compress 1509
- 54.2 GZipFile.Decompress 1511
- 85.1 GameKit.Achievement.Completed 4297
- 85.2 GameKit.Achievement.GetPercentComplete 4298
- 85.3 GameKit.Achievement.GetShowsCompletionBanner 4299
- 85.4 GameKit.Achievement.LastReportedDate 4300
- 85.5 GameKit.Achievement.New 4301
- 85.6 GameKit.Achievement.Player 4302
- 85.7 GameKit.Achievement.SetPercentComplete 4303
- 85.8 GameKit.Achievement.SetShowsCompletionBanner 4304
- 85.9 GameKit.AchievementDescription.AchievedDescription 4305
- 85.10 GameKit.AchievementDescription.GroupIdentifier 4306
- 85.11 GameKit.AchievementDescription.Hidden 4307
- 85.12 GameKit.AchievementDescription.Image 4308
- 85.13 GameKit.AchievementDescription.IncompleteAchievementImage 4309
- 85.14 GameKit.AchievementDescription.MaximumPoints 4310
- 85.15 GameKit.AchievementDescription.PlaceholderCompletedAchievementImage 4311
- 85.16 GameKit.AchievementDescription.Replayable 4312
- 85.17 GameKit.AchievementDescription.Title 4313
- 85.18 GameKit.AchievementDescription.UnachievedDescription 4314
- 85.19 GameKit.AnonymousGuestPlayer 4315
- 85.20 GameKit.Challenge.Achievement 4316
- 85.21 GameKit.Challenge.CompletionDate 4317
- 85.22 GameKit.Challenge.Decline 4318
- 85.23 GameKit.Challenge.IssueDate 4319
- 85.24 GameKit.Challenge.IssuingPlayer 4320
- 85.25 GameKit.Challenge.Message 4321
- 85.26 GameKit.Challenge.ReceivingPlayer 4322

	313
• 85.27 GameKit.Challenge.Score	4323
• 85.28 GameKit.Challenge.State	4324
• 85.29 GameKit.DefaultLeaderboardIdentifier	4325
• 85.30 GameKit.GameCenterView.Dismiss	4326
• 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier	4327
• 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope	4328
• 85.33 GameKit.GameCenterView.GetViewState	4329
• 85.34 GameKit.GameCenterView.Initialize	4330
• 85.35 GameKit.GameCenterView.Present	4331
• 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier	4332
• 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope	4333
• 85.38 GameKit.GameCenterView.SetScriptTrigger	4334
• 85.39 GameKit.GameCenterView.SetViewState	4335
• 85.40 GameKit.GameCenterView.ShowBannerWithTitle	4336
• 85.41 GameKit.Initialize	4337
• 85.42 GameKit.Leaderboard.GetPlayerScope	4338
• 85.43 GameKit.Leaderboard.GetRange	4339
• 85.44 GameKit.Leaderboard.GetTimeScope	4340
• 85.45 GameKit.Leaderboard.GroupIdentifier	4341
• 85.46 GameKit.Leaderboard.Image	4342
• 85.47 GameKit.Leaderboard.LoadScores	4343
• 85.48 GameKit.Leaderboard.Loading	4344
• 85.49 GameKit.Leaderboard.LocalPlayerScore	4345
• 85.50 GameKit.Leaderboard.MaxRange	4346
• 85.51 GameKit.Leaderboard.New	4347
• 85.52 GameKit.Leaderboard.Scores	4348
• 85.53 GameKit.Leaderboard.SetPlayerScope	4349
• 85.54 GameKit.Leaderboard.SetRange	4350
• 85.55 GameKit.Leaderboard.SetTimeScope	4351

- 85.56 GameKit.Leaderboard.Title 4352
- 85.57 GameKit.LeaderboardSet.GroupIdentifier 4353
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355
- 85.60 GameKit.LoadAchievementDescriptions 4356
- 85.61 GameKit.LoadAchievements 4357
- 85.62 GameKit.LoadLeaderboardSets 4358
- 85.63 GameKit.LoadLeaderboards 4359
- 85.64 GameKit.LoadPlayers 4360
- 85.65 GameKit.LoadReceivedChallenges 4361
- 85.66 GameKit.LocalPlayer 4362
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364
- 85.69 GameKit.LocalPlayer.ClearAuthenticateHandler 4365
- 85.70 GameKit.LocalPlayer.isAuthenticated 4366
- 85.71 GameKit.LocalPlayer.isUnderage 4367
- 85.72 GameKit.Player.Alias 4368
- 85.73 GameKit.Player.DisplayName 4369
- 85.74 GameKit.Player.GuestIdentifier 4370
- 85.75 GameKit.Player.Photo 4371
- 85.76 GameKit.RecentPlayers 4372
- 85.77 GameKit.ReportAchievements 4373
- 85.78 GameKit.ReportAchievementsWithEligibleChallenges 4374
- 85.79 GameKit.ReportScores 4375
- 85.80 GameKit.ReportScoresWithEligibleChallenges 4376
- 85.81 GameKit.ResetAchievements 4377
- 85.82 GameKit.Score.Date 4378
- 85.83 GameKit.Score.FormattedValue 4379
- 85.84 GameKit.Score.GetContext 4380

	315
• 85.85 GameKit.Score.GetShouldSetDefaultLeaderboard	4381
• 85.86 GameKit.Score.GetValue	4382
• 85.87 GameKit.Score.LeaderboardIdentifier	4383
• 85.88 GameKit.Score.New	4384
• 85.89 GameKit.Score.Player	4385
• 85.90 GameKit.Score.Rank	4386
• 85.91 GameKit.Score.SetContext	4387
• 85.92 GameKit.Score.SetShouldSetDefaultLeaderboard	4388
• 85.93 GameKit.Score.SetValue	4389
• 85.94 GameKit.SelectChallengeablePlayers	4390
• 85.95 GameKit.SetDefaultLeaderboardIdentifier	4391
• 85.96 GameKit.SetPlayerDidChangeScriptTrigger	4392
• 85.97 GameKit.ShowChallengeComposeDialog	4393
• 165.1 GetSystemUIMode	7847
• 165.2 GetSystemUIModeOptions	7848
• 88.1 Hash.CRC32	4849
• 88.2 Hash.Digest	4851
• 88.3 Hash.DigestFile	4855
• 88.4 Hash.MD5	4857
• 88.5 Hash.MD5.HMAC	4859
• 88.6 Hash.PBKDF2.HMAC	4861
• 88.7 Hash.RandomHexString	4863
• 88.8 Hash.RandomString	4864
• 88.9 Hash.SHA1	4866
• 88.10 Hash.SHA1.HMAC	4869
• 88.11 Hash.SHA256	4871
• 88.12 Hash.SHA256.HMAC	4873
• 88.13 Hash.SHA512	4876
• 88.14 Hash.SHA512.HMAC	4878

- 90.1 HotKey.GetEnabled 4895
- 90.2 HotKey.GetEvaluate 4896
- 90.3 HotKey.GetIgnoreOnModal 4897
- 90.4 HotKey.GetKeyCode 4898
- 90.5 HotKey.GetKeyUp 4899
- 90.6 HotKey.GetLocal 4900
- 90.7 HotKey.GetModifiers 4901
- 90.8 HotKey.GetName 4902
- 90.9 HotKey.GetPermanent 4903
- 90.10 HotKey.GetScriptFileName 4904
- 90.11 HotKey.GetScriptName 4905
- 90.12 HotKey.GetScriptWorkspaceOnly 4906
- 90.13 HotKey.GetTag 4907
- 90.14 HotKey.List 4908
- 90.15 HotKey.Register 4909
- 90.16 HotKey.SetEnabled 4913
- 90.17 HotKey.SetEvaluate 4914
- 90.18 HotKey.SetIgnoreOnModal 4917
- 90.19 HotKey.SetKeyUp 4918
- 90.20 HotKey.SetLocal 4919
- 90.21 HotKey.SetName 4920
- 90.22 HotKey.SetPermanent 4921
- 90.23 HotKey.SetScript 4922
- 90.24 HotKey.SetScriptWorkspaceOnly 4924
- 90.25 HotKey.SetTag 4925
- 90.26 HotKey.Unregister 4926
- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.2 IKDeviceBrowserPanel.GetCancelButtonLabel 4991
- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992



	317
• 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners	4993
• 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras	4994
• 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners	4995
• 93.7 IKDeviceBrowserPanel.GetHeight	4996
• 93.8 IKDeviceBrowserPanel.GetMode	4997
• 93.9 IKDeviceBrowserPanel.GetPrompt	4998
• 93.10 IKDeviceBrowserPanel.GetSelectButtonLabel	4999
• 93.11 IKDeviceBrowserPanel.GetWidth	5000
• 93.12 IKDeviceBrowserPanel.GetWindowTitle	5001
• 93.13 IKDeviceBrowserPanel.Hide	5002
• 93.14 IKDeviceBrowserPanel.Reset	5003
• 93.15 IKDeviceBrowserPanel.SelectedDeviceID	5004
• 93.16 IKDeviceBrowserPanel.SelectedDeviceName	5005
• 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel	5006
• 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras	5007
• 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners	5008
• 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras	5009
• 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners	5010
• 93.22 IKDeviceBrowserPanel.SetHeight	5011
• 93.23 IKDeviceBrowserPanel.SetMode	5012
• 93.24 IKDeviceBrowserPanel.SetPrompt	5013
• 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel	5014
• 93.26 IKDeviceBrowserPanel.SetTrigger	5015
• 93.27 IKDeviceBrowserPanel.SetWidth	5017
• 93.28 IKDeviceBrowserPanel.SetWindowTitle	5018
• 93.29 IKDeviceBrowserPanel.Show	5019
• 93.30 IKDeviceBrowserPanel.Visible	5021
• 91.1 IKPictureTaker.ClearNotification	4927
• 91.2 IKPictureTaker.GetAllowsEditing	4928

- 91.3 IKPictureTaker.GetAllowsFileChoosing 4929
- 91.4 IKPictureTaker.GetAllowsVideoCapture 4930
- 91.5 IKPictureTaker.GetInformationalText 4931
- 91.6 IKPictureTaker.GetInputImage 4932
- 91.7 IKPictureTaker.GetMirroring 4933
- 91.8 IKPictureTaker.GetOutputImage 4934
- 91.9 IKPictureTaker.GetOutputImageMaxHeight 4935
- 91.10 IKPictureTaker.GetOutputImageMaxWidth 4936
- 91.11 IKPictureTaker.GetRemainOpenAfterValidate 4937
- 91.12 IKPictureTaker.GetShowAddressBookPicture 4938
- 91.13 IKPictureTaker.GetShowEffects 4939
- 91.14 IKPictureTaker.GetShowEmptyPicture 4940
- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.16 IKPictureTaker.GetUpdateRecentPicture 4942
- 91.17 IKPictureTaker.Run 4943
- 91.18 IKPictureTaker.SetAllowsEditing 4944
- 91.19 IKPictureTaker.SetAllowsFileChoosing 4945
- 91.20 IKPictureTaker.SetAllowsVideoCapture 4946
- 91.21 IKPictureTaker.SetInformationalText 4947
- 91.22 IKPictureTaker.SetInputImage 4948
- 91.23 IKPictureTaker.SetMirroring 4949
- 91.24 IKPictureTaker.SetNotification 4950
- 91.25 IKPictureTaker.SetOutputImageMaxSize 4951
- 91.26 IKPictureTaker.SetRemainOpenAfterValidate 4952
- 91.27 IKPictureTaker.SetShowAddressBookPicture 4953
- 91.28 IKPictureTaker.SetShowEffects 4954
- 91.29 IKPictureTaker.SetShowEmptyPicture 4955
- 91.30 IKPictureTaker.SetShowRecentPicture 4956
- 91.31 IKPictureTaker.SetUpdateRecentPicture 4957

	319
• 93.31 IKScannerDevicePanel.ClearImage	5022
• 93.32 IKScannerDevicePanel.Close	5023
• 93.33 IKScannerDevicePanel.GetCombine	5024
• 93.34 IKScannerDevicePanel.GetDocumentName	5025
• 93.35 IKScannerDevicePanel.GetDownloadsDirectory	5026
• 93.36 IKScannerDevicePanel.GetHeight	5027
• 93.37 IKScannerDevicePanel.GetMode	5028
• 93.38 IKScannerDevicePanel.GetOverviewControlLabel	5029
• 93.39 IKScannerDevicePanel.GetScanControlLabel	5030
• 93.40 IKScannerDevicePanel.GetScannerDeviceID	5031
• 93.41 IKScannerDevicePanel.GetScannerDeviceName	5032
• 93.42 IKScannerDevicePanel.GetWidth	5033
• 93.43 IKScannerDevicePanel.GetWindowTitle	5034
• 93.44 IKScannerDevicePanel.Hide	5035
• 93.45 IKScannerDevicePanel.ImageCount	5036
• 93.46 IKScannerDevicePanel.NextImage	5037
• 93.47 IKScannerDevicePanel.Reset	5038
• 93.48 IKScannerDevicePanel.SetCloseTrigger	5039
• 93.49 IKScannerDevicePanel.SetCombine	5041
• 93.50 IKScannerDevicePanel.SetDocumentName	5042
• 93.51 IKScannerDevicePanel.SetDownloadsDirectory	5043
• 93.52 IKScannerDevicePanel.SetHeight	5044
• 93.53 IKScannerDevicePanel.SetMode	5045
• 93.54 IKScannerDevicePanel.SetOverviewControlLabel	5046
• 93.55 IKScannerDevicePanel.SetScanControlLabel	5047
• 93.56 IKScannerDevicePanel.SetScannerDeviceID	5048
• 93.57 IKScannerDevicePanel.SetScannerDeviceName	5049
• 93.58 IKScannerDevicePanel.SetTrigger	5050
• 93.59 IKScannerDevicePanel.SetWidth	5052

- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056
- 92.1 IKSideshow.Add 4959
- 92.2 IKSideshow.AddImage 4961
- 92.3 IKSideshow.AddPDF 4962
- 92.4 IKSideshow.AddPath 4963
- 92.5 IKSideshow.AddURL 4964
- 92.6 IKSideshow.Clear 4965
- 92.7 IKSideshow.Count 4966
- 92.8 IKSideshow.GetAudioFile 4967
- 92.9 IKSideshow.GetMode 4968
- 92.10 IKSideshow.GetPDFDisplayBox 4969
- 92.11 IKSideshow.GetPDFDisplayMode 4970
- 92.12 IKSideshow.GetPDFDisplaysAsBook 4971
- 92.13 IKSideshow.GetScreen 4972
- 92.14 IKSideshow.GetStartIndex 4973
- 92.15 IKSideshow.GetStartPaused 4974
- 92.16 IKSideshow.GetWrapAround 4975
- 92.17 IKSideshow.ItemAtIndex 4976
- 92.18 IKSideshow.Run 4978
- 92.19 IKSideshow.SetAudioFile 4979
- 92.20 IKSideshow.SetMode 4980
- 92.21 IKSideshow.SetPDFDisplayBox 4981
- 92.22 IKSideshow.SetPDFDisplayMode 4982
- 92.23 IKSideshow.SetPDFDisplaysAsBook 4983
- 92.24 IKSideshow.SetScreen 4984
- 92.25 IKSideshow.SetStartIndex 4985
- 92.26 IKSideshow.SetStartPaused 4986

	321
• 92.27 IkslideShow.SetWrapAround	4987
• 137.1 Icon.ClearIcon	6729
• 137.2 Icon.GetIcon	6731
• 137.3 Icon.GetIconWithQuickLook	6733
• 137.4 Icon.SetIcon	6735
• 93.63 ImageCapture.CameraInfo	5057
• 93.64 ImageCapture.CloseDevice	5059
• 93.65 ImageCapture.Contents	5060
• 93.66 ImageCapture.DeviceInfo	5061
• 93.67 ImageCapture.Devices	5063
• 93.68 ImageCapture.DevicesJSON	5065
• 93.69 ImageCapture.Download	5066
• 93.70 ImageCapture.Features	5067
• 93.71 ImageCapture.GetFeatureValue	5068
• 93.72 ImageCapture.GetFeatures	5069
• 93.73 ImageCapture.GetParameter	5070
• 93.74 ImageCapture.GetParameters	5073
• 93.75 ImageCapture.ImagePaths	5074
• 93.76 ImageCapture.Initialize	5075
• 93.77 ImageCapture.MediaFileNames	5076
• 93.78 ImageCapture.MediaFiles	5077
• 93.79 ImageCapture.OpenDevice	5078
• 93.80 ImageCapture.PDF	5080
• 93.81 ImageCapture.PreferredDevice	5081
• 93.82 ImageCapture.RequestDeleteFiles	5082
• 93.83 ImageCapture.RequestDisableTethering	5083
• 93.84 ImageCapture.RequestEnableTethering	5084
• 93.85 ImageCapture.RequestOverviewScan	5085
• 93.86 ImageCapture.RequestScan	5086

- 93.87 ImageCapture.RequestSelectFunctionalUnit 5089
- 93.88 ImageCapture.RequestSyncClock 5091
- 93.89 ImageCapture.RequestTakePicture 5092
- 93.90 ImageCapture.SetFeatureValue 5093
- 93.91 ImageCapture.SetParameter 5094
- 93.92 ImageCapture.Thumbnail 5098
- 93.93 ImageCapture.cancelScan 5099
- 95.1 ImageView.Clear 5161
- 95.2 ImageView.CreateWithControl 5162
- 95.3 ImageView.CreateWithSize 5164
- 95.4 ImageView.CreateWithWindow 5166
- 95.5 ImageView.GetHeight 5167
- 95.6 ImageView.GetLeft 5168
- 95.7 ImageView.GetTag 5169
- 95.8 ImageView.GetToolTip 5170
- 95.9 ImageView.GetTop 5171
- 95.10 ImageView.GetVisible 5172
- 95.11 ImageView.GetWidth 5173
- 95.12 ImageView.Release 5174
- 95.13 ImageView.ReleaseAll 5175
- 95.14 ImageView.SetFrame 5176
- 95.15 ImageView.SetFrameWithControl 5177
- 95.16 ImageView.SetImage 5178
- 95.17 ImageView.SetTag 5179
- 95.18 ImageView.SetToolTip 5180
- 95.19 ImageView.SetVisible 5181
- 127.4 Is64bit 6372
- 127.5 IsClient 6373
- 127.6 IsError 6374

	323
• 127.7 IsIOS	6376
• 127.8 IsIOSDevice	6377
• 127.9 IsIOSSimulator	6378
• 127.10 IsLinux	6379
• 127.11 IsMacOS	6380
• 127.12 IsMobile	6381
• 127.13 IsRegistered	6382
• 127.14 IsRuntime	6385
• 127.15 IsServer	6386
• 127.16 IsWindows	6388
• 100.1 JS.AddFileMakerEvaluateFunction	5253
• 100.2 JS.AddFileMakerRunScriptFunction	5255
• 100.3 JS.AddFileMakerSQLFunction	5257
• 100.4 JS.AddFunction	5258
• 100.5 JS.CallFunction	5260
• 100.6 JS.Evaluate	5262
• 100.7 JS.EvaluateToString	5266
• 100.8 JS.Free	5268
• 100.9 JS.GetGlobalProperty	5270
• 100.10 JS.GetGlobalPropertyValue	5272
• 100.11 JS.New	5273
• 100.12 JS.Now	5275
• 100.13 JS.ObjectCount	5276
• 100.14 JS.SetGlobalProperty	5277
• 100.15 JS.SetGlobalPropertyValue	5279
• 100.16 JS.StringCount	5281
• 100.17 JS.TimeToDateComponents	5282
• 100.18 JS.TimeToUTCDate	5284
• 100.19 JS.UTCDateToTime	5285

- 102.4 JSON.AddArrayToArray 5310
- 102.5 JSON.AddBooleanToObject 5311
- 102.6 JSON.AddFalseToObject 5313
- 102.7 JSON.AddItemToArray 5315
- 102.8 JSON.AddItemToObject 5317
- 102.9 JSON.AddNullToObject 5320
- 102.10 JSON.AddNumberToArray 5322
- 102.11 JSON.AddNumberToObject 5324
- 102.12 JSON.AddStringToArray 5326
- 102.13 JSON.AddStringToObject 5328
- 102.14 JSON.AddTrueToObject 5331
- 102.15 JSON.Clone 5333
- 102.16 JSON.Colorize 5334
- 102.17 JSON.Compact 5336
- 102.18 JSON.CreateArray 5337
- 102.19 JSON.CreateArrayRef 5338
- 102.20 JSON.CreateBool 5341
- 102.21 JSON.CreateBoolean 5342
- 102.22 JSON.CreateDoubleArray 5343
- 102.23 JSON.CreateFalse 5344
- 102.24 JSON.CreateIntegerArray 5345
- 102.25 JSON.CreateNull 5346
- 102.26 JSON.CreateNumber 5347
- 102.27 JSON.CreateObject 5349
- 102.28 JSON.CreateObjectRef 5351
- 102.29 JSON.CreateString 5354
- 102.30 JSON.CreateStringArray 5355
- 102.31 JSON.CreateStringArrayWithList 5356
- 102.32 JSON.CreateTrue 5357



	325
• 102.33 JSON.CreateValue	5358
• 102.34 JSON.DeleteItemFromArray	5359
• 102.35 JSON.DeleteItemFromObject	5360
• 102.36 JSON.EqualContent	5361
• 102.37 JSON.Equals	5362
• 102.38 JSON.FindValueInArray	5364
• 102.39 JSON.FindValueInObjectArray	5366
• 102.40 JSON.Format	5368
• 102.41 JSON.GetArrayItem	5370
• 102.42 JSON.GetArrayItemsAsList	5372
• 102.43 JSON.GetArrayPathItems	5374
• 102.44 JSON.GetArraySize	5376
• 102.45 JSON.GetDoubleValue	5377
• 102.46 JSON.GetIntegerValue	5378
• 102.47 JSON.GetObjectItem	5379
• 102.48 JSON.GetObjectItemTree	5382
• 102.49 JSON.GetObjectItemTreeRef	5383
• 102.50 JSON.GetObjectName	5384
• 102.51 JSON.GetObjectNameList	5385
• 102.52 JSON.GetObjectSize	5386
• 102.53 JSON.GetPathItem	5387
• 102.54 JSON.GetStringValue	5390
• 102.55 JSON.GetType	5392
• 102.56 JSON.GetValue	5393
• 102.57 JSON.Import	5395
• 102.58 JSON.Import.Cancel	5398
• 102.59 JSON.Import.ErrorCount	5399
• 102.60 JSON.Import.Errors	5400
• 102.61 JSON.Import.Status	5401

- 102.62 JSON.Import.Todo 5402
- 102.63 JSON.Import.Total 5403
- 102.64 JSON.Import.Work 5404
- 102.65 JSON.IsValid 5405
- 102.66 JSON.Parse 5406
- 102.67 JSON.Release 5409
- 102.68 JSON.ReleaseAll 5411
- 102.69 JSON.ReplaceItemInArray 5412
- 102.70 JSON.ReplaceItemInObject 5413
- 102.71 JSON.SetPathItem 5414
- 102.72 JSON.Sort 5416
- 102.73 JSON.SortWithEvaluate 5417
- 102.74 JSON.ToHTML 5419
- 99.1 Java.CallObjectMethod 5229
- 99.2 Java.CallStaticMethod 5231
- 99.3 Java.GetContainerFileName 5233
- 99.4 Java.GetObjectField 5234
- 99.5 Java.GetStaticField 5236
- 99.6 Java.Initialize 5238
- 99.7 Java.Initialized 5241
- 99.8 Java.NewClassObject 5242
- 99.9 Java.ObjectClassName 5244
- 99.10 Java.Release 5245
- 99.11 Java.ReleaseAll 5246
- 99.12 Java.SetContainerFileName 5247
- 99.13 Java.SetObjectField 5248
- 99.14 Java.SetStaticField 5250
- 101.1 JavaScript.CheckScriptSyntax 5287
- 101.2 JavaScript.EvaluateScript 5289

	327
• 101.3 JavaScript.GetProperty	5292
• 101.4 JavaScript.HasProperty	5293
• 101.5 JavaScript.New	5294
• 101.6 JavaScript.RegisterEvaluateFunction	5295
• 101.7 JavaScript.RegisterFunction	5297
• 101.8 JavaScript.RegisterRunScriptFunction	5299
• 101.9 JavaScript.RegisterSQLQueryFunction	5300
• 101.10 JavaScript.Release	5301
• 101.11 JavaScript.SetProperty	5302
• 103.1 Keychain.AddPassword	5433
• 103.2 Keychain.DeletePassword	5435
• 103.3 Keychain.ListAccounts	5436
• 103.4 Keychain.ListDatabases	5437
• 103.5 Keychain.UpdatePassword	5438
• 178.3 LCMS.ProfileInfo	8360
• 104.1 LDAP.Add	5439
• 104.2 LDAP.AddJSON	5441
• 104.3 LDAP.AddList	5445
• 104.4 LDAP.AddRecord	5447
• 104.5 LDAP.Bind	5449
• 104.6 LDAP.Connect	5451
• 104.7 LDAP.Delete	5454
• 104.8 LDAP.GetNetworkTimeOut	5455
• 104.9 LDAP.GetProtocolVersion	5456
• 104.10 LDAP.GetReferrals	5457
• 104.11 LDAP.GetTimeOut	5458
• 104.12 LDAP.JSON	5459
• 104.13 LDAP.Modify	5464
• 104.14 LDAP.ModifyJSON	5465

- 104.15 LDAP.ModifyRecord 5467
- 104.16 LDAP.Release 5469
- 104.17 LDAP.Rename 5470
- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.23 LDAP.SearchResult.AttributeValueCount 5478
- 104.24 LDAP.SearchResult.AttributeValues 5479
- 104.25 LDAP.SearchResult.AttributeValuesByName 5481
- 104.26 LDAP.SearchResult.Count 5483
- 104.27 LDAP.SearchResult.DistinguishedName 5485
- 104.28 LDAP.SetNetworkTimeOut 5486
- 104.29 LDAP.SetProtocolVersion 5487
- 104.30 LDAP.SetReferrals 5488
- 104.31 LDAP.SetTimeOut 5489
- 104.32 LDAP.SimpleBind 5490
- 104.33 LDAP.StartTLS 5491
- 105.1 List.AddPostfix 5493
- 105.2 List.AddPrefix 5495
- 105.3 List.AddValue 5496
- 105.4 List.And 5497
- 105.5 List.AndColumn 5499
- 105.6 List.BestMatch 5501
- 105.7 List.CSVSplit 5502
- 105.8 List.CountValues 5504
- 105.9 List.CountValuesMatching 5505
- 105.10 List.CrossProduct 5506

	329
• 105.11 List.DeCombine	5508
• 105.12 List.Deserialize	5510
• 105.13 List.FindEquals	5511
• 105.14 List.FindUnequals	5512
• 105.15 List.GetValue	5514
• 105.16 List.HasDuplicateItems	5515
• 105.17 List.HasValue	5516
• 105.18 List.IndexOfFirstValueMatching	5518
• 105.19 List.InsertValue	5519
• 105.20 List.MatchesPostfix	5520
• 105.21 List.MatchesPrefix	5521
• 105.22 List.Not	5522
• 105.23 List.NotColumn	5523
• 105.24 List.Or	5525
• 105.25 List.OrColumn	5526
• 105.26 List.RegExMatch	5528
• 105.27 List.Remove	5530
• 105.28 List.RemoveDuplicateItems	5531
• 105.29 List.RemoveEmptyItems	5533
• 105.30 List.RemovePostfix	5534
• 105.31 List.RemovePrefix	5536
• 105.32 List.RemoveValue	5538
• 105.33 List.Reverse	5540
• 105.34 List.Serialize	5541
• 105.35 List.SetValue	5542
• 105.36 List.Sort	5543
• 105.37 List.SortWithEvaluate	5546
• 105.38 List.SubList	5548
• 105.39 List.Trim	5550

- 105.40 List.ValueIndex 5551
- 105.41 List.XOr 5552
- 105.42 List.XOrColumn 5553
- 106.1 ListDialog.AddItemToList 5647
- 106.2 ListDialog.AddItemsToList 5649
- 106.3 ListDialog.AddSQL 5650
- 106.4 ListDialog.ClearColumnHeaders 5651
- 106.5 ListDialog.ClearList 5652
- 106.6 ListDialog.ColumnCount 5653
- 106.7 ListDialog.GetAllowEmptySelection 5654
- 106.8 ListDialog.GetAllowMultipleSelection 5655
- 106.9 ListDialog.GetCancelButtonLabel 5656
- 106.10 ListDialog.GetColumnHeader 5657
- 106.11 ListDialog.GetHeight 5658
- 106.12 ListDialog.GetOtherButtonEvaluate 5659
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.14 ListDialog.GetPositionX 5661
- 106.15 ListDialog.GetPositionY 5662
- 106.16 ListDialog.GetPrompt 5663
- 106.17 ListDialog.GetSelectButtonLabel 5664
- 106.18 ListDialog.GetSelectedTag 5665
- 106.19 ListDialog.GetSelectedTitle 5666
- 106.20 ListDialog.GetWidth 5667
- 106.21 ListDialog.GetWindowTitle 5668
- 106.22 ListDialog.ListCount 5669
- 106.23 ListDialog.ListItem 5670
- 106.24 ListDialog.ListTag 5671
- 106.25 ListDialog.Reset 5672
- 106.26 ListDialog.SetAllowEmptySelection 5673

	331
• 106.27 ListDialog.SetAllowMultipleSelection	5674
• 106.28 ListDialog.SetCancelButtonLabel	5675
• 106.29 ListDialog.SetColumnCount	5676
• 106.30 ListDialog.SetColumnHeader	5677
• 106.31 ListDialog.SetHeight	5678
• 106.32 ListDialog.SetOtherButtonEvaluate	5679
• 106.33 ListDialog.SetOtherButtonLabel	5680
• 106.34 ListDialog.SetPosition	5681
• 106.35 ListDialog.SetPositionX	5682
• 106.36 ListDialog.SetPositionY	5683
• 106.37 ListDialog.SetPrompt	5684
• 106.38 ListDialog.SetSelectButtonLabel	5685
• 106.39 ListDialog.SetSelectedTag	5686
• 106.40 ListDialog.SetSelectedTitle	5687
• 106.41 ListDialog.SetWidth	5688
• 106.42 ListDialog.SetWindowTitle	5689
• 106.43 ListDialog.ShowDialog	5690
• 106.44 ListDialog.Sort	5692
• 178.4 Log	8361
• 108.1 MapView.AddCircle	5721
• 108.2 MapView.AddPin	5723
• 108.3 MapView.AddPinWithAddress	5725
• 108.4 MapView.AddPoint	5727
• 108.5 MapView.AddPolygon	5730
• 108.6 MapView.AddPolyline	5732
• 108.7 MapView.Annotations	5734
• 108.8 MapView.CreateWithControl	5735
• 108.9 MapView.CreateWithSize	5737
• 108.10 MapView.FormatDistance	5739

- 108.11 `MapView.GetAnnotationCoordinate` 5740
- 108.12 `MapView.GetAnnotationDragImage` 5741
- 108.13 `MapView.GetAnnotationImage` 5742
- 108.14 `MapView.GetAnnotationSelectedImage` 5743
- 108.15 `MapView.GetAutoResizingMask` 5744
- 108.16 `MapView.GetCenterCoordinateLatitude` 5746
- 108.17 `MapView.GetCenterCoordinateLongitude` 5747
- 108.18 `MapView.GetHeight` 5748
- 108.19 `MapView.GetLeft` 5749
- 108.20 `MapView.GetMapType` 5750
- 108.21 `MapView.GetOverlayFillColor` 5751
- 108.22 `MapView.GetOverlayLineWidth` 5752
- 108.23 `MapView.GetOverlayPoints` 5753
- 108.24 `MapView.GetOverlayStrokeColor` 5755
- 108.25 `MapView.GetPitchEnabled` 5756
- 108.26 `MapView.GetRegion` 5757
- 108.27 `MapView.GetRegionLatitude` 5758
- 108.28 `MapView.GetRegionLatitudeSpan` 5759
- 108.29 `MapView.GetRegionLongitude` 5760
- 108.30 `MapView.GetRegionLongitudeSpan` 5761
- 108.31 `MapView.GetRotateEnabled` 5762
- 108.32 `MapView.GetScrollEnabled` 5763
- 108.33 `MapView.GetShowsBuildings` 5764
- 108.34 `MapView.GetShowsCompass` 5765
- 108.35 `MapView.GetShowsPointsOfInterest` 5766
- 108.36 `MapView.GetShowsScale` 5767
- 108.37 `MapView.GetShowsTraffic` 5768
- 108.38 `MapView.GetShowsUserLocation` 5769
- 108.39 `MapView.GetShowsZoomControls` 5770



	333
• 108.40 MapView.GetTag	5771
• 108.41 MapView.GetToolTip	5772
• 108.42 MapView.GetTop	5773
• 108.43 MapView.GetVisible	5774
• 108.44 MapView.GetVisibleMapRect	5775
• 108.45 MapView.GetWidth	5776
• 108.46 MapView.GetZoomEnabled	5777
• 108.47 MapView.GetZoomLevel	5778
• 108.48 MapView.IsUserLocationVisible	5779
• 108.49 MapView.MouseCoordinate	5780
• 108.50 MapView.Overlays	5781
• 108.51 MapView.ParseDistance	5782
• 108.52 MapView.PlanRoute	5783
• 108.53 MapView.Release	5785
• 108.54 MapView.ReleaseAll	5786
• 108.55 MapView.RemoveAnnotation	5787
• 108.56 MapView.RemoveAnnotations	5788
• 108.57 MapView.RemoveOverlay	5789
• 108.58 MapView.RemoveOverlays	5790
• 108.59 MapView.Screenshot	5791
• 108.60 MapView.SelectedAnnotations	5793
• 108.61 MapView.SetAnnotationCoordinate	5794
• 108.62 MapView.SetAnnotationDragImage	5795
• 108.63 MapView.SetAnnotationImage	5796
• 108.64 MapView.SetAnnotationSelectedImage	5797
• 108.65 MapView.SetAutoResizingMask	5798
• 108.66 MapView.SetColor	5800
• 108.67 MapView.SetCoordinate	5801
• 108.68 MapView.SetFrame	5802

- 108.69 `MapView.SetFrameWithControl` 5803
- 108.70 `MapView.SetMapType` 5804
- 108.71 `MapView.SetOverlayFillColor` 5805
- 108.72 `MapView.SetOverlayLineWidth` 5806
- 108.73 `MapView.SetOverlayPoints` 5807
- 108.74 `MapView.SetOverlayStrokeColor` 5808
- 108.75 `MapView.SetPitchEnabled` 5809
- 108.76 `MapView.SetRegion` 5810
- 108.77 `MapView.SetRotateEnabled` 5811
- 108.78 `MapView.SetScript` 5812
- 108.79 `MapView.SetScrollEnabled` 5814
- 108.80 `MapView.SetShowsBuildings` 5815
- 108.81 `MapView.SetShowsCompass` 5816
- 108.82 `MapView.SetShowsPointsOfInterest` 5817
- 108.83 `MapView.SetShowsScale` 5818
- 108.84 `MapView.SetShowsTraffic` 5819
- 108.85 `MapView.SetShowsUserLocation` 5820
- 108.86 `MapView.SetShowsZoomControls` 5822
- 108.87 `MapView.SetTag` 5823
- 108.88 `MapView.SetToolTip` 5824
- 108.89 `MapView.SetVisible` 5825
- 108.90 `MapView.SetVisibleMapRect` 5826
- 108.91 `MapView.SetZoomEnabled` 5827
- 108.92 `MapView.SetZoomLevel` 5828
- 108.93 `MapView.ShowAddress` 5829
- 108.94 `MapView.ShowAllAnnotations` 5831
- 108.95 `MapView.Snapshot` 5832
- 109.1 `Markdown.CSS` 5835
- 109.2 `Markdown.Create` 5836

	335
• 109.3 Markdown.HTML	5837
• 109.4 Markdown.Release	5838
• 110.1 Math.BitwiseAND	5839
• 110.2 Math.BitwiseNOT	5841
• 110.3 Math.BitwiseOR	5842
• 110.4 Math.BitwiseShiftLeft	5843
• 110.5 Math.BitwiseShiftRight	5844
• 110.6 Math.BitwiseXOR	5845
• 110.7 Math.DecToHex	5846
• 110.8 Math.DecodeNumber	5847
• 110.9 Math.EncodeNumber	5849
• 110.10 Math.HexToDec	5851
• 110.11 Math.InchToPixel	5852
• 110.12 Math.InsidePolygon	5853
• 110.13 Math.IsValidCC	5854
• 110.14 Math.MillimeterToPixel	5855
• 110.15 Math.NumberToText	5856
• 110.16 Math.PixelToInch	5857
• 110.17 Math.PixelToMillimeter	5858
• 110.18 Math.PolylineDecode	5859
• 110.19 Math.PolylineEncode	5860
• 110.20 Math.TextToNumber	5862
• 111.1 Matrix.Add	5865
• 111.2 Matrix.AddColumn	5868
• 111.3 Matrix.AddColumns	5869
• 111.4 Matrix.AddRow	5870
• 111.5 Matrix.AddRows	5871
• 111.6 Matrix.Avg	5872
• 111.7 Matrix.CSV	5873

- 111.8 Matrix.Clear 5875
- 111.9 Matrix.ClearValues 5876
- 111.10 Matrix.Clone 5877
- 111.11 Matrix.CopyColumn 5878
- 111.12 Matrix.CopyRow 5879
- 111.13 Matrix.DataType 5880
- 111.14 Matrix.Evaluate 5881
- 111.15 Matrix.Free 5883
- 111.16 Matrix.GetColumn 5884
- 111.17 Matrix.GetColumnName 5885
- 111.18 Matrix.GetColumnNames 5886
- 111.19 Matrix.GetRow 5887
- 111.20 Matrix.GetRowName 5888
- 111.21 Matrix.GetRowNames 5889
- 111.22 Matrix.GetText 5890
- 111.23 Matrix.GetValue 5891
- 111.24 Matrix.Height 5893
- 111.25 Matrix.InsertRecords 5894
- 111.26 Matrix.InsertRecordsToSQL 5896
- 111.27 Matrix.JSONRecord 5898
- 111.28 Matrix.JSONRecords 5899
- 111.29 Matrix.Max 5900
- 111.30 Matrix.Min 5901
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.33 Matrix.RemoveColumn 5905
- 111.34 Matrix.RemoveRow 5906
- 111.35 Matrix.Resize 5907
- 111.36 Matrix.SetColumn 5908

	337
• 111.37 Matrix.SetColumnName	5910
• 111.38 Matrix.SetRow	5912
• 111.39 Matrix.SetRowName	5914
• 111.40 Matrix.SetValue	5916
• 111.41 Matrix.Sum	5918
• 111.42 Matrix.Text	5920
• 111.43 Matrix.Width	5922
• 112.1 MatrixDongle.Count	5923
• 112.2 MatrixDongle.Find	5925
• 112.3 MatrixDongle.GetDriverFlag	5926
• 112.4 MatrixDongle.GetVersionAPI	5927
• 112.5 MatrixDongle.GetVersionDRV	5928
• 112.6 MatrixDongle.GetVersionDRV.USB	5929
• 112.7 MatrixDongle.Initialize	5930
• 112.8 MatrixDongle.Initialized	5932
• 112.9 MatrixDongle.MemorySize	5933
• 112.10 MatrixDongle.Model	5934
• 112.11 MatrixDongle.ReadHex	5935
• 112.12 MatrixDongle.ReadSerialNumber	5937
• 112.13 MatrixDongle.ReadText	5938
• 112.14 MatrixDongle.Release	5940
• 112.15 MatrixDongle.SetDriverFlag	5941
• 112.16 MatrixDongle.Version	5943
• 112.17 MatrixDongle.WriteHex	5944
• 112.18 MatrixDongle.WriteText	5945
• 113.1 MediaLibraryBrowser.getMediaLibraries	5947
• 113.2 MediaLibraryBrowser.getVisible	5948
• 113.3 MediaLibraryBrowser.setFrame	5949
• 113.4 MediaLibraryBrowser.setMediaLibraries	5950

- 113.5 MediaLibraryBrowser.setVisible 5951
- 113.6 MediaLibraryBrowser.togglePanel 5952
- 114.1 Menu.AddItem 5953
- 114.2 Menu.AddItems 5956
- 114.3 Menu.CreateMenu 5959
- 114.4 Menu.DefineQuickMenu 5961
- 114.5 Menu.DefineQuickMenuXML 5964
- 114.6 Menu.FindItemWithTag 5966
- 114.7 Menu.FindItemWithTitle 5967
- 114.8 Menu.GetAllowsContextMenuPlugIns 5968
- 114.9 Menu.GetEvaluate 5969
- 114.10 Menu.GetMinimumWidth 5970
- 114.11 Menu.GetScriptFileName 5971
- 114.12 Menu.GetScriptName 5972
- 114.13 Menu.GetShowsStateColumn 5973
- 114.14 Menu.GetTag 5974
- 114.15 Menu.GetTitle 5975
- 114.16 Menu.GetURL 5976
- 114.17 Menu.InsertItem 5977
- 114.18 Menu.ItemAtIndex 5978
- 114.19 Menu.Items 5979
- 114.20 Menu.List 5980
- 114.21 Menu.NumberOfItems 5981
- 114.22 Menu.PopUp 5982
- 114.23 Menu.Release 5986
- 114.24 Menu.ReleaseAll 5988
- 114.25 Menu.RemoveAllItems 5989
- 114.26 Menu.RemoveItem 5990
- 114.27 Menu.RemoveItemAtIndex 5991

	339
• 114.28 Menu.SelectedItem	5992
• 114.29 Menu.SetAllowsContextMenuPlugIns	5994
• 114.30 Menu.SetEvaluate	5995
• 114.31 Menu.SetMinimumWidth	5996
• 114.32 Menu.SetScriptAction	5997
• 114.33 Menu.SetShowsStateColumn	5999
• 114.34 Menu.SetTag	6000
• 114.35 Menu.SetTitle	6001
• 114.36 Menu.SetURL	6002
• 114.37 MenuItem.CreateMenuItem	6003
• 114.38 MenuItem.CreateSeparator	6005
• 114.39 MenuItem.GetAlternate	6006
• 114.40 MenuItem.GetAttributedTitle	6007
• 114.42 MenuItem.GetBold	6009
• 114.43 MenuItem.GetEnabled	6010
• 114.44 MenuItem.GetEvaluate	6011
• 114.45 MenuItem.GetFontColor	6012
• 114.46 MenuItem.GetFontName	6013
• 114.47 MenuItem.GetFontSize	6014
• 114.48 MenuItem.GetGroupID	6015
• 114.49 MenuItem.GetHidden	6016
• 114.50 MenuItem.GetImage	6017
• 114.51 MenuItem.GetItalic	6018
• 114.52 MenuItem.GetKeyEquivalent	6019
• 114.53 MenuItem.GetKeyEquivalentModifierMask	6020
• 114.54 MenuItem.GetMixedStateImage	6021
• 114.55 MenuItem.GetOffStateImage	6022
• 114.56 MenuItem.GetOnStateImage	6023
• 114.57 MenuItem.GetParentItem	6024

- 114.58 MenuItem.GetParentMenu 6025
- 114.59 MenuItem.GetPath 6026
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.63 MenuItem.GetRequireShift 6030
- 114.64 MenuItem.GetScriptFileName 6031
- 114.65 MenuItem.GetScriptName 6032
- 114.66 MenuItem.GetSelectable 6033
- 114.67 MenuItem.GetState 6034
- 114.68 MenuItem.GetStrikeOut 6035
- 114.69 MenuItem.GetSubMenu 6036
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.72 MenuItem.GetToolTip 6040
- 114.73 MenuItem.GetURL 6041
- 114.74 MenuItem.GetUnderline 6042
- 114.75 MenuItem.GetUserKeyEquivalent 6043
- 114.76 MenuItem.HasSubmenu 6044
- 114.77 MenuItem.IsSeparatorItem 6045
- 114.78 MenuItem.List 6046
- 114.79 MenuItem.Release 6047
- 114.80 MenuItem.SetAlternate 6048
- 114.81 MenuItem.SetAttributedTitle 6049
- 114.83 MenuItem.SetBold 6052
- 114.84 MenuItem.SetEnabled 6054
- 114.85 MenuItem.SetEvaluate 6055
- 114.86 MenuItem.SetFontColor 6056
- 114.87 MenuItem.SetFontName 6058



	341
• 114.88 MenuItem.SetFontSize	6060
• 114.89 MenuItem.SetGroupID	6062
• 114.90 MenuItem.SetHidden	6063
• 114.91 MenuItem.SetImage	6064
• 114.92 MenuItem.SetItalic	6066
• 114.93 MenuItem.SetKeyEquivalent	6068
• 114.94 MenuItem.SetKeyEquivalentModifierMask	6070
• 114.95 MenuItem.SetMixedStateImage	6072
• 114.96 MenuItem.SetOffStateImage	6073
• 114.97 MenuItem.SetOnStateImage	6074
• 114.98 MenuItem.SetRequireCommand	6075
• 114.99 MenuItem.SetRequireControl	6076
• 114.100 MenuItem.SetRequireOption	6077
• 114.101 MenuItem.SetRequireShift	6078
• 114.102 MenuItem.SetScriptAction	6079
• 114.103 MenuItem.SetSelectable	6081
• 114.104 MenuItem.SetState	6082
• 114.105 MenuItem.SetStrikeOut	6084
• 114.106 MenuItem.SetSubMenu	6085
• 114.107 MenuItem.SetTag	6086
• 114.108 MenuItem.SetTitle	6087
• 114.109 MenuItem.SetToolTip	6088
• 114.110 MenuItem.SetURL	6089
• 114.111 MenuItem.SetUnderline	6090
• 115.1 Menubar.HasMenuCommand	6093
• 115.2 Menubar.IsMenuCommandChecked	6095
• 115.3 Menubar.ListMenuCommands	6097
• 115.4 Menubar.RemoveMenuCommand	6098
• 115.5 Menubar.RunMenuCommand	6099

- 115.6 Menubar.SetMenuCommandShortcut 6102
- 115.7 Menubar.SetMenuCommandTitle 6103
- 115.8 Menubar.SetMenuCommandVisible 6104
- 117.1 MetaDataQuery.AttributesForFile 6131
- 117.2 MetaDataQuery.Close 6133
- 117.3 MetaDataQuery.Create 6134
- 117.4 MetaDataQuery.GetEvaluate 6135
- 117.5 MetaDataQuery.GetScriptFileName 6136
- 117.6 MetaDataQuery.GetScriptName 6137
- 117.7 MetaDataQuery.IsGathering 6138
- 117.8 MetaDataQuery.IsStarted 6139
- 117.9 MetaDataQuery.IsStopped 6140
- 117.10 MetaDataQuery.PathAtIndex 6141
- 117.11 MetaDataQuery.Paths 6143
- 117.12 MetaDataQuery.QueryString 6144
- 117.13 MetaDataQuery.ResultAtIndex 6145
- 117.14 MetaDataQuery.ResultCount 6146
- 117.15 MetaDataQuery.Results 6147
- 117.16 MetaDataQuery.SearchScopes 6148
- 117.17 MetaDataQuery.SetEvaluate 6149
- 117.18 MetaDataQuery.SetQueryString 6150
- 117.19 MetaDataQuery.SetScript 6152
- 117.20 MetaDataQuery.SetSearchScopes 6153
- 117.21 MetaDataQuery.StartQuery 6155
- 117.22 MetaDataQuery.StopQuery 6156
- 178.5 Modbus.CalculateRTUMessageCRC 8362
- 79.67 MountNotification.Install 3934
- 79.68 MountNotification.Uninstall 3936
- 178.6 MouseCursor.Hide 8363

	343
• 178.7 MouseCursor.HideUntilMouseMoves	8364
• 178.8 MouseCursor.Set	8365
• 178.9 MouseCursor.Show	8368
• 178.10 MsgBox	8369
• 119.1 Mutex.Create	6189
• 119.2 Mutex.Free	6191
• 119.3 Mutex.List	6192
• 119.4 Mutex.Lock	6193
• 119.5 Mutex.Name	6194
• 119.6 Mutex.TryLock	6195
• 119.7 Mutex.Unlock	6196
• 122.1 NSEventFilter.DisableEvents	6211
• 122.2 NSEventFilter.EnableAllEvents	6213
• 122.3 NSEventFilter.EnableEvents	6214
• 120.1 NetworkInterfaces.Count	6197
• 120.2 NetworkInterfaces.Default	6198
• 120.3 NetworkInterfaces.JSON	6199
• 120.4 NetworkInterfaces.Update	6200
• 120.5 NetworkInterfaces.Value	6201
• 121.1 Notification.List	6203
• 121.2 Notification.Listen	6205
• 121.3 Notification.Send	6207
• 121.4 Notification.SendDirect	6208
• 121.5 Notification.Unlisten	6209
• 121.6 Notification.UnlistenAll	6210
• 123.1 OCR.Cleanup	6217
• 123.2 OCR.Clear	6218
• 123.3 OCR.GetBoxText	6219
• 123.4 OCR.GetHOCText	6220

- 123.5 OCR.GetPageSegMode 6221
- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224
- 123.8 OCR.GetVariable 6226
- 123.9 OCR.Initialize 6227
- 123.10 OCR.IsInitialized 6229
- 123.11 OCR.Language 6230
- 123.12 OCR.MeanTextConf 6231
- 123.13 OCR.Recognize 6232
- 123.14 OCR.SetImage 6233
- 123.15 OCR.SetPageSegMode 6235
- 123.16 OCR.SetRectangle 6237
- 123.17 OCR.SetResolution 6238
- 123.18 OCR.SetVariable 6239
- 123.19 OCR.WriteToPDF 6240
- 125.1 PDFKit.AddEmptyPage 6261
- 125.2 PDFKit.AddImageFilePage 6263
- 125.3 PDFKit.AddImagePage 6265
- 125.4 PDFKit.AppendPages 6267
- 125.5 PDFKit.Combine 6268
- 125.6 PDFKit.CombineRef 6270
- 125.7 PDFKit.GeneratePreview 6272
- 125.8 PDFKit.GetCurrentFilter 6274
- 125.9 PDFKit.GetIgnoreCombineErrors 6275
- 125.10 PDFKit.GetPDFAttribute 6276
- 125.11 PDFKit.GetPDFDocument 6279
- 125.12 PDFKit.GetPDFPageCount 6281
- 125.13 PDFKit.GetPDFPageDisplayAnnotation 6283
- 125.14 PDFKit.GetPDFPageFormattedText 6284

	345
• 125.15 PDFKit.GetPDFPageImage	6285
• 125.16 PDFKit.GetPDFPagePDF	6288
• 125.17 PDFKit.GetPDFPagePDFRef	6290
• 125.18 PDFKit.GetPDFPageRotation	6291
• 125.19 PDFKit.GetPDFPageText	6292
• 125.20 PDFKit.GetPDFPageValue	6294
• 125.21 PDFKit.GetPDFPagesPDF	6296
• 125.22 PDFKit.GetPDFPagesPDFRef	6298
• 125.23 PDFKit.GetPDFText	6299
• 125.24 PDFKit.GetPrintLastSettings	6300
• 125.25 PDFKit.GetPrintOption	6301
• 125.26 PDFKit.GetPrintSetting	6302
• 125.27 PDFKit.NewPDFDocument	6304
• 125.28 PDFKit.Open	6306
• 125.29 PDFKit.OpenContainer	6308
• 125.30 PDFKit.OpenPath	6310
• 125.31 PDFKit.OpenURL	6312
• 125.32 PDFKit.PageBounds	6313
• 125.33 PDFKit.Print	6315
• 125.34 PDFKit.Release	6317
• 125.35 PDFKit.ResetPrintSettings	6319
• 125.36 PDFKit.RestorePrintSettings	6320
• 125.37 PDFKit.SavePrintSettings	6321
• 125.38 PDFKit.SetCurrentFilter	6322
• 125.39 PDFKit.SetIgnoreCombineErrors	6324
• 125.40 PDFKit.SetPDFAttribute	6325
• 125.41 PDFKit.SetPDFPageDisplayAnnotation	6328
• 125.42 PDFKit.SetPDFPageRotation	6330
• 125.43 PDFKit.SetPrintOption	6332

- 125.44 PDFKit.SetPrintSetting 6334
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341
- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.49 PDFKit.isEncrypted 6347
- 125.50 PDFKit.isLocked 6349
- 126.1 PHP.Execute 6355
- 126.2 PHP.ExistsVariable 6357
- 126.3 PHP.GetResultContainer 6358
- 126.4 PHP.GetResultString 6359
- 126.5 PHP.GetVariable 6360
- 126.6 PHP.Init 6361
- 126.7 PHP.IsInitialized 6363
- 126.8 PHP.Load 6364
- 126.9 PHP.Run 6365
- 126.10 PHP.SetVariable 6366
- 126.11 PHP.ShutDown 6367
- 49.1 PKCS12.CA 1379
- 49.2 PKCS12.CACount 1381
- 49.3 PKCS12.Cert 1382
- 49.4 PKCS12.PKey 1383
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388
- 49.8 PKCS12.ShowDialog 1389
- 49.9 PKCS7.ReadFromContainer 1390
- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392

	347
• 49.12 PKCS7.SignedDataCert	1393
• 49.13 PKCS7.SignedDataCertCount	1394
• 49.14 PKCS7.SignedDataContent	1395
• 49.15 PKey.Bits	1396
• 49.16 PKey.DescriptionPrivateKey	1397
• 49.17 PKey.DescriptionPublicKey	1398
• 49.18 PKey.GetPrivateKey	1399
• 49.19 PKey.GetPublicKey	1400
• 49.20 PKey.Release	1401
• 49.21 PKey.Type	1402
• 130.1 PageSetupDialog.ClearOption	6493
• 130.2 PageSetupDialog.ClearOptions	6494
• 130.3 PageSetupDialog.Disable	6495
• 130.4 PageSetupDialog.Enable	6496
• 130.5 PageSetupDialog.GetLastSettings	6498
• 130.6 PageSetupDialog.GetNoDialog	6499
• 130.7 PageSetupDialog.GetOption	6500
• 130.8 PageSetupDialog.GetPaperName	6501
• 130.9 PageSetupDialog.GetPaperOrientation	6502
• 130.10 PageSetupDialog.GetPrinterName	6503
• 130.11 PageSetupDialog.GetScalingFactor	6504
• 130.12 PageSetupDialog.Install	6505
• 130.13 PageSetupDialog.SetNoDialog	6507
• 130.14 PageSetupDialog.SetOption	6508
• 130.15 PageSetupDialog.SetPaperName	6509
• 130.16 PageSetupDialog.SetPaperOrientation	6510
• 130.17 PageSetupDialog.SetPrinterName	6511
• 130.18 PageSetupDialog.SetScalingFactor	6512
• 124.1 Path.AddPathComponent	6243

- 124.2 Path.FileMakerPathToNativePath 6247
- 124.3 Path.FilePathToFileURL 6249
- 124.4 Path.FileURLToFilePath 6251
- 124.5 Path.LastPathComponent 6252
- 124.6 Path.LongPath 6254
- 124.7 Path.NativePathToFileMakerPath 6255
- 124.8 Path.RemoveLastPathComponent 6257
- 124.9 Path.ShortPath 6259
- 127.17 Platform 6389
- 127.18 Plugin.BuildNumber 6391
- 127.19 Plugin.CallCounter 6392
- 127.20 Plugin.CallErrorScriptTrigger 6393
- 127.21 Plugin.CompileDate 6394
- 127.22 Plugin.DisableFunction 6395
- 127.23 Plugin.FunctionCount 6396
- 127.24 Plugin.Functions 6397
- 127.25 Plugin.GetSuccessReturn 6398
- 127.26 Plugin.InstallSignalHandlers 6399
- 127.27 Plugin.IsPrerelease 6400
- 127.28 Plugin.JasperVersion 6401
- 127.29 Plugin.LibSSHVersion 6402
- 127.30 Plugin.LicenseeName 6403
- 127.31 Plugin.LimitFunction 6405
- 127.32 Plugin.LockFunction 6407
- 127.33 Plugin.OpenSSLVersion 6408
- 127.34 Plugin.PNGVersion 6409
- 127.35 Plugin.Path 6410
- 127.36 Plugin.ScriptStepParameter 6412
- 127.37 Plugin.ScriptStepParameterCount 6413



	349
• 127.38 Plugin.Seats	6414
• 127.39 Plugin.SetErrorScriptTrigger	6415
• 127.40 Plugin.SetFunctions	6417
• 127.41 Plugin.SetPreviewSize	6419
• 127.42 Plugin.SetSuccessReturn	6420
• 127.43 Plugin.StartTimeStamp	6421
• 127.44 Plugin.TiffVersion	6422
• 127.45 Plugin.UnlockFunction	6423
• 127.46 Plugin.UsedFunctions	6424
• 127.47 Plugin.ZLibVersion	6425
• 127.48 Plugin.isDebug	6426
• 128.1 PortMidi.Abort	6449
• 128.2 PortMidi.CheckHostError	6450
• 128.3 PortMidi.ClearDataAvailableHandler	6451
• 128.4 PortMidi.Close	6452
• 128.5 PortMidi.CurrentEvent	6453
• 128.6 PortMidi.DeviceCount	6454
• 128.7 PortMidi.GetChannelMask	6455
• 128.8 PortMidi.GetDefaultInputDeviceID	6456
• 128.9 PortMidi.GetDefaultOutputDeviceID	6457
• 128.10 PortMidi.GetDeviceID	6458
• 128.11 PortMidi.GetDeviceInfo	6459
• 128.12 PortMidi.GetDeviceName	6461
• 128.13 PortMidi.GetFilter	6462
• 128.14 PortMidi.OpenInput	6463
• 128.15 PortMidi.OpenOutput	6464
• 128.16 PortMidi.Poll	6466
• 128.17 PortMidi.ReadMessage	6467
• 128.18 PortMidi.Rescan	6468

- 128.19 PortMidi.SendMessage 6469
- 128.20 PortMidi.SendMessageRaw 6471
- 128.21 PortMidi.SendSysExHex 6472
- 128.22 PortMidi.SetChannelMask 6473
- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 128.24 PortMidi.SetDataAvailableHandler 6476
- 128.25 PortMidi.SetFilter 6478
- 128.26 PortMidi.TimeStamp 6480
- 129.1 Preferences.ClearRecentFiles 6481
- 129.2 Preferences.DeleteValue 6482
- 129.3 Preferences.GetTextSelectionWithDragAndDrop 6483
- 129.4 Preferences.GetValue 6484
- 129.5 Preferences.GetValueType 6487
- 129.6 Preferences.HasValue 6488
- 129.7 Preferences.SetTextSelectionWithDragAndDrop 6489
- 129.8 Preferences.SetValue 6490
- 130.19 PrintDialog.ClearOption 6513
- 130.20 PrintDialog.ClearOptions 6514
- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.23 PrintDialog.GetAllPages 6518
- 130.24 PrintDialog.GetConfiguration 6519
- 130.25 PrintDialog.GetCopies 6520
- 130.26 PrintDialog.GetDestinationPath 6521
- 130.27 PrintDialog.GetDuplex 6522
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.30 PrintDialog.GetLastSettings 6525
- 130.31 PrintDialog.GetNoDialog 6527

	351
• 130.32 PrintDialog.GetOption	6528
• 130.33 PrintDialog.GetPageNumberingOffset	6529
• 130.34 PrintDialog.GetPaperName	6530
• 130.35 PrintDialog.GetPrintToPDF	6531
• 130.36 PrintDialog.GetPrinterName	6532
• 130.37 PrintDialog.GetReset	6533
• 130.38 PrintDialog.GetResetDestination	6534
• 130.39 PrintDialog.GetTray	6535
• 130.40 PrintDialog.Install	6536
• 130.41 PrintDialog.SetAllPages	6538
• 130.42 PrintDialog.SetConfiguration	6539
• 130.43 PrintDialog.SetCopies	6540
• 130.44 PrintDialog.SetDestinationPath	6542
• 130.45 PrintDialog.SetDuplex	6543
• 130.46 PrintDialog.SetFirstPage	6544
• 130.47 PrintDialog.SetLastPage	6545
• 130.48 PrintDialog.SetNoDialog	6546
• 130.49 PrintDialog.SetOption	6548
• 130.50 PrintDialog.SetPageNumberingOffset	6550
• 130.51 PrintDialog.SetPaperName	6551
• 130.52 PrintDialog.SetPrintToPDF	6552
• 130.53 PrintDialog.SetPrintType	6553
• 130.54 PrintDialog.SetPrinterName	6555
• 130.55 PrintDialog.SetReset	6556
• 130.56 PrintDialog.SetResetDestination	6557
• 130.57 PrintDialog.SetTray	6558
• 131.7 Printer.GetDefaultPrinter	6569
• 131.11 Printer.PrinterCount	6577
• 131.12 Printer.PrinterInfo	6578

- 131.13 Printer.PrinterName 6580
- 132.1 Process.FrontProcessBundleID 6587
- 132.2 Process.FrontProcessName 6588
- 132.3 Process.FrontWindowTitle 6589
- 132.4 Process.GetCurrentDirectory 6590
- 132.5 Process.IsFrontMost 6591
- 132.6 Process.IsRunning 6592
- 132.7 Process.KeepFrontMost 6593
- 132.8 Process.LoadLibrary 6594
- 132.9 Process.SetCurrentDirectory 6595
- 132.10 Process.SetFrontMost 6596
- 132.11 ProcessActivity.List 6597
- 132.12 ProcessActivity.Options 6598
- 132.13 ProcessActivity.Reason 6599
- 132.14 ProcessActivity.beginActivity 6600
- 132.15 ProcessActivity.endActivity 6602
- 133.1 ProgressDialog.ClearImage 6603
- 133.2 ProgressDialog.GetBottomText 6605
- 133.3 ProgressDialog.GetButtonCaption 6606
- 133.4 ProgressDialog.GetCancel 6607
- 133.5 ProgressDialog.GetImageHeight 6609
- 133.6 ProgressDialog.GetImageWidth 6610
- 133.7 ProgressDialog.GetPositionX 6611
- 133.8 ProgressDialog.GetPositionY 6612
- 133.9 ProgressDialog.GetProgress 6613
- 133.10 ProgressDialog.GetShowButton 6614
- 133.11 ProgressDialog.GetTitle 6615
- 133.12 ProgressDialog.GetTopMost 6616
- 133.13 ProgressDialog.GetTopText 6617

	353
• 133.14 ProgressDialog.Hide	6618
• 133.15 ProgressDialog.Reset	6620
• 133.16 ProgressDialog.SetBottomText	6621
• 133.17 ProgressDialog.SetButtonCaption	6623
• 133.18 ProgressDialog.SetCancel	6625
• 133.19 ProgressDialog.SetFont	6627
• 133.20 ProgressDialog.SetImage	6629
• 133.21 ProgressDialog.SetImageHeight	6631
• 133.22 ProgressDialog.SetImageWidth	6632
• 133.23 ProgressDialog.SetPosition	6633
• 133.24 ProgressDialog.SetPositionCentered	6634
• 133.25 ProgressDialog.SetProgress	6635
• 133.26 ProgressDialog.SetShowButton	6637
• 133.27 ProgressDialog.SetTitle	6639
• 133.29 ProgressDialog.SetTopMost	6643
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647
• 133.32 ProgressDialog.Update	6649
• 133.33 Progressdialog.GetEvaluate	6651
• 133.34 Progressdialog.GetFileName	6652
• 133.35 Progressdialog.GetScriptName	6653
• 133.36 Progressdialog.SetEvaluate	6654
• 133.37 Progressdialog.SetScript	6655
• 134.1 Proj.BatchTransform	6657
• 134.2 Proj.Initialize	6659
• 134.3 Proj.IsInitialized	6660
• 134.4 Proj.Transform	6661
• 137.5 QLPreviewPanel.AddContainer	6736
• 137.6 QLPreviewPanel.AddFile	6738

- 137.7 QLPreviewPanel.AddImage 6739
- 137.8 QLPreviewPanel.AddPDF 6740
- 137.9 QLPreviewPanel.Clear 6741
- 137.10 QLPreviewPanel.CurrentPreviewItemIndex 6742
- 137.11 QLPreviewPanel.CurrentPreviewItemPath 6743
- 137.12 QLPreviewPanel.CurrentPreviewItemTitle 6744
- 137.13 QLPreviewPanel.GetHeight 6745
- 137.14 QLPreviewPanel.GetLeft 6746
- 137.15 QLPreviewPanel.GetTop 6747
- 137.16 QLPreviewPanel.GetWidth 6748
- 137.17 QLPreviewPanel.Hide 6749
- 137.18 QLPreviewPanel.IsVisible 6750
- 137.19 QLPreviewPanel.Move 6751
- 137.20 QLPreviewPanel.Resize 6752
- 137.21 QLPreviewPanel.SetCurrentPreviewItemIndex 6754
- 137.22 QLPreviewPanel.Show 6755
- 125.51 QuartzFilterManager.Filters 6351
- 125.52 QuartzFilterManager.HidePanel 6352
- 125.53 QuartzFilterManager.ShowPanel 6353
- 105.43 QuickList.AddList 5555
- 105.44 QuickList.AddMultiValue 5557
- 105.45 QuickList.AddPostfix 5559
- 105.46 QuickList.AddPrefix 5561
- 105.47 QuickList.AddQuickList 5563
- 105.48 QuickList.AddSQL 5564
- 105.49 QuickList.AddValue 5566
- 105.50 QuickList.And 5568
- 105.51 QuickList.AndColumn 5570
- 105.52 QuickList.BestMatch 5572

	355
• 105.53 QuickList.CSVSplit	5573
• 105.54 QuickList.Clear	5574
• 105.55 QuickList.Clone	5575
• 105.56 QuickList.Count	5576
• 105.57 QuickList.CountValuesMatching	5578
• 105.58 QuickList.CrossProduct	5579
• 105.59 QuickList.DeCombine	5581
• 105.60 QuickList.Deserialize	5583
• 105.61 QuickList.FindEquals	5584
• 105.62 QuickList.FindUnequals	5585
• 105.63 QuickList.Free	5586
• 105.64 QuickList.GetList	5588
• 105.65 QuickList.GetValue	5590
• 105.66 QuickList.HasDuplicateItems	5592
• 105.67 QuickList.HasValue	5593
• 105.68 QuickList.IndexOfFirstValueMatching	5595
• 105.69 QuickList.InsertValue	5596
• 105.70 QuickList.List	5597
• 105.71 QuickList.MatchesPostfix	5598
• 105.72 QuickList.MatchesPrefix	5600
• 105.73 QuickList.MatchesSubString	5602
• 105.74 QuickList.New	5604
• 105.75 QuickList.Not	5606
• 105.76 QuickList.NotColumn	5608
• 105.77 QuickList.Or	5610
• 105.78 QuickList.OrColumn	5612
• 105.79 QuickList.Pop	5614
• 105.80 QuickList.PopFirst	5615
• 105.81 QuickList.Push	5616

- 105.82 QuickList.RegExMatch 5617
- 105.83 QuickList.Remove 5618
- 105.84 QuickList.RemoveDuplicateItems 5619
- 105.85 QuickList.RemoveEmptyItems 5620
- 105.86 QuickList.RemovePostfix 5621
- 105.87 QuickList.RemovePrefix 5623
- 105.88 QuickList.RemoveValue 5625
- 105.89 QuickList.Reserve 5626
- 105.90 QuickList.Reverse 5627
- 105.91 QuickList.Serialize 5628
- 105.92 QuickList.SetList 5630
- 105.93 QuickList.SetValue 5631
- 105.94 QuickList.Sort 5633
- 105.95 QuickList.SortWith 5635
- 105.96 QuickList.SortWithEvaluate 5638
- 105.97 QuickList.SubList 5639
- 105.98 QuickList.Trim 5641
- 105.99 QuickList.ValueIndex 5642
- 105.100 QuickList.XOr 5643
- 105.101 QuickList.XOrColumn 5644
- 74.12 RSA.DecryptPrivateKey 3523
- 74.13 RSA.EncryptPrivateKey 3525
- 152.15 RSA.GeneratePrivateKey 7191
- 152.16 RSA.GetPublicKey 7193
- 74.14 RSA.PrivateDecrypt 3527
- 74.15 RSA.PrivateEncrypt 3530
- 74.16 RSA.PublicDecrypt 3533
- 74.17 RSA.PublicEncrypt 3536
- 152.17 RSA.Sign 7195



	357
• 152.18 RSA.Verify	7200
• 138.1 RegEx.CaptureCount	6757
• 138.2 RegEx.Compile	6759
• 138.3 RegEx.Execute	6762
• 138.4 RegEx.FindMatches	6765
• 138.5 RegEx.Free	6768
• 138.6 RegEx.List	6769
• 138.7 RegEx.Match	6770
• 138.8 RegEx.MatchList	6772
• 138.9 RegEx.MinimumLength	6774
• 138.10 RegEx.NameCount	6775
• 138.11 RegEx.NamedSubstring	6776
• 138.12 RegEx.Options	6777
• 138.13 RegEx.Pattern	6778
• 138.14 RegEx.Quote	6779
• 138.15 RegEx.Replace	6780
• 138.16 RegEx.ReplaceAll	6782
• 138.17 RegEx.Results	6784
• 138.18 RegEx.Size	6786
• 138.19 RegEx.StringNumber	6787
• 138.20 RegEx.Study	6788
• 138.21 RegEx.Substring	6789
• 138.22 RegEx.SubstringList	6791
• 138.23 RegEx.Version	6792
• 127.49 Register	6428
• 127.50 Registration	6431
• 140.1 RemoteControl.ClickMouse	6807
• 140.4 RemoteControl.HideCursor	6811
• 140.5 RemoteControl.MouseX	6812

- 140.6 RemoteControl.MouseY 6813
- 140.7 RemoteControl.MoveMouse 6814
- 140.8 RemoteControl.PressCommandKey 6815
- 140.9 RemoteControl.PressControlKey 6816
- 140.10 RemoteControl.PressDialogButton 6817
- 140.11 RemoteControl.PressDialogButton.Clear 6818
- 140.12 RemoteControl.PressKey 6819
- 140.13 RemoteControl.PressKeyLater 6822
- 140.14 RemoteControl.PressOptionKey 6823
- 140.15 RemoteControl.PressShiftKey 6824
- 140.16 RemoteControl.ShowCursor 6825
- 141.1 RichText.AppendFormattedText 6827
- 141.2 RichText.AppendText 6828
- 141.3 RichText.Attribute 6829
- 141.4 RichText.Clear 6830
- 141.5 RichText.FormattedText 6831
- 141.6 RichText.GeneratePDF 6833
- 141.7 RichText.HTMLText 6834
- 141.8 RichText.RTF 6835
- 141.9 RichText.ReadContainer 6836
- 141.10 RichText.ReadFile 6838
- 141.11 RichText.ReadHTML 6840
- 141.12 RichText.ReadRTF 6842
- 141.13 RichText.ReadText 6843
- 141.14 RichText.ReadURL 6845
- 141.15 RichText.ReadWebviewer 6846
- 141.16 RichText.Release 6847
- 141.17 RichText.ReplaceText 6848
- 141.18 RichText.ReplaceTexts 6850

	359
• 141.19 RichText.SetAttribute	6851
• 141.20 RichText.SetFormattedText	6852
• 141.21 RichText.SetText	6854
• 141.22 RichText.Text	6855
• 141.23 RichText.TextLength	6856
• 141.24 RichText.WriteContainer	6857
• 141.25 RichText.WriteDOC	6859
• 141.26 RichText.WriteFile	6861
• 141.27 RichText.WritePDF	6864
• 141.28 RichText.WriteRTF	6866
• 142.1 RunTask.AddArgument	6869
• 142.2 RunTask.GetArgument	6871
• 142.3 RunTask.GetArgumentCount	6872
• 142.4 RunTask.GetCurrentDirectoryPath	6873
• 142.5 RunTask.GetLaunchPath	6874
• 142.7 RunTask.IsRunning	6876
• 142.8 RunTask.Launch	6877
• 142.9 RunTask.NewTask	6880
• 142.10 RunTask.ProcessIdentifier	6882
• 142.11 RunTask.ReadErrorText	6883
• 142.12 RunTask.ReadOutputText	6884
• 142.13 RunTask.SetArguments	6885
• 142.14 RunTask.SetCurrentDirectoryPath	6888
• 142.15 RunTask.SetLaunchPath	6889
• 142.17 RunTask.Terminate	6892
• 142.18 RunTask.TerminationReason	6893
• 142.19 RunTask.TerminationStatus	6894
• 142.20 RunTask.Wait	6895
• 142.21 RunTask.WriteInputText	6897

- 154.1 SNMP.Get 7239
- 154.2 SNMP.SetRetries 7241
- 154.3 SNMP.SetTimeout 7242
- 159.2 SQL.Cancel 7411
- 159.3 SQL.ClientVersion 7412
- 159.4 SQL.Close 7413
- 159.5 SQL.CommandText 7414
- 159.6 SQL.CommandType 7415
- 159.7 SQL.Commit 7416
- 159.8 SQL.Connect 7418
- 159.9 SQL.Disconnect 7424
- 159.10 SQL.Execute 7425
- 159.11 SQL.FetchFirst 7429
- 159.12 SQL.FetchLast 7430
- 159.13 SQL.FetchNext 7432
- 159.14 SQL.FetchPos 7435
- 159.15 SQL.FetchPrior 7436
- 159.16 SQL.FieldCount 7437
- 159.17 SQL.FreeAllConnections 7439
- 159.18 SQL.FreeCommand 7440
- 159.19 SQL.FreeConnection 7442
- 159.20 SQL.GetAutoCommit 7444
- 159.21 SQL.GetCommandOption 7445
- 159.22 SQL.GetCommandOptions 7446
- 159.23 SQL.GetCommandTag 7447
- 159.24 SQL.GetConnectionOption 7448
- 159.25 SQL.GetConnectionOptions 7449
- 159.26 SQL.GetConnectionTag 7450
- 159.27 SQL.GetFieldAsBoolean 7451

	361
• 159.28 SQL.GetFieldAsContainer	7452
• 159.29 SQL.GetFieldAsDate	7453
• 159.30 SQL.GetFieldAsDateTime	7455
• 159.31 SQL.GetFieldAsFloat	7456
• 159.32 SQL.GetFieldAsJPEG	7458
• 159.33 SQL.GetFieldAsNumber	7460
• 159.34 SQL.GetFieldAsPDF	7462
• 159.35 SQL.GetFieldAsPNG	7464
• 159.36 SQL.GetFieldAsText	7466
• 159.37 SQL.GetFieldAsTime	7468
• 159.38 SQL.GetFieldDataType	7469
• 159.39 SQL.GetFieldIsNull	7470
• 159.40 SQL.GetFieldName	7471
• 159.41 SQL.GetFieldNameList	7473
• 159.42 SQL.GetFieldOption	7475
• 159.43 SQL.GetFieldOptions	7476
• 159.44 SQL.GetFieldValue	7477
• 159.45 SQL.GetFieldValueList	7478
• 159.46 SQL.GetFieldsAsJSON	7480
• 159.47 SQL.GetIsolationLevel	7482
• 159.48 SQL.GetParamAsBoolean	7483
• 159.49 SQL.GetParamAsContainer	7484
• 159.50 SQL.GetParamAsDate	7485
• 159.51 SQL.GetParamAsDateTime	7486
• 159.52 SQL.GetParamAsFloat	7487
• 159.53 SQL.GetParamAsJPEG	7489
• 159.54 SQL.GetParamAsNumber	7491
• 159.55 SQL.GetParamAsPDF	7493
• 159.56 SQL.GetParamAsPNG	7495

- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.59 SQL.GetParamDataType 7499
- 159.60 SQL.GetParamIsDefault 7500
- 159.61 SQL.GetParamIsNull 7501
- 159.62 SQL.GetParamName 7502
- 159.63 SQL.GetParamNameList 7503
- 159.64 SQL.GetParamOption 7505
- 159.65 SQL.GetParamOptions 7506
- 159.66 SQL.GetParamValue 7507
- 159.67 SQL.GetParamValueList 7508
- 159.68 SQL.GetParamsAsJSON 7510
- 159.69 SQL.GetRecordsAsJSON 7512
- 159.70 SQL.GetRecordsAsText 7514
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519
- 159.73 SQL.InternalSQLiteLibrary.Activate 7521
- 159.74 SQL.InternalSQLiteLibrary.Activated 7522
- 159.75 SQL.InternalSQLiteLibrary.Deactivate 7523
- 159.76 SQL.InternalSQLiteLibrary.SourceID 7524
- 159.77 SQL.InternalSQLiteLibrary.Version 7525
- 159.78 SQL.InternalSQLiteLibrary.VersionNumber 7526
- 159.79 SQL.ListCommands 7527
- 159.80 SQL.ListConnections 7528
- 159.81 SQL.MySQL.InsertID 7529
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534
- 159.84 SQL.Open 7537
- 159.85 SQL.ParamCount 7538

	363
• 159.86 SQL.Prepare	7539
• 159.87 SQL.ResetCommand	7540
• 159.88 SQL.ResetConnection	7541
• 159.89 SQL.Rollback	7542
• 159.90 SQL.RowsAffected	7543
• 159.91 SQL.SQLite3.EnableLoadExtension	7545
• 159.92 SQL.SQLite3.LastInsertRowID	7546
• 159.93 SQL.SQLite3.MemoryHighwater	7547
• 159.94 SQL.SQLite3.MemoryUsed	7548
• 159.95 SQL.SQLite3.ReKey	7549
• 159.96 SQL.SQLite3.SetKey	7551
• 159.97 SQL.ServerVersion	7553
• 159.98 SQL.ServerVersionString	7554
• 159.99 SQL.SetAutoCommit	7555
• 159.100 SQL.SetClient	7556
• 159.101 SQL.SetCommandOption	7558
• 159.102 SQL.SetCommandTag	7560
• 159.103 SQL.SetCommandText	7561
• 159.104 SQL.SetConnectionOption	7563
• 159.105 SQL.SetConnectionTag	7568
• 159.106 SQL.SetFieldOption	7569
• 159.107 SQL.SetIsolationLevel	7570
• 159.108 SQL.SetParamAsBoolean	7571
• 159.109 SQL.SetParamAsContainer	7572
• 159.110 SQL.SetParamAsDate	7574
• 159.111 SQL.SetParamAsDateTime	7576
• 159.112 SQL.SetParamAsFloat	7578
• 159.113 SQL.SetParamAsNumber	7580
• 159.114 SQL.SetParamAsText	7582

- 159.115 SQL.SetParamAsTime 7584
- 159.116 SQL.SetParamDataType 7585
- 159.117 SQL.SetParamDefault 7586
- 159.118 SQL.SetParamNull 7587
- 159.119 SQL.SetParamOption 7588
- 159.120 SQL.SetParamTypesValues 7589
- 159.121 SQL.SetParamUnknown 7591
- 159.122 SQL.SetParamValue 7592
- 159.123 SQL.SetParamValues 7594
- 159.124 SQL.SetParamsWithJSON 7596
- 159.125 SQL.isAlive 7598
- 159.126 SQL.isConnected 7599
- 159.127 SQL.isExecuted 7600
- 159.128 SQL.isOpened 7601
- 159.129 SQL.isResultSet 7602
- 160.1 SSH.CloseChannel 7603
- 160.2 SSH.Connect 7605
- 160.3 SSH.Disconnect 7609
- 160.4 SSH.EOF 7610
- 160.5 SSH.Execute 7611
- 160.6 SSH.Flush 7614
- 160.7 SSH.FreeChannel 7615
- 160.8 SSH.GetExitState 7616
- 160.9 SSH.GetIP 7617
- 160.10 SSH.GetPort 7618
- 160.11 SSH.GetTag 7619
- 160.12 SSH.GetTimeout 7620
- 160.13 SSH.GetUserName 7621
- 160.14 SSH.HostKey 7622



	365
• 160.15 SSH.HostKeyHash	7623
• 160.16 SSH.IsAuthenticated	7624
• 160.17 SSH.New	7625
• 160.18 SSH.OpenSession	7628
• 160.19 SSH.ReadHex	7629
• 160.20 SSH.ReadText	7630
• 160.21 SSH.Release	7632
• 160.22 SSH.RequestPTY	7633
• 160.23 SSH.SendEOF	7634
• 160.24 SSH.SessionHandshake	7635
• 160.25 SSH.SetEnv	7636
• 160.26 SSH.SetTag	7637
• 160.27 SSH.SetTimeout	7638
• 160.28 SSH.Shell	7639
• 160.29 SSH.Tunnel.BytesReceived	7640
• 160.30 SSH.Tunnel.BytesSent	7641
• 160.31 SSH.Tunnel.Cancel	7642
• 160.32 SSH.Tunnel.Cancelled	7643
• 160.33 SSH.Tunnel.GetKeepAlive	7644
• 160.34 SSH.Tunnel.Messages	7645
• 160.35 SSH.Tunnel.Run	7646
• 160.36 SSH.Tunnel.Running	7648
• 160.37 SSH.Tunnel.SetKeepAlive	7649
• 160.38 SSH.UserAuthKeyboardInteractive	7650
• 160.39 SSH.UserAuthList	7651
• 160.40 SSH.UserAuthPassword	7652
• 160.41 SSH.UserAuthPublicKey	7653
• 160.42 SSH.UserAuthPublicKeyFile	7655
• 160.43 SSH.WaitClosed	7657

- 160.44 SSH.WaitEOF 7658
- 160.45 SSH.WaitSocket 7659
- 160.46 SSH.WriteHex 7660
- 160.47 SSH.WriteText 7661
- 143.1 Schedule.Check 6899
- 143.2 Schedule.ClearEvaluateResult 6900
- 143.3 Schedule.ClearSQLResult 6901
- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.5 Schedule.EvaluateAtTime 6904
- 143.6 Schedule.EvaluateAtTimeStamp 6906
- 143.7 Schedule.EvaluateOnIdle 6908
- 143.8 Schedule.ExecuteSQLAfterDelay 6909
- 143.9 Schedule.ExecuteSQLAtTime 6911
- 143.10 Schedule.ExecuteSQLAtTimeStamp 6913
- 143.11 Schedule.ExecuteSQLOnIdle 6915
- 143.12 Schedule.GetAutoRelease 6917
- 143.13 Schedule.GetEvaluate 6918
- 143.14 Schedule.GetEvaluateResult 6919
- 143.15 Schedule.GetFileName 6920
- 143.16 Schedule.GetLastTimeStamp 6921
- 143.17 Schedule.GetRepeatDelay 6922
- 143.18 Schedule.GetRunCount 6923
- 143.19 Schedule.GetSQL 6924
- 143.20 Schedule.GetSQLResult 6925
- 143.21 Schedule.GetScriptName 6926
- 143.22 Schedule.GetScriptParameter 6927
- 143.23 Schedule.GetTimeStamp 6928
- 143.24 Schedule.GetURL 6929
- 143.25 Schedule.List 6930

	367
• 143.26 Schedule.Release	6931
• 143.27 Schedule.ReleaseAll	6933
• 143.28 Schedule.SetAutoRelease	6934
• 143.29 Schedule.SetEvaluate	6935
• 143.30 Schedule.SetFileName	6936
• 143.31 Schedule.SetRepeatDelay	6937
• 143.32 Schedule.SetSQL	6938
• 143.33 Schedule.SetScriptName	6939
• 143.34 Schedule.SetScriptParameter	6940
• 143.35 Schedule.SetTimeStamp	6941
• 143.36 Schedule.SetURL	6942
• 143.37 Schedule.StartScriptAfterDelay	6943
• 143.38 Schedule.StartScriptAtTime	6945
• 143.39 Schedule.StartScriptAtTimeStamp	6947
• 143.40 Schedule.StartScriptOnIdle	6949
• 144.1 Screen.Count	6951
• 144.2 Screen.DockHeight	6952
• 144.3 Screen.DockWidth	6953
• 144.4 Screen.Height	6954
• 144.5 Screen.Left	6955
• 144.6 Screen.Scale	6956
• 144.7 Screen.Top	6957
• 144.8 Screen.Width	6958
• 144.9 Screenshot	6959
• 144.10 ScreenshotRect	6961
• 145.1 ScriptWorkspace.BringToFront	6963
• 145.2 ScriptWorkspace.CopyScriptText	6964
• 145.3 ScriptWorkspace.CurrentTab	6965
• 145.4 ScriptWorkspace.ExpandScriptFolders	6966

- 145.5 ScriptWorkspace.GetScriptListSearch 6967
- 145.6 ScriptWorkspace.IsActive 6968
- 145.7 ScriptWorkspace.IsVisible 6969
- 145.8 ScriptWorkspace.LineCount 6970
- 145.9 ScriptWorkspace.OpenScript 6971
- 145.10 ScriptWorkspace.ScriptNames 6972
- 145.11 ScriptWorkspace.ScriptText 6973
- 145.12 ScriptWorkspace.ScriptsVisible 6974
- 145.13 ScriptWorkspace.ScrollToLine 6975
- 145.14 ScriptWorkspace.ScrollToSelection 6976
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.16 ScriptWorkspace.SelectLines 6978
- 145.17 ScriptWorkspace.SelectedLine 6979
- 145.18 ScriptWorkspace.SelectedLines 6980
- 145.19 ScriptWorkspace.SetScriptListSearch 6981
- 145.20 ScriptWorkspace.StepsVisible 6982
- 145.21 ScriptWorkspace.StyledScriptText 6983
- 145.22 ScriptWorkspace.Tabs 6984
- 145.23 ScriptWorkspace.Title 6985
- 145.24 ScriptWorkspace.TriggerScripts 6986
- 145.25 ScriptWorkspace.TriggerSteps 6987
- 145.26 ScriptWorkspace.Window 6988
- 178.11 SendCommand 8370
- 146.1 SendMail.AddAttachmentContainer 6989
- 146.2 SendMail.AddAttachmentFile 6992
- 146.3 SendMail.AddAttachmentText 6995
- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.6 SendMail.AddHeader 7001

	369
• 146.7 SendMail.AddRecipient	7003
• 146.8 SendMail.AddReplyTo	7005
• 146.9 SendMail.AddTo	7006
• 146.10 SendMail.AttachmentCount	7008
• 146.11 SendMail.ClearAttachments	7009
• 146.12 SendMail.ClearHeaders	7010
• 146.13 SendMail.ClearRecipients	7011
• 146.14 SendMail.CreateEmail	7012
• 146.15 SendMail.GetHTMLText	7014
• 146.16 SendMail.GetInReplyTo	7015
• 146.17 SendMail.GetMessageID	7016
• 146.18 SendMail.GetPlainText	7017
• 146.19 SendMail.GetRichText	7018
• 146.20 SendMail.GetSMTPPassword	7019
• 146.21 SendMail.GetSMTPServer	7020
• 146.22 SendMail.GetSMTPUserName	7021
• 146.23 SendMail.GetSource	7022
• 146.24 SendMail.GetSubject	7023
• 146.25 SendMail.PrepareCURL	7024
• 146.26 SendMail.Release	7026
• 146.27 SendMail.SetFrom	7027
• 146.28 SendMail.SetHTMLText	7029
• 146.29 SendMail.SetInReplyTo	7031
• 146.30 SendMail.SetMessageID	7032
• 146.31 SendMail.SetPlainText	7033
• 146.32 SendMail.SetRichText	7035
• 146.33 SendMail.SetSMTPPassword	7037
• 146.34 SendMail.SetSMTPServer	7039
• 146.35 SendMail.SetSMTPUserName	7041

- 146.36 SendMail.SetSubject 7043
- 147.1 SerialPort.AvailableBytes 7045
- 147.2 SerialPort.Clear 7047
- 147.3 SerialPort.ClearDataAvailableHandler 7048
- 147.4 SerialPort.Close 7049
- 147.5 SerialPort.CloseAll 7050
- 147.6 SerialPort.GetBaudRate 7051
- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.9 SerialPort.GetDTR 7054
- 147.10 SerialPort.GetDataBits 7055
- 147.11 SerialPort.GetParity 7056
- 147.12 SerialPort.GetRTS 7057
- 147.13 SerialPort.GetStopBits 7058
- 147.14 SerialPort.GetXON 7059
- 147.15 SerialPort.HasLine 7060
- 147.16 SerialPort.IsSuspended 7061
- 147.17 SerialPort.LastError 7062
- 147.18 SerialPort.List 7063
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.21 SerialPort.ReadByte 7073
- 147.22 SerialPort.ReadHex 7074
- 147.23 SerialPort.ReadLine 7075
- 147.24 SerialPort.Resume 7076
- 147.25 SerialPort.SetBaudRate 7077
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080

	371
• 147.29 SerialPort.SetDataAvailableEvaluate	7081
• 147.30 SerialPort.SetDataAvailableHandler	7082
• 147.31 SerialPort.SetDataBits	7084
• 147.32 SerialPort.SetParity	7085
• 147.33 SerialPort.SetRTS	7086
• 147.34 SerialPort.SetStopBits	7087
• 147.35 SerialPort.SetXON	7088
• 147.36 SerialPort.Suspend	7090
• 147.37 SerialPort.Write	7091
• 147.38 SerialPort.WriteByte	7093
• 147.39 SerialPort.WriteHex	7094
• 148.1 ServerSocket.Check	7097
• 148.2 ServerSocket.GetAllowedScripts	7098
• 148.3 ServerSocket.GetAllowedTypes	7099
• 148.4 ServerSocket.SendQuery	7100
• 148.5 ServerSocket.SetAllowedScripts	7102
• 148.6 ServerSocket.SetAllowedTypes	7103
• 148.7 ServerSocket.Start	7104
• 148.8 ServerSocket.Stop	7106
• 149.1 ServiceProvider.Install	7107
• 149.2 ServiceProvider.Uninstall	7109
• 149.3 ServiceProvider.Value	7110
• 165.3 SetSystemUIMode	7849
• 150.1 SharedMemory.Exists	7111
• 150.2 SharedMemory.GetValue	7112
• 150.3 SharedMemory.SetValue	7113
• 151.1 Shell.AddArgument	7115
• 151.2 Shell.AddEnvironment	7118
• 151.3 Shell.AvailableBytesError	7119

- 151.4 Shell.AvailableBytesOutput 7120
- 151.5 Shell.ClearArguments 7121
- 151.6 Shell.ClearEnvironment 7122
- 151.7 Shell.CloseInput 7123
- 151.8 Shell.CloseStreams 7124
- 151.9 Shell.Execute 7125
- 151.10 Shell.ExitCode 7133
- 151.11 Shell.GetApplicationName 7134
- 151.12 Shell.GetArgument 7135
- 151.13 Shell.GetArgumentCount 7136
- 151.14 Shell.GetArguments 7137
- 151.15 Shell.GetCompletedEvaluate 7138
- 151.16 Shell.GetCompletedScriptFileName 7139
- 151.17 Shell.GetCompletedScriptName 7140
- 151.18 Shell.GetCurrentDirectory 7141
- 151.19 Shell.GetDataAvailableEvaluate 7142
- 151.20 Shell.GetDataAvailableScriptFileName 7143
- 151.21 Shell.GetDataAvailableScriptName 7144
- 151.22 Shell.GetDomain 7145
- 151.23 Shell.GetEnvironment 7146
- 151.24 Shell.GetPassword 7147
- 151.25 Shell.GetUsername 7148
- 151.26 Shell.IsRunning 7149
- 151.27 Shell.New 7150
- 151.28 Shell.PeekErrorText 7151
- 151.29 Shell.PeekOutputText 7152
- 151.30 Shell.ProcessIdentifier 7153
- 151.31 Shell.ReadErrorText 7154
- 151.32 Shell.ReadOutputText 7155



	373
• 151.33 Shell.Release	7157
• 151.34 Shell.SetApplicationName	7158
• 151.35 Shell.SetArguments	7159
• 151.36 Shell.SetArgumentsList	7160
• 151.37 Shell.SetCompletedEvaluate	7161
• 151.38 Shell.SetCompletedScript	7162
• 151.39 Shell.SetCurrentDirectory	7163
• 151.40 Shell.SetDataAvailableEvaluate	7164
• 151.41 Shell.SetDataAvailableScript	7165
• 151.42 Shell.SetDomain	7166
• 151.43 Shell.SetPassword	7167
• 151.44 Shell.SetUsername	7168
• 151.45 Shell.Terminate	7169
• 151.46 Shell.TerminationReason	7170
• 151.47 Shell.Wait	7171
• 151.48 Shell.WriteInputText	7173
• 178.12 ShowURL	8371
• 153.1 SmartCard.Available	7203
• 153.2 SmartCard.BeginTransaction	7204
• 153.3 SmartCard.Cancel	7205
• 153.4 SmartCard.CancelTransaction	7206
• 153.5 SmartCard.Connect	7207
• 153.6 SmartCard.Control	7209
• 153.7 SmartCard.Disconnect	7210
• 153.8 SmartCard.EndTransaction	7211
• 153.9 SmartCard.GetActiveProtocol	7212
• 153.10 SmartCard.GetAttribute	7213
• 153.11 SmartCard.HeaderTemplate	7215
• 153.12 SmartCard.Init	7216

- 153.13 SmartCard.ListReaderGroups 7219
- 153.14 SmartCard.ListReaders 7220
- 153.15 SmartCard.PerformSignature 7222
- 153.16 SmartCard.ReadCertificate 7223
- 153.17 SmartCard.ReadFile 7224
- 153.18 SmartCard.Reconnect 7227
- 153.19 SmartCard.Release 7228
- 153.20 SmartCard.SetAttribute 7229
- 153.21 SmartCard.SplitValues 7230
- 153.22 SmartCard.Status 7232
- 153.23 SmartCard.Transmit 7233
- 153.24 SmartCard.TransmitReceiveHeader 7236
- 153.25 SmartCard.Valid 7237
- 155.1 Social.AccountProperty 7243
- 155.2 Social.Accounts 7245
- 155.3 Social.HasAccessForAccountType 7247
- 155.4 Social.RequestAccessForAccountType 7248
- 155.5 SocialRequest.AddParameter 7250
- 155.6 SocialRequest.ClearMultipartData 7252
- 155.7 SocialRequest.ClearParameter 7253
- 155.8 SocialRequest.GetAccount 7254
- 155.9 SocialRequest.GetMultiPartDataCount 7255
- 155.10 SocialRequest.GetParameterCount 7256
- 155.11 SocialRequest.GetRequestMethod 7257
- 155.12 SocialRequest.GetResponse 7258
- 155.13 SocialRequest.GetServiceType 7260
- 155.14 SocialRequest.GetURL 7261
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264

	375
• 155.17 SocialRequest.Release	7266
• 155.18 SocialRequest.SetAccount	7267
• 155.19 SocialRequest.SetRequestMethod	7269
• 155.20 SocialRequest.SetServiceType	7270
• 155.21 SocialRequest.SetURL	7271
• 155.22 SocialRequest.addMultipartContainer	7272
• 155.23 SocialRequest.addMultipartText	7273
• 157.1 Socket.AcceptNewConnection	7301
• 157.2 Socket.AddMembership	7303
• 157.3 Socket.AvailableBytes	7304
• 157.4 Socket.Check	7305
• 157.5 Socket.CheckAll	7306
• 157.6 Socket.ClearDataAvailableHandler	7307
• 157.7 Socket.ClearErrorHandler	7308
• 157.8 Socket.ClearNewConnectionHandler	7309
• 157.9 Socket.Close	7310
• 157.10 Socket.CloseAll	7312
• 157.11 Socket.Connect	7313
• 157.12 Socket.DropMembership	7318
• 157.13 Socket.GetBroadcast	7319
• 157.14 Socket.GetMulticastInterface	7320
• 157.15 Socket.GetMulticastLoop	7321
• 157.16 Socket.GetMulticastTimeToLive	7322
• 157.17 Socket.GetTag	7323
• 157.18 Socket.GetTimeToLive	7324
• 157.19 Socket.IsClosed	7325
• 157.20 Socket.IsListening	7326
• 157.21 Socket.LastError	7327
• 157.22 Socket.LastMessageIP	7328

- 157.23 Socket.LastMessagePort 7329
- 157.24 Socket.List 7330
- 157.25 Socket.Listen 7331
- 157.26 Socket.LocalIP 7333
- 157.27 Socket.LocalPort 7334
- 157.28 Socket.NewTCPSocket 7335
- 157.29 Socket.NewUDPSocket 7337
- 157.30 Socket.Peek 7339
- 157.31 Socket.PeekAll 7340
- 157.32 Socket.PeekAllHex 7341
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353
- 157.41 Socket.RemoteIP 7354
- 157.42 Socket.RemotePort 7355
- 157.43 Socket.SSL.Accept 7356
- 157.44 Socket.SSL.Connect 7357
- 157.45 Socket.SSL.GetMethod 7358
- 157.46 Socket.SSL.Initialize 7359
- 157.47 Socket.SSL.Prepare 7360
- 157.48 Socket.SSL.SetMethod 7361
- 157.49 Socket.SSL.UseCertificateFile 7362
- 157.50 Socket.SSL.UsePrivateKeyFile 7363
- 157.51 Socket.SendMessage 7364

	377
• 157.52 Socket.SendMessageHex	7366
• 157.53 Socket.SetBroadcast	7367
• 157.54 Socket.SetDataAvailableEvaluate	7368
• 157.55 Socket.SetDataAvailableHandler	7369
• 157.56 Socket.SetDataAvailableURL	7371
• 157.57 Socket.SetErrorEvaluate	7372
• 157.58 Socket.SetErrorHandler	7373
• 157.59 Socket.SetErrorURL	7375
• 157.60 Socket.SetMulticastInterface	7376
• 157.61 Socket.SetMulticastLoop	7377
• 157.62 Socket.SetMulticastTimeToLive	7378
• 157.63 Socket.SetNewConnectionEvaluate	7379
• 157.64 Socket.SetNewConnectionHandler	7380
• 157.65 Socket.SetNewConnectionURL	7382
• 157.66 Socket.SetTag	7383
• 157.67 Socket.SetTimeToLive	7384
• 157.68 Socket.Write	7385
• 157.69 Socket.WriteByte	7387
• 157.70 Socket.WriteHex	7388
• 157.71 Socket.WriteMLLP	7390
• 158.1 Speech.AvailableVoices	7391
• 158.2 Speech.IsPaused	7392
• 158.3 Speech.IsSpeaking	7393
• 158.4 Speech.Pause	7394
• 158.5 Speech.Resume	7395
• 158.6 Speech.Speak	7396
• 158.7 SpeechRecognition.AuthorizationStatus	7398
• 158.8 SpeechRecognition.Initialize	7399
• 158.9 SpeechRecognition.IsInitialized	7400

- 158.10 `SpeechRecognition.Recognize` 7401
- 158.11 `SpeechRecognition.RequestAuthorization` 7403
- 158.12 `SpeechRecognition.SupportedLocales` 7404
- 158.13 `SpeechRecognition.SupportsOnDeviceRecognition` 7406
- 161.1 `StoreKit.AddPayment` 7663
- 161.2 `StoreKit.CanMakePayments` 7665
- 161.3 `StoreKit.FinishTransaction` 7666
- 161.4 `StoreKit.InvalidProductIdentifiers` 7667
- 161.5 `StoreKit.IsProductViewVisible` 7668
- 161.6 `StoreKit.ProductQueryRunning` 7669
- 161.7 `StoreKit.Products` 7670
- 161.8 `StoreKit.QueryProducts` 7671
- 161.10 `StoreKit.RestoreCompletedTransactions` 7673
- 161.12 `StoreKit.SetRestoreCompletedTransactionsTrigger` 7675
- 161.13 `StoreKit.SetUpdatedTransactionsTrigger` 7676
- 161.15 `StoreKit.Transactions` 7678
- 127.51 `StoreRegistration` 6432
- 162.1 `SyntaxColoring.AddContextMenuCommand` 7679
- 162.2 `SyntaxColoring.AddTag` 7686
- 162.3 `SyntaxColoring.CheckVariableDeclaration.Disable` 7691
- 162.4 `SyntaxColoring.CheckVariableDeclaration.Enable` 7692
- 162.5 `SyntaxColoring.CheckVariableDeclaration.Enabled` 7694
- 162.6 `SyntaxColoring.CheckVariableDeclaration.GetLimits` 7696
- 162.7 `SyntaxColoring.CheckVariableDeclaration.Notification.Disable` 7697
- 162.8 `SyntaxColoring.CheckVariableDeclaration.Notification.Enable` 7698
- 162.9 `SyntaxColoring.CheckVariableDeclaration.Notification.Enabled` 7699
- 162.10 `SyntaxColoring.CheckVariableDeclaration.SetLimits` 7700
- 162.11 `SyntaxColoring.Clear` 7701
- 162.12 `SyntaxColoring.ClearContextMenuCommands` 7702

	379
• 162.13 SyntaxColoring.ContextualMenuEnabled.GetEnabled	7703
• 162.14 SyntaxColoring.ContextualMenuEnabled.SetEnabled	7704
• 162.15 SyntaxColoring.CopyButton.GetEnabled	7705
• 162.16 SyntaxColoring.CopyButton.SetEnabled	7706
• 162.17 SyntaxColoring.Disable	7708
• 162.18 SyntaxColoring.Enable	7709
• 162.19 SyntaxColoring.Enabled	7710
• 162.20 SyntaxColoring.FactoryDefaults	7711
• 162.21 SyntaxColoring.Format	7712
• 162.22 SyntaxColoring.GetAddFindbars	7713
• 162.23 SyntaxColoring.GetBlackFieldPicker	7714
• 162.24 SyntaxColoring.GetFontName	7715
• 162.25 SyntaxColoring.GetFontSize	7716
• 162.26 SyntaxColoring.GetFormulasWithLinks	7717
• 162.27 SyntaxColoring.GetMinCalcFontSize	7718
• 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize	7719
• 162.29 SyntaxColoring.GetRememberColumnWidths	7720
• 162.30 SyntaxColoring.GetResizeFieldPicker	7721
• 162.31 SyntaxColoring.GetScriptHighlightColor	7722
• 162.32 SyntaxColoring.GetScriptIfColor	7723
• 162.33 SyntaxColoring.GetScriptLoopColor	7724
• 162.34 SyntaxColoring.GetScriptSearchColor	7725
• 162.35 SyntaxColoring.GetShowFieldAndTableIDs	7726
• 162.36 SyntaxColoring.GetShowLayoutIDs	7727
• 162.37 SyntaxColoring.GetShowScriptIDs	7728
• 162.38 SyntaxColoring.GetTag	7729
• 162.39 SyntaxColoring.GetTags	7730
• 162.40 SyntaxColoring.GetUseBoldFont	7731
• 162.41 SyntaxColoring.LineNumbers.Disable	7732

- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.43 SyntaxColoring.LineNumbers.Enabled 7735
- 162.44 SyntaxColoring.LineNumbers.GetColor 7736
- 162.45 SyntaxColoring.LineNumbers.SetColor 7737
- 162.46 SyntaxColoring.ListContextMenuCommand 7738
- 162.47 SyntaxColoring.RelationshipGraphSearchBox.GetEnabled 7739
- 162.48 SyntaxColoring.RelationshipGraphSearchBox.SetEnabled 7740
- 162.49 SyntaxColoring.RemoveContextMenuCommand 7741
- 162.50 SyntaxColoring.RemoveTag 7742
- 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled 7743
- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.53 SyntaxColoring.ScriptIfLoopHighlight.GetEnabled 7746
- 162.54 SyntaxColoring.ScriptIfLoopHighlight.SetEnabled 7747
- 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled 7748
- 162.56 SyntaxColoring.ScriptSearchBox.GetText 7749
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.58 SyntaxColoring.ScriptSearchBox.SetText 7752
- 162.59 SyntaxColoring.SetAddFindbars 7753
- 162.60 SyntaxColoring.SetBlackFieldPicker 7754
- 162.61 SyntaxColoring.SetFontName 7755
- 162.62 SyntaxColoring.SetFontSize 7756
- 162.63 SyntaxColoring.SetFormulasWithLinks 7757
- 162.64 SyntaxColoring.SetMinCalcFontSize 7758
- 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize 7759
- 162.66 SyntaxColoring.SetRememberColumnWidths 7760
- 162.67 SyntaxColoring.SetResizeFieldPicker 7761
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.70 SyntaxColoring.SetScriptLoopColor 7765



	381
• 162.71 SyntaxColoring.SetScriptSearchColor	7766
• 162.72 SyntaxColoring.SetShowFieldAndTableIDs	7767
• 162.73 SyntaxColoring.SetShowLayoutIDs	7768
• 162.74 SyntaxColoring.SetShowScriptIDs	7769
• 162.75 SyntaxColoring.SetUseBoldFont	7770
• 162.76 SyntaxColoring.ShowTextPositions.GetEnabled	7771
• 162.77 SyntaxColoring.ShowTextPositions.SetEnabled	7772
• 162.78 SyntaxColoring.ZoomButton.GetEnabled	7773
• 162.79 SyntaxColoring.ZoomButton.SetEnabled	7774
• 163.1 System.Logout	7775
• 163.2 System.Restart	7776
• 163.3 System.Shutdown	7777
• 163.4 System.Sleep	7778
• 164.2 SystemInfo.AvailableRAM	7781
• 164.3 SystemInfo.CPUBrandString	7782
• 164.4 SystemInfo.ComputerName	7783
• 164.5 SystemInfo.DomainName	7784
• 164.6 SystemInfo.DoubleClickTime	7785
• 164.7 SystemInfo.HardDiscSerial	7786
• 164.8 SystemInfo.HostDNSName	7787
• 164.9 SystemInfo.HostName	7788
• 164.10 SystemInfo.IdleTime	7789
• 164.11 SystemInfo.Is64bitWindows	7790
• 164.12 SystemInfo.IsAdminUser	7791
• 164.13 SystemInfo.MACAddress	7792
• 164.14 SystemInfo.MacAppDarkMode	7793
• 164.15 SystemInfo.MacBoardID	7794
• 164.16 SystemInfo.MacBugFixVersion	7795
• 164.17 SystemInfo.MacHasHardwareAcceleratedCoreImage	7796

- 164.18 SystemInfo.MacMajorVersion 7797
- 164.19 SystemInfo.MacMinorVersion 7798
- 164.20 SystemInfo.MacModel 7799
- 164.21 SystemInfo.MacROMBootVersion 7800
- 164.22 SystemInfo.MacSerialNumber 7801
- 164.23 SystemInfo.MacSystemDarkMode 7802
- 164.24 SystemInfo.MacUUID 7803
- 164.25 SystemInfo.MacVRAMSize 7804
- 164.26 SystemInfo.NetworkStats 7805
- 164.27 SystemInfo.OSName 7808
- 164.28 SystemInfo.OSVersionString 7809
- 164.29 SystemInfo.PhysicalRAM 7810
- 164.30 SystemInfo.ProcessorCount 7811
- 164.31 SystemInfo.SystemFont 7812
- 164.32 SystemInfo.Time 7813
- 164.33 SystemInfo.UserName 7814
- 164.34 SystemInfo.UserShortName 7815
- 164.46 SystemInfo.WindowsAero 7828
- 164.47 SystemInfo.isCatalina 7829
- 164.48 SystemInfo.isElCapitan 7830
- 164.49 SystemInfo.isHighSierra 7831
- 164.50 SystemInfo.isLeopard 7832
- 164.51 SystemInfo.isLion 7833
- 164.52 SystemInfo.isMacOSX 7834
- 164.53 SystemInfo.isMavericks 7835
- 164.54 SystemInfo.isMojave 7836
- 164.55 SystemInfo.isMountainLion 7837
- 164.56 SystemInfo.isSierra 7838
- 164.57 SystemInfo.isSnowLeopard 7839

	383
• 164.58 SystemInfo.isWindows10	7840
• 164.59 SystemInfo.isWindows2000	7841
• 164.60 SystemInfo.isWindows7	7842
• 164.61 SystemInfo.isWindows8	7843
• 164.62 SystemInfo.isWindowsVista	7844
• 164.63 SystemInfo.isWindowsXP	7845
• 164.64 SystemInfo.isYosemite	7846
• 167.1 Text.AddLineNumbers	7895
• 167.2 Text.AppendTextFile	7897
• 167.3 Text.CapitalCase	7899
• 167.4 Text.Character	7901
• 167.5 Text.Characters	7903
• 167.6 Text.Code	7904
• 167.7 Text.ConvertFromTextEncoding	7905
• 167.8 Text.ConvertToTextEncoding	7911
• 167.9 Text.ConvertUnicodeToCharacterComposition	7918
• 167.10 Text.ConvertUnicodeToCharacterDecomposition	7920
• 167.11 Text.CountWords	7921
• 167.12 Text.DecodeBytesFromBase64	7922
• 167.13 Text.DecodeFromBase64	7923
• 167.14 Text.DecodeFromBase64URL	7924
• 167.15 Text.DecodeFromBytes	7925
• 167.16 Text.DecodeFromHTML	7926
• 167.17 Text.DecodeFromHex	7928
• 167.18 Text.DecodeFromQuotedPrintable	7930
• 167.19 Text.DecodeFromURL	7931
• 167.20 Text.DecodeFromXML	7933
• 167.21 Text.DecodeHexFromBase64	7934
• 167.22 Text.DecodeIMAPFolderName	7935

- 167.23 Text.DecodeURLComponent 7936
- 167.24 Text.Deserialize 7937
- 167.25 Text.EncodeBytesToBase64 7938
- 167.26 Text.EncodeEmailSubject 7939
- 167.27 Text.EncodeHexToBase64 7940
- 167.28 Text.EncodeToBase64 7941
- 167.29 Text.EncodeToBase64URL 7942
- 167.30 Text.EncodeToBytes 7944
- 167.31 Text.EncodeToHTML 7945
- 167.32 Text.EncodeToHex 7947
- 167.33 Text.EncodeToQuotedPrintable 7949
- 167.34 Text.EncodeToURL 7950
- 167.35 Text.EncodeToXML 7952
- 167.36 Text.EncodeURLComponent 7954
- 167.37 Text.FileExtensionToMimeType 7956
- 167.38 Text.FilterUTF16 7958
- 167.39 Text.FindBetween 7959
- 167.40 Text.InvalidCharactersForEncoding 7961
- 167.41 Text.JaroWinklerDistance 7962
- 167.42 Text.Length 7963
- 167.43 Text.LevenshteinDistance 7964
- 167.44 Text.ListWords 7965
- 167.45 Text.LowerCase 7966
- 167.46 Text.MergeFields 7967
- 167.47 Text.MimeTypeToFileExtension 7969
- 167.48 Text.ReadEMLXFile 7970
- 167.49 Text.ReadTextFile 7971
- 167.50 Text.ReadTextFromContainer 7975
- 167.51 Text.RedefineEncoding 7976

	385
• 167.52 Text.RemoveAccents	7977
• 167.53 Text.RemoveAccentsCaseInsensitive	7978
• 167.54 Text.RemoveControlCharacters	7979
• 167.55 Text.RemoveNewLine	7980
• 167.56 Text.RemovePostfix	7981
• 167.57 Text.RemovePrefix	7982
• 167.58 Text.ReplaceAll	7984
• 167.59 Text.ReplaceNewline	7985
• 167.60 Text.Serialize	7988
• 167.61 Text.SoundEx	7989
• 167.62 Text.SoundExGerman	7990
• 167.63 Text.Styles	7991
• 167.64 Text.TextToHTML	7993
• 167.65 Text.TextToRTF	7995
• 167.66 Text.Trim	7997
• 167.67 Text.UpperCase	7998
• 167.68 Text.WriteTextFile	7999
• 167.69 Text.WriteToContainer	8003
• 168.1 TextView.CanUndo	8005
• 168.2 TextView.Copy	8006
• 168.3 TextView.CreateOnPopoverWithControl	8007
• 168.4 TextView.CreateOnPopoverWithSize	8009
• 168.5 TextView.CreateWithControl	8010
• 168.6 TextView.CreateWithSize	8012
• 168.7 TextView.CreateWithWindow	8013
• 168.8 TextView.Cut	8014
• 168.9 TextView.GetAutoCorrectionEnabled	8015
• 168.10 TextView.GetAutoResizingMask	8016
• 168.11 TextView.GetHTMLText	8017

- 168.12 `TextView.GetHeight` 8018
- 168.13 `TextView.GetLeft` 8019
- 168.14 `TextView.GetPlainText` 8020
- 168.15 `TextView.GetRTF` 8021
- 168.16 `TextView.GetReadOnly` 8022
- 168.17 `TextView.GetRulerVisible` 8023
- 168.18 `TextView.GetSpellCheckingEnabled` 8024
- 168.19 `TextView.GetStyled` 8025
- 168.20 `TextView.GetTag` 8026
- 168.21 `TextView.GetTop` 8027
- 168.22 `TextView.GetVisible` 8028
- 168.23 `TextView.GetWidth` 8029
- 168.24 `TextView.GetWindowRef` 8030
- 168.25 `TextView.List` 8031
- 168.26 `TextView.Paste` 8032
- 168.27 `TextView.Release` 8033
- 168.28 `TextView.ReleaseAll` 8034
- 168.29 `TextView.SetAutoCorrectionEnabled` 8035
- 168.30 `TextView.SetAutoResizingMask` 8036
- 168.31 `TextView.SetFocus` 8038
- 168.32 `TextView.SetFrame` 8039
- 168.33 `TextView.SetFrameWithControl` 8040
- 168.34 `TextView.SetHTMLText` 8041
- 168.35 `TextView.SetPlainText` 8042
- 168.36 `TextView.SetRTF` 8043
- 168.37 `TextView.SetReadOnly` 8044
- 168.38 `TextView.SetRulerVisible` 8045
- 168.39 `TextView.SetSpellCheckingEnabled` 8046
- 168.40 `TextView.SetStyled` 8047

	387
• 168.41 TextView.SetTag	8048
• 168.42 TextView.SetVisible	8049
• 168.43 TextView.ShowFontPanel	8050
• 168.44 TextView.Undo	8051
• 169.1 Time.Format	8053
• 169.2 Time.Parse	8057
• 178.13 Time.Sleep	8372
• 169.3 Time.TimeStampToUTC	8061
• 169.4 Time.TimeZoneOffset	8062
• 178.14 Time.UnixTimeStamp	8373
• 169.5 Time.UnixTimeStampToFileMaker	8063
• 185.1 Toolbar.Install	8667
• 185.2 Toolbar.InstallBackground	8669
• 185.3 Toolbar.Register	8670
• 170.4 Toolbar.SetImage	8070
• 170.5 Toolbar.SetLabel	8072
• 170.6 Toolbar.SetPaletteLabel	8074
• 170.7 Toolbar.SetTooltip	8075
• 185.4 Toolbar.Unregister	8672
• 171.2 TouchBar.AddButton	8088
• 171.3 TouchBar.AssignToApp	8091
• 171.4 TouchBar.AssignToWindow	8093
• 171.5 TouchBar.Available	8095
• 171.6 TouchBar.Clear	8096
• 171.7 TouchBar.Create	8097
• 171.8 TouchBar.GetAutomaticCustomizeTouchBarItemEnabled	8098
• 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers	8099
• 171.10 TouchBar.GetCustomizationIdentifier	8100
• 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers	8101

- 171.12 TouchBar.GetDefaultItemIdentifiers 8102
- 171.13 TouchBar.GetItemIdentifiers 8103
- 171.14 TouchBar.GetPrincipalItemIdentifier 8104
- 171.15 TouchBar.Release 8105
- 171.16 TouchBar.SetAutomaticCustomizeTouchBarItemEnabled 8106
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107
- 171.18 TouchBar.SetCustomizationIdentifier 8108
- 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers 8109
- 171.20 TouchBar.SetDefaultItemIdentifiers 8110
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111
- 171.22 TouchBar.ToggleCustomizationPalette 8112
- 171.23 TouchBar.Visible 8113
- 127.52 Trace 6434
- 127.53 Trace.AreErrorNotificationsEnabled 6437
- 127.54 Trace.DisableErrorNotifications 6438
- 127.55 Trace.EnableErrorNotifications 6439
- 127.56 Trace.GetErrorsOnly 6440
- 127.57 Trace.GetWithTimes 6441
- 127.58 Trace.Off 6442
- 127.59 Trace.SetErrorsOnly 6443
- 127.60 Trace.SetWithTimes 6444
- 127.61 Trace.WriteLine 6445
- 172.1 Twain.Acquire 8115
- 172.2 Twain.ClearCancelScript 8117
- 172.3 Twain.ClearNotificationScript 8118
- 172.4 Twain.CloseDS 8119
- 172.5 Twain.CloseDSM 8120
- 172.6 Twain.CurrentDSIdentity 8121
- 172.7 Twain.CurrentImage 8122



	389
• 172.8 Twain.DisableDS	8123
• 172.9 Twain.GetAutofeed	8124
• 172.10 Twain.GetAutomaticBorderDetection	8125
• 172.11 Twain.GetAutomaticBrightness	8126
• 172.12 Twain.GetAutomaticRotate	8127
• 172.13 Twain.GetBrightness	8128
• 172.14 Twain.GetCloseAfterTransfer	8129
• 172.15 Twain.GetCompressionQuality	8130
• 172.16 Twain.GetContrast	8131
• 172.17 Twain.GetDSIdentitiesCount	8132
• 172.18 Twain.GetDSIdentity	8133
• 172.19 Twain.GetDefaultIdentity	8134
• 172.20 Twain.GetDiscardBlankPages	8135
• 172.21 Twain.GetDuplexEnabled	8136
• 172.22 Twain.GetFeededEnabled	8137
• 172.23 Twain.GetFilePaths	8138
• 172.24 Twain.GetFileType	8139
• 172.25 Twain.GetFolderPath	8140
• 172.26 Twain.GetGamma	8141
• 172.27 Twain.GetHighlight	8142
• 172.28 Twain.GetImageCount	8143
• 172.29 Twain.GetOrientation	8144
• 172.30 Twain.GetPaper	8145
• 172.31 Twain.GetPixelType	8146
• 172.32 Twain.GetResolutionX	8147
• 172.33 Twain.GetResolutionY	8148
• 172.34 Twain.GetShadow	8149
• 172.35 Twain.GetUIVisible	8150
• 172.36 Twain.ImageInfo	8151

- 172.37 Twain.Initialize 8153
- 172.38 Twain.IsDSEnabled 8155
- 172.39 Twain.IsInitialized 8156
- 172.40 Twain.OpenDS 8157
- 172.41 Twain.OpenDSM 8158
- 172.42 Twain.SelectDS 8159
- 172.43 Twain.SelectDSIdentity 8160
- 172.44 Twain.SetAutofeed 8161
- 172.45 Twain.SetAutomaticBorderDetection 8162
- 172.46 Twain.SetAutomaticBrightness 8163
- 172.47 Twain.SetAutomaticRotate 8164
- 172.48 Twain.SetBrightness 8165
- 172.49 Twain.SetCancelScript 8166
- 172.50 Twain.SetCloseAfterTransfer 8167
- 172.51 Twain.SetCompressionQuality 8168
- 172.52 Twain.SetContrast 8169
- 172.53 Twain.SetDefaultDSIdentity 8170
- 172.54 Twain.SetDiscardBlankPages 8171
- 172.55 Twain.SetDuplexEnabled 8172
- 172.56 Twain.SetFeededEnabled 8173
- 172.57 Twain.SetFileType 8175
- 172.58 Twain.SetFolderPath 8176
- 172.59 Twain.SetGamma 8177
- 172.60 Twain.SetHighlight 8178
- 172.61 Twain.SetNotificationScript 8179
- 172.62 Twain.SetOrientation 8180
- 172.63 Twain.SetPaper 8181
- 172.64 Twain.SetPaperSize 8183
- 172.65 Twain.SetPixelType 8184

	391
• 172.66 Twain.SetResolutionX	8185
• 172.67 Twain.SetResolutionY	8186
• 172.68 Twain.SetShadow	8187
• 172.69 Twain.SupportsBW	8188
• 172.70 Twain.SupportsGray	8189
• 172.71 Twain.SupportsMemoryTransfer	8190
• 172.72 Twain.SupportsRGB	8191
• 172.73 Twain.TransferImage	8192
• 173.1 UNNotification.Action	8193
• 173.2 UNNotification.AddUserInfo	8195
• 173.3 UNNotification.AuthorizationError	8196
• 173.4 UNNotification.AuthorizationGranted	8197
• 173.5 UNNotification.Badge	8198
• 173.6 UNNotification.Body	8199
• 173.7 UNNotification.CategoryIdentifier	8200
• 173.8 UNNotification.Date	8201
• 173.9 UNNotification.Deliver	8202
• 173.10 UNNotification.DeliveredNotifications	8203
• 173.11 UNNotification.GetDescription	8204
• 173.12 UNNotification.Identifier	8205
• 173.13 UNNotification.IsRegisteredForRemoteNotifications	8206
• 173.15 UNNotification.New	8208
• 173.16 UNNotification.NextTriggerDate	8210
• 173.17 UNNotification.NotificationSettings	8211
• 173.18 UNNotification.PendingNotificationRequests	8213
• 173.20 UNNotification.Release	8216
• 173.21 UNNotification.ReleaseAll	8217
• 173.22 UNNotification.RemoteNotificationsDeviceToken	8218
• 173.23 UNNotification.RemoteNotificationsError	8219

- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220
- 173.25 UNNotification.RemoveAllPendingNotificationRequests 8221
- 173.26 UNNotification.RemoveDeliveredNotificationsWithIdentifiers 8222
- 173.27 UNNotification.RemovePendingNotificationRequestsWithIdentifiers 8223
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.30 UNNotification.SetActionScript 8227
- 173.31 UNNotification.SetBadge 8228
- 173.32 UNNotification.SetBody 8230
- 173.33 UNNotification.SetCalendarDateTrigger 8232
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.35 UNNotification.SetCategoryIdentifier 8235
- 173.39 UNNotification.SetScript 8240
- 173.40 UNNotification.SetSound 8242
- 173.41 UNNotification.SetSubTitle 8243
- 173.42 UNNotification.SetThreadIdentifier 8244
- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 173.46 UNNotification.ThreadIdentifier 8250
- 173.47 UNNotification.TimeInterval 8251
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254
- 173.50 UNNotification.UserInfoKeys 8255
- 173.51 UNNotification.UserInfoValue 8256
- 175.1 URLScheme.GetDefaultHandler 8269
- 175.2 URLScheme.InstallURLEventHandler 8271
- 175.3 URLScheme.SetDefaultHandler 8272
- 176.1 USB.Count 8275

	393
• 176.2 USB.FindDevice	8277
• 176.3 USB.FindSerialNumber	8278
• 176.4 USB.GetProductID	8279
• 176.5 USB.GetProductName	8280
• 176.6 USB.GetSerialNumber	8281
• 176.7 USB.GetVendorID	8282
• 176.8 USB.GetVendorName	8283
• 179.1 UUID.Formatted	8375
• 179.2 UUID.FromNumber	8377
• 179.3 UUID.Hex	8379
• 179.4 UUID.Number	8380
• 179.5 UUID.Raw	8381
• 179.6 UUID.ToNumber	8382
• 54.3 UnZipFile.Close	1512
• 54.4 UnZipFile.ExtractFiles	1513
• 54.5 UnZipFile.GlobalComment	1515
• 54.6 UnZipFile.ItemCRC	1516
• 54.7 UnZipFile.ItemComment	1517
• 54.8 UnZipFile.ItemCompressedSize	1518
• 54.9 UnZipFile.ItemCompressionMethod	1519
• 54.10 UnZipFile.ItemCount	1520
• 54.11 UnZipFile.ItemDate	1521
• 54.12 UnZipFile.ItemDiskNumberStart	1522
• 54.13 UnZipFile.ItemExternalFileAttributes	1523
• 54.14 UnZipFile.ItemFlag	1524
• 54.15 UnZipFile.ItemInternalFileAttributes	1526
• 54.16 UnZipFile.ItemName	1527
• 54.17 UnZipFile.ItemSizeFileComment	1528
• 54.18 UnZipFile.ItemSizeFileExtra	1529

- 54.19 UnZipFile.ItemSizeFileName 1530
- 54.20 UnZipFile.ItemUncompressedSize 1531
- 54.21 UnZipFile.ItemVersion 1532
- 54.22 UnZipFile.ItemVersionNeeded 1533
- 54.23 UnZipFile.OpenContainer 1534
- 54.24 UnZipFile.OpenFile 1535
- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.27 UnZipFile.ReadAsHex 1539
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.29 UnZipFile.ReadAsPNGContainer 1541
- 54.30 UnZipFile.ReadAsText 1542
- 54.31 UnZipFile.ReadToFile 1543
- 54.32 UnZipFile.UsePassword 1544
- 174.1 Updater.CheckForUpdates 8257
- 174.2 Updater.CheckForUpdatesInBackground 8258
- 174.3 Updater.GetAutomaticallyChecksForUpdates 8259
- 174.4 Updater.GetAutomaticallyDownloadsUpdates 8260
- 174.5 Updater.GetFeedURL 8261
- 174.6 Updater.GetSendsSystemProfile 8262
- 174.7 Updater.LastUpdateCheckDate 8263
- 174.8 Updater.SetAutomaticallyChecksForUpdates 8264
- 174.9 Updater.SetAutomaticallyDownloadsUpdates 8265
- 174.10 Updater.SetSendsSystemProfile 8266
- 174.11 Updater.UpdateInProgress 8267
- 177.1 UserNotification.ClearDidActivateNotificationScript 8285
- 177.2 UserNotification.ClearDidDeliverNotificationScript 8287
- 177.3 UserNotification.ContentImage 8288
- 177.4 UserNotification.Create 8289

	395
• 177.5 UserNotification.GetActionButtonTitle	8290
• 177.6 UserNotification.GetActivationType	8291
• 177.7 UserNotification.GetActualDeliveryDate	8292
• 177.8 UserNotification.GetDeliveryDate	8293
• 177.9 UserNotification.GetDeliveryTimeZone	8294
• 177.10 UserNotification.GetDescription	8295
• 177.11 UserNotification.GetIdentifier	8296
• 177.12 UserNotification.GetInformativeText	8297
• 177.13 UserNotification.GetOtherButtonTitle	8298
• 177.14 UserNotification.GetResponse	8299
• 177.15 UserNotification.GetResponsePlaceholder	8300
• 177.16 UserNotification.GetSoundName	8301
• 177.17 UserNotification.GetSubTitle	8302
• 177.18 UserNotification.GetTitle	8303
• 177.19 UserNotification.GetUserInfo	8304
• 177.20 UserNotification.HasReplyButton	8305
• 177.21 UserNotification.Release	8306
• 177.22 UserNotification.SetActionButtonTitle	8307
• 177.23 UserNotification.SetContentImage	8308
• 177.24 UserNotification.SetDeliveryDate	8309
• 177.25 UserNotification.SetDeliveryTimeZone	8310
• 177.26 UserNotification.SetDidActivateNotificationScript	8311
• 177.27 UserNotification.SetDidDeliverNotificationScript	8313
• 177.28 UserNotification.SetHasActionButton	8315
• 177.29 UserNotification.SetHasReplyButton	8316
• 177.30 UserNotification.SetIdentifier	8317
• 177.31 UserNotification.SetInformativeText	8318
• 177.32 UserNotification.SetOtherButtonTitle	8319
• 177.33 UserNotification.SetResponsePlaceholder	8320

- 177.34 `UserNotification.SetSoundName` 8321
- 177.35 `UserNotification.SetSubTitle` 8322
- 177.36 `UserNotification.SetTitle` 8323
- 177.37 `UserNotification.SetUserInfo` 8324
- 177.38 `UserNotification.deliverNotification` 8325
- 177.39 `UserNotification.deliveredNotifications` 8326
- 177.40 `UserNotification.hasActionButton` 8327
- 177.41 `UserNotification.isPresented` 8328
- 177.42 `UserNotification.isRemote` 8329
- 177.43 `UserNotification.removeAllDeliveredNotifications` 8330
- 177.44 `UserNotification.removeAllScheduledNotifications` 8331
- 177.45 `UserNotification.removeDeliveredNotification` 8332
- 177.46 `UserNotification.removeScheduledNotification` 8333
- 177.47 `UserNotification.scheduleNotification` 8334
- 177.48 `UserNotification.scheduledNotifications` 8335
- 180.1 `Validate.CheckReceipt` 8383
- 180.2 `Validate.Exit` 8385
- 180.3 `Validate.FindReceipt` 8386
- 127.62 `Version` 6446
- 127.63 `VersionAutoUpdate` 6448
- 182.1 `Vision.ClassifyImage` 8401
- 182.2 `Vision.DetectBarcode` 8403
- 182.3 `Vision.KnownClassifications` 8405
- 182.4 `Vision.RecognizeText` 8406
- 182.5 `Vision.SupportedRecognitionLanguages` 8408
- 182.6 `Vision.SupportedSymbologies` 8409
- 183.1 `WebDownloadDelegate.Cancel` 8411
- 183.2 `WebDownloadDelegate.ClearBeginDownloadHandler` 8412
- 183.3 `WebDownloadDelegate.ClearDidDownloadHandler` 8413



	397
• 183.4 WebDownloadDelegate.ClearFailHandler	8414
• 183.5 WebDownloadDelegate.ClearFolder	8415
• 183.6 WebDownloadDelegate.ClearProgressHandler	8416
• 183.7 WebDownloadDelegate.DownloadedLength	8417
• 183.8 WebDownloadDelegate.ErrorMessage	8418
• 183.9 WebDownloadDelegate.GetFolder	8419
• 183.10 WebDownloadDelegate.Install	8420
• 183.11 WebDownloadDelegate.MIMETYPE	8421
• 183.12 WebDownloadDelegate.Path	8422
• 183.13 WebDownloadDelegate.SetBeginDownloadHandler	8423
• 183.14 WebDownloadDelegate.SetDidDownloadHandler	8424
• 183.15 WebDownloadDelegate.SetFailHandler	8426
• 183.16 WebDownloadDelegate.SetFolder	8427
• 183.17 WebDownloadDelegate.SetProgressHandler	8429
• 183.18 WebDownloadDelegate.URL	8431
• 183.19 WebDownloadDelegate.expectedContentLength	8432
• 183.20 WebDownloadDelegate.suggestedFilename	8433
• 183.21 WebDownloadDelegate.textEncodingName	8434
• 183.22 WebPolicyDelegate.AddMimeType	8435
• 183.23 WebPolicyDelegate.Install	8436
• 183.24 WebPolicyDelegate.RemoveMimeType	8437
• 183.25 WebView.AddScriptMessageHandler	8438
• 183.26 WebView.AddUserScript	8440
• 183.27 WebView.AllCookies	8442
• 183.28 WebView.AllowsAnyHTTPSCertificateForHost	8444
• 183.31 WebView.ClearSelection	8447
• 183.32 WebView.ClickInput	8448
• 183.33 WebView.Close	8450
• 183.34 WebView.Cookies.ClearForURL	8451

- 183.35 `WebView.Cookies.Count` 8452
- 183.36 `WebView.Cookies.Query` 8453
- 183.37 `WebView.Copy` 8454
- 183.38 `WebView.CopyFormattedText` 8455
- 183.39 `WebView.Create` 8456
- 183.40 `WebView.CreateOnPopover` 8458
- 183.41 `WebView.Cut` 8460
- 183.42 `WebView.DisableJavascriptAlerts` 8461
- 183.43 `WebView.EstimatedProgress` 8462
- 183.44 `WebView.Evaluate` 8463
- 183.46 `WebView.FindByName` 8469
- 183.47 `WebView.FindWindowByIndex` 8471
- 183.48 `WebView.FindWindowByTitle` 8472
- 183.49 `WebView.FormReset` 8474
- 183.50 `WebView.FormSubmit` 8475
- 183.51 `WebView.GetAllowsLinkPreview` 8476
- 183.52 `WebView.GetAutoResizingMask` 8477
- 183.53 `WebView.GetCustomUserAgent` 8479
- 183.54 `WebView.GetEditable` 8480
- 183.55 `WebView.GetForm` 8481
- 183.56 `WebView.GetFormButtonValue` 8482
- 183.57 `WebView.GetFormCount` 8483
- 183.58 `WebView.GetFormInputChecked` 8484
- 183.59 `WebView.GetFormInputValue` 8485
- 183.60 `WebView.GetFormSelectOptions` 8487
- 183.61 `WebView.GetFormSelectValue` 8488
- 183.62 `WebView.GetFormTextAreaValue` 8490
- 183.63 `WebView.GetFormValue` 8492
- 183.64 `WebView.GetFormattedText` 8494

	399
• 183.65 WebView.GetHTMLText	8496
• 183.66 WebView.GetHidden	8498
• 183.67 WebView.GetIcon	8499
• 183.68 WebView.GetImage	8500
• 183.69 WebView.GetImageCount	8502
• 183.72 WebView.GetLink	8505
• 183.73 WebView.GetLinkCount	8506
• 183.74 WebView.GetPlainText	8507
• 183.75 WebView.GetPreferences	8509
• 183.76 WebView.GetPrintParameter	8511
• 183.77 WebView.GetPrivateBrowsing	8512
• 183.79 WebView.GetSource	8514
• 183.80 WebView.GetSourceData	8515
• 183.81 WebView.GetTitle	8516
• 183.82 WebView.GetURL	8517
• 183.83 WebView.GoBack	8518
• 183.84 WebView.GoForward	8519
• 183.85 WebView.HasOnlySecureContent	8520
• 183.86 WebView.InstallCallback	8521
• 183.87 WebView.InstallMultiFileOpenDialog	8523
• 183.88 WebView.InstallUserMediaAccess	8524
• 183.89 WebView.IsLoading	8526
• 183.90 WebView.LoadHTML	8528
• 183.91 WebView.LoadJavascriptURL	8529
• 183.92 WebView.LoadURL	8530
• 183.93 WebView.MakeTextLarger	8532
• 183.94 WebView.MakeTextSmaller	8533
• 183.95 WebView.MakeTextStandardSize	8534
• 183.96 WebView.Passwords.Clear	8535

- 183.97 `WebView.Passwords.Install` 8536
- 183.98 `WebView.Passwords.Set` 8538
- 183.99 `WebView.Paste` 8540
- 183.100 `WebView.PostURL` 8541
- 183.102 `WebView.Print` 8544
- 183.104 `WebView.PrintToFile` 8547
- 183.105 `WebView.Release` 8549
- 183.106 `WebView.Reload` 8550
- 183.107 `WebView.RemoveAllUserScripts` 8551
- 183.108 `WebView.RemoveScriptMessageHandler` 8552
- 183.109 `WebView.RenderImage` 8553
- 183.110 `WebView.RenderPDF` 8555
- 183.111 `WebView.RunJavaScript` 8557
- 183.112 `WebView.RunJavaScriptReturnTitle` 8567
- 183.113 `WebView.Screenshot` 8569
- 183.114 `WebView.Scrollbar.getHorizontalMaximum` 8571
- 183.115 `WebView.Scrollbar.getHorizontalPosition` 8572
- 183.116 `WebView.Scrollbar.getVerticalMaximum` 8573
- 183.117 `WebView.Scrollbar.getVerticalPosition` 8574
- 183.118 `WebView.Scrollbar.set` 8575
- 183.119 `WebView.SearchText` 8576
- 183.120 `WebView.SelectAll` 8578
- 183.121 `WebView.SelectedText` 8579
- 183.123 `WebView.SetAllowsLinkPreview` 8582
- 183.124 `WebView.SetAutoResizingMask` 8583
- 183.125 `WebView.SetCustomUserAgent` 8585
- 183.126 `WebView.SetEditable` 8587
- 183.127 `WebView.SetFocus` 8588
- 183.128 `WebView.SetFormButtonValue` 8589

	401
• 183.129 WebView.SetFormInputChecked	8591
• 183.130 WebView.SetFormInputValue	8593
• 183.131 WebView.SetFormSelectValue	8596
• 183.132 WebView.SetFormTextAreaValue	8598
• 183.133 WebView.SetFormValue	8600
• 183.134 WebView.SetHidden	8602
• 183.137 WebView.SetPreferences	8607
• 183.138 WebView.SetPrintParameter	8610
• 183.139 WebView.SetPrivateBrowsing	8612
• 183.141 WebView.SetTitle	8614
• 183.142 WebView.StopLoading	8615
• 183.143 WebView.UserScripts	8616
• 183.144 WebView.canResetPageZoom	8617
• 183.145 WebView.canZoomPageIn	8618
• 183.146 WebView.canZoomPageOut	8619
• 183.147 WebView.getMediaVolume	8620
• 183.148 WebView.getPageSizeMultiplier	8621
• 183.149 WebView.resetPageZoom	8622
• 183.150 WebView.setMediaVolume	8623
• 183.151 WebView.setPageSizeMultiplier	8624
• 183.153 WebView.zoomPageIn	8626
• 183.154 WebView.zoomPageOut	8627
• 185.5 Window.Activate	8673
• 185.6 Window.AddBottomOverlay	8674
• 185.7 Window.AsPDF	8676
• 185.8 Window.ClearFocus	8678
• 185.9 Window.ClearTouchBar	8679
• 185.10 Window.ConfigureToolbarMenu	8680
• 185.11 Window.Current	8681

- 185.12 Window.DisableScrollbars 8682
- 185.13 Window.EnableScrollbars 8683
- 185.14 Window.Fade 8684
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.18 Window.GetAlpha 8694
- 185.19 Window.GetClassName 8695
- 185.20 Window.GetCurrentTag 8696
- 185.21 Window.GetHeight 8697
- 185.22 Window.GetLeft 8698
- 185.23 Window.GetMaxHeight 8699
- 185.24 Window.GetMaxWidth 8700
- 185.25 Window.GetMinHeight 8701
- 185.26 Window.GetMinWidth 8702
- 185.27 Window.GetTag 8703
- 185.28 Window.GetTitle 8704
- 185.29 Window.GetTitleVisible 8705
- 185.30 Window.GetTitlebarAppearsTransparent 8706
- 185.31 Window.GetToolbarConfiguration 8707
- 185.32 Window.GetToolbarCustomizationPaletteIsRunning 8708
- 185.33 Window.GetToolbarVisible 8709
- 185.34 Window.GetTop 8710
- 185.35 Window.GetTopMost 8711
- 185.36 Window.GetWidth 8712
- 185.37 Window.HasCloseButton 8713
- 185.38 Window.HasMiniaturizeButton 8714
- 185.39 Window.HasShadow 8715
- 185.40 Window.HasZoomButton 8716
- 185.41 Window.Hide 8717

	403
• 185.42 Window.HideContent	8719
• 185.43 Window.HideOverlay	8720
• 185.44 Window.HideScrollbars	8721
• 185.45 Window.IgnoresMouseEvents	8723
• 185.46 Window.IsFullScreen	8724
• 185.47 Window.IsFullScreenAuxiliary	8725
• 185.48 Window.IsFullScreenPrimary	8726
• 185.49 Window.IsMaximized	8727
• 185.50 Window.IsMinimized	8728
• 185.51 Window.IsModified	8729
• 185.52 Window.IsVisible	8730
• 185.53 Window.List	8731
• 185.54 Window.ListCommands	8732
• 185.55 Window.Maximize	8733
• 185.56 Window.Minimize	8734
• 185.57 Window.ModalDialogFront	8735
• 185.58 Window.Move	8736
• 185.59 Window.PositionNextDialog	8738
• 185.61 Window.Resizable	8741
• 185.62 Window.Resize	8742
• 185.63 Window.ResizeContentView	8744
• 185.64 Window.RunCommand	8746
• 185.65 Window.RunToolbarCustomizationPalette	8748
• 185.66 Window.Screenshot	8749
• 185.67 Window.Scrollbar.GetScrollElasticity	8751
• 185.68 Window.Scrollbar.SetScrollElasticity	8752
• 185.69 Window.Scrollbar.getHorizontalMaximum	8754
• 185.70 Window.Scrollbar.getHorizontalPosition	8755
• 185.71 Window.Scrollbar.getVerticalMaximum	8756

- 185.72 Window.Scrollbar.getVerticalPosition 8757
- 185.73 Window.Scrollbar.set 8758
- 185.74 Window.ScrollbarsVisible 8759
- 185.75 Window.SetAlpha 8760
- 185.76 Window.SetBounds 8762
- 185.77 Window.SetCloseButton 8764
- 185.78 Window.SetCurrentTag 8766
- 185.79 Window.SetDockImage 8767
- 185.80 Window.SetFocus 8769
- 185.81 Window.SetFullScreenAuxiliary 8770
- 185.82 Window.SetFullScreenPrimary 8771
- 185.83 Window.SetIgnoresMouseEvents 8772
- 185.84 Window.SetMaxHeight 8773
- 185.85 Window.SetMaxWidth 8774
- 185.86 Window.SetMinHeight 8775
- 185.87 Window.SetMinWidth 8776
- 185.88 Window.SetMiniaturizeButton 8777
- 185.89 Window.SetModified 8779
- 185.91 Window.SetResizable 8782
- 185.92 Window.SetShadow 8784
- 185.93 Window.SetShowsToolbarButton 8785
- 185.94 Window.SetTag 8787
- 185.95 Window.SetTitle 8788
- 185.97 Window.SetTitleVisible 8791
- 185.98 Window.SetTitlebarAppearsTransparent 8792
- 185.99 Window.SetToolbarConfiguration 8793
- 185.100 Window.SetToolbarVisible 8794
- 185.101 Window.SetTopMost 8795
- 185.102 Window.SetZoomButton 8796



	405
• 185.103 Window.Show	8798
• 185.104 Window.ShowCharacterPalette	8800
• 185.105 Window.ShowContent	8801
• 185.106 Window.ShowKeyboard	8802
• 185.107 Window.ShowOverlay	8803
• 185.108 Window.ShowScrollbars	8805
• 185.109 Window.ShowTableViewDialog	8807
• 185.110 Window.ShowsToolBarButton	8808
• 185.111 Window.ToggleFullScreen	8809
• 185.112 Window.TopHeight	8810
• 185.113 Window.Update	8811
• 188.1 WindowTransition.Perform	8871
• 188.2 WindowTransition.Prepare	8872
• 188.3 WindowTransition.PrepareWindow	8874
• 192.1 WordFile.AddMediaFile	8951
• 192.2 WordFile.Append	8953
• 192.3 WordFile.AppendTableRow	8954
• 192.4 WordFile.DuplicateTableRow	8956
• 192.5 WordFile.FieldNames	8957
• 192.6 WordFile.GetCaseless	8958
• 192.7 WordFile.GetFieldText	8959
• 192.8 WordFile.GetMediaFile	8960
• 192.9 WordFile.GetXML	8961
• 192.10 WordFile.HasTag	8962
• 192.11 WordFile.MediaFiles	8963
• 192.12 WordFile.OpenContainer	8964
• 192.13 WordFile.OpenFile	8966
• 192.14 WordFile.OpenText	8968
• 192.15 WordFile.Parts	8969

- 192.16 WordFile.Release 8970
- 192.17 WordFile.RemoveTableRow 8971
- 192.18 WordFile.ReplaceTag 8973
- 192.19 WordFile.SetCaseless 8976
- 192.20 WordFile.SetFieldText 8977
- 192.21 WordFile.SetMarkers 8978
- 192.22 WordFile.SetMediaFile 8979
- 192.23 WordFile.SetXML 8981
- 192.24 WordFile.Texts 8982
- 192.25 WordFile.WriteFile 8984
- 49.22 X509.Description 1403
- 49.23 X509.Duplicate 1404
- 49.24 X509.IssuerName 1405
- 49.25 X509.Name 1406
- 49.26 X509.Read 1407
- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409
- 49.29 X509.Release 1410
- 49.30 X509.SerialNumber 1411
- 49.31 X509.ShowDialog 1412
- 49.32 X509.SubjectName 1413
- 49.33 X509.Version 1414
- 49.34 X509.Write 1415
- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.4 XL.Book.AddPictureContainer 8995
- 193.5 XL.Book.AddPictureFile 8997
- 193.6 XL.Book.AddSheet 8998

	407
• 193.7 XL.Book.BiffVersion	9000
• 193.8 XL.Book.CustomNumFormat	9001
• 193.9 XL.Book.DeleteSheet	9002
• 193.10 XL.Book.DeleteSheetsExcept	9005
• 193.11 XL.Book.FontCount	9006
• 193.12 XL.Book.FormatCount	9007
• 193.13 XL.Book.GetActiveSheet	9008
• 193.14 XL.Book.GetCalcMode	9009
• 193.15 XL.Book.GetDefaultFontName	9010
• 193.16 XL.Book.GetDefaultFontSize	9011
• 193.17 XL.Book.GetPicture	9012
• 193.18 XL.Book.GetPictureType	9013
• 193.19 XL.Book.GetRGBMode	9014
• 193.20 XL.Book.GetRefR1C1	9015
• 193.21 XL.Book.GetText	9016
• 193.22 XL.Book.InsertSheet	9017
• 193.23 XL.Book.IsDate1904	9018
• 193.24 XL.Book.IsTemplate	9019
• 193.25 XL.Book.MoveSheet	9020
• 193.26 XL.Book.PictureCount	9021
• 193.27 XL.Book.Release	9022
• 193.28 XL.Book.ReleaseAll	9024
• 193.29 XL.Book.Save	9025
• 193.30 XL.Book.SaveToFile	9027
• 193.31 XL.Book.SetActiveSheet	9029
• 193.32 XL.Book.SetCalcMode	9030
• 193.33 XL.Book.SetDate1904	9031
• 193.34 XL.Book.SetDefaultFont	9032
• 193.35 XL.Book.SetRGBMode	9033

- 193.36 XL.Book.SetRefR1C1 9034
- 193.37 XL.Book.SetTemplate 9035
- 193.38 XL.Book.SheetCount 9036
- 193.39 XL.Book.SheetIndexForName 9037
- 193.40 XL.Book.Sheets 9038
- 193.41 XL.Book.Version 9039
- 193.42 XL.Color.Pack 9040
- 193.43 XL.Color.UnPack 9042
- 193.44 XL.CopyContent 9044
- 193.45 XL.CopyRow 9046
- 193.46 XL.CopySheet 9048
- 193.47 XL.Date.DoubleToTimeStamp 9050
- 193.48 XL.Date.Pack 9051
- 193.49 XL.Date.TimeStampToDouble 9053
- 193.50 XL.Date.UnPack 9054
- 193.51 XL.Font.GetBold 9055
- 193.52 XL.Font.GetColor 9056
- 193.53 XL.Font.GetItalic 9057
- 193.54 XL.Font.GetName 9058
- 193.55 XL.Font.GetScript 9059
- 193.56 XL.Font.GetSize 9060
- 193.57 XL.Font.GetStrikeOut 9061
- 193.58 XL.Font.GetUnderline 9062
- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.61 XL.Font.SetItalic 9068
- 193.62 XL.Font.SetName 9069
- 193.63 XL.Font.SetScript 9071
- 193.64 XL.Font.SetSize 9072

	409
• 193.65 XL.Font.SetStrikeOut	9074
• 193.66 XL.Font.SetUnderline	9075
• 193.67 XL.Format.GetAlignH	9076
• 193.68 XL.Format.GetAlignV	9077
• 193.69 XL.Format.GetBorderBottom	9078
• 193.70 XL.Format.GetBorderBottomColor	9079
• 193.71 XL.Format.GetBorderDiagonal	9080
• 193.72 XL.Format.GetBorderDiagonalColor	9081
• 193.73 XL.Format.GetBorderDiagonalStyle	9082
• 193.74 XL.Format.GetBorderLeft	9083
• 193.75 XL.Format.GetBorderLeftColor	9084
• 193.76 XL.Format.GetBorderRight	9085
• 193.77 XL.Format.GetBorderRightColor	9086
• 193.78 XL.Format.GetBorderTop	9087
• 193.79 XL.Format.GetBorderTopColor	9088
• 193.80 XL.Format.GetFillPattern	9089
• 193.81 XL.Format.GetFont	9090
• 193.82 XL.Format.GetHidden	9091
• 193.83 XL.Format.GetIndent	9092
• 193.84 XL.Format.GetLocked	9093
• 193.85 XL.Format.GetNumFormat	9094
• 193.86 XL.Format.GetPatternBackgroundColor	9095
• 193.87 XL.Format.GetPatternForegroundColor	9096
• 193.88 XL.Format.GetRotation	9097
• 193.89 XL.Format.GetShrinkToFit	9098
• 193.90 XL.Format.GetWrap	9099
• 193.91 XL.Format.SetAlignH	9100
• 193.92 XL.Format.SetAlignV	9103
• 193.93 XL.Format.SetBorder	9105

- 193.94 XL.Format.SetBorderBottom 9107
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.100 XL.Format.SetBorderLeft 9116
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.106 XL.Format.SetFillPattern 9125
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130
- 193.110 XL.Format.SetLocked 9131
- 193.111 XL.Format.SetNumFormat 9133
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.114 XL.Format.SetRotation 9140
- 193.115 XL.Format.SetShrinkToFit 9141
- 193.116 XL.Format.SetWrap 9142
- 193.117 XL.Initialize 9145
- 193.118 XL.IsInitialized 9148
- 193.119 XL.LoadBook 9150
- 193.120 XL.LoadBookPartially 9153
- 193.121 XL.NewBook 9155
- 193.122 XL.Sheet.AddHyperlink 9157

	411
• 193.123 XL.Sheet.AddIgnoredError	9159
• 193.124 XL.Sheet.AddrToRowCol	9161
• 193.125 XL.Sheet.ApplyFilter	9162
• 193.126 XL.Sheet.AutoFilter	9163
• 193.127 XL.Sheet.AutoFilter.AddFilter	9165
• 193.128 XL.Sheet.AutoFilter.Clear	9167
• 193.129 XL.Sheet.AutoFilter.ColumnSize	9168
• 193.130 XL.Sheet.AutoFilter.Filter	9169
• 193.131 XL.Sheet.AutoFilter.FilterSize	9170
• 193.132 XL.Sheet.AutoFilter.FilterType	9171
• 193.133 XL.Sheet.AutoFilter.GetCustomFilter	9173
• 193.134 XL.Sheet.AutoFilter.GetRef	9174
• 193.135 XL.Sheet.AutoFilter.GetSort	9175
• 193.136 XL.Sheet.AutoFilter.GetSortRange	9176
• 193.137 XL.Sheet.AutoFilter.GetTop10	9177
• 193.138 XL.Sheet.AutoFilter.SetCustomFilter	9178
• 193.139 XL.Sheet.AutoFilter.SetRef	9180
• 193.140 XL.Sheet.AutoFilter.SetSort	9182
• 193.141 XL.Sheet.AutoFilter.SetTop10	9183
• 193.142 XL.Sheet.CellsDate	9185
• 193.143 XL.Sheet.CellsFormula	9186
• 193.144 XL.Sheet.CellsStyledText	9187
• 193.145 XL.Sheet.CellReadBlank	9189
• 193.146 XL.Sheet.CellReadBoolean	9190
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.151 XL.Sheet.CellReadDates	9198

- 193.152 XL.Sheet.CellReadFormula 9200
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.154 XL.Sheet.CellReadNumber 9204
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.156 XL.Sheet.CellReadStyledText 9207
- 193.157 XL.Sheet.CellReadText 9209
- 193.158 XL.Sheet.CellReadTexts 9211
- 193.159 XL.Sheet.CellType 9213
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.161 XL.Sheet.CellWriteBlanks 9216
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.166 XL.Sheet.CellWriteDate 9226
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.168 XL.Sheet.CellWriteError 9230
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235
- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.172 XL.Sheet.CellWriteFormulaText 9239
- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.179 XL.Sheet.Clear 9256
- 193.180 XL.Sheet.ClearPrintArea 9257



	413
• 193.181 XL.Sheet.ClearPrintRepeats	9258
• 193.182 XL.Sheet.CopyCell	9259
• 193.183 XL.Sheet.DelHyperlink	9260
• 193.184 XL.Sheet.DelMergeByIndex	9261
• 193.185 XL.Sheet.DeleteMerge	9262
• 193.186 XL.Sheet.DeleteNamedRange	9263
• 193.187 XL.Sheet.GetCellError	9264
• 193.188 XL.Sheet.GetCellErrors	9265
• 193.189 XL.Sheet.GetCellFormat	9267
• 193.190 XL.Sheet.GetCellFormats	9268
• 193.191 XL.Sheet.GetColHidden	9270
• 193.192 XL.Sheet.GetColWidth	9271
• 193.193 XL.Sheet.GetColWidthPixel	9272
• 193.194 XL.Sheet.GetDisplayGridlines	9273
• 193.195 XL.Sheet.GetFirstCol	9274
• 193.196 XL.Sheet.GetFirstRow	9275
• 193.197 XL.Sheet.GetFooter	9276
• 193.198 XL.Sheet.GetFooterMargin	9277
• 193.199 XL.Sheet.GetGroupSummaryBelow	9278
• 193.200 XL.Sheet.GetGroupSummaryRight	9279
• 193.201 XL.Sheet.GetHCenter	9280
• 193.202 XL.Sheet.GetHeader	9281
• 193.203 XL.Sheet.GetHeaderMargin	9282
• 193.204 XL.Sheet.GetHidden	9283
• 193.205 XL.Sheet.GetHorPageBreak	9284
• 193.206 XL.Sheet.GetHorPageBreakCount	9285
• 193.207 XL.Sheet.GetLandscape	9286
• 193.208 XL.Sheet.GetLastCol	9287
• 193.209 XL.Sheet.GetLastRow	9288

- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.214 XL.Sheet.GetMerge 9293
- 193.215 XL.Sheet.GetName 9295
- 193.216 XL.Sheet.GetNamedRange 9296
- 193.217 XL.Sheet.GetPaper 9297
- 193.218 XL.Sheet.GetPicture 9299
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.221 XL.Sheet.GetPrintGridlines 9303
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.226 XL.Sheet.GetProtect 9308
- 193.227 XL.Sheet.GetRowHeight 9309
- 193.228 XL.Sheet.GetRowHeightPixel 9310
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.230 XL.Sheet.GetText 9312
- 193.231 XL.Sheet.GetTopLeftView 9313
- 193.232 XL.Sheet.GetVCenter 9314
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.235 XL.Sheet.GetZoom 9317
- 193.236 XL.Sheet.GroupCols 9318
- 193.237 XL.Sheet.GroupRows 9319
- 193.238 XL.Sheet.Hyperlink 9320

	415
• 193.239 XL.Sheet.HyperlinkSize	9321
• 193.240 XL.Sheet.InsertCol	9322
• 193.241 XL.Sheet.InsertRow	9323
• 193.242 XL.Sheet.Merge	9324
• 193.243 XL.Sheet.MergeSize	9325
• 193.244 XL.Sheet.NamedRange	9326
• 193.245 XL.Sheet.NamedRangeCount	9327
• 193.246 XL.Sheet.PictureCount	9328
• 193.247 XL.Sheet.RemoveCol	9329
• 193.248 XL.Sheet.RemoveComment	9330
• 193.249 XL.Sheet.RemoveComments	9332
• 193.250 XL.Sheet.RemoveFilter	9334
• 193.251 XL.Sheet.RemovePicture	9335
• 193.252 XL.Sheet.RemovePictureByIndex	9336
• 193.253 XL.Sheet.RemoveRow	9337
• 193.254 XL.Sheet.RightToLeft	9339
• 193.255 XL.Sheet.RowColToAddr	9340
• 193.256 XL.Sheet.SetAutoFitArea	9342
• 193.257 XL.Sheet.SetCellFormat	9343
• 193.258 XL.Sheet.SetCellFormats	9345
• 193.259 XL.Sheet.SetCol	9347
• 193.260 XL.Sheet.SetColHidden	9350
• 193.261 XL.Sheet.SetColumn	9351
• 193.262 XL.Sheet.SetDisplayGridlines	9353
• 193.263 XL.Sheet.SetFooter	9354
• 193.264 XL.Sheet.SetGroupSummaryBelow	9356
• 193.265 XL.Sheet.SetGroupSummaryRight	9357
• 193.266 XL.Sheet.SetHCenter	9358
• 193.267 XL.Sheet.SetHeader	9359

- 193.268 XL.Sheet.SetHorPageBreak 9361
- 193.269 XL.Sheet.SetLandscape 9362
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366
- 193.274 XL.Sheet.SetMerge 9367
- 193.275 XL.Sheet.SetName 9369
- 193.276 XL.Sheet.SetNamedRange 9370
- 193.277 XL.Sheet.SetPaper 9372
- 193.278 XL.Sheet.SetPictureWithScale 9374
- 193.279 XL.Sheet.SetPictureWithSize 9376
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.282 XL.Sheet.SetPrintGridlines 9382
- 193.283 XL.Sheet.SetPrintRepeatCols 9383
- 193.284 XL.Sheet.SetPrintRepeatRows 9384
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386
- 193.287 XL.Sheet.SetProtect 9387
- 193.288 XL.Sheet.SetProtectEx 9388
- 193.289 XL.Sheet.SetRightToLeft 9390
- 193.290 XL.Sheet.SetRow 9391
- 193.291 XL.Sheet.SetRowHidden 9393
- 193.292 XL.Sheet.SetTabColor 9394
- 193.293 XL.Sheet.SetTabColorRGB 9395
- 193.294 XL.Sheet.SetTopLeftView 9396
- 193.295 XL.Sheet.SetVCenter 9397
- 193.296 XL.Sheet.SetVerPageBreak 9398

	417
• 193.297 XL.Sheet.SetZoom	9399
• 193.298 XL.Sheet.Split	9400
• 193.299 XL.Sheet.SplitInfo	9401
• 193.300 XL.Sheet.Table	9402
• 193.301 XL.Sheet.TableSize	9403
• 193.302 XL.Sheet.Type	9404
• 193.303 XL.Uninitialize	9405
• 194.2 XML.ApplyStylesheet	9410
• 194.3 XML.Canonical	9412
• 194.4 XML.ClearVariables	9414
• 194.5 XML.Colorize	9415
• 194.6 XML.Compact	9417
• 194.7 XML.DeletePath	9418
• 194.8 XML.ExtractText	9420
• 194.9 XML.Format	9422
• 194.10 XML.GetAttribute	9424
• 194.11 XML.GetPathValue	9425
• 194.12 XML.HasAttribute	9427
• 194.13 XML.Import	9428
• 194.14 XML.Import.Cancel	9432
• 194.15 XML.Import.ErrorCount	9433
• 194.16 XML.Import.Errors	9434
• 194.17 XML.Import.SetBaseFields	9435
• 194.18 XML.Import.SetExtraField	9436
• 194.19 XML.Import.Status	9437
• 194.20 XML.Import.TODO	9438
• 194.21 XML.Import.Total	9439
• 194.22 XML.Import.Work	9440
• 194.23 XML.ListAttributes	9442

• 194.24 XML.NodeCount	9443
• 194.25 XML.NodeNames	9444
• 194.26 XML.Parse	9446
• 194.27 XML.Query	9448
• 194.28 XML.ReadContainer	9451
• 194.29 XML.ReadFile	9452
• 194.30 XML.Release	9454
• 194.31 XML.ReleaseAll	9455
• 194.32 XML.SetPathValue	9456
• 194.33 XML.SetPathXML	9458
• 194.34 XML.SetVariables	9460
• 194.35 XML.SubTree	9462
• 194.36 XML.ToJSON	9465
• 194.37 XML.Validate	9466
• 194.38 XML.ValidateFile	9468
• 54.33 ZipFile.CRCFile	1545
• 54.34 ZipFile.Close	1546
• 54.35 ZipFile.CompressFiles	1547
• 54.36 ZipFile.CreateFile	1549
• 54.37 ZipFile.Open	1551
• 54.38 ZipFile.SetCompressionLevel	1553
• 54.39 ZipFile.UsePassword	1554
• 54.40 ZipFile.WriteContainer	1556
• 54.41 ZipFile.WriteFile	1557
• 54.42 ZipFile.WriteHex	1559
• 54.43 ZipFile.WriteText	1560

5613 functions.

## Chapter 5

# Functions compatible with Windows

- 42.1 AVRecorder.AddPreviewToWindow 1123
- 42.2 AVRecorder.AudioDeviceCount 1125
- 42.3 AVRecorder.AudioDeviceInfo 1126
- 42.5 AVRecorder.CaptureStillPhoto 1130
- 42.6 AVRecorder.ClosePreview 1132
- 42.8 AVRecorder.EncoderCount 1134
- 42.9 AVRecorder.EncoderInfo 1135
- 42.10 AVRecorder.GetAudioDevice 1136
- 42.12 AVRecorder.GetEncoder 1138
- 42.13 AVRecorder.GetFilePath 1139
- 42.14 AVRecorder.GetVideoDevice 1140
- 42.17 AVRecorder.Init 1143
- 42.18 AVRecorder.IsRecording 1146
- 42.20 AVRecorder.Release 1148
- 42.22 AVRecorder.SetAudioDevice 1150
- 42.24 AVRecorder.SetEncoder 1152
- 42.25 AVRecorder.SetFilePath 1153
- 42.27 AVRecorder.SetVideoDevice 1156
- 42.29 AVRecorder.ShowPropertyDialog 1158

- 42.30 AVRecorder.StartPreview 1160
- 42.32 AVRecorder.StartRecording 1163
- 42.34 AVRecorder.StopRecording 1165
- 42.35 AVRecorder.VideoDeviceCount 1166
- 42.36 AVRecorder.VideoDeviceInfo 1167
- 35.3 App.CompactMemory 923
- 35.7 App.GetProcessName 927
- 35.8 App.GetProcessPath 928
- 35.9 App.MemoryUsed 929
- 35.11 App.ProcessID 931
- 37.1 Archive.Compress 955
- 37.2 Archive.Content 958
- 37.3 Archive.Extract 960
- 37.4 Archive.FileList 961
- 37.5 Archive.LibVersion 962
- 37.6 Archive.LibVersionDetails 963
- 37.7 Archive.SupportedFormats 964
- 37.8 Archive.Verify 965
- 38.1 Audit.Backup 967
- 38.2 Audit.Backup2 969
- 38.3 Audit.Changed 970
- 38.4 Audit.Changed2 974
- 38.5 Audit.ClearCaches 976
- 38.6 Audit.Delete 977
- 38.7 Audit.Delete2 979
- 38.8 Audit.FieldIDForName 980
- 38.9 Audit.FieldNameForID 981
- 38.10 Audit.GetEnabled 982
- 38.11 Audit.GetIgnoreCalculations 983



	421
• 38.12 Audit.GetIgnoreSummaryFields	984
• 38.13 Audit.GetIgnoreUnderscoreFieldNames	985
• 38.14 Audit.GetIgnoredFieldNames	986
• 38.15 Audit.GetLogAccess	987
• 38.16 Audit.GetUUIDField	988
• 38.17 Audit.SetEnabled	989
• 38.18 Audit.SetIgnoreCalculations	990
• 38.19 Audit.SetIgnoreSummaryFields	991
• 38.20 Audit.SetIgnoreUnderscoreFieldNames	992
• 38.21 Audit.SetIgnoredFieldNames	993
• 38.22 Audit.SetLogAccess	995
• 38.23 Audit.SetUUIDField	996
• 38.24 Audit.TableIDForName	997
• 38.25 Audit.TableNameForID	998
• 44.1 Barcode.Detect	1171
• 44.2 Barcode.DrawBarcode	1174
• 44.3 Barcode.EANChecksum	1176
• 44.4 Barcode.Generate	1177
• 44.5 Barcode.GenerateJSON	1183
• 44.6 Barcode.GetInputMode	1185
• 44.7 Barcode.GetOption	1186
• 44.8 Barcode.GetPrimary	1187
• 44.9 Barcode.ISBNChecksum	1188
• 44.10 Barcode.LibVersion	1190
• 44.11 Barcode.SetInputMode	1191
• 44.12 Barcode.SetOption	1193
• 44.13 Barcode.SetOptions	1195
• 44.14 Barcode.SetPrimary	1198
• 44.15 Barcode.UPCChecksum	1200

- 44.16 Barcode.WriteFile 1201
- 45.1 BinaryFile.Append 1205
- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.4 BinaryFile.EOF 1210
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.7 BinaryFile.Position 1214
- 45.8 BinaryFile.ReadByte 1215
- 45.9 BinaryFile.ReadContainer 1216
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225
- 45.16 BinaryFile.WriteByte 1226
- 45.17 BinaryFile.WriteContainer 1227
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 47.1 Bonjour.Browse 1257
- 47.2 Bonjour.JSON 1259
- 47.3 Bonjour.Register 1261
- 47.4 Bonjour.RegisteredName 1262
- 62.1 CURL.AddInputFile 1799
- 62.2 CURL.AddInputGIF 1801
- 62.3 CURL.AddInputJPEG 1802

	423
• 62.4 CURL.AddInputPDF	1803
• 62.5 CURL.AddInputPNG	1804
• 62.6 CURL.AddInputText	1806
• 62.7 CURL.Cancel	1808
• 62.8 CURL.Check	1809
• 62.9 CURL.CloseDebugFile	1810
• 62.10 CURL.CloseHeaderFile	1811
• 62.11 CURL.CloseInputFile	1812
• 62.12 CURL.CloseOutputFile	1813
• 62.13 CURL.CreateDebugOutputFile	1815
• 62.14 CURL.CreateHeaderOutputFile	1817
• 62.15 CURL.CreateOutputFile	1819
• 62.16 CURL.ErrorCode	1823
• 62.17 CURL.ErrorMessage	1826
• 62.18 CURL.Features	1827
• 62.19 CURL.FileInfos	1828
• 62.20 CURL.FormAddKeyContainer	1831
• 62.21 CURL.FormAddKeyContainerContentType	1833
• 62.22 CURL.FormAddKeyFile	1835
• 62.23 CURL.FormAddKeyFileContentType	1837
• 62.24 CURL.FormAddKeyText	1839
• 62.25 CURL.FormAddKeyTextContentType	1841
• 62.26 CURL.FormAddKeyValue	1843
• 62.27 CURL.FormAddKeyValueContentType	1845
• 62.28 CURL.FormClear	1847
• 62.29 CURL.FormFinish	1848
• 62.30 CURL.GetActiveSocket	1850
• 62.31 CURL.GetAppConnectTime	1851
• 62.32 CURL.GetBatchCurrentFileName	1852

- 62.33 `CURL.GetBatchCurrentFilePath` 1853
- 62.34 `CURL.GetBatchDestinationPath` 1854
- 62.35 `CURL.GetBatchFileNames` 1855
- 62.36 `CURL.GetCertInfo` 1856
- 62.37 `CURL.GetConditionUnmet` 1858
- 62.38 `CURL.GetConnectTime` 1859
- 62.39 `CURL.GetContentLengthDownload` 1860
- 62.40 `CURL.GetContentLengthUpload` 1861
- 62.41 `CURL.GetContentType` 1862
- 62.42 `CURL.GetCookieList` 1863
- 62.43 `CURL.GetDebugAsText` 1866
- 62.44 `CURL.GetDebugLength` 1869
- 62.45 `CURL.GetDebugWithData` 1870
- 62.46 `CURL.GetDebugWithProgress` 1871
- 62.47 `CURL.GetDebugWithTime` 1872
- 62.48 `CURL.GetEffectiveURL` 1873
- 62.49 `CURL.GetFTPEntryPath` 1875
- 62.50 `CURL.GetFileTime` 1876
- 62.51 `CURL.GetFinishedEvaluate` 1877
- 62.52 `CURL.GetFinishedFileName` 1878
- 62.53 `CURL.GetFinishedScriptName` 1879
- 62.54 `CURL.GetFormData` 1880
- 62.55 `CURL.GetHTTPAuthAvail` 1882
- 62.56 `CURL.GetHTTPConnectCode` 1883
- 62.57 `CURL.GetHTTPVersion` 1884
- 62.58 `CURL.GetHeaderAsJSON` 1885
- 62.59 `CURL.GetHeaderAsText` 1887
- 62.60 `CURL.GetHeaderLength` 1889
- 62.61 `CURL.GetHeaderSize` 1890

	425
• 62.62 CURL.GetInputAsText	1891
• 62.63 CURL.GetInputLength	1893
• 62.64 CURL.GetLastSocket	1894
• 62.65 CURL.GetLocalIP	1895
• 62.66 CURL.GetLocalPort	1896
• 62.67 CURL.GetMultiOptionChunkLengthPenaltySize	1897
• 62.68 CURL.GetMultiOptionContentLengthPenaltySize	1898
• 62.69 CURL.GetMultiOptionMaxConcurrentStreams	1899
• 62.70 CURL.GetMultiOptionMaxConnects	1900
• 62.71 CURL.GetMultiOptionMaxHostConnections	1901
• 62.72 CURL.GetMultiOptionMaxPipelineLength	1902
• 62.73 CURL.GetMultiOptionMaxTotalConnections	1903
• 62.74 CURL.GetMultiOptionPipelining	1904
• 62.75 CURL.GetMultiRunningTransfers	1905
• 62.76 CURL.GetNameLookupTime	1906
• 62.77 CURL.GetNumConnects	1907
• 62.78 CURL.GetOSErrNo	1908
• 62.79 CURL.GetOptionConnectTo	1909
• 62.80 CURL.GetOptionHTTP200Aliases	1910
• 62.81 CURL.GetOptionHTTPHeader	1911
• 62.82 CURL.GetOptionMailRecipients	1912
• 62.83 CURL.GetOptionPostQuote	1913
• 62.84 CURL.GetOptionPreQuote	1914
• 62.85 CURL.GetOptionProxyHeader	1915
• 62.86 CURL.GetOptionQuote	1916
• 62.87 CURL.GetOptionResolve	1917
• 62.88 CURL.GetOptionTelnetOptions	1918
• 62.89 CURL.GetPreTransferTime	1919
• 62.90 CURL.GetPrimaryIP	1920

- 62.91 `CURL.GetPrimaryPort` 1921
- 62.92 `CURL.GetProgressCurrentDownload` 1922
- 62.93 `CURL.GetProgressCurrentUpload` 1923
- 62.94 `CURL.GetProgressEvaluate` 1924
- 62.95 `CURL.GetProgressFileName` 1925
- 62.96 `CURL.GetProgressPercent` 1926
- 62.97 `CURL.GetProgressScriptName` 1927
- 62.98 `CURL.GetProgressTotalDownload` 1928
- 62.99 `CURL.GetProgressTotalUpload` 1929
- 62.100 `CURL.GetProtocol` 1930
- 62.101 `CURL.GetProxyAuthAvail` 1931
- 62.102 `CURL.GetProxySSLVerifyResult` 1932
- 62.103 `CURL.GetRTSPCSEQRecv` 1933
- 62.104 `CURL.GetRTSPClientCSEQ` 1934
- 62.105 `CURL.GetRTSPServerCSEQ` 1935
- 62.106 `CURL.GetRTSPSessionID` 1936
- 62.107 `CURL.GetRedirectCount` 1937
- 62.108 `CURL.GetRedirectTime` 1938
- 62.109 `CURL.GetRedirectURL` 1939
- 62.110 `CURL.GetRequestSize` 1941
- 62.111 `CURL.GetResponseCode` 1942
- 62.112 `CURL.GetResultAsContainer` 1944
- 62.113 `CURL.GetResultAsData` 1947
- 62.114 `CURL.GetResultAsEMailList` 1949
- 62.115 `CURL.GetResultAsEmail` 1951
- 62.116 `CURL.GetResultAsGIF` 1953
- 62.117 `CURL.GetResultAsJPEG` 1955
- 62.118 `CURL.GetResultAsMime` 1957
- 62.119 `CURL.GetResultAsPDF` 1959

	427
• 62.120 CURL.GetResultAsPNG	1961
• 62.121 CURL.GetResultAsText	1963
• 62.122 CURL.GetResultLength	1967
• 62.123 CURL.GetSSLEngines	1968
• 62.124 CURL.GetSSLVerifyResult	1969
• 62.125 CURL.GetScheme	1970
• 62.126 CURL.GetSizeDownload	1971
• 62.127 CURL.GetSizeUpload	1972
• 62.128 CURL.GetSpeedDownload	1973
• 62.129 CURL.GetSpeedUpload	1974
• 62.130 CURL.GetStartTransferTime	1975
• 62.131 CURL.GetTag	1976
• 62.132 CURL.GetTotalTime	1977
• 62.133 CURL.Host	1978
• 62.134 CURL.IsRunning	1979
• 62.135 CURL.LibIDNVersion	1980
• 62.136 CURL.LibSSHVersion	1981
• 62.137 CURL.LibSSLVersion	1982
• 62.138 CURL.List	1983
• 62.139 CURL.LoadLibrary	1984
• 62.140 CURL.New	1985
• 62.141 CURL.NumberOfRunningTransfers	1988
• 62.142 CURL.OpenInputFile	1989
• 62.143 CURL.Perform	1992
• 62.144 CURL.PerformAsync	2001
• 62.145 CURL.PerformInBackground	2003
• 62.146 CURL.Protocols	2005
• 62.147 CURL.ReceiveData	2006
• 62.148 CURL.ReceiveText	2008

- 62.149 CURL.Release 2011
- 62.150 CURL.ReleaseAll 2013
- 62.151 CURL.Reset 2014
- 62.152 CURL.RunningTransfers 2015
- 62.153 CURL.SendData 2016
- 62.154 CURL.SendText 2018
- 62.155 CURL.SetBatchDestinationPath 2020
- 62.156 CURL.SetDebugWithData 2022
- 62.157 CURL.SetDebugWithProgress 2024
- 62.158 CURL.SetDebugWithTime 2026
- 62.159 CURL.SetFinishedEvaluate 2028
- 62.160 CURL.SetFinishedScript 2030
- 62.161 CURL.SetInputFile 2032
- 62.162 CURL.SetInputGIF 2035
- 62.163 CURL.SetInputJPEG 2037
- 62.164 CURL.SetInputPDF 2039
- 62.165 CURL.SetInputPNG 2041
- 62.166 CURL.SetInputText 2043
- 62.167 CURL.SetMultiOptionChunkLengthPenaltySize 2046
- 62.168 CURL.SetMultiOptionContentLengthPenaltySize 2047
- 62.169 CURL.SetMultiOptionMaxConcurrentStreams 2048
- 62.170 CURL.SetMultiOptionMaxConnects 2049
- 62.171 CURL.SetMultiOptionMaxHostConnections 2050
- 62.172 CURL.SetMultiOptionMaxPipelineLength 2051
- 62.173 CURL.SetMultiOptionMaxTotalConnections 2052
- 62.174 CURL.SetMultiOptionPipelining 2053
- 62.175 CURL.SetOptionAbstractUnixSocket 2054
- 62.176 CURL.SetOptionAcceptEncoding 2055
- 62.177 CURL.SetOptionAcceptTimeoutMS 2057



	429
• 62.178 CURL.SetOptionAddressScope	2058
• 62.179 CURL.SetOptionAppend	2059
• 62.180 CURL.SetOptionAutoReferer	2060
• 62.181 CURL.SetOptionBufferSize	2061
• 62.182 CURL.SetOptionCAINFO	2063
• 62.183 CURL.SetOptionCAPATH	2066
• 62.184 CURL.SetOptionCRLF	2068
• 62.185 CURL.SetOptionCRLFFile	2069
• 62.186 CURL.SetOptionCertInfo	2071
• 62.187 CURL.SetOptionConnectOnly	2073
• 62.188 CURL.SetOptionConnectTimeoutMS	2076
• 62.189 CURL.SetOptionConnectTo	2077
• 62.190 CURL.SetOptionConnectionTimeout	2078
• 62.191 CURL.SetOptionCookie	2080
• 62.192 CURL.SetOptionCookieFile	2082
• 62.193 CURL.SetOptionCookieJar	2085
• 62.194 CURL.SetOptionCookieList	2087
• 62.195 CURL.SetOptionCookieSession	2088
• 62.196 CURL.SetOptionCustomRequest	2089
• 62.197 CURL.SetOptionDNSCacheTimeout	2094
• 62.198 CURL.SetOptionDNSInterface	2095
• 62.199 CURL.SetOptionDNSLocalIPv4	2096
• 62.200 CURL.SetOptionDNSLocalIPv6	2097
• 62.201 CURL.SetOptionDNSServers	2098
• 62.202 CURL.SetOptionDNSShuffleAddresses	2099
• 62.203 CURL.SetOptionDOHURL	2100
• 62.204 CURL.SetOptionDefaultProtocol	2102
• 62.205 CURL.SetOptionDirListOnly	2103
• 62.206 CURL.SetOptionDisallowUserNameInURL	2105

- 62.207 CURL.SetOptionEGDSocket 2106
- 62.208 CURL.SetOptionExpect100TimeoutMS 2107
- 62.209 CURL.SetOptionFTPAccount 2108
- 62.210 CURL.SetOptionFTPAlternativeToUser 2109
- 62.211 CURL.SetOptionFTPCreateMissingDirs 2110
- 62.212 CURL.SetOptionFTPFileMethod 2113
- 62.213 CURL.SetOptionFTPPort 2114
- 62.214 CURL.SetOptionFTPResponseTimeout 2116
- 62.215 CURL.SetOptionFTPSSLAUTH 2117
- 62.216 CURL.SetOptionFTPSSLCCC 2119
- 62.217 CURL.SetOptionFTPSkipPasvIP 2120
- 62.218 CURL.SetOptionFTPUseEPRT 2121
- 62.219 CURL.SetOptionFTPUseEPSV 2122
- 62.220 CURL.SetOptionFTPUsePret 2123
- 62.221 CURL.SetOptionFailOnError 2124
- 62.222 CURL.SetOptionFileOnlyMode 2125
- 62.223 CURL.SetOptionFileTime 2126
- 62.224 CURL.SetOptionFollowLocation 2127
- 62.225 CURL.SetOptionForbidReuse 2129
- 62.226 CURL.SetOptionFreshConnect 2130
- 62.227 CURL.SetOptionGSSAPIDelegation 2131
- 62.228 CURL.SetOptionGet 2132
- 62.229 CURL.SetOptionHAProxyProtocol 2134
- 62.230 CURL.SetOptionHTTP200Aliases 2135
- 62.231 CURL.SetOptionHTTPOAuth 2136
- 62.232 CURL.SetOptionHTTPContentDecoding 2138
- 62.233 CURL.SetOptionHTTPHeader 2139
- 62.234 CURL.SetOptionHTTPProxyTunnel 2143
- 62.235 CURL.SetOptionHTTPTransferDecoding 2144

	431
• 62.236 CURL.SetOptionHTTPVersion	2145
• 62.237 CURL.SetOptionHappyEyeballsTimeOutMS	2146
• 62.238 CURL.SetOptionHeader	2147
• 62.239 CURL.SetOptionHeaderOptions	2148
• 62.240 CURL.SetOptionIPResolve	2149
• 62.241 CURL.SetOptionIgnoreContentLength	2150
• 62.242 CURL.SetOptionInFileSize	2151
• 62.243 CURL.SetOptionInterface	2153
• 62.244 CURL.SetOptionIssuerCert	2154
• 62.245 CURL.SetOptionKRBLevel	2156
• 62.246 CURL.SetOptionKeepSendingOnError	2157
• 62.247 CURL.SetOptionKeyPassword	2158
• 62.248 CURL.SetOptionLocalPort	2160
• 62.249 CURL.SetOptionLocalPortRange	2161
• 62.250 CURL.SetOptionLoginOptions	2162
• 62.251 CURL.SetOptionLowSpeedLimit	2164
• 62.252 CURL.SetOptionLowSpeedTime	2165
• 62.253 CURL.SetOptionMailAuth	2166
• 62.254 CURL.SetOptionMailFrom	2168
• 62.255 CURL.SetOptionMailRecipients	2169
• 62.256 CURL.SetOptionMaxAgeConn	2170
• 62.257 CURL.SetOptionMaxConnects	2171
• 62.258 CURL.SetOptionMaxFileSize	2172
• 62.259 CURL.SetOptionMaxRecvSpeed	2173
• 62.260 CURL.SetOptionMaxRedirs	2174
• 62.261 CURL.SetOptionMaxSendSpeed	2176
• 62.262 CURL.SetOptionNETRCFile	2177
• 62.263 CURL.SetOptionNetRC	2178
• 62.264 CURL.SetOptionNewDirectoryPerms	2180

- 62.265 CURL.SetOptionNewFilePerms 2181
- 62.266 CURL.SetOptionNoBody 2182
- 62.267 CURL.SetOptionNoProxy 2184
- 62.268 CURL.SetOptionPassword 2186
- 62.269 CURL.SetOptionPathAsIs 2189
- 62.270 CURL.SetOptionPinnedPublicKey 2190
- 62.271 CURL.SetOptionPipeWait 2191
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194
- 62.274 CURL.SetOptionPostFieldSize 2198
- 62.275 CURL.SetOptionPostFields 2199
- 62.276 CURL.SetOptionPostQuote 2203
- 62.277 CURL.SetOptionPostRedir 2205
- 62.278 CURL.SetOptionPreProxy 2207
- 62.279 CURL.SetOptionPreQuote 2208
- 62.280 CURL.SetOptionProtocols 2210
- 62.281 CURL.SetOptionProxy 2212
- 62.282 CURL.SetOptionProxyAuth 2214
- 62.283 CURL.SetOptionProxyCAInfo 2215
- 62.284 CURL.SetOptionProxyCAPath 2216
- 62.285 CURL.SetOptionProxyCRLFile 2217
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.287 CURL.SetOptionProxyKeyPassword 2219
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.289 CURL.SetOptionProxyPinnedPublicKey 2221
- 62.290 CURL.SetOptionProxyPort 2222
- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.293 CURL.SetOptionProxySSLCipherList 2225

	433
• 62.294 CURL.SetOptionProxySSLKey	2226
• 62.295 CURL.SetOptionProxySSLKeyType	2227
• 62.296 CURL.SetOptionProxySSLOptions	2228
• 62.297 CURL.SetOptionProxySSLVerifyHost	2229
• 62.298 CURL.SetOptionProxySSLVerifyPeer	2230
• 62.299 CURL.SetOptionProxySSLVersion	2231
• 62.300 CURL.SetOptionProxyServiceName	2233
• 62.301 CURL.SetOptionProxyTLS13Ciphers	2234
• 62.302 CURL.SetOptionProxyTLSAuthPassword	2235
• 62.303 CURL.SetOptionProxyTLSAuthType	2236
• 62.304 CURL.SetOptionProxyTLSAuthUsername	2237
• 62.305 CURL.SetOptionProxyTransferMode	2238
• 62.306 CURL.SetOptionProxyType	2239
• 62.307 CURL.SetOptionProxyUsername	2241
• 62.308 CURL.SetOptionPut	2242
• 62.309 CURL.SetOptionQuote	2244
• 62.310 CURL.SetOptionRTSPClientCSEQ	2247
• 62.311 CURL.SetOptionRTSPRequest	2248
• 62.312 CURL.SetOptionRTSPServerCSEQ	2249
• 62.313 CURL.SetOptionRTSPSessionID	2250
• 62.314 CURL.SetOptionRTSPStreamURI	2251
• 62.315 CURL.SetOptionRTSPTransport	2252
• 62.316 CURL.SetOptionRandomFile	2253
• 62.317 CURL.SetOptionRange	2254
• 62.318 CURL.SetOptionRedirProtocols	2256
• 62.319 CURL.SetOptionReferer	2258
• 62.320 CURL.SetOptionRequestTarget	2259
• 62.321 CURL.SetOptionResolve	2260
• 62.322 CURL.SetOptionResumeFrom	2261

- 62.323 `CURL.SetOptionSASLAUTHZID` 2262
- 62.324 `CURL.SetOptionSASLIR` 2263
- 62.325 `CURL.SetOptionSSHAuthTypes` 2264
- 62.326 `CURL.SetOptionSSHCompression` 2266
- 62.327 `CURL.SetOptionSSHHostPublicKeyMD5` 2267
- 62.328 `CURL.SetOptionSSHKnownHosts` 2268
- 62.329 `CURL.SetOptionSSHPrivateKeyfile` 2269
- 62.330 `CURL.SetOptionSSHPublicKeyfile` 2271
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.332 `CURL.SetOptionSSLCertType` 2277
- 62.333 `CURL.SetOptionSSLCipherList` 2279
- 62.334 `CURL.SetOptionSSEnableALPN` 2281
- 62.335 `CURL.SetOptionSSEnableNPN` 2282
- 62.336 `CURL.SetOptionSSLEngine` 2283
- 62.337 `CURL.SetOptionSSLEngineDefault` 2284
- 62.338 `CURL.SetOptionSSLFalseStart` 2285
- 62.339 `CURL.SetOptionSSLKey` 2286
- 62.340 `CURL.SetOptionSSLKeyType` 2288
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.342 `CURL.SetOptionSSLSessionIDCache` 2291
- 62.343 `CURL.SetOptionSSLVerifyHost` 2292
- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295
- 62.345 `CURL.SetOptionSSLVerifyStatus` 2298
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.347 `CURL.SetOptionServiceName` 2302
- 62.348 `CURL.SetOptionSocks5Auth` 2303
- 62.349 `CURL.SetOptionSocks5GSSAPINec` 2304
- 62.350 `CURL.SetOptionSocks5GSSAPIService` 2305
- 62.351 `CURL.SetOptionStreamDepends` 2306

	435
• 62.352 CURL.SetOptionStreamDependsE	2307
• 62.353 CURL.SetOptionStreamWeight	2308
• 62.354 CURL.SetOptionSuppressConnectHeaders	2309
• 62.355 CURL.SetOptionTCPFastOpen	2310
• 62.356 CURL.SetOptionTCPKeepAlive	2311
• 62.357 CURL.SetOptionTCPKeepIdle	2312
• 62.358 CURL.SetOptionTCPKeepInterval	2313
• 62.359 CURL.SetOptionTCPNoDelay	2314
• 62.360 CURL.SetOptionTFTPBlockSize	2315
• 62.361 CURL.SetOptionTFTPNoOptions	2316
• 62.362 CURL.SetOptionTLS13Ciphers	2317
• 62.363 CURL.SetOptionTLSAuthPassword	2318
• 62.364 CURL.SetOptionTLSAuthType	2319
• 62.365 CURL.SetOptionTLSAuthUsername	2320
• 62.366 CURL.SetOptionTelnetOptions	2321
• 62.367 CURL.SetOptionTimeCondition	2322
• 62.368 CURL.SetOptionTimeOut	2323
• 62.369 CURL.SetOptionTimeValue	2325
• 62.370 CURL.SetOptionTimeoutMS	2326
• 62.371 CURL.SetOptionTransferEncoding	2327
• 62.372 CURL.SetOptionTransferText	2328
• 62.373 CURL.SetOptionURL	2329
• 62.374 CURL.SetOptionUnixSocketPath	2337
• 62.375 CURL.SetOptionUnrestrictedAuth	2338
• 62.376 CURL.SetOptionUpkeepIntervalMS	2339
• 62.377 CURL.SetOptionUpload	2340
• 62.378 CURL.SetOptionUploadBufferSize	2342
• 62.379 CURL.SetOptionUseSSL	2343
• 62.380 CURL.SetOptionUserAgent	2345

- 62.381 CURL.SetOptionUsername 2346
- 62.382 CURL.SetOptionVerbose 2348
- 62.383 CURL.SetOptionWildCardMatch 2350
- 62.384 CURL.SetOptionXOAuth2Bearer 2353
- 62.385 CURL.SetProgressEvaluate 2354
- 62.386 CURL.SetProgressScript 2355
- 62.387 CURL.SetTag 2357
- 62.388 CURL.SetUpdateProgressDialog 2359
- 62.389 CURL.SetupAWS 2361
- 62.390 CURL.SetupOAuth 2365
- 62.391 CURL.Upkeep 2370
- 62.392 CURL.UseSystemCertificates 2371
- 62.393 CURL.Version 2373
- 127.1 ClearRegistration 6369
- 52.1 Clipboard.DetectFileMakerDataType 1469
- 52.2 Clipboard.GetData 1470
- 52.3 Clipboard.GetFileMakerData 1472
- 52.4 Clipboard.GetFiles 1474
- 52.5 Clipboard.GetHTMLText 1475
- 52.6 Clipboard.GetPicture 1476
- 52.7 Clipboard.GetRTFText 1477
- 52.9 Clipboard.GetText 1479
- 52.10 Clipboard.GetTypes 1481
- 52.11 Clipboard.SetFileMakerData 1482
- 52.12 Clipboard.SetFiles 1484
- 52.13 Clipboard.SetHTMLText 1486
- 52.14 Clipboard.SetPicture 1488
- 52.15 Clipboard.SetRTFText 1489
- 52.17 Clipboard.SetText 1492



	437
• 53.1 ColorPanel.Choose	1495
• 127.2 CompileDate	6370
• 127.3 CompileTime	6371
• 56.1 Container.Compress	1641
• 56.2 Container.DecodeFromBase64	1643
• 56.3 Container.DecodeFromHex	1645
• 56.4 Container.Decompress	1646
• 56.5 Container.Deserialize	1648
• 56.6 Container.Export	1649
• 56.7 Container.ExtractStream	1652
• 56.8 Container.GetBase64	1653
• 56.9 Container.GetCount	1655
• 56.10 Container.GetDataURL	1657
• 56.11 Container.GetHeight	1658
• 56.12 Container.GetHex	1659
• 56.17 Container.GetName	1664
• 56.18 Container.GetResolution	1665
• 56.19 Container.GetSize	1667
• 56.20 Container.GetText	1669
• 56.21 Container.GetTotalSize	1671
• 56.22 Container.GetType	1672
• 56.23 Container.GetTypeSize	1674
• 56.24 Container.GetTypes	1676
• 56.25 Container.GetWidth	1678
• 56.26 Container.IsCompressed	1679
• 56.27 Container.ReadArchive	1680
• 56.28 Container.ReadFile	1681
• 56.30 Container.Remove	1686
• 56.31 Container.Rename	1688

- 56.32 Container.RenameStream 1690
- 56.33 Container.Serialize 1691
- 56.34 Container.WriteArchive 1692
- 56.35 Container.WriteFile 1694
- 68.1 DNSLookup.Address 2493
- 68.2 DNSLookup.AddressCount 2495
- 68.3 DNSLookup.Alias 2496
- 68.4 DNSLookup.AliasCount 2497
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.6 DNSLookup.LookupHostByName 2500
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 64.4 Dialog.GetAlternateButton 2385
- 64.5 Dialog.GetButton 2386
- 64.6 Dialog.GetButtonPressed 2387
- 64.7 Dialog.GetButtons 2388
- 64.8 Dialog.GetDefaultButton 2389
- 64.10 Dialog.GetIcon 2391
- 64.11 Dialog.GetInformativeText 2392
- 64.12 Dialog.GetLastResult 2393
- 64.13 Dialog.GetLeft 2394
- 64.14 Dialog.GetMessage 2395
- 64.15 Dialog.GetMode 2396
- 64.16 Dialog.GetOtherButton 2397
- 64.21 Dialog.GetShowsSuppressionButton 2402
- 64.22 Dialog.GetSuppressionButtonTitle 2403
- 64.23 Dialog.GetSuppressionState 2404
- 64.24 Dialog.GetTimeout 2405
- 64.25 Dialog.GetTop 2406

	439
• 64.26 Dialog.GetWindowTitle	2407
• 64.27 Dialog.Reset	2408
• 64.28 Dialog.Run	2409
• 64.30 Dialog.SetAlternateButton	2412
• 64.31 Dialog.SetButton	2413
• 64.32 Dialog.SetButtons	2415
• 64.33 Dialog.SetDefaultButton	2416
• 64.35 Dialog.SetIcon	2418
• 64.36 Dialog.SetInformativeText	2419
• 64.37 Dialog.SetLeft	2420
• 64.38 Dialog.SetMessage	2421
• 64.39 Dialog.SetMode	2422
• 64.40 Dialog.SetOtherButton	2423
• 64.44 Dialog.SetShowsSuppressionButton	2427
• 64.45 Dialog.SetSuppressionButtonTitle	2428
• 64.46 Dialog.SetTimeout	2429
• 64.47 Dialog.SetTop	2431
• 64.48 Dialog.SetWindowTitle	2433
• 66.1 Dictionary.AddSQL	2439
• 81.1 Dictionary.AddSQLRecord	4123
• 81.2 Dictionary.AddSQLRecords	4125
• 66.4 Dictionary.Clear	2446
• 66.5 Dictionary.Clone	2447
• 66.6 Dictionary.Count	2448
• 66.7 Dictionary.Create	2449
• 66.8 Dictionary.CreateNamed	2452
• 66.9 Dictionary.Deserialize	2453
• 66.10 Dictionary.HasKey	2455
• 66.11 Dictionary.KeyAtIndex	2456

- 66.12 Dictionary.Keys 2457
- 66.13 Dictionary.List 2458
- 66.14 Dictionary.Release 2459
- 66.15 Dictionary.RemoveKey 2460
- 66.16 Dictionary.Serialize 2461
- 66.17 Dictionary.SetList 2463
- 66.18 Dictionary.SetQuickList 2464
- 66.19 Dictionary.SetValueForKey 2465
- 66.20 Dictionary.SetVariables 2468
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 66.24 Dictionary.ValueForKey 2475
- 66.25 Dictionary.ValueTypeForKey 2477
- 66.26 Dictionary.Values 2478
- 67.1 DirectoryWatcher.AddDirectory 2479
- 67.2 DirectoryWatcher.ChangeCount 2481
- 67.3 DirectoryWatcher.Create 2482
- 67.4 DirectoryWatcher.Evaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.6 DirectoryWatcher.GetScriptName 2485
- 67.7 DirectoryWatcher.NextChange 2486
- 67.8 DirectoryWatcher.Release 2487
- 67.9 DirectoryWatcher.ReleaseAll 2488
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.11 DirectoryWatcher.SetFileName 2490
- 67.12 DirectoryWatcher.SetScriptName 2491
- 70.1 DragDrop.ClearDragActionHandler 2521
- 70.2 DragDrop.ClearDragEnterHandler 2523

	441
• 70.3 DragDrop.ClearDragExitHandler	2524
• 70.4 DragDrop.CreateOnPopoverWithControl	2525
• 70.5 DragDrop.CreateOnPopoverWithSize	2527
• 70.6 DragDrop.CreateWithControl	2529
• 70.7 DragDrop.CreateWithSize	2532
• 70.8 DragDrop.CreateWithWindow	2534
• 70.15 DragDrop.GetFileDescriptor	2542
• 70.16 DragDrop.GetFileDescriptorCount	2544
• 70.17 DragDrop.GetHTML	2545
• 70.18 DragDrop.GetHeight	2546
• 70.19 DragDrop.GetLeft	2547
• 70.20 DragDrop.GetMouseX	2548
• 70.21 DragDrop.GetMouseY	2549
• 70.22 DragDrop.GetPath	2550
• 70.23 DragDrop.GetPathCount	2553
• 70.25 DragDrop.GetRTF	2557
• 70.26 DragDrop.GetTag	2558
• 70.27 DragDrop.GetText	2559
• 70.28 DragDrop.GetTop	2561
• 70.31 DragDrop.GetVisible	2564
• 70.32 DragDrop.GetWidth	2565
• 70.33 DragDrop.GetWindowRef	2566
• 70.34 DragDrop.List	2567
• 70.36 DragDrop.Release	2570
• 70.37 DragDrop.ReleaseAll	2572
• 70.39 DragDrop.SetCursor	2575
• 70.40 DragDrop.SetDragActionHandler	2577
• 70.41 DragDrop.SetDragEnterHandler	2579
• 70.42 DragDrop.SetDragExitHandler	2581

- 70.43 DragDrop.SetFrame 2583
- 70.44 DragDrop.SetFrameWithControl 2584
- 70.45 DragDrop.SetImage 2586
- 70.46 DragDrop.SetTag 2588
- 70.47 DragDrop.SetVisible 2589
- 71.1 DynaPDF.AddActionToObj 2591
- 71.2 DynaPDF.AddAnnotToPage 2594
- 71.3 DynaPDF.AddBookmark 2595
- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.5 DynaPDF.AddButtonImage 2599
- 71.6 DynaPDF.AddContinueText 2601
- 71.7 DynaPDF.AddDeviceNProcessColorants 2602
- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.9 DynaPDF.AddFontSearchPath 2607
- 71.10 DynaPDF.AddOutputIntent 2608
- 71.11 DynaPDF.AddOutputIntentEx 2609
- 71.12 DynaPDF.AddValToChoiceField 2611
- 71.13 DynaPDF.AllowPageBreak 2613
- 71.14 DynaPDF.AppendImagePage 2615
- 71.15 DynaPDF.AppendImagePages 2617
- 71.16 DynaPDF.AppendPage 2619
- 71.17 DynaPDF.ApplyShading 2621
- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.19 DynaPDF.AttachFile 2624
- 71.20 DynaPDF.AttachFileContainer 2626
- 71.21 DynaPDF.AttachFileText 2627
- 71.22 DynaPDF.BeginContinueText 2629
- 71.23 DynaPDF.BeginLayer 2631
- 71.24 DynaPDF.BeginPattern 2632

	443
• 71.25 DynaPDF.BeginTemplate	2633
• 71.26 DynaPDF.Bezier123	2634
• 71.27 DynaPDF.Bezier13	2636
• 71.28 DynaPDF.Bezier23	2637
• 71.29 DynaPDF.CMYK	2638
• 71.30 DynaPDF.ChangeAnnotName	2640
• 71.31 DynaPDF.ChangeAnnotPos	2641
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.33 DynaPDF.ChangeFont	2644
• 71.34 DynaPDF.ChangeFontSize	2645
• 71.35 DynaPDF.ChangeFontStyle	2646
• 71.36 DynaPDF.ChangeFontStyleEx	2647
• 71.37 DynaPDF.ChangeLinkAnnot	2648
• 71.38 DynaPDF.ChangeSeparationColor	2649
• 71.39 DynaPDF.CheckConformance	2650
• 71.40 DynaPDF.CheckFieldNames	2653
• 71.41 DynaPDF.CircleAnnot	2654
• 71.42 DynaPDF.Clear	2656
• 71.43 DynaPDF.ClipPath	2657
• 71.44 DynaPDF.CloseImportFile	2659
• 71.45 DynaPDF.ClosePath	2660
• 71.46 DynaPDF.ConvertColors	2662
• 71.47 DynaPDF.ConvertStyledText	2664
• 71.48 DynaPDF.CreateAxialShading	2665
• 71.49 DynaPDF.CreateButton	2667
• 71.50 DynaPDF.CreateCheckBox	2670
• 71.51 DynaPDF.CreateComboBox	2672
• 71.52 DynaPDF.CreateDeviceNColorSpace	2675
• 71.53 DynaPDF.CreateGoToAction	2677

- 71.54 DynaPDF.CreateGoToActionEx 2679
- 71.55 DynaPDF.CreateGoToRAction 2681
- 71.56 DynaPDF.CreateGoToRActionEx 2683
- 71.57 DynaPDF.CreateGroupField 2685
- 71.58 DynaPDF.CreateJSAction 2687
- 71.59 DynaPDF.CreateListBox 2690
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.61 DynaPDF.CreateRadialShading 2695
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.64 DynaPDF.CreateSigField 2702
- 71.65 DynaPDF.CreateSigFieldAP 2705
- 71.66 DynaPDF.CreateStructureTree 2707
- 71.67 DynaPDF.CreateTextField 2709
- 71.68 DynaPDF.CreateXFASStream 2711
- 71.69 DynaPDF.DeleteAcroForm 2712
- 71.70 DynaPDF.DeleteActionFromObjEx 2713
- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.73 DynaPDF.DeleteEmbeddedFile 2716
- 71.74 DynaPDF.DeleteField 2717
- 71.75 DynaPDF.DeleteFieldEx 2718
- 71.76 DynaPDF.DeleteJavaScripts 2719
- 71.77 DynaPDF.DeletePage 2720
- 71.78 DynaPDF.DeletePageLabels 2721
- 71.79 DynaPDF.DeleteSeparationInfo 2722
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.82 DynaPDF.DeleteXFAForm 2725



	445
• 71.83 DynaPDF.DrawArc	2726
• 71.84 DynaPDF.DrawArcEx	2728
• 71.85 DynaPDF.DrawChord	2730
• 71.86 DynaPDF.DrawCircle	2732
• 71.87 DynaPDF.DrawPie	2734
• 71.88 DynaPDF.EditPage	2736
• 71.89 DynaPDF.EditTemplate	2738
• 71.90 DynaPDF.EditTemplate2	2740
• 71.91 DynaPDF.Ellipse	2741
• 71.92 DynaPDF.EnableEncryption	2743
• 71.93 DynaPDF.EndLayer	2746
• 71.94 DynaPDF.EndPage	2747
• 71.95 DynaPDF.EndPattern	2749
• 71.96 DynaPDF.EndTemplate	2750
• 71.97 DynaPDF.ExchangeBookmarks	2751
• 71.98 DynaPDF.ExchangePages	2752
• 71.99 DynaPDF.ExtractDocumentText	2753
• 71.100 DynaPDF.ExtractImages	2755
• 71.101 DynaPDF.ExtractPageRectText	2757
• 71.102 DynaPDF.ExtractPageText	2759
• 71.103 DynaPDF.ExtractText	2761
• 71.104 DynaPDF.FileAttachAnnot	2764
• 71.105 DynaPDF.FileAttachAnnotEx	2766
• 71.106 DynaPDF.FileLink	2768
• 71.107 DynaPDF.FindBookmark	2770
• 71.108 DynaPDF.FindEmbeddedFile	2772
• 71.109 DynaPDF.FindField	2773
• 71.110 DynaPDF.FindLinkAnnot	2774
• 71.111 DynaPDF.FindNextBookmark	2775

- 71.112 DynaPDF.FindPattern 2776
- 71.113 DynaPDF.FindText 2777
- 71.114 DynaPDF.FlattenAnnotOrField 2779
- 71.115 DynaPDF.FlattenAnnots 2780
- 71.116 DynaPDF.FlattenForm 2782
- 71.117 DynaPDF.FlushPages 2784
- 71.118 DynaPDF.FontInfo 2786
- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.120 DynaPDF.GeneratePreview 2790
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.124 DynaPDF.GetAnnotType 2796
- 71.125 DynaPDF.GetAnnotation 2798
- 71.126 DynaPDF.GetAscent 2800
- 71.127 DynaPDF.GetBBox 2801
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.131 DynaPDF.GetCMapCount 2807
- 71.132 DynaPDF.GetCharacterSpacing 2808
- 71.133 DynaPDF.GetCheckBoxChar 2809
- 71.134 DynaPDF.GetCheckBoxCharEx 2810
- 71.135 DynaPDF.GetCheckBoxDefState 2811
- 71.136 DynaPDF.GetColorSpace 2812
- 71.137 DynaPDF.GetColorSpaceCount 2813
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.140 DynaPDF.GetCompressionLevel 2816

	447
• 71.141 DynaPDF.GetContent	2817
• 71.142 DynaPDF.GetDocInfo	2818
• 71.143 DynaPDF.GetDocInfoCount	2820
• 71.144 DynaPDF.GetDocUsesTransparency	2821
• 71.145 DynaPDF.GetDrawDirection	2822
• 71.146 DynaPDF.GetDynaPDFVersion	2823
• 71.147 DynaPDF.GetEmbeddedFile	2824
• 71.148 DynaPDF.GetEmbeddedFileAsContainer	2826
• 71.149 DynaPDF.GetEmbeddedFileCount	2827
• 71.150 DynaPDF.GetFTextHeight	2829
• 71.151 DynaPDF.GetFTextHeightEx	2831
• 71.152 DynaPDF.GetField	2833
• 71.153 DynaPDF.GetFieldBackColor	2835
• 71.154 DynaPDF.GetFieldBorderColor	2836
• 71.155 DynaPDF.GetFieldBorderStyle	2837
• 71.156 DynaPDF.GetFieldBorderWidth	2838
• 71.157 DynaPDF.GetFieldChoiceValue	2839
• 71.158 DynaPDF.GetFieldColor	2840
• 71.159 DynaPDF.GetFieldCount	2841
• 71.160 DynaPDF.GetFieldExpValCount	2842
• 71.161 DynaPDF.GetFieldExpValue	2843
• 71.162 DynaPDF.GetFieldExpValueEx	2844
• 71.163 DynaPDF.GetFieldFlags	2846
• 71.164 DynaPDF.GetFieldGroupType	2847
• 71.165 DynaPDF.GetFieldHighlightMode	2848
• 71.166 DynaPDF.GetFieldIndex	2849
• 71.167 DynaPDF.GetFieldMapName	2850
• 71.168 DynaPDF.GetFieldName	2851
• 71.169 DynaPDF.GetFieldOrientation	2852

- 71.170 DynaPDF.GetFieldTextAlign 2853
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.172 DynaPDF.GetFieldToolTip 2855
- 71.173 DynaPDF.GetFieldType 2856
- 71.174 DynaPDF.GetFontCount 2857
- 71.175 DynaPDF.GetFontOrigin 2858
- 71.176 DynaPDF.GetFontSelMode 2859
- 71.177 DynaPDF.GetFontWeight 2860
- 71.178 DynaPDF.GetGStateFlags 2861
- 71.179 DynaPDF.GetImage 2862
- 71.180 DynaPDF.GetImageCount 2866
- 71.181 DynaPDF.GetImportDocInfo 2868
- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.185 DynaPDF.GetImportPDFVersion 2873
- 71.186 DynaPDF.GetImportPageBounds 2874
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.188 DynaPDF.GetInDocInfoCount 2879
- 71.189 DynaPDF.GetInFieldCount 2880
- 71.190 DynaPDF.GetInIsCollection 2881
- 71.191 DynaPDF.GetInIsEncrypted 2882
- 71.192 DynaPDF.GetInIsSigned 2883
- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.194 DynaPDF.GetInIsXFARForm 2885
- 71.195 DynaPDF.GetInMetadata 2886
- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.197 DynaPDF.GetInRepairMode 2889
- 71.198 DynaPDF.GetIsFixedPitch 2890

	449
• 71.199 DynaPDF.GetIsTaggingEnabled	2891
• 71.200 DynaPDF.GetJPEGQuality	2892
• 71.201 DynaPDF.GetJavaScriptCount	2893
• 71.202 DynaPDF.GetLanguage	2894
• 71.203 DynaPDF.GetLastErrorMessage	2895
• 71.204 DynaPDF.GetLastTextPosX	2896
• 71.205 DynaPDF.GetLastTextPosY	2897
• 71.206 DynaPDF.GetLeading	2898
• 71.207 DynaPDF.GetLineWidth	2899
• 71.208 DynaPDF.GetLinkHighlightMode	2900
• 71.209 DynaPDF.GetLogMetafileSize	2901
• 71.210 DynaPDF.GetLogMetafileSizeEx	2902
• 71.211 DynaPDF.GetMetaConvFlags	2903
• 71.212 DynaPDF.GetMetadata	2904
• 71.213 DynaPDF.GetOCG	2906
• 71.214 DynaPDF.GetOCGContUsage	2909
• 71.215 DynaPDF.GetOCGCount	2911
• 71.216 DynaPDF.GetOCGUsageUserName	2912
• 71.217 DynaPDF.GetOpacity	2913
• 71.218 DynaPDF.GetOrientation	2914
• 71.219 DynaPDF.GetOutputIntent	2915
• 71.220 DynaPDF.GetOutputIntentCount	2917
• 71.221 DynaPDF.GetPDFVersion	2918
• 71.222 DynaPDF.GetPageAnnotCount	2919
• 71.223 DynaPDF.GetPageAnnotation	2920
• 71.224 DynaPDF.GetPageBBox	2921
• 71.225 DynaPDF.GetPageCoords	2923
• 71.226 DynaPDF.GetPageCount	2924
• 71.227 DynaPDF.GetPageFieldCount	2926

- 71.228 DynaPDF.GetPageHeight 2927
- 71.229 DynaPDF.GetPageLabel 2929
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.231 DynaPDF.GetPageLayout 2932
- 71.232 DynaPDF.GetPageMode 2933
- 71.233 DynaPDF.GetPageNum 2934
- 71.234 DynaPDF.GetPageWidth 2935
- 71.235 DynaPDF.GetPrintSettings 2937
- 71.236 DynaPDF.GetReplaceICCProfile 2938
- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.238 DynaPDF.GetReplaceICCProfilesCounter 2940
- 71.239 DynaPDF.GetResolution 2941
- 71.240 DynaPDF.GetSaveNewImageFormat 2942
- 71.241 DynaPDF.GetTemplCount 2943
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.244 DynaPDF.GetTextDrawMode 2946
- 71.245 DynaPDF.GetTextFieldDefaultValue 2947
- 71.246 DynaPDF.GetTextFieldValue 2948
- 71.247 DynaPDF.GetTextRise 2949
- 71.248 DynaPDF.GetTextScaling 2950
- 71.249 DynaPDF.GetTextWidth 2951
- 71.250 DynaPDF.GetTransparentColor 2953
- 71.251 DynaPDF.GetTrapped 2954
- 71.252 DynaPDF.GetUseExactPwd 2955
- 71.253 DynaPDF.GetUseGlobalImpFiles 2956
- 71.254 DynaPDF.GetUseStdFonts 2957
- 71.255 DynaPDF.GetUseSystemFonts 2958
- 71.256 DynaPDF.GetUseTransparency 2959

	451
• 71.257 DynaPDF.GetUseVisibleCoords	2960
• 71.258 DynaPDF.GetUserRights	2961
• 71.259 DynaPDF.GetUserUnit	2962
• 71.260 DynaPDF.GetUsesTransparency	2963
• 71.261 DynaPDF.GetViewerPreferences	2965
• 71.262 DynaPDF.GetWMFDefExtent	2966
• 71.263 DynaPDF.GetWMFPixelPerInch	2967
• 71.264 DynaPDF.GetWordSpacing	2968
• 71.265 DynaPDF.GetXFASStream	2969
• 71.266 DynaPDF.GetXFASStreamCount	2971
• 71.267 DynaPDF.HaveOpenDocument	2972
• 71.268 DynaPDF.HaveOpenPage	2973
• 71.269 DynaPDF.HighlightAnnot	2974
• 71.270 DynaPDF.HighlightPattern	2976
• 71.271 DynaPDF.ImportEncryptionSettings	2978
• 71.272 DynaPDF.ImportPDFFile	2979
• 71.273 DynaPDF.ImportPDFPage	2982
• 71.274 DynaPDF.ImportPageAsTemplate	2985
• 71.275 DynaPDF.InitColorManagement	2987
• 71.276 DynaPDF.InitColorManagementEx	2990
• 71.277 DynaPDF.Initialize	2992
• 71.278 DynaPDF.InsertBookmark	2999
• 71.279 DynaPDF.InsertBookmarkEx	3001
• 71.280 DynaPDF.InsertImage	3003
• 71.281 DynaPDF.InsertImageFile	3007
• 71.282 DynaPDF.InsertMetafile	3010
• 71.283 DynaPDF.InsertMetafileEx	3012
• 71.284 DynaPDF.IsColorPage	3014
• 71.285 DynaPDF.IsEmptyPage	3016

- 71.286 DynaPDF.IsInitialized 3017
- 71.287 DynaPDF.LineAnnot 3020
- 71.288 DynaPDF.LineTo 3022
- 71.289 DynaPDF.List 3024
- 71.290 DynaPDF.ListImages 3025
- 71.291 DynaPDF.LockLayer 3028
- 71.292 DynaPDF.MovePage 3029
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.296 DynaPDF.OpenOutputFileEncrypted 3037
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.299 DynaPDF.Optimize 3046
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.302 DynaPDF.PageStatistics 3059
- 71.303 DynaPDF.ParseContent 3062
- 71.304 DynaPDF.PlaceSigFieldValidateIcon 3064
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.307 DynaPDF.Print 3070
- 71.308 DynaPDF.Print.GetDevMode 3074
- 71.309 DynaPDF.Print.GetDevNames 3075
- 71.310 DynaPDF.Print.SetDevMode 3076
- 71.311 DynaPDF.Print.SetDevNames 3078
- 71.312 DynaPDF.RGB 3079
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.314 DynaPDF.ReadImageResolution 3083



	453
• 71.315 DynaPDF.Rectangle	3084
• 71.316 DynaPDF.Release	3086
• 71.317 DynaPDF.RenameSpotColor	3088
• 71.318 DynaPDF.RenderPDFFile	3089
• 71.319 DynaPDF.RenderPDFFileEx	3091
• 71.320 DynaPDF.RenderPage	3093
• 71.321 DynaPDF.ReplaceImage	3097
• 71.322 DynaPDF.ReplacePattern	3100
• 71.323 DynaPDF.ResetEncryptionSettings	3103
• 71.324 DynaPDF.RestoreGraphicState	3104
• 71.325 DynaPDF.RotateCoords	3106
• 71.326 DynaPDF.RotateTemplate	3109
• 71.327 DynaPDF.RoundRect	3112
• 71.328 DynaPDF.RoundRectEx	3114
• 71.329 DynaPDF.Save	3116
• 71.330 DynaPDF.SaveAndSignFile	3119
• 71.331 DynaPDF.SaveAndSignFileWinCrypt	3121
• 71.332 DynaPDF.SaveAndSignFileWinCryptDialog	3123
• 71.333 DynaPDF.SaveGraphicState	3125
• 71.334 DynaPDF.ScaleCoords	3126
• 71.335 DynaPDF.SetAlpha	3128
• 71.336 DynaPDF.SetAnnotBorderStyle	3130
• 71.337 DynaPDF.SetAnnotBorderWidth	3132
• 71.338 DynaPDF.SetAnnotColor	3133
• 71.339 DynaPDF.SetAnnotDate	3135
• 71.340 DynaPDF.SetAnnotFlags	3137
• 71.341 DynaPDF.SetAnnotFlagsEx	3139
• 71.342 DynaPDF.SetAnnotHighlightMode	3140
• 71.343 DynaPDF.SetAnnotIcon	3141

- 71.344 DynaPDF.SetAnnotLineEndStyle 3142
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.346 DynaPDF.SetAnnotOpenState 3144
- 71.347 DynaPDF.SetAnnotString 3145
- 71.348 DynaPDF.SetAnnotSubject 3146
- 71.349 DynaPDF.SetBBox 3147
- 71.350 DynaPDF.SetBookmarkDest 3149
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.353 DynaPDF.SetCMapDir 3154
- 71.354 DynaPDF.SetCharacterSpacing 3155
- 71.355 DynaPDF.SetCheckBoxChar 3156
- 71.356 DynaPDF.SetCheckBoxDefState 3157
- 71.357 DynaPDF.SetCheckBoxState 3158
- 71.358 DynaPDF.SetColorSpace 3159
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.360 DynaPDF.SetCompressionLevel 3163
- 71.361 DynaPDF.SetContent 3164
- 71.362 DynaPDF.SetDocInfo 3165
- 71.363 DynaPDF.SetDocInfoEx 3167
- 71.364 DynaPDF.SetDrawDirection 3169
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172
- 71.367 DynaPDF.SetExtStrokeColorSpace 3173
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179

	455
• 71.373 DynaPDF.SetFieldColor	3181
• 71.374 DynaPDF.SetFieldDate	3183
• 71.375 DynaPDF.SetFieldExpValue	3184
• 71.376 DynaPDF.SetFieldExpValueEx	3186
• 71.377 DynaPDF.SetFieldFlags	3188
• 71.378 DynaPDF.SetFieldFont	3190
• 71.379 DynaPDF.SetFieldFontEx	3192
• 71.380 DynaPDF.SetFieldFontSize	3194
• 71.381 DynaPDF.SetFieldHighlightMode	3195
• 71.382 DynaPDF.SetFieldIndex	3196
• 71.383 DynaPDF.SetFieldMapName	3197
• 71.384 DynaPDF.SetFieldName	3198
• 71.385 DynaPDF.SetFieldOrientation	3200
• 71.386 DynaPDF.SetFieldTextAlign	3201
• 71.387 DynaPDF.SetFieldTextColor	3202
• 71.388 DynaPDF.SetFieldToolTip	3203
• 71.389 DynaPDF.SetFillColor	3204
• 71.390 DynaPDF.SetFloatPrecision	3207
• 71.391 DynaPDF.SetFont	3208
• 71.392 DynaPDF.SetFontEx	3210
• 71.393 DynaPDF.SetFontOrigin	3212
• 71.394 DynaPDF.SetFontSearchOrder	3213
• 71.395 DynaPDF.SetFontSelMode	3215
• 71.396 DynaPDF.SetFontWeight	3216
• 71.397 DynaPDF.SetGStateFlags	3218
• 71.398 DynaPDF.SetImportFlags	3220
• 71.399 DynaPDF.SetImportFlags2	3224
• 71.400 DynaPDF.SetJPEGQuality	3226
• 71.401 DynaPDF.SetLanguage	3228

- 71.402 DynaPDF.SetLeading 3230
- 71.403 DynaPDF.SetLineJoinStyle 3231
- 71.404 DynaPDF.SetLineWidth 3232
- 71.405 DynaPDF.SetLinkHighlightMode 3234
- 71.406 DynaPDF.SetMetaConvFlags 3236
- 71.407 DynaPDF.SetMetadata 3238
- 71.408 DynaPDF.SetMiterLimit 3240
- 71.409 DynaPDF.SetNumberFormat 3241
- 71.410 DynaPDF.SetOCGState 3243
- 71.411 DynaPDF.SetOpacity 3245
- 71.412 DynaPDF.SetOrientation 3246
- 71.413 DynaPDF.SetOrientationEx 3247
- 71.414 DynaPDF.SetPDFVersion 3250
- 71.415 DynaPDF.SetPageBBox 3252
- 71.416 DynaPDF.SetPageCoords 3254
- 71.417 DynaPDF.SetPageFormat 3256
- 71.418 DynaPDF.SetPageHeight 3258
- 71.419 DynaPDF.SetPageLayout 3261
- 71.420 DynaPDF.SetPageMode 3262
- 71.421 DynaPDF.SetPageWidth 3263
- 71.422 DynaPDF.SetPrintSettings 3266
- 71.423 DynaPDF.SetReplaceICCPProfile 3268
- 71.424 DynaPDF.SetReplaceICCPProfileData 3270
- 71.425 DynaPDF.SetResolution 3272
- 71.426 DynaPDF.SetSaveNewImageFormat 3274
- 71.427 DynaPDF.SetSeparationInfo 3276
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.429 DynaPDF.SetTextDrawMode 3279
- 71.430 DynaPDF.SetTextFieldValue 3281

	457
• 71.431 DynaPDF.SetTextFieldValueEx	3283
• 71.432 DynaPDF.SetTextRect	3284
• 71.433 DynaPDF.SetTextRise	3286
• 71.434 DynaPDF.SetTextScaling	3287
• 71.435 DynaPDF.SetTransparentColor	3288
• 71.436 DynaPDF.SetTrapped	3289
• 71.437 DynaPDF.SetUseExactPwd	3290
• 71.438 DynaPDF.SetUseGlobalImpFiles	3291
• 71.439 DynaPDF.SetUseStdFonts	3292
• 71.440 DynaPDF.SetUseSystemFonts	3294
• 71.441 DynaPDF.SetUseTransparency	3296
• 71.442 DynaPDF.SetUseVisibleCoords	3298
• 71.443 DynaPDF.SetUserUnit	3299
• 71.444 DynaPDF.SetViewerPreferences	3300
• 71.445 DynaPDF.SetWMFDefExtent	3301
• 71.446 DynaPDF.SetWMFPixelPerInch	3302
• 71.447 DynaPDF.SetWordSpacing	3303
• 71.448 DynaPDF.SetXFASStream	3304
• 71.449 DynaPDF.ShowDifferences	3305
• 71.450 DynaPDF.SkewCoords	3307
• 71.451 DynaPDF.SquareAnnot	3309
• 71.452 DynaPDF.StampAnnot	3311
• 71.453 DynaPDF.StrokePath	3313
• 71.454 DynaPDF.SysFontInfo	3315
• 71.455 DynaPDF.Table.AddColumn	3317
• 71.456 DynaPDF.Table.AddRow	3318
• 71.457 DynaPDF.Table.AddRows	3320
• 71.458 DynaPDF.Table.ClearColumn	3321
• 71.459 DynaPDF.Table.ClearContent	3322

- 71.460 DynaPDF.Table.ClearRow 3324
- 71.461 DynaPDF.Table.Create 3326
- 71.462 DynaPDF.Table.DeleteCol 3329
- 71.463 DynaPDF.Table.DeleteRow 3330
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.465 DynaPDF.Table.Draw 3332
- 71.466 DynaPDF.Table.GetFirstRow 3335
- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.468 DynaPDF.Table.GetNextHeightRow 3337
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.472 DynaPDF.Table.GetPDF 3341
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.475 DynaPDF.Table.HaveMore 3344
- 71.476 DynaPDF.Table.Release 3345
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.478 DynaPDF.Table.SetBoxProperty 3348
- 71.479 DynaPDF.Table.SetCellAction 3350
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.482 DynaPDF.Table.SetCellOrientation 3357
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370

	459
• 71.489 DynaPDF.Table.SetColor	3372
• 71.490 DynaPDF.Table.SetColorFloat	3374
• 71.491 DynaPDF.Table.SetFlags	3376
• 71.492 DynaPDF.Table.SetFont	3378
• 71.493 DynaPDF.Table.SetFontSelMode	3380
• 71.494 DynaPDF.Table.SetFontSize	3381
• 71.495 DynaPDF.Table.SetGridWidth	3383
• 71.496 DynaPDF.Table.SetPDF	3385
• 71.497 DynaPDF.Table.SetRGBColor	3386
• 71.498 DynaPDF.Table.SetRowHeight	3388
• 71.499 DynaPDF.Table.SetTableWidth	3389
• 71.500 DynaPDF.TextAnnot	3391
• 71.501 DynaPDF.TranslateCoords	3393
• 71.502 DynaPDF.Triangle	3395
• 71.503 DynaPDF.UnlockLayer	3397
• 71.504 DynaPDF.Uninitialize	3398
• 71.505 DynaPDF.WatermarkAnnot	3399
• 71.506 DynaPDF.WebLink	3401
• 71.507 DynaPDF.WriteDemoText	3404
• 71.508 DynaPDF.WriteFText	3406
• 71.509 DynaPDF.WriteFTextEx	3408
• 71.510 DynaPDF.WriteFTextExRotated	3412
• 71.511 DynaPDF.WriteStyledText	3414
• 71.512 DynaPDF.WriteStyledTextEx	3416
• 71.513 DynaPDF.WriteStyledTextExRotated	3418
• 71.514 DynaPDF.WriteText	3420
• 152.1 ECKey.BuiltInCurves	7175
• 152.2 ECKey.CanSign	7177
• 152.3 ECKey.Description	7178

- 152.4 ECKey.Duplicate 7179
- 152.5 ECKey.Generate 7180
- 152.6 ECKey.PrivateKey 7182
- 152.7 ECKey.PublicKey 7183
- 152.8 ECKey.ReadPrivateKey 7184
- 152.9 ECKey.ReadPublicKey 7185
- 152.10 ECKey.Release 7186
- 152.11 ECKey.Sign 7187
- 152.12 ECKey.Size 7188
- 152.13 ECKey.Valid 7189
- 152.14 ECKey.Verify 7190
- 178.2 Email.Verify 8359
- 73.1 EmailParser.Address 3459
- 73.2 EmailParser.AddressCount 3461
- 73.3 EmailParser.AttachedEmails 3462
- 73.4 EmailParser.Attachment 3463
- 73.5 EmailParser.AttachmentCount 3465
- 73.6 EmailParser.Free 3466
- 73.7 EmailParser.HTMLText 3468
- 73.8 EmailParser.HTMLToPlainText 3470
- 73.9 EmailParser.HasHeader 3471
- 73.10 EmailParser.Hash 3472
- 73.11 EmailParser.Header 3473
- 73.12 EmailParser.HeaderCount 3475
- 73.13 EmailParser.HeaderValue 3476
- 73.14 EmailParser.Inline 3477
- 73.15 EmailParser.InlineCount 3479
- 73.16 EmailParser.List 3480
- 73.17 EmailParser.MessageID 3481



	461
• 73.18 EmailParser.Parse	3482
• 73.19 EmailParser.ParseContainer	3486
• 73.20 EmailParser.ParseFile	3487
• 73.21 EmailParser.PlainText	3488
• 73.22 EmailParser.ProcessImageReferences	3490
• 73.23 EmailParser.ReceiveDate	3491
• 73.24 EmailParser.SentDate	3492
• 73.25 EmailParser.Source	3493
• 73.26 EmailParser.SourceWithoutAttachments	3494
• 73.27 EmailParser.Subject	3495
• 73.28 EmailParser.WriteAttachment	3497
• 73.29 EmailParser.WriteInline	3498
• 74.1 Encryption.Cipher	3499
• 74.2 Encryption.CipherNames	3505
• 74.3 Encryption.DecryptAES	3506
• 74.4 Encryption.DecryptBlowfish	3508
• 74.5 Encryption.DecryptContainerAES	3510
• 74.6 Encryption.DecryptContainerBlowfish	3512
• 74.7 Encryption.DigestNames	3514
• 74.8 Encryption.EncryptAES	3515
• 74.9 Encryption.EncryptBlowfish	3517
• 74.10 Encryption.EncryptContainerAES	3519
• 74.11 Encryption.EncryptContainerBlowfish	3521
• 75.1 EnvironmentVariables.ClearValue	3539
• 75.2 EnvironmentVariables.Count	3541
• 75.3 EnvironmentVariables.Name	3542
• 75.4 EnvironmentVariables.Names	3543
• 75.5 EnvironmentVariables.SetValue	3544
• 75.6 EnvironmentVariables.Value	3545

- 76.1 EventMonitor.Clear 3547
- 76.2 EventMonitor.ClearCardWindow 3548
- 76.3 EventMonitor.GetEnabled 3549
- 76.4 EventMonitor.Install 3550
- 76.5 EventMonitor.LastMouseClickedButton 3551
- 76.6 EventMonitor.LastMouseClickedIsDoubleClick 3552
- 76.7 EventMonitor.LastMousePositionX 3553
- 76.8 EventMonitor.LastMousePositionY 3554
- 76.9 EventMonitor.SetCardWindow 3555
- 76.10 EventMonitor.SetEnabled 3558
- 80.2 FM.Argument 3939
- 80.3 FM.ArgumentCount 3940
- 80.4 FM.Beep 3941
- 81.3 FM.CompareTables 4127
- 80.7 FM.CurrentLayoutID 3947
- 80.8 FM.CurrentLayoutName 3948
- 80.9 FM.CurrentScriptID 3949
- 80.10 FM.CurrentScriptName 3950
- 80.11 FM.CurrentThreadID 3951
- 80.12 FM.DataType 3952
- 81.4 FM.DeleteRecord 4131
- 81.5 FM.DeleteRecords 4134
- 80.16 FM.DisableMouseWheel 3960
- 80.18 FM.EnableMouseWheel 3962
- 80.19 FM.Evaluate 3963
- 81.6 FM.ExecuteFileSQL 4137
- 81.7 FM.ExecuteFileSQLOnIdle 4144
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152

	463
• 81.10 FM.ExecuteSQL.LastErrorMessage	4154
• 81.11 FM.ExecuteSQL.LastSQL	4157
• 81.12 FM.ExecuteSQLOnIdle	4158
• 80.29 FM.GetDisableContextualMenus	3990
• 81.13 FM.GetSQLBatchMode	4161
• 80.31 FM.InitMessageFilter	3992
• 81.14 FM.InsertOrUpdateRecord	4162
• 81.15 FM.InsertOrUpdateRecord2	4165
• 81.16 FM.InsertOrUpdateRecord3	4168
• 81.17 FM.InsertOrUpdateRecordQuery	4171
• 81.18 FM.InsertRecord	4173
• 81.19 FM.InsertRecordCSV	4177
• 81.20 FM.InsertRecordQuery	4180
• 81.21 FM.InsertRecordQueryIgnoreDuplicates	4184
• 81.22 FM.InsertRecordTSV	4187
• 81.23 FM.InsertSetUpUpdateProgressDialog	4190
• 80.42 FM.IsMainThread	4023
• 80.43 FM.LayoutIDForLayoutName	4024
• 80.44 FM.LayoutNameForLayoutID	4025
• 80.45 FM.LayoutNames	4026
• 80.46 FM.Loop	4027
• 80.47 FM.MainThreadID	4031
• 80.48 FM.MouseWheelScriptTrigger	4032
• 81.24 FM.NULL	4192
• 80.51 FM.QueryBaseTableNames	4037
• 80.52 FM.QueryFieldsForBaseTableName	4038
• 80.53 FM.QueryFieldsForTableName	4039
• 80.54 FM.QueryTableNames	4041
• 80.55 FM.RunDatabaseDesignReport	4042

- 80.56 FM.RunSaveAsXML 4044
- 80.57 FM.RunScript 4045
- 80.58 FM.RunScriptIdle 4047
- 80.59 FM.RunScriptLater 4049
- 80.60 FM.SQL.Avg 4051
- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.29 FM.SQL.FieldType 4203
- 81.30 FM.SQL.InsertRecords 4204
- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 102.2 FM.SQL.JSONRecord 5306
- 102.3 FM.SQL.JSONRecords 5308
- 80.70 FM.SQL.Max 4073
- 80.71 FM.SQL.Min 4075
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217
- 80.76 FM.ScriptIDForScriptName 4086
- 80.77 FM.ScriptNameForScriptID 4087
- 80.78 FM.ScriptNames 4088
- 80.79 FM.SetDisableContextualMenus 4089
- 81.37 FM.SetSQLBatchMode 4220
- 80.81 FM.SetThreadName 4092
- 80.82 FM.StopScriptIdle 4093
- 80.83 FM.TableStatistics 4094
- 81.38 FM.UpdateRecord 4222

	465
• 80.85 FM.UpdateRecord2	4100
• 80.86 FM.UpdateRecord3	4102
• 81.39 FM.UpdateRecords	4225
• 80.88 FM.UpdateRecords2	4107
• 80.89 FM.UpdateRecords3	4109
• 181.1 FM.VariableAdd	8387
• 181.2 FM.VariableAppend	8389
• 181.3 FM.VariableClear	8390
• 181.4 FM.VariableClearAll	8391
• 181.5 FM.VariableExists	8392
• 181.6 FM.VariableGet	8393
• 181.7 FM.VariableList	8395
• 181.8 FM.VariableNames	8396
• 181.9 FM.VariableReset	8397
• 181.10 FM.VariableSet	8398
• 78.11 FileDialog.GetAllowMulti	3773
• 78.14 FileDialog.GetFilter	3776
• 78.15 FileDialog.GetInitialDirectory	3777
• 78.16 FileDialog.GetMessage	3778
• 78.17 FileDialog.GetNameFieldLabel	3779
• 78.18 FileDialog.GetNameFieldStringValue	3780
• 78.19 FileDialog.GetPath	3781
• 78.20 FileDialog.GetPathCount	3784
• 78.21 FileDialog.GetPrompt	3785
• 78.22 FileDialog.GetResolvesAliases	3786
• 78.23 FileDialog.GetShowHidden	3787
• 78.26 FileDialog.GetWindowTitle	3790
• 78.27 FileDialog.OpenFileDialog	3791
• 78.28 FileDialog.Reset	3794

- 78.29 `FileDialog.SaveFileDialog` 3796
- 78.30 `FileDialog.SelectFolderDialog` 3798
- 78.31 `FileDialog.SelectItemDialog` 3801
- 78.32 `FileDialog.SetAllowMulti` 3803
- 78.33 `FileDialog.SetAllowsOtherFileTypes` 3805
- 78.35 `FileDialog.SetFilter` 3807
- 78.36 `FileDialog.SetInitialDirectory` 3809
- 78.37 `FileDialog.SetMessage` 3811
- 78.38 `FileDialog.SetNameFieldLabel` 3813
- 78.39 `FileDialog.SetNameFieldStringValue` 3814
- 78.40 `FileDialog.SetPrompt` 3815
- 78.41 `FileDialog.SetResolvesAliases` 3817
- 78.43 `FileDialog.SetShowHidden` 3819
- 78.46 `FileDialog.SetWindowTitle` 3822
- 79.1 `Files.AccessDate` 3825
- 79.3 `Files.AppPath` 3828
- 79.4 `Files.AudioTags` 3829
- 79.5 `Files.CanOpenFile` 3831
- 79.6 `Files.CopyFile` 3832
- 79.8 `Files.CreateAlias` 3836
- 79.10 `Files.CreateDirectory` 3839
- 79.11 `Files.CreateHardLink` 3841
- 79.12 `Files.CreateSymbolicLink` 3843
- 79.13 `Files.CreationDate` 3844
- 79.14 `Files.Delete` 3846
- 79.15 `Files.DeleteFolder` 3848
- 79.16 `Files.DirectoryExists` 3850
- 79.17 `Files.DiskInfo` 3852
- 79.18 `Files.FileDisplayName` 3854

	467
• 79.19 Files.FileExists	3855
• 79.20 Files.FileExtension	3857
• 79.21 Files.FileInfo	3858
• 79.22 Files.FileKind	3860
• 79.23 Files.FileName	3861
• 79.24 Files.FileSize	3862
• 79.26 Files.FolderSize	3865
• 79.29 Files.GetNodeID	3869
• 79.30 Files.GetPathFromNodeID	3871
• 79.33 Files.IsHidden	3875
• 79.34 Files.ItemExists	3876
• 79.35 Files.Launch	3877
• 79.36 Files.LaunchFile	3880
• 79.37 Files.List	3882
• 79.38 Files.ListRecursive	3885
• 79.39 Files.ListVolumes	3887
• 79.40 Files.ModificationDate	3888
• 79.41 Files.Mount	3890
• 79.42 Files.MountPath	3893
• 79.43 Files.MoveFile	3894
• 79.44 Files.MoveToTrash	3896
• 79.45 Files.ReadFile	3898
• 79.46 Files.ReadJPEG	3901
• 79.47 Files.ReadPDF	3903
• 79.48 Files.ReadPNG	3905
• 79.49 Files.RenameFile	3907
• 79.50 Files.ResolveAlias	3909
• 79.52 Files.RevealFile	3912
• 79.53 Files.SetAudioTags	3914

- 79.55 Files.SetCreationDate 3917
- 79.57 Files.SetHidden 3919
- 79.58 Files.SetModificationDate 3920
- 79.61 Files.Unmount 3924
- 79.62 Files.WriteFile 3925
- 82.1 Folders.Applications 4227
- 82.3 Folders.LocalPreferences 4229
- 82.4 Folders.SharedDocuments 4230
- 82.5 Folders.System 4231
- 82.6 Folders.SystemFonts 4232
- 82.7 Folders.SystemTemporary 4233
- 82.8 Folders.UserDesktop 4235
- 82.9 Folders.UserDocuments 4237
- 82.10 Folders.UserDownloads 4239
- 82.12 Folders.UserHome 4241
- 82.13 Folders.UserMusic 4242
- 82.15 Folders.UserPreferences 4244
- 82.16 Folders.UserTemporary 4245
- 82.17 Folders.UserTrash 4247
- 82.18 Folders.UserVideo 4248
- 82.19 Folders.Windows 4249
- 83.1 Font.Activate 4251
- 83.2 Font.CalculateTextFits 4253
- 83.3 Font.CalculateTextHeight 4255
- 83.4 Font.CalculateTextWidth 4257
- 83.5 Font.Deactivate 4259
- 83.7 FontManager.ListFontFamilies 4261
- 83.8 FontManager.ListFonts 4262
- 87.1 GImage.AdaptiveThreshold 4399



	469
• 87.2 GMImage.AddNoise	4401
• 87.3 GMImage.AddNoiseChannel	4402
• 87.4 GMImage.AddPathArcAbs	4403
• 87.5 GMImage.AddPathArcRel	4405
• 87.6 GMImage.AddPathClosePath	4407
• 87.7 GMImage.AddPathCurvetoAbs	4408
• 87.8 GMImage.AddPathCurvetoRel	4410
• 87.9 GMImage.AddPathLinetoAbs	4412
• 87.10 GMImage.AddPathLinetoHorizontalAbs	4413
• 87.11 GMImage.AddPathLinetoHorizontalRel	4414
• 87.12 GMImage.AddPathLinetoRel	4415
• 87.13 GMImage.AddPathLinetoVerticalAbs	4416
• 87.14 GMImage.AddPathLinetoVerticalRel	4417
• 87.15 GMImage.AddPathMovetoAbs	4418
• 87.16 GMImage.AddPathMovetoRel	4419
• 87.17 GMImage.AddPathQuadraticCurvetoAbs	4420
• 87.18 GMImage.AddPathQuadraticCurvetoRel	4421
• 87.19 GMImage.AddPathSmoothCurvetoAbs	4422
• 87.20 GMImage.AddPathSmoothCurvetoRel	4423
• 87.21 GMImage.AddPathSmoothQuadraticCurvetoAbs	4424
• 87.22 GMImage.AddPathSmoothQuadraticCurvetoRel	4425
• 87.23 GMImage.Affine	4426
• 87.24 GMImage.Annotate	4427
• 87.25 GMImage.AutoOrient	4431
• 87.26 GMImage.AveragePixelValue	4432
• 87.27 GMImage.BaseColumns	4434
• 87.28 GMImage.BaseFilename	4435
• 87.29 GMImage.BaseRows	4436
• 87.30 GMImage.Blur	4437

- 87.31 GMImage.BlurChannel 4439
- 87.32 GMImage.Border 4440
- 87.33 GMImage.BoundingBox 4442
- 87.34 GMImage.Channel 4443
- 87.35 GMImage.Charcoal 4445
- 87.36 GMImage.Chop 4447
- 87.37 GMImage.ClipMask 4448
- 87.38 GMImage.ClipPath 4449
- 87.39 GMImage.Coders 4450
- 87.40 GMImage.Colorize 4451
- 87.41 GMImage.ColorizeRGB 4453
- 87.42 GMImage.Columns 4455
- 87.43 GMImage.Compare 4456
- 87.44 GMImage.Composite 4458
- 87.45 GMImage.CompositeXY 4460
- 87.46 GMImage.Contrast 4462
- 87.47 GMImage.Copy 4463
- 87.48 GMImage.CopyChannel 4464
- 87.49 GMImage.Crop 4467
- 87.50 GMImage.CycleColormap 4469
- 87.51 GMImage.Despeckle 4470
- 87.52 GMImage.Directory 4471
- 87.53 GMImage.DrawArc 4472
- 87.54 GMImage.DrawCircle 4474
- 87.55 GMImage.DrawEllipse 4476
- 87.56 GMImage.DrawLine 4478
- 87.57 GMImage.DrawPath 4480
- 87.58 GMImage.DrawRectangle 4481
- 87.59 GMImage.DrawRoundRectangle 4484

	471
• 87.60 GMImage.Edge	4486
• 87.61 GMImage.Emboss	4487
• 87.62 GMImage.Enhance	4489
• 87.63 GMImage.Equalize	4490
• 87.64 GMImage.Erase	4491
• 87.65 GMImage.ExifThumbnail	4492
• 87.66 GMImage.Extent	4493
• 87.67 GMImage.FillPattern	4495
• 87.68 GMImage.FindColorInColumn	4496
• 87.69 GMImage.FindColorInRow	4498
• 87.70 GMImage.Flip	4500
• 87.71 GMImage.FloodFillColor	4502
• 87.72 GMImage.FloodFillColorXY	4504
• 87.73 GMImage.FloodFillOpacity	4506
• 87.74 GMImage.FloodFillTexture	4507
• 87.75 GMImage.FloodFillTextureXY	4508
• 87.76 GMImage.Flop	4509
• 87.77 GMImage.FontMap	4511
• 87.78 GMImage.FontTypeMetrics	4512
• 87.79 GMImage.Format	4514
• 87.80 GMImage.Frame	4515
• 87.81 GMImage.Free	4517
• 87.82 GMImage.FreeAll	4519
• 87.83 GMImage.Gamma	4520
• 87.84 GMImage.GaussianBlur	4521
• 87.85 GMImage.GaussianBlurChannel	4522
• 87.86 GMImage.Geometry	4523
• 87.87 GMImage.GetAdjoin	4524
• 87.88 GMImage.GetAnimationDelay	4525

- 87.89 GImage.GetAnimationIterations 4526
- 87.90 GImage.GetAntiAlias 4527
- 87.91 GImage.GetAttribute 4528
- 87.92 GImage.GetAttributeNames 4530
- 87.93 GImage.GetAttributesJSON 4531
- 87.94 GImage.GetBackgroundColor 4533
- 87.95 GImage.GetBackgroundTexture 4534
- 87.96 GImage.GetBorderColor 4535
- 87.97 GImage.GetBoxColor 4536
- 87.98 GImage.GetChannelDepth 4537
- 87.99 GImage.GetClassType 4538
- 87.100 GImage.GetClipMask 4539
- 87.101 GImage.GetColorFuzz 4540
- 87.102 GImage.GetColorMapSize 4541
- 87.103 GImage.GetColorSpace 4542
- 87.104 GImage.GetComment 4544
- 87.105 GImage.GetCompose 4545
- 87.106 GImage.GetCompressType 4546
- 87.107 GImage.GetDebug 4547
- 87.108 GImage.GetDefineSet 4548
- 87.109 GImage.GetDefineValue 4549
- 87.110 GImage.GetDensity 4550
- 87.111 GImage.GetDepth 4551
- 87.112 GImage.GetEXIFOrientation 4552
- 87.113 GImage.GetEndian 4553
- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.116 GImage.GetFillColor 4556
- 87.117 GImage.GetFillRule 4557

	473
• 87.118 GImage.GetFilterType	4558
• 87.119 GImage.GetFont	4559
• 87.120 GImage.GetFontPointsize	4560
• 87.121 GImage.GetGamma	4561
• 87.122 GImage.GetGifDisposeMethod	4562
• 87.123 GImage.GetHeight	4563
• 87.124 GImage.GetICCColorProfile	4565
• 87.125 GImage.GetIPTCProfile	4566
• 87.126 GImage.GetIPTCProfileValues	4567
• 87.127 GImage.GetInterlaceType	4568
• 87.128 GImage.GetIsValid	4569
• 87.129 GImage.GetJPEGAsBase64	4570
• 87.130 GImage.GetJPEGAsHex	4571
• 87.131 GImage.GetLabel	4572
• 87.132 GImage.GetLineWidth	4573
• 87.133 GImage.GetMagick	4574
• 87.134 GImage.GetMatte	4575
• 87.135 GImage.GetMatteColor	4576
• 87.136 GImage.GetModulusDepth	4577
• 87.137 GImage.GetMonochrome	4578
• 87.138 GImage.GetOrientation	4579
• 87.139 GImage.GetPNGAsBase64	4581
• 87.140 GImage.GetPNGAsHex	4582
• 87.141 GImage.GetPage	4583
• 87.142 GImage.GetPixelColor	4584
• 87.143 GImage.GetProfile	4586
• 87.144 GImage.GetQuality	4587
• 87.145 GImage.GetQuantizeColorSpace	4588
• 87.146 GImage.GetQuantizeColors	4589

- 87.147 GImage.GetQuantizeDither 4590
- 87.148 GImage.GetQuantizeTreeDepth 4591
- 87.149 GImage.GetQuiet 4592
- 87.150 GImage.GetRenderingIntent 4593
- 87.151 GImage.GetResolutionUnits 4594
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.154 GImage.GetStrokeAntiAlias 4597
- 87.155 GImage.GetStrokeColor 4598
- 87.156 GImage.GetStrokeDashArray 4599
- 87.157 GImage.GetStrokeDashOffset 4600
- 87.158 GImage.GetStrokeLineCap 4601
- 87.159 GImage.GetStrokeLineJoin 4602
- 87.160 GImage.GetStrokeMiterLimit 4603
- 87.161 GImage.GetStrokeWidth 4604
- 87.162 GImage.GetSubImage 4605
- 87.163 GImage.GetSubRange 4606
- 87.164 GImage.GetTextEncoding 4607
- 87.165 GImage.GetTileName 4608
- 87.166 GImage.GetType 4609
- 87.167 GImage.GetVerbose 4610
- 87.168 GImage.GetView 4611
- 87.169 GImage.GetWidth 4612
- 87.170 GImage.GetXMP 4614
- 87.171 GImage.GetcolorMap 4616
- 87.172 GImage.Hash 4617
- 87.173 GImage.ImageCount 4619
- 87.174 GImage.Implode 4620
- 87.175 GImage.InvertChannel 4621

	475
• 87.176 GImage.IsGray	4623
• 87.177 GImage.Level	4624
• 87.178 GImage.LevelChannel	4625
• 87.179 GImage.List	4627
• 87.180 GImage.Magnify	4628
• 87.181 GImage.Map	4629
• 87.182 GImage.MatteFloodfill	4630
• 87.183 GImage.MeanErrorPerPixel	4631
• 87.184 GImage.MedianFilter	4632
• 87.185 GImage.Minify	4633
• 87.186 GImage.Modulate	4634
• 87.187 GImage.MontageGeometry	4636
• 87.188 GImage.MotionBlur	4637
• 87.189 GImage.MultiplyChannel	4638
• 87.190 GImage.Negate	4640
• 87.191 GImage.New	4642
• 87.192 GImage.NewFromBase64	4645
• 87.193 GImage.NewFromContainer	4646
• 87.194 GImage.NewFromFile	4648
• 87.195 GImage.NewFromHex	4650
• 87.196 GImage.NewImagesFromContainer	4651
• 87.197 GImage.NewImagesFromFile	4652
• 87.198 GImage.Normalize	4654
• 87.199 GImage.NormalizedMaxError	4655
• 87.200 GImage.NormalizedMeanError	4657
• 87.201 GImage.OilPaint	4658
• 87.202 GImage.Opacity	4659
• 87.203 GImage.Opaque	4660
• 87.204 GImage.PopClipPath	4661

- 87.205 GImage.PurgeTemporaryFiles 4662
- 87.206 GImage.PushClipPath 4663
- 87.207 GImage.Quantize 4664
- 87.208 GImage.QuantumDepth 4666
- 87.209 GImage.Raise 4667
- 87.210 GImage.RandomThreshold 4669
- 87.211 GImage.RandomThresholdChannel 4670
- 87.212 GImage.Read 4671
- 86.1 GImage.ReadFromContainer 4395
- 87.213 GImage.ReduceNoise 4673
- 87.214 GImage.Release 4674
- 87.215 GImage.ReleaseAll 4676
- 87.216 GImage.Repage 4677
- 87.217 GImage.ReplaceColor 4678
- 87.218 GImage.Resize 4681
- 87.219 GImage.Roll 4683
- 87.220 GImage.Rollxy 4684
- 87.221 GImage.Rotate 4685
- 87.222 GImage.Rotating 4687
- 87.223 GImage.Rows 4688
- 87.224 GImage.Sample 4689
- 87.225 GImage.Scale 4690
- 87.226 GImage.Scaling 4694
- 87.227 GImage.Segment 4695
- 87.228 GImage.SetAdjoin 4696
- 87.229 GImage.SetAnimationDelay 4697
- 87.230 GImage.SetAnimationIterations 4698
- 87.231 GImage.SetAntiAlias 4699
- 87.232 GImage.SetAttribute 4700



	477
• 87.233 GImage.SetBackgroundColor	4701
• 87.234 GImage.SetBackgroundTexture	4703
• 87.235 GImage.SetBorderColor	4704
• 87.236 GImage.SetBoxColor	4706
• 87.237 GImage.SetCacheThreshold	4707
• 87.238 GImage.SetClassType	4708
• 87.239 GImage.SetColorFuzz	4709
• 87.240 GImage.SetColorMapSize	4711
• 87.241 GImage.SetColorSpace	4712
• 87.242 GImage.SetComment	4713
• 87.243 GImage.SetCompose	4714
• 87.244 GImage.SetCompressType	4715
• 87.245 GImage.SetDebug	4717
• 87.246 GImage.SetDefineSet	4718
• 87.247 GImage.SetDefineValue	4719
• 87.248 GImage.SetDensity	4720
• 87.249 GImage.SetDepth	4722
• 87.250 GImage.SetEXIFOrientation	4723
• 87.251 GImage.SetEndian	4724
• 87.252 GImage.SetFileName	4725
• 87.253 GImage.SetFillColor	4726
• 87.254 GImage.SetFillRule	4728
• 87.255 GImage.SetFilterType	4729
• 87.256 GImage.SetFont	4730
• 87.257 GImage.SetFontPointsize	4731
• 87.258 GImage.SetGifDisposeMethod	4732
• 87.259 GImage.SetICCColorProfile	4733
• 87.260 GImage.SetIPTCProfile	4735
• 87.261 GImage.SetInterlaceType	4736

- 87.262 GImage.SetIsValid 4737
- 87.263 GImage.SetLabel 4738
- 87.264 GImage.SetLineWidth 4739
- 87.265 GImage.SetMagick 4740
- 87.266 GImage.SetMatte 4742
- 87.267 GImage.SetMatteColor 4744
- 87.268 GImage.SetModulusDepth 4745
- 87.269 GImage.SetMonochrome 4746
- 87.270 GImage.SetOrientation 4747
- 87.271 GImage.SetPage 4749
- 87.272 GImage.SetPixelColor 4750
- 87.273 GImage.SetProfile 4752
- 87.274 GImage.SetQuality 4754
- 87.275 GImage.SetQuantizeColorSpace 4756
- 87.276 GImage.SetQuantizeColors 4757
- 87.277 GImage.SetQuantizeDither 4758
- 87.278 GImage.SetQuantizeTreeDepth 4759
- 87.279 GImage.SetQuiet 4760
- 87.280 GImage.SetRenderingIntent 4761
- 87.281 GImage.SetResolutionUnits 4762
- 87.282 GImage.SetScene 4764
- 87.283 GImage.SetSize 4765
- 87.284 GImage.SetStrokeAntiAlias 4766
- 87.285 GImage.SetStrokeColor 4768
- 87.286 GImage.SetStrokeDashArray 4770
- 87.287 GImage.SetStrokeDashOffset 4771
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773
- 87.290 GImage.SetStrokeMiterLimit 4774

	479
• 87.291 GImage.SetStrokeWidth	4775
• 87.292 GImage.SetSubImage	4776
• 87.293 GImage.SetSubRange	4777
• 87.294 GImage.SetTextEncoding	4778
• 87.295 GImage.SetTileName	4779
• 87.296 GImage.SetType	4780
• 87.297 GImage.SetVerbose	4783
• 87.298 GImage.SetView	4784
• 87.299 GImage.SetXMP	4785
• 87.300 GImage.SetchannelDepth	4786
• 87.301 GImage.SetcolorMap	4787
• 87.302 GImage.Shade	4788
• 87.303 GImage.Sharpen	4789
• 87.304 GImage.SharpenChannel	4791
• 87.305 GImage.Shave	4792
• 87.306 GImage.Shear	4794
• 87.307 GImage.Signature	4795
• 87.308 GImage.SkewX	4796
• 87.309 GImage.SkewY	4797
• 87.310 GImage.Solarize	4798
• 87.311 GImage.Spread	4800
• 87.312 GImage.Stegano	4801
• 87.313 GImage.Stereo	4802
• 87.314 GImage.Strip	4803
• 87.315 GImage.StrokePattern	4804
• 87.316 GImage.Swirl	4805
• 87.317 GImage.Texture	4806
• 87.318 GImage.Threshold	4807
• 87.319 GImage.TotalColors	4809

- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813
- 87.323 GImage.TransformRotation 4814
- 87.324 GImage.TransformScale 4815
- 87.325 GImage.TransformSkewX 4816
- 87.326 GImage.TransformSkewY 4817
- 87.327 GImage.Translation 4818
- 87.328 GImage.Transparent 4819
- 87.329 GImage.Trim 4821
- 87.330 GImage.Unsharpmask 4823
- 87.331 GImage.UnsharpmaskChannel 4824
- 87.332 GImage.Wave 4825
- 87.333 GImage.WriteImages 4826
- 87.334 GImage.WriteToBMPContainer 4828
- 87.335 GImage.WriteToContainer 4829
- 87.336 GImage.WriteToFile 4831
- 87.337 GImage.WriteToGIFContainer 4834
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.339 GImage.WriteToPDFContainer 4838
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843
- 87.342 GImage.XResolution 4845
- 87.343 GImage.YResolution 4846
- 87.344 GImage.Zoom 4847
- 54.1 GZipFile.Compress 1509
- 54.2 GZipFile.Decompress 1511
- 88.1 Hash.CRC32 4849
- 88.2 Hash.Digest 4851

	481
• 88.3 Hash.DigestFile	4855
• 88.4 Hash.MD5	4857
• 88.5 Hash.MD5.HMAC	4859
• 88.6 Hash.PBKDF2.HMAC	4861
• 88.7 Hash.RandomHexString	4863
• 88.8 Hash.RandomString	4864
• 88.9 Hash.SHA1	4866
• 88.10 Hash.SHA1.HMAC	4869
• 88.11 Hash.SHA256	4871
• 88.12 Hash.SHA256.HMAC	4873
• 88.13 Hash.SHA512	4876
• 88.14 Hash.SHA512.HMAC	4878
• 90.1 HotKey.GetEnabled	4895
• 90.2 HotKey.GetEvaluate	4896
• 90.3 HotKey.GetIgnoreOnModal	4897
• 90.4 HotKey.GetKeyCode	4898
• 90.5 HotKey.GetKeyUp	4899
• 90.6 HotKey.GetLocal	4900
• 90.7 HotKey.GetModifiers	4901
• 90.8 HotKey.GetName	4902
• 90.10 HotKey.GetScriptFileName	4904
• 90.11 HotKey.GetScriptName	4905
• 90.13 HotKey.GetTag	4907
• 90.14 HotKey.List	4908
• 90.15 HotKey.Register	4909
• 90.16 HotKey.SetEnabled	4913
• 90.17 HotKey.SetEvaluate	4914
• 90.18 HotKey.SetIgnoreOnModal	4917
• 90.19 HotKey.SetKeyUp	4918

- 90.20 HotKey.SetLocal 4919
- 90.21 HotKey.SetName 4920
- 90.23 HotKey.SetScript 4922
- 90.25 HotKey.SetTag 4925
- 90.26 HotKey.Unregister 4926
- 137.2 Icon.GetIcon 6731
- 137.3 Icon.GetIconWithQuickLook 6733
- 127.4 Is64bit 6372
- 127.5 IsClient 6373
- 127.6 IsError 6374
- 127.7 IsIOS 6376
- 127.8 IsIOSDevice 6377
- 127.9 IsIOSSimulator 6378
- 127.10 IsLinux 6379
- 127.11 IsMacOS 6380
- 127.12 IsMobile 6381
- 127.13 IsRegistered 6382
- 127.14 IsRuntime 6385
- 127.15 IsServer 6386
- 127.16 IsWindows 6388
- 100.1 JS.AddFileMakerEvaluateFunction 5253
- 100.2 JS.AddFileMakerRunScriptFunction 5255
- 100.3 JS.AddFileMakerSQLFunction 5257
- 100.4 JS.AddFunction 5258
- 100.5 JS.CallFunction 5260
- 100.6 JS.Evaluate 5262
- 100.7 JS.EvaluateToString 5266
- 100.8 JS.Free 5268
- 100.9 JS.GetGlobalProperty 5270

	483
• 100.10 JS.GetGlobalPropertyValue	5272
• 100.11 JS.New	5273
• 100.12 JS.Now	5275
• 100.13 JS.ObjectCount	5276
• 100.14 JS.SetGlobalProperty	5277
• 100.15 JS.SetGlobalPropertyValue	5279
• 100.16 JS.StringCount	5281
• 100.17 JS.TimeToDateComponents	5282
• 100.18 JS.TimeToUTCDate	5284
• 100.19 JS.UTCDateToTime	5285
• 102.4 JSON.AddArrayToArray	5310
• 102.5 JSON.AddBooleanToObject	5311
• 102.6 JSON.AddFalseToObject	5313
• 102.7 JSON.AddItemToArray	5315
• 102.8 JSON.AddItemToObject	5317
• 102.9 JSON.AddNullToObject	5320
• 102.10 JSON.AddNumberToArray	5322
• 102.11 JSON.AddNumberToObject	5324
• 102.12 JSON.AddStringToArray	5326
• 102.13 JSON.AddStringToObject	5328
• 102.14 JSON.AddTrueToObject	5331
• 102.15 JSON.Clone	5333
• 102.16 JSON.Colorize	5334
• 102.17 JSON.Compact	5336
• 102.18 JSON.CreateArray	5337
• 102.19 JSON.CreateArrayRef	5338
• 102.20 JSON.CreateBool	5341
• 102.21 JSON.CreateBoolean	5342
• 102.22 JSON.CreateDoubleArray	5343

- 102.23 JSON.CreateFalse 5344
- 102.24 JSON.CreateIntegerArray 5345
- 102.25 JSON.CreateNull 5346
- 102.26 JSON.CreateNumber 5347
- 102.27 JSON.CreateObject 5349
- 102.28 JSON.CreateObjectRef 5351
- 102.29 JSON.CreateString 5354
- 102.30 JSON.CreateStringArray 5355
- 102.31 JSON.CreateStringArrayWithList 5356
- 102.32 JSON.CreateTrue 5357
- 102.33 JSON.CreateValue 5358
- 102.34 JSON.DeleteItemFromArray 5359
- 102.35 JSON.DeleteItemFromObject 5360
- 102.36 JSON.EqualContent 5361
- 102.37 JSON.Equals 5362
- 102.38 JSON.FindValueInArray 5364
- 102.39 JSON.FindValueInObjectArray 5366
- 102.40 JSON.Format 5368
- 102.41 JSON.GetArrayItem 5370
- 102.42 JSON.GetArrayItemsAsList 5372
- 102.43 JSON.GetArrayPathItems 5374
- 102.44 JSON.GetArraySize 5376
- 102.45 JSON.GetDoubleValue 5377
- 102.46 JSON.GetIntegerValue 5378
- 102.47 JSON.GetObjectItem 5379
- 102.48 JSON.GetObjectItemTree 5382
- 102.49 JSON.GetObjectItemTreeRef 5383
- 102.50 JSON.GetObjectName 5384
- 102.51 JSON.GetObjectNameList 5385



	485
• 102.52 JSON.GetObjectSize	5386
• 102.53 JSON.GetPathItem	5387
• 102.54 JSON.GetStringValue	5390
• 102.55 JSON.GetType	5392
• 102.56 JSON.GetValue	5393
• 102.57 JSON.Import	5395
• 102.58 JSON.Import.Cancel	5398
• 102.59 JSON.Import.ErrorCount	5399
• 102.60 JSON.Import.Errors	5400
• 102.61 JSON.Import.Status	5401
• 102.62 JSON.Import.TODO	5402
• 102.63 JSON.Import.Total	5403
• 102.64 JSON.Import.Work	5404
• 102.65 JSON.IsValid	5405
• 102.66 JSON.Parse	5406
• 102.67 JSON.Release	5409
• 102.68 JSON.ReleaseAll	5411
• 102.69 JSON.ReplaceItemInArray	5412
• 102.70 JSON.ReplaceItemInObject	5413
• 102.71 JSON.SetPathItem	5414
• 102.72 JSON.Sort	5416
• 102.73 JSON.SortWithEvaluate	5417
• 102.74 JSON.ToHTML	5419
• 99.1 Java.CallObjectMethod	5229
• 99.2 Java.CallStaticMethod	5231
• 99.3 Java.GetContainerFileName	5233
• 99.4 Java.GetObjectField	5234
• 99.5 Java.GetStaticField	5236
• 99.6 Java.Initialize	5238

- 99.7 Java.Initialized 5241
- 99.8 Java.NewClassObject 5242
- 99.9 Java.ObjectClassName 5244
- 99.10 Java.Release 5245
- 99.11 Java.ReleaseAll 5246
- 99.12 Java.SetContainerFileName 5247
- 99.13 Java.SetObjectField 5248
- 99.14 Java.SetStaticField 5250
- 178.3 LCMS.ProfileInfo 8360
- 104.1 LDAP.Add 5439
- 104.2 LDAP.AddJSON 5441
- 104.3 LDAP.AddList 5445
- 104.4 LDAP.AddRecord 5447
- 104.5 LDAP.Bind 5449
- 104.6 LDAP.Connect 5451
- 104.7 LDAP.Delete 5454
- 104.9 LDAP.GetProtocolVersion 5456
- 104.10 LDAP.GetReferrals 5457
- 104.12 LDAP.JSON 5459
- 104.13 LDAP.Modify 5464
- 104.14 LDAP.ModifyJSON 5465
- 104.15 LDAP.ModifyRecord 5467
- 104.16 LDAP.Release 5469
- 104.17 LDAP.Rename 5470
- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.22 LDAP.SearchResult.AttributeValue 5477

	487
• 104.23 LDAP.SearchResult.AttributeValueCount	5478
• 104.24 LDAP.SearchResult.AttributeValues	5479
• 104.25 LDAP.SearchResult.AttributeValuesByName	5481
• 104.26 LDAP.SearchResult.Count	5483
• 104.27 LDAP.SearchResult.DistinguishedName	5485
• 104.29 LDAP.SetProtocolVersion	5487
• 104.30 LDAP.SetReferrals	5488
• 104.32 LDAP.SimpleBind	5490
• 104.33 LDAP.StartTLS	5491
• 105.1 List.AddPostfix	5493
• 105.2 List.AddPrefix	5495
• 105.3 List.AddValue	5496
• 105.4 List.And	5497
• 105.5 List.AndColumn	5499
• 105.6 List.BestMatch	5501
• 105.7 List.CSVSplit	5502
• 105.8 List.CountValues	5504
• 105.9 List.CountValuesMatching	5505
• 105.10 List.CrossProduct	5506
• 105.11 List.DeCombine	5508
• 105.12 List.Deserialize	5510
• 105.13 List.FindEquals	5511
• 105.14 List.FindUnequals	5512
• 105.15 List.GetValue	5514
• 105.16 List.HasDuplicateItems	5515
• 105.17 List.HasValue	5516
• 105.18 List.IndexOfFirstValueMatching	5518
• 105.19 List.InsertValue	5519
• 105.20 List.MatchesPostfix	5520

- 105.21 List.MatchesPrefix 5521
- 105.22 List.Not 5522
- 105.23 List.NotColumn 5523
- 105.24 List.Or 5525
- 105.25 List.OrColumn 5526
- 105.26 List.RegExMatch 5528
- 105.27 List.Remove 5530
- 105.28 List.RemoveDuplicateItems 5531
- 105.29 List.RemoveEmptyItems 5533
- 105.30 List.RemovePostfix 5534
- 105.31 List.RemovePrefix 5536
- 105.32 List.RemoveValue 5538
- 105.33 List.Reverse 5540
- 105.34 List.Serialize 5541
- 105.35 List.SetValue 5542
- 105.36 List.Sort 5543
- 105.37 List.SortWithEvaluate 5546
- 105.38 List.SubList 5548
- 105.39 List.Trim 5550
- 105.40 List.ValueIndex 5551
- 105.41 List.XOr 5552
- 105.42 List.XOrColumn 5553
- 106.1 ListDialog.AddItemToList 5647
- 106.2 ListDialog.AddItemsToList 5649
- 106.3 ListDialog.AddSQL 5650
- 106.4 ListDialog.ClearColumnHeaders 5651
- 106.5 ListDialog.ClearList 5652
- 106.6 ListDialog.ColumnCount 5653
- 106.7 ListDialog.GetAllowEmptySelection 5654

	489
• 106.8 ListDialog.GetAllowMultipleSelection	5655
• 106.9 ListDialog.GetCancelButtonLabel	5656
• 106.10 ListDialog.GetColumnHeader	5657
• 106.11 ListDialog.GetHeight	5658
• 106.12 ListDialog.GetOtherButtonEvaluate	5659
• 106.13 ListDialog.GetOtherButtonLabel	5660
• 106.14 ListDialog.GetPositionX	5661
• 106.15 ListDialog.GetPositionY	5662
• 106.16 ListDialog.GetPrompt	5663
• 106.17 ListDialog.GetSelectButtonLabel	5664
• 106.18 ListDialog.GetSelectedTag	5665
• 106.19 ListDialog.GetSelectedTitle	5666
• 106.20 ListDialog.GetWidth	5667
• 106.21 ListDialog.GetWindowTitle	5668
• 106.22 ListDialog.ListCount	5669
• 106.23 ListDialog.ListItem	5670
• 106.24 ListDialog.ListTag	5671
• 106.25 ListDialog.Reset	5672
• 106.26 ListDialog.SetAllowEmptySelection	5673
• 106.27 ListDialog.SetAllowMultipleSelection	5674
• 106.28 ListDialog.SetCancelButtonLabel	5675
• 106.29 ListDialog.SetColumnCount	5676
• 106.30 ListDialog.SetColumnHeader	5677
• 106.31 ListDialog.SetHeight	5678
• 106.32 ListDialog.SetOtherButtonEvaluate	5679
• 106.33 ListDialog.SetOtherButtonLabel	5680
• 106.34 ListDialog.SetPosition	5681
• 106.35 ListDialog.SetPositionX	5682
• 106.36 ListDialog.SetPositionY	5683

- 106.37 ListDialog.SetPrompt 5684
- 106.38 ListDialog.SetSelectButtonLabel 5685
- 106.39 ListDialog.SetSelectedTag 5686
- 106.40 ListDialog.SetSelectedTitle 5687
- 106.41 ListDialog.SetWidth 5688
- 106.42 ListDialog.SetWindowTitle 5689
- 106.43 ListDialog.ShowDialog 5690
- 106.44 ListDialog.Sort 5692
- 178.4 Log 8361
- 109.1 Markdown.CSS 5835
- 109.2 Markdown.Create 5836
- 109.3 Markdown.HTML 5837
- 109.4 Markdown.Release 5838
- 110.1 Math.BitwiseAND 5839
- 110.2 Math.BitwiseNOT 5841
- 110.3 Math.BitwiseOR 5842
- 110.4 Math.BitwiseShiftLeft 5843
- 110.5 Math.BitwiseShiftRight 5844
- 110.6 Math.BitwiseXOR 5845
- 110.7 Math.DecToHex 5846
- 110.8 Math.DecodeNumber 5847
- 110.9 Math.EncodeNumber 5849
- 110.10 Math.HexToDec 5851
- 110.11 Math.InchToPixel 5852
- 110.12 Math.InsidePolygon 5853
- 110.13 Math.IsValidCC 5854
- 110.14 Math.MillimeterToPixel 5855
- 110.15 Math.NumberToText 5856
- 110.16 Math.PixelToInch 5857

	491
• 110.17 Math.PixelToMillimeter	5858
• 110.18 Math.PolylineDecode	5859
• 110.19 Math.PolylineEncode	5860
• 110.20 Math.TextToNumber	5862
• 111.1 Matrix.Add	5865
• 111.2 Matrix.AddColumn	5868
• 111.3 Matrix.AddColumns	5869
• 111.4 Matrix.AddRow	5870
• 111.5 Matrix.AddRows	5871
• 111.6 Matrix.Avg	5872
• 111.7 Matrix.CSV	5873
• 111.8 Matrix.Clear	5875
• 111.9 Matrix.ClearValues	5876
• 111.10 Matrix.Clone	5877
• 111.11 Matrix.CopyColumn	5878
• 111.12 Matrix.CopyRow	5879
• 111.13 Matrix.DataType	5880
• 111.14 Matrix.Evaluate	5881
• 111.15 Matrix.Free	5883
• 111.16 Matrix.GetColumn	5884
• 111.17 Matrix.GetColumnName	5885
• 111.18 Matrix.GetColumnNames	5886
• 111.19 Matrix.GetRow	5887
• 111.20 Matrix.GetRowName	5888
• 111.21 Matrix.GetRowNames	5889
• 111.22 Matrix.GetText	5890
• 111.23 Matrix.GetValue	5891
• 111.24 Matrix.Height	5893
• 111.25 Matrix.InsertRecords	5894

- 111.26 Matrix.InsertRecordsToSQL 5896
- 111.27 Matrix.JSONRecord 5898
- 111.28 Matrix.JSONRecords 5899
- 111.29 Matrix.Max 5900
- 111.30 Matrix.Min 5901
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.33 Matrix.RemoveColumn 5905
- 111.34 Matrix.RemoveRow 5906
- 111.35 Matrix.Resize 5907
- 111.36 Matrix.SetColumn 5908
- 111.37 Matrix.SetColumnName 5910
- 111.38 Matrix.SetRow 5912
- 111.39 Matrix.SetRowName 5914
- 111.40 Matrix.SetValue 5916
- 111.41 Matrix.Sum 5918
- 111.42 Matrix.Text 5920
- 111.43 Matrix.Width 5922
- 112.1 MatrixDongle.Count 5923
- 112.2 MatrixDongle.Find 5925
- 112.3 MatrixDongle.GetDriverFlag 5926
- 112.4 MatrixDongle.GetVersionAPI 5927
- 112.5 MatrixDongle.GetVersionDRV 5928
- 112.6 MatrixDongle.GetVersionDRV.USB 5929
- 112.7 MatrixDongle.Initialize 5930
- 112.8 MatrixDongle.Initialized 5932
- 112.9 MatrixDongle.MemorySize 5933
- 112.10 MatrixDongle.Model 5934
- 112.11 MatrixDongle.ReadHex 5935



	493
• 112.12 MatrixDongle.ReadSerialNumber	5937
• 112.13 MatrixDongle.ReadText	5938
• 112.14 MatrixDongle.Release	5940
• 112.15 MatrixDongle.SetDriverFlag	5941
• 112.16 MatrixDongle.Version	5943
• 112.17 MatrixDongle.WriteHex	5944
• 112.18 MatrixDongle.WriteText	5945
• 114.1 Menu.AddItem	5953
• 114.2 Menu.AddItems	5956
• 114.3 Menu.CreateMenu	5959
• 114.4 Menu.DefineQuickMenu	5961
• 114.5 Menu.DefineQuickMenuXML	5964
• 114.6 Menu.FindItemWithTag	5966
• 114.7 Menu.FindItemWithTitle	5967
• 114.9 Menu.GetEvaluate	5969
• 114.11 Menu.GetScriptFileName	5971
• 114.12 Menu.GetScriptName	5972
• 114.14 Menu.GetTag	5974
• 114.15 Menu.GetTitle	5975
• 114.16 Menu.GetURL	5976
• 114.17 Menu.InsertItem	5977
• 114.18 Menu.ItemAtIndex	5978
• 114.19 Menu.Items	5979
• 114.20 Menu.List	5980
• 114.21 Menu.NumberOfItems	5981
• 114.22 Menu.PopUp	5982
• 114.23 Menu.Release	5986
• 114.24 Menu.ReleaseAll	5988
• 114.25 Menu.RemoveAllItems	5989

- 114.26 Menu.RemoveItem 5990
- 114.27 Menu.RemoveItemAtIndex 5991
- 114.28 Menu.SelectedItem 5992
- 114.30 Menu.SetEvaluate 5995
- 114.32 Menu.SetScriptAction 5997
- 114.34 Menu.SetTag 6000
- 114.35 Menu.SetTitle 6001
- 114.36 Menu.SetURL 6002
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.41 MenuItem.GetBackColor 6008
- 114.42 MenuItem.GetBold 6009
- 114.43 MenuItem.GetEnabled 6010
- 114.44 MenuItem.GetEvaluate 6011
- 114.45 MenuItem.GetFontColor 6012
- 114.46 MenuItem.GetFontName 6013
- 114.47 MenuItem.GetFontSize 6014
- 114.48 MenuItem.GetGroupID 6015
- 114.49 MenuItem.GetHidden 6016
- 114.50 MenuItem.GetImage 6017
- 114.51 MenuItem.GetItalic 6018
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.55 MenuItem.GetOffStateImage 6022
- 114.56 MenuItem.GetOnStateImage 6023
- 114.57 MenuItem.GetParentItem 6024
- 114.58 MenuItem.GetParentMenu 6025
- 114.59 MenuItem.GetPath 6026
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028

	495
• 114.62 MenuItem.GetRequireOption	6029
• 114.63 MenuItem.GetRequireShift	6030
• 114.64 MenuItem.GetScriptFileName	6031
• 114.65 MenuItem.GetScriptName	6032
• 114.66 MenuItem.GetSelectable	6033
• 114.67 MenuItem.GetState	6034
• 114.68 MenuItem.GetStrikeOut	6035
• 114.69 MenuItem.GetSubMenu	6036
• 114.70 MenuItem.GetTag	6037
• 114.71 MenuItem.GetTitle	6039
• 114.73 MenuItem.GetURL	6041
• 114.74 MenuItem.GetUnderline	6042
• 114.76 MenuItem.HasSubmenu	6044
• 114.77 MenuItem.IsSeparatorItem	6045
• 114.78 MenuItem.List	6046
• 114.79 MenuItem.Release	6047
• 114.82 MenuItem.SetBackColor	6050
• 114.83 MenuItem.SetBold	6052
• 114.84 MenuItem.SetEnabled	6054
• 114.85 MenuItem.SetEvaluate	6055
• 114.86 MenuItem.SetFontColor	6056
• 114.87 MenuItem.SetFontName	6058
• 114.88 MenuItem.SetFontSize	6060
• 114.89 MenuItem.SetGroupID	6062
• 114.90 MenuItem.SetHidden	6063
• 114.91 MenuItem.SetImage	6064
• 114.92 MenuItem.SetItalic	6066
• 114.95 MenuItem.SetMixedStateImage	6072
• 114.96 MenuItem.SetOffStateImage	6073

- 114.97 MenuItem.SetOnStateImage 6074
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078
- 114.102 MenuItem.SetScriptAction 6079
- 114.103 MenuItem.SetSelectable 6081
- 114.104 MenuItem.SetState 6082
- 114.105 MenuItem.SetStrikeOut 6084
- 114.106 MenuItem.SetSubMenu 6085
- 114.107 MenuItem.SetTag 6086
- 114.108 MenuItem.SetTitle 6087
- 114.110 MenuItem.SetURL 6089
- 114.111 MenuItem.SetUnderline 6090
- 115.1 Menubar.HasMenuCommand 6093
- 115.2 Menubar.IsMenuCommandChecked 6095
- 115.3 Menubar.ListMenuCommands 6097
- 115.4 Menubar.RemoveMenuCommand 6098
- 115.5 Menubar.RunMenuCommand 6099
- 115.7 Menubar.SetMenuCommandTitle 6103
- 115.8 Menubar.SetMenuCommandVisible 6104
- 178.5 Modbus.CalculateRTUMessageCRC 8362
- 79.67 MountNotification.Install 3934
- 79.68 MountNotification.Uninstall 3936
- 178.6 MouseCursor.Hide 8363
- 178.7 MouseCursor.HideUntilMouseMoves 8364
- 178.8 MouseCursor.Set 8365
- 178.9 MouseCursor.Show 8368
- 178.10 MsgBox 8369

	497
• 119.1 Mutex.Create	6189
• 119.2 Mutex.Free	6191
• 119.3 Mutex.List	6192
• 119.4 Mutex.Lock	6193
• 119.5 Mutex.Name	6194
• 119.6 Mutex.TryLock	6195
• 119.7 Mutex.Unlock	6196
• 121.1 Notification.List	6203
• 121.2 Notification.Listen	6205
• 121.3 Notification.Send	6207
• 121.4 Notification.SendDirect	6208
• 121.5 Notification.Unlisten	6209
• 121.6 Notification.UnlistenAll	6210
• 123.1 OCR.Cleanup	6217
• 123.2 OCR.Clear	6218
• 123.3 OCR.GetBoxText	6219
• 123.4 OCR.GetHOCText	6220
• 123.5 OCR.GetPageSegMode	6221
• 123.6 OCR.GetText	6222
• 123.7 OCR.GetTextWithCoordinates	6224
• 123.8 OCR.GetVariable	6226
• 123.9 OCR.Initialize	6227
• 123.10 OCR.IsInitialized	6229
• 123.11 OCR.Language	6230
• 123.12 OCR.MeanTextConf	6231
• 123.13 OCR.Recognize	6232
• 123.14 OCR.SetImage	6233
• 123.15 OCR.SetPageSegMode	6235
• 123.16 OCR.SetRectangle	6237

- 123.17 OCR.SetResolution 6238
- 123.18 OCR.SetVariable 6239
- 123.19 OCR.WriteToPDF 6240
- 126.1 PHP.Execute 6355
- 126.2 PHP.ExistsVariable 6357
- 126.3 PHP.GetResultContainer 6358
- 126.4 PHP.GetResultString 6359
- 126.5 PHP.GetVariable 6360
- 126.6 PHP.Init 6361
- 126.7 PHP.IsInitialized 6363
- 126.8 PHP.Load 6364
- 126.9 PHP.Run 6365
- 126.10 PHP.SetVariable 6366
- 126.11 PHP.ShutDown 6367
- 49.1 PKCS12.CA 1379
- 49.2 PKCS12.CACount 1381
- 49.3 PKCS12.Cert 1382
- 49.4 PKCS12.PKey 1383
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388
- 49.9 PKCS7.ReadFromContainer 1390
- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392
- 49.12 PKCS7.SignedDataCert 1393
- 49.13 PKCS7.SignedDataCertCount 1394
- 49.14 PKCS7.SignedDataContent 1395
- 49.15 PKey.Bits 1396
- 49.16 PKey.DescriptionPrivateKey 1397

	499
• 49.17 PKey.DescriptionPublicKey	1398
• 49.18 PKey.GetPrivateKey	1399
• 49.19 PKey.GetPublicKey	1400
• 49.20 PKey.Release	1401
• 49.21 PKey.Type	1402
• 124.1 Path.AddPathComponent	6243
• 124.2 Path.FileMakerPathToNativePath	6247
• 124.3 Path.FilePathToFileURL	6249
• 124.4 Path.FileURLToFilePath	6251
• 124.5 Path.LastPathComponent	6252
• 124.6 Path.LongPath	6254
• 124.7 Path.NativePathToFileMakerPath	6255
• 124.8 Path.RemoveLastPathComponent	6257
• 124.9 Path.ShortPath	6259
• 127.17 Platform	6389
• 127.18 Plugin.BuildNumber	6391
• 127.19 Plugin.CallCounter	6392
• 127.20 Plugin.CallErrorScriptTrigger	6393
• 127.21 Plugin.CompileDate	6394
• 127.22 Plugin.DisableFunction	6395
• 127.23 Plugin.FunctionCount	6396
• 127.24 Plugin.Functions	6397
• 127.25 Plugin.GetSuccessReturn	6398
• 127.27 Plugin.IsPrerelease	6400
• 127.28 Plugin.JasperVersion	6401
• 127.29 Plugin.LibSSHVersion	6402
• 127.30 Plugin.LicenseeName	6403
• 127.31 Plugin.LimitFunction	6405
• 127.32 Plugin.LockFunction	6407

- 127.33 Plugin.OpenSSLVersion 6408
- 127.34 Plugin.PNGVersion 6409
- 127.35 Plugin.Path 6410
- 127.36 Plugin.ScriptStepParameter 6412
- 127.37 Plugin.ScriptStepParameterCount 6413
- 127.38 Plugin.Seats 6414
- 127.39 Plugin.SetErrorScriptTrigger 6415
- 127.40 Plugin.SetFunctions 6417
- 127.41 Plugin.SetPreviewSize 6419
- 127.42 Plugin.SetSuccessReturn 6420
- 127.43 Plugin.StartTimeStamp 6421
- 127.44 Plugin.TiffVersion 6422
- 127.45 Plugin.UnlockFunction 6423
- 127.46 Plugin.UsedFunctions 6424
- 127.47 Plugin.ZLibVersion 6425
- 127.48 Plugin.isDebug 6426
- 128.1 PortMidi.Abort 6449
- 128.2 PortMidi.CheckHostError 6450
- 128.3 PortMidi.ClearDataAvailableHandler 6451
- 128.4 PortMidi.Close 6452
- 128.5 PortMidi.CurrentEvent 6453
- 128.6 PortMidi.DeviceCount 6454
- 128.7 PortMidi.GetChannelMask 6455
- 128.8 PortMidi.GetDefaultInputDeviceID 6456
- 128.9 PortMidi.GetDefaultOutputDeviceID 6457
- 128.10 PortMidi.GetDeviceID 6458
- 128.11 PortMidi.GetDeviceInfo 6459
- 128.12 PortMidi.GetDeviceName 6461
- 128.13 PortMidi.GetFilter 6462



	501
• 128.14 PortMidi.OpenInput	6463
• 128.15 PortMidi.OpenOutput	6464
• 128.16 PortMidi.Poll	6466
• 128.17 PortMidi.ReadMessage	6467
• 128.18 PortMidi.Rescan	6468
• 128.19 PortMidi.SendMessage	6469
• 128.20 PortMidi.SendMessageRaw	6471
• 128.21 PortMidi.SendSysExHex	6472
• 128.22 PortMidi.SetChannelMask	6473
• 128.23 PortMidi.SetDataAvailableEvaluate	6475
• 128.24 PortMidi.SetDataAvailableHandler	6476
• 128.25 PortMidi.SetFilter	6478
• 128.26 PortMidi.TimeStamp	6480
• 129.2 Preferences.DeleteValue	6482
• 129.4 Preferences.GetValue	6484
• 129.5 Preferences.GetValueType	6487
• 129.6 Preferences.HasValue	6488
• 129.8 Preferences.SetValue	6490
• 131.1 Printer.CurrentNumberOfCopies	6559
• 131.2 Printer.CurrentPaperFormat	6560
• 131.3 Printer.CurrentPaperSource	6562
• 131.4 Printer.CurrentPrintWhat	6564
• 131.5 Printer.CurrentPrinterName	6566
• 131.6 Printer.ErrorLog	6568
• 131.7 Printer.GetDefaultPrinter	6569
• 131.8 Printer.PaperFormats	6570
• 131.9 Printer.PaperSources	6572
• 131.10 Printer.Print	6574
• 131.11 Printer.PrinterCount	6577

- 131.12 Printer.PrinterInfo 6578
- 131.13 Printer.PrinterName 6580
- 131.14 Printer.PrinterNames 6582
- 131.15 Printer.SetPrinter 6584
- 132.2 Process.FrontProcessName 6588
- 132.3 Process.FrontWindowTitle 6589
- 132.4 Process.GetCurrentDirectory 6590
- 132.5 Process.IsFrontMost 6591
- 132.8 Process.LoadLibrary 6594
- 132.9 Process.SetCurrentDirectory 6595
- 132.10 Process.SetFrontMost 6596
- 133.1 ProgressDialog.ClearImage 6603
- 133.2 ProgressDialog.GetBottomText 6605
- 133.3 ProgressDialog.GetButtonCaption 6606
- 133.4 ProgressDialog.GetCancel 6607
- 133.5 ProgressDialog.GetImageHeight 6609
- 133.6 ProgressDialog.GetImageWidth 6610
- 133.7 ProgressDialog.GetPositionX 6611
- 133.8 ProgressDialog.GetPositionY 6612
- 133.9 ProgressDialog.GetProgress 6613
- 133.10 ProgressDialog.GetShowButton 6614
- 133.11 ProgressDialog.GetTitle 6615
- 133.12 ProgressDialog.GetTopMost 6616
- 133.13 ProgressDialog.GetTopText 6617
- 133.14 ProgressDialog.Hide 6618
- 133.15 ProgressDialog.Reset 6620
- 133.16 ProgressDialog.SetBottomText 6621
- 133.17 ProgressDialog.SetButtonCaption 6623
- 133.18 ProgressDialog.SetCancel 6625

	503
• 133.19 ProgressDialog.SetFont	6627
• 133.20 ProgressDialog.SetImage	6629
• 133.21 ProgressDialog.SetImageHeight	6631
• 133.22 ProgressDialog.SetImageWidth	6632
• 133.23 ProgressDialog.SetPosition	6633
• 133.24 ProgressDialog.SetPositionCentered	6634
• 133.25 ProgressDialog.SetProgress	6635
• 133.26 ProgressDialog.SetShowButton	6637
• 133.27 ProgressDialog.SetTitle	6639
• 133.28 ProgressDialog.SetTitleIcon	6641
• 133.29 ProgressDialog.SetTopMost	6643
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647
• 133.32 ProgressDialog.Update	6649
• 133.33 Progressdialog.GetEvaluate	6651
• 133.34 Progressdialog.GetFileName	6652
• 133.35 Progressdialog.GetScriptName	6653
• 133.36 Progressdialog.SetEvaluate	6654
• 133.37 Progressdialog.SetScript	6655
• 134.1 Proj.BatchTransform	6657
• 134.2 Proj.Initialize	6659
• 134.3 Proj.IsInitialized	6660
• 134.4 Proj.Transform	6661
• 105.43 QuickList.AddList	5555
• 105.44 QuickList.AddMultiValue	5557
• 105.45 QuickList.AddPostfix	5559
• 105.46 QuickList.AddPrefix	5561
• 105.47 QuickList.AddQuickList	5563
• 105.48 QuickList.AddSQL	5564

- 105.49 QuickList.AddValue 5566
- 105.50 QuickList.And 5568
- 105.51 QuickList.AndColumn 5570
- 105.52 QuickList.BestMatch 5572
- 105.53 QuickList.CSVSplit 5573
- 105.54 QuickList.Clear 5574
- 105.55 QuickList.Clone 5575
- 105.56 QuickList.Count 5576
- 105.57 QuickList.CountValuesMatching 5578
- 105.58 QuickList.CrossProduct 5579
- 105.59 QuickList.DeCombine 5581
- 105.60 QuickList.Deserialize 5583
- 105.61 QuickList.FindEquals 5584
- 105.62 QuickList.FindUnequals 5585
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.65 QuickList.GetValue 5590
- 105.66 QuickList.HasDuplicateItems 5592
- 105.67 QuickList.HasValue 5593
- 105.68 QuickList.IndexOfFirstValueMatching 5595
- 105.69 QuickList.InsertValue 5596
- 105.70 QuickList.List 5597
- 105.71 QuickList.MatchesPostfix 5598
- 105.72 QuickList.MatchesPrefix 5600
- 105.73 QuickList.MatchesSubString 5602
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606
- 105.76 QuickList.NotColumn 5608
- 105.77 QuickList.Or 5610

	505
• 105.78 QuickList.OrColumn	5612
• 105.79 QuickList.Pop	5614
• 105.80 QuickList.PopFirst	5615
• 105.81 QuickList.Push	5616
• 105.82 QuickList.RegExMatch	5617
• 105.83 QuickList.Remove	5618
• 105.84 QuickList.RemoveDuplicateItems	5619
• 105.85 QuickList.RemoveEmptyItems	5620
• 105.86 QuickList.RemovePostfix	5621
• 105.87 QuickList.RemovePrefix	5623
• 105.88 QuickList.RemoveValue	5625
• 105.89 QuickList.Reserve	5626
• 105.90 QuickList.Reverse	5627
• 105.91 QuickList.Serialize	5628
• 105.92 QuickList.SetList	5630
• 105.93 QuickList.SetValue	5631
• 105.94 QuickList.Sort	5633
• 105.95 QuickList.SortWith	5635
• 105.96 QuickList.SortWithEvaluate	5638
• 105.97 QuickList.SubList	5639
• 105.98 QuickList.Trim	5641
• 105.99 QuickList.ValueIndex	5642
• 105.100 QuickList.XOr	5643
• 105.101 QuickList.XOrColumn	5644
• 74.12 RSA.DecryptPrivateKey	3523
• 74.13 RSA.EncryptPrivateKey	3525
• 152.15 RSA.GeneratePrivateKey	7191
• 152.16 RSA.GetPublicKey	7193
• 74.14 RSA.PrivateDecrypt	3527

- 74.15 RSA.PrivateEncrypt 3530
- 74.16 RSA.PublicDecrypt 3533
- 74.17 RSA.PublicEncrypt 3536
- 152.17 RSA.Sign 7195
- 152.18 RSA.Verify 7200
- 138.1 RegEx.CaptureCount 6757
- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762
- 138.4 RegEx.FindMatches 6765
- 138.5 RegEx.Free 6768
- 138.6 RegEx.List 6769
- 138.7 RegEx.Match 6770
- 138.8 RegEx.MatchList 6772
- 138.9 RegEx.MinimumLength 6774
- 138.10 RegEx.NameCount 6775
- 138.11 RegEx.NamedSubstring 6776
- 138.12 RegEx.Options 6777
- 138.13 RegEx.Pattern 6778
- 138.14 RegEx.Quote 6779
- 138.15 RegEx.Replace 6780
- 138.16 RegEx.ReplaceAll 6782
- 138.17 RegEx.Results 6784
- 138.18 RegEx.Size 6786
- 138.19 RegEx.StringNumber 6787
- 138.20 RegEx.Study 6788
- 138.21 RegEx.Substring 6789
- 138.22 RegEx.SubstringList 6791
- 138.23 RegEx.Version 6792
- 127.49 Register 6428

	507
• 127.50 Registration	6431
• 139.1 Registry.CreateKey	6793
• 139.2 Registry.DeleteKey	6795
• 139.3 Registry.DeleteTree	6796
• 139.4 Registry.DeleteValue	6797
• 139.5 Registry.FlushKey	6798
• 139.6 Registry.GetValue	6799
• 139.7 Registry.GetValueType	6801
• 139.8 Registry.ListKeys	6802
• 139.9 Registry.ListValues	6803
• 139.10 Registry.SetValue	6804
• 140.1 RemoteControl.ClickMouse	6807
• 140.2 RemoteControl.FindWindow	6809
• 140.3 RemoteControl.GetWindowsList	6810
• 140.4 RemoteControl.HideCursor	6811
• 140.5 RemoteControl.MouseX	6812
• 140.6 RemoteControl.MouseY	6813
• 140.7 RemoteControl.MoveMouse	6814
• 140.9 RemoteControl.PressControlKey	6816
• 140.12 RemoteControl.PressKey	6819
• 140.13 RemoteControl.PressKeyLater	6822
• 140.14 RemoteControl.PressOptionKey	6823
• 140.15 RemoteControl.PressShiftKey	6824
• 140.16 RemoteControl.ShowCursor	6825
• 142.1 RunTask.AddArgument	6869
• 142.2 RunTask.GetArgument	6871
• 142.3 RunTask.GetArgumentCount	6872
• 142.4 RunTask.GetCurrentDirectoryPath	6873
• 142.5 RunTask.GetLaunchPath	6874

- 142.6 RunTask.GetVerb 6875
- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.9 RunTask.NewTask 6880
- 142.10 RunTask.ProcessIdentifier 6882
- 142.13 RunTask.SetArguments 6885
- 142.14 RunTask.SetCurrentDirectoryPath 6888
- 142.15 RunTask.SetLaunchPath 6889
- 142.16 RunTask.SetVerb 6891
- 142.17 RunTask.Terminate 6892
- 154.2 SNMP.SetRetries 7241
- 154.3 SNMP.SetTimeout 7242
- 159.2 SQL.Cancel 7411
- 159.3 SQL.ClientVersion 7412
- 159.4 SQL.Close 7413
- 159.5 SQL.CommandText 7414
- 159.6 SQL.CommandType 7415
- 159.7 SQL.Commit 7416
- 159.8 SQL.Connect 7418
- 159.9 SQL.Disconnect 7424
- 159.10 SQL.Execute 7425
- 159.11 SQL.FetchFirst 7429
- 159.12 SQL.FetchLast 7430
- 159.13 SQL.FetchNext 7432
- 159.14 SQL.FetchPos 7435
- 159.15 SQL.FetchPrior 7436
- 159.16 SQL.FieldCount 7437
- 159.17 SQL.FreeAllConnections 7439
- 159.18 SQL.FreeCommand 7440



	509
• 159.19 SQL.FreeConnection	7442
• 159.20 SQL.GetAutoCommit	7444
• 159.21 SQL.GetCommandOption	7445
• 159.22 SQL.GetCommandOptions	7446
• 159.23 SQL.GetCommandTag	7447
• 159.24 SQL.GetConnectionOption	7448
• 159.25 SQL.GetConnectionOptions	7449
• 159.26 SQL.GetConnectionTag	7450
• 159.27 SQL.GetFieldAsBoolean	7451
• 159.28 SQL.GetFieldAsContainer	7452
• 159.29 SQL.GetFieldAsDate	7453
• 159.30 SQL.GetFieldAsDateTime	7455
• 159.31 SQL.GetFieldAsFloat	7456
• 159.32 SQL.GetFieldAsJPEG	7458
• 159.33 SQL.GetFieldAsNumber	7460
• 159.34 SQL.GetFieldAsPDF	7462
• 159.35 SQL.GetFieldAsPNG	7464
• 159.36 SQL.GetFieldAsText	7466
• 159.37 SQL.GetFieldAsTime	7468
• 159.38 SQL.GetFieldDataType	7469
• 159.39 SQL.GetFieldIsNull	7470
• 159.40 SQL.GetFieldName	7471
• 159.41 SQL.GetFieldNameList	7473
• 159.42 SQL.GetFieldOption	7475
• 159.43 SQL.GetFieldOptions	7476
• 159.44 SQL.GetFieldValue	7477
• 159.45 SQL.GetFieldValueList	7478
• 159.46 SQL.GetFieldsAsJSON	7480
• 159.47 SQL.GetIsolationLevel	7482

- 159.48 SQL.GetParamAsBoolean 7483
- 159.49 SQL.GetParamAsContainer 7484
- 159.50 SQL.GetParamAsDate 7485
- 159.51 SQL.GetParamAsDateTime 7486
- 159.52 SQL.GetParamAsFloat 7487
- 159.53 SQL.GetParamAsJPEG 7489
- 159.54 SQL.GetParamAsNumber 7491
- 159.55 SQL.GetParamAsPDF 7493
- 159.56 SQL.GetParamAsPNG 7495
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.59 SQL.GetParamDataType 7499
- 159.60 SQL.GetParamIsDefault 7500
- 159.61 SQL.GetParamIsNull 7501
- 159.62 SQL.GetParamName 7502
- 159.63 SQL.GetParamNameList 7503
- 159.64 SQL.GetParamOption 7505
- 159.65 SQL.GetParamOptions 7506
- 159.66 SQL.GetParamValue 7507
- 159.67 SQL.GetParamValueList 7508
- 159.68 SQL.GetParamsAsJSON 7510
- 159.69 SQL.GetRecordsAsJSON 7512
- 159.70 SQL.GetRecordsAsText 7514
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519
- 159.73 SQL.InternalSQLiteLibrary.Activate 7521
- 159.74 SQL.InternalSQLiteLibrary.Activated 7522
- 159.75 SQL.InternalSQLiteLibrary.Deactivate 7523
- 159.76 SQL.InternalSQLiteLibrary.SourceID 7524

	511
• 159.77 SQL.InternalSQLiteLibrary.Version	7525
• 159.78 SQL.InternalSQLiteLibrary.VersionNumber	7526
• 159.79 SQL.ListCommands	7527
• 159.80 SQL.ListConnections	7528
• 159.81 SQL.MySQL.InsertID	7529
• 159.82 SQL.NewCommand	7530
• 159.83 SQL.NewConnection	7534
• 159.84 SQL.Open	7537
• 159.85 SQL.ParamCount	7538
• 159.86 SQL.Prepare	7539
• 159.87 SQL.ResetCommand	7540
• 159.88 SQL.ResetConnection	7541
• 159.89 SQL.Rollback	7542
• 159.90 SQL.RowsAffected	7543
• 159.91 SQL.SQLite3.EnableLoadExtension	7545
• 159.92 SQL.SQLite3.LastInsertRowID	7546
• 159.93 SQL.SQLite3.MemoryHighwater	7547
• 159.94 SQL.SQLite3.MemoryUsed	7548
• 159.95 SQL.SQLite3.ReKey	7549
• 159.96 SQL.SQLite3.SetKey	7551
• 159.97 SQL.ServerVersion	7553
• 159.98 SQL.ServerVersionString	7554
• 159.99 SQL.SetAutoCommit	7555
• 159.100 SQL.SetClient	7556
• 159.101 SQL.SetCommandOption	7558
• 159.102 SQL.SetCommandTag	7560
• 159.103 SQL.SetCommandText	7561
• 159.104 SQL.SetConnectionOption	7563
• 159.105 SQL.SetConnectionTag	7568

- 159.106 SQL.SetFieldOption 7569
- 159.107 SQL.SetIsolationLevel 7570
- 159.108 SQL.SetParamAsBoolean 7571
- 159.109 SQL.SetParamAsContainer 7572
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576
- 159.112 SQL.SetParamAsFloat 7578
- 159.113 SQL.SetParamAsNumber 7580
- 159.114 SQL.SetParamAsText 7582
- 159.115 SQL.SetParamAsTime 7584
- 159.116 SQL.SetParamDataType 7585
- 159.117 SQL.SetParamDefault 7586
- 159.118 SQL.SetParamNull 7587
- 159.119 SQL.SetParamOption 7588
- 159.120 SQL.SetParamTypesValues 7589
- 159.121 SQL.SetParamUnknown 7591
- 159.122 SQL.SetParamValue 7592
- 159.123 SQL.SetParamValues 7594
- 159.124 SQL.SetParamsWithJSON 7596
- 159.125 SQL.isAlive 7598
- 159.126 SQL.isConnected 7599
- 159.127 SQL.isExecuted 7600
- 159.128 SQL.isOpened 7601
- 159.129 SQL.isResultSet 7602
- 160.1 SSH.CloseChannel 7603
- 160.2 SSH.Connect 7605
- 160.3 SSH.Disconnect 7609
- 160.4 SSH.EOF 7610
- 160.5 SSH.Execute 7611

	513
• 160.6 SSH.Flush	7614
• 160.7 SSH.FreeChannel	7615
• 160.8 SSH.GetExitState	7616
• 160.9 SSH.GetIP	7617
• 160.10 SSH.GetPort	7618
• 160.11 SSH.GetTag	7619
• 160.12 SSH.GetTimeout	7620
• 160.13 SSH.GetUserName	7621
• 160.14 SSH.HostKey	7622
• 160.15 SSH.HostKeyHash	7623
• 160.16 SSH.IsAuthenticated	7624
• 160.17 SSH.New	7625
• 160.18 SSH.OpenSession	7628
• 160.19 SSH.ReadHex	7629
• 160.20 SSH.ReadText	7630
• 160.21 SSH.Release	7632
• 160.22 SSH.RequestPTY	7633
• 160.23 SSH.SendEOF	7634
• 160.24 SSH.SessionHandshake	7635
• 160.25 SSH.SetEnv	7636
• 160.26 SSH.SetTag	7637
• 160.27 SSH.SetTimeout	7638
• 160.28 SSH.Shell	7639
• 160.29 SSH.Tunnel.BytesReceived	7640
• 160.30 SSH.Tunnel.BytesSent	7641
• 160.31 SSH.Tunnel.Cancel	7642
• 160.32 SSH.Tunnel.Cancelled	7643
• 160.33 SSH.Tunnel.GetKeepAlive	7644
• 160.34 SSH.Tunnel.Messages	7645

- 160.35 SSH.Tunnel.Run 7646
- 160.36 SSH.Tunnel.Running 7648
- 160.37 SSH.Tunnel.SetKeepAlive 7649
- 160.38 SSH.UserAuthKeyboardInteractive 7650
- 160.39 SSH.UserAuthList 7651
- 160.40 SSH.UserAuthPassword 7652
- 160.41 SSH.UserAuthPublicKey 7653
- 160.42 SSH.UserAuthPublicKeyFile 7655
- 160.43 SSH.WaitClosed 7657
- 160.44 SSH.WaitEOF 7658
- 160.45 SSH.WaitSocket 7659
- 160.46 SSH.WriteHex 7660
- 160.47 SSH.WriteText 7661
- 143.1 Schedule.Check 6899
- 143.2 Schedule.ClearEvaluateResult 6900
- 143.3 Schedule.ClearSQLResult 6901
- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.5 Schedule.EvaluateAtTime 6904
- 143.6 Schedule.EvaluateAtTimeStamp 6906
- 143.7 Schedule.EvaluateOnIdle 6908
- 143.8 Schedule.ExecuteSQLAfterDelay 6909
- 143.9 Schedule.ExecuteSQLAtTime 6911
- 143.10 Schedule.ExecuteSQLAtTimeStamp 6913
- 143.11 Schedule.ExecuteSQLOnIdle 6915
- 143.12 Schedule.GetAutoRelease 6917
- 143.13 Schedule.GetEvaluate 6918
- 143.14 Schedule.GetEvaluateResult 6919
- 143.15 Schedule.GetFileName 6920
- 143.16 Schedule.GetLastTimeStamp 6921

	515
• 143.17 Schedule.GetRepeatDelay	6922
• 143.18 Schedule.GetRunCount	6923
• 143.19 Schedule.GetSQL	6924
• 143.20 Schedule.GetSQLResult	6925
• 143.21 Schedule.GetScriptName	6926
• 143.22 Schedule.GetScriptParameter	6927
• 143.23 Schedule.GetTimeStamp	6928
• 143.24 Schedule.GetURL	6929
• 143.25 Schedule.List	6930
• 143.26 Schedule.Release	6931
• 143.27 Schedule.ReleaseAll	6933
• 143.28 Schedule.SetAutoRelease	6934
• 143.29 Schedule.SetEvaluate	6935
• 143.30 Schedule.SetFileName	6936
• 143.31 Schedule.SetRepeatDelay	6937
• 143.32 Schedule.SetSQL	6938
• 143.33 Schedule.SetScriptName	6939
• 143.34 Schedule.SetScriptParameter	6940
• 143.35 Schedule.SetTimeStamp	6941
• 143.36 Schedule.SetURL	6942
• 143.37 Schedule.StartScriptAfterDelay	6943
• 143.38 Schedule.StartScriptAtTime	6945
• 143.39 Schedule.StartScriptAtTimeStamp	6947
• 143.40 Schedule.StartScriptOnIdle	6949
• 144.1 Screen.Count	6951
• 144.4 Screen.Height	6954
• 144.5 Screen.Left	6955
• 144.6 Screen.Scale	6956
• 144.7 Screen.Top	6957

- 144.8 Screen.Width 6958
- 144.9 Screenshot 6959
- 144.10 ScreenshotRect 6961
- 178.11 SendCommand 8370
- 146.1 SendMail.AddAttachmentContainer 6989
- 146.2 SendMail.AddAttachmentFile 6992
- 146.3 SendMail.AddAttachmentText 6995
- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.6 SendMail.AddHeader 7001
- 146.7 SendMail.AddRecipient 7003
- 146.8 SendMail.AddReplyTo 7005
- 146.9 SendMail.AddTo 7006
- 146.10 SendMail.AttachmentCount 7008
- 146.11 SendMail.ClearAttachments 7009
- 146.12 SendMail.ClearHeaders 7010
- 146.13 SendMail.ClearRecipients 7011
- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.16 SendMail.GetInReplyTo 7015
- 146.17 SendMail.GetMessageID 7016
- 146.18 SendMail.GetPlainText 7017
- 146.19 SendMail.GetRichText 7018
- 146.20 SendMail.GetSMTPPassword 7019
- 146.21 SendMail.GetSMTPServer 7020
- 146.22 SendMail.GetSMTPUserName 7021
- 146.23 SendMail.GetSource 7022
- 146.24 SendMail.GetSubject 7023
- 146.25 SendMail.PrepareCURL 7024



	517
• 146.26 SendMail.Release	7026
• 146.27 SendMail.SetFrom	7027
• 146.28 SendMail.SetHTMLText	7029
• 146.29 SendMail.SetInReplyTo	7031
• 146.30 SendMail.SetMessageID	7032
• 146.31 SendMail.SetPlainText	7033
• 146.32 SendMail.SetRichText	7035
• 146.33 SendMail.SetSMTPPassword	7037
• 146.34 SendMail.SetSMTPServer	7039
• 146.35 SendMail.SetSMTPUserName	7041
• 146.36 SendMail.SetSubject	7043
• 147.1 SerialPort.AvailableBytes	7045
• 147.2 SerialPort.Clear	7047
• 147.3 SerialPort.ClearDataAvailableHandler	7048
• 147.4 SerialPort.Close	7049
• 147.5 SerialPort.CloseAll	7050
• 147.6 SerialPort.GetBaudRate	7051
• 147.7 SerialPort.GetCTS	7052
• 147.8 SerialPort.GetDSR	7053
• 147.9 SerialPort.GetDTR	7054
• 147.10 SerialPort.GetDataBits	7055
• 147.11 SerialPort.GetParity	7056
• 147.12 SerialPort.GetRTS	7057
• 147.13 SerialPort.GetStopBits	7058
• 147.14 SerialPort.GetXON	7059
• 147.15 SerialPort.HasLine	7060
• 147.16 SerialPort.IsSuspended	7061
• 147.17 SerialPort.LastError	7062
• 147.18 SerialPort.List	7063

- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.21 SerialPort.ReadByte 7073
- 147.22 SerialPort.ReadHex 7074
- 147.23 SerialPort.ReadLine 7075
- 147.24 SerialPort.Resume 7076
- 147.25 SerialPort.SetBaudRate 7077
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 147.31 SerialPort.SetDataBits 7084
- 147.32 SerialPort.SetParity 7085
- 147.33 SerialPort.SetRTS 7086
- 147.34 SerialPort.SetStopBits 7087
- 147.35 SerialPort.SetXON 7088
- 147.36 SerialPort.Suspend 7090
- 147.37 SerialPort.Write 7091
- 147.38 SerialPort.WriteByte 7093
- 147.39 SerialPort.WriteHex 7094
- 148.1 ServerSocket.Check 7097
- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.3 ServerSocket.GetAllowedTypes 7099
- 148.4 ServerSocket.SendQuery 7100
- 148.5 ServerSocket.SetAllowedScripts 7102
- 148.6 ServerSocket.SetAllowedTypes 7103
- 148.7 ServerSocket.Start 7104
- 148.8 ServerSocket.Stop 7106

	519
• 150.1 SharedMemory.Exists	7111
• 150.2 SharedMemory.GetValue	7112
• 150.3 SharedMemory.SetValue	7113
• 151.1 Shell.AddArgument	7115
• 151.2 Shell.AddEnvironment	7118
• 151.3 Shell.AvailableBytesError	7119
• 151.4 Shell.AvailableBytesOutput	7120
• 151.5 Shell.ClearArguments	7121
• 151.6 Shell.ClearEnvironment	7122
• 151.7 Shell.CloseInput	7123
• 151.8 Shell.CloseStreams	7124
• 151.9 Shell.Execute	7125
• 151.10 Shell.ExitCode	7133
• 151.11 Shell.GetApplicationName	7134
• 151.12 Shell.GetArgument	7135
• 151.13 Shell.GetArgumentCount	7136
• 151.14 Shell.GetArguments	7137
• 151.15 Shell.GetCompletedEvaluate	7138
• 151.16 Shell.GetCompletedScriptFileName	7139
• 151.17 Shell.GetCompletedScriptName	7140
• 151.18 Shell.GetCurrentDirectory	7141
• 151.19 Shell.GetDataAvailableEvaluate	7142
• 151.20 Shell.GetDataAvailableScriptFileName	7143
• 151.21 Shell.GetDataAvailableScriptName	7144
• 151.22 Shell.GetDomain	7145
• 151.23 Shell.GetEnvironment	7146
• 151.24 Shell.GetPassword	7147
• 151.25 Shell.GetUsername	7148
• 151.26 Shell.IsRunning	7149

- 151.27 Shell.New 7150
- 151.28 Shell.PeekErrorText 7151
- 151.29 Shell.PeekOutputText 7152
- 151.30 Shell.ProcessIdentifier 7153
- 151.31 Shell.ReadErrorText 7154
- 151.32 Shell.ReadOutputText 7155
- 151.33 Shell.Release 7157
- 151.34 Shell.SetApplicationName 7158
- 151.35 Shell.SetArguments 7159
- 151.36 Shell.SetArgumentsList 7160
- 151.37 Shell.SetCompletedEvaluate 7161
- 151.38 Shell.SetCompletedScript 7162
- 151.39 Shell.SetCurrentDirectory 7163
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 151.41 Shell.SetDataAvailableScript 7165
- 151.42 Shell.SetDomain 7166
- 151.43 Shell.SetPassword 7167
- 151.44 Shell.SetUsername 7168
- 151.45 Shell.Terminate 7169
- 151.47 Shell.Wait 7171
- 151.48 Shell.WriteInputText 7173
- 178.12 ShowURL 8371
- 153.1 SmartCard.Available 7203
- 153.2 SmartCard.BeginTransaction 7204
- 153.3 SmartCard.Cancel 7205
- 153.4 SmartCard.CancelTransaction 7206
- 153.5 SmartCard.Connect 7207
- 153.6 SmartCard.Control 7209
- 153.7 SmartCard.Disconnect 7210

	521
• 153.8 SmartCard.EndTransaction	7211
• 153.9 SmartCard.GetActiveProtocol	7212
• 153.10 SmartCard.GetAttribute	7213
• 153.11 SmartCard.HeaderTemplate	7215
• 153.12 SmartCard.Init	7216
• 153.13 SmartCard.ListReaderGroups	7219
• 153.14 SmartCard.ListReaders	7220
• 153.15 SmartCard.PerformSignature	7222
• 153.16 SmartCard.ReadCertificate	7223
• 153.17 SmartCard.ReadFile	7224
• 153.18 SmartCard.Reconnect	7227
• 153.19 SmartCard.Release	7228
• 153.20 SmartCard.SetAttribute	7229
• 153.21 SmartCard.SplitValues	7230
• 153.22 SmartCard.Status	7232
• 153.23 SmartCard.Transmit	7233
• 153.24 SmartCard.TransmitReceiveHeader	7236
• 153.25 SmartCard.Valid	7237
• 157.1 Socket.AcceptNewConnection	7301
• 157.2 Socket.AddMembership	7303
• 157.3 Socket.AvailableBytes	7304
• 157.4 Socket.Check	7305
• 157.5 Socket.CheckAll	7306
• 157.6 Socket.ClearDataAvailableHandler	7307
• 157.7 Socket.ClearErrorHandler	7308
• 157.8 Socket.ClearNewConnectionHandler	7309
• 157.9 Socket.Close	7310
• 157.10 Socket.CloseAll	7312
• 157.11 Socket.Connect	7313

- 157.12 Socket.DropMembership 7318
- 157.13 Socket.GetBroadcast 7319
- 157.14 Socket.GetMulticastInterface 7320
- 157.15 Socket.GetMulticastLoop 7321
- 157.16 Socket.GetMulticastTimeToLive 7322
- 157.17 Socket.GetTag 7323
- 157.18 Socket.GetTimeToLive 7324
- 157.19 Socket.IsClosed 7325
- 157.20 Socket.IsListening 7326
- 157.21 Socket.LastError 7327
- 157.22 Socket.LastMessageIP 7328
- 157.23 Socket.LastMessagePort 7329
- 157.24 Socket.List 7330
- 157.25 Socket.Listen 7331
- 157.26 Socket.LocalIP 7333
- 157.27 Socket.LocalPort 7334
- 157.28 Socket.NewTCPSocket 7335
- 157.29 Socket.NewUDPSocket 7337
- 157.30 Socket.Peek 7339
- 157.31 Socket.PeekAll 7340
- 157.32 Socket.PeekAllHex 7341
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353

	523
• 157.41 Socket.RemoteIP	7354
• 157.42 Socket.RemotePort	7355
• 157.43 Socket.SSL.Accept	7356
• 157.44 Socket.SSL.Connect	7357
• 157.45 Socket.SSL.GetMethod	7358
• 157.46 Socket.SSL.Initialize	7359
• 157.47 Socket.SSL.Prepare	7360
• 157.48 Socket.SSL.SetMethod	7361
• 157.49 Socket.SSL.UseCertificateFile	7362
• 157.50 Socket.SSL.UsePrivateKeyFile	7363
• 157.51 Socket.SendMessage	7364
• 157.52 Socket.SendMessageHex	7366
• 157.53 Socket.SetBroadcast	7367
• 157.54 Socket.SetDataAvailableEvaluate	7368
• 157.55 Socket.SetDataAvailableHandler	7369
• 157.56 Socket.SetDataAvailableURL	7371
• 157.57 Socket.SetErrorEvaluate	7372
• 157.58 Socket.SetErrorHandler	7373
• 157.59 Socket.SetErrorURL	7375
• 157.60 Socket.SetMulticastInterface	7376
• 157.61 Socket.SetMulticastLoop	7377
• 157.62 Socket.SetMulticastTimeToLive	7378
• 157.63 Socket.SetNewConnectionEvaluate	7379
• 157.64 Socket.SetNewConnectionHandler	7380
• 157.65 Socket.SetNewConnectionURL	7382
• 157.66 Socket.SetTag	7383
• 157.67 Socket.SetTimeToLive	7384
• 157.68 Socket.Write	7385
• 157.69 Socket.WriteByte	7387

- 157.70 Socket.WriteHex 7388
- 157.71 Socket.WriteMLLP 7390
- 158.1 Speech.AvailableVoices 7391
- 158.2 Speech.IsPaused 7392
- 158.3 Speech.IsSpeaking 7393
- 158.4 Speech.Pause 7394
- 158.5 Speech.Resume 7395
- 158.6 Speech.Speak 7396
- 127.51 StoreRegistration 6432
- 163.1 System.Logout 7775
- 163.2 System.Restart 7776
- 163.3 System.Shutdown 7777
- 163.4 System.Sleep 7778
- 164.1 SystemInfo.ADSYSTEMINFO 7779
- 164.2 SystemInfo.AvailableRAM 7781
- 164.3 SystemInfo.CPUBrandString 7782
- 164.4 SystemInfo.ComputerName 7783
- 164.5 SystemInfo.DomainName 7784
- 164.6 SystemInfo.DoubleClickTime 7785
- 164.7 SystemInfo.HardDiscSerial 7786
- 164.8 SystemInfo.HostDNSName 7787
- 164.9 SystemInfo.HostName 7788
- 164.10 SystemInfo.IdleTime 7789
- 164.11 SystemInfo.Is64bitWindows 7790
- 164.12 SystemInfo.IsAdminUser 7791
- 164.13 SystemInfo.MACAddress 7792
- 164.27 SystemInfo.OSName 7808
- 164.28 SystemInfo.OSVersionString 7809
- 164.29 SystemInfo.PhysicalRAM 7810



	525
• 164.30 SystemInfo.ProcessorCount	7811
• 164.31 SystemInfo.SystemFont	7812
• 164.32 SystemInfo.Time	7813
• 164.33 SystemInfo.UserName	7814
• 164.34 SystemInfo.UserShortName	7815
• 164.35 SystemInfo.WinBuildNumber	7816
• 164.36 SystemInfo.WinCSDVersion	7817
• 164.37 SystemInfo.WinMajorVersion	7818
• 164.38 SystemInfo.WinMinorVersion	7819
• 164.39 SystemInfo.WinPlatformId	7820
• 164.40 SystemInfo.WinProductKey	7821
• 164.41 SystemInfo.WinProductType	7822
• 164.42 SystemInfo.WinServicePackMajor	7823
• 164.43 SystemInfo.WinServicePackMinor	7824
• 164.44 SystemInfo.WinSuiteMask	7825
• 164.45 SystemInfo.WinSystemMetrics	7826
• 164.46 SystemInfo.WindowsAero	7828
• 164.47 SystemInfo.isCatalina	7829
• 164.48 SystemInfo.isElCapitan	7830
• 164.49 SystemInfo.isHighSierra	7831
• 164.50 SystemInfo.isLeopard	7832
• 164.51 SystemInfo.isLion	7833
• 164.52 SystemInfo.isMacOSX	7834
• 164.53 SystemInfo.isMavericks	7835
• 164.54 SystemInfo.isMojave	7836
• 164.55 SystemInfo.isMountainLion	7837
• 164.56 SystemInfo.isSierra	7838
• 164.57 SystemInfo.isSnowLeopard	7839
• 164.58 SystemInfo.isWindows10	7840

- 164.59 SystemInfo.isWindows2000 7841
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.62 SystemInfo.isWindowsVista 7844
- 164.63 SystemInfo.isWindowsXP 7845
- 164.64 SystemInfo.isYosemite 7846
- 166.1 TAPI.AddressCount 7853
- 166.2 TAPI.AddressValue 7855
- 166.3 TAPI.Answer 7856
- 166.4 TAPI.BlindTransfer 7857
- 166.5 TAPI.CallInfo 7858
- 166.6 TAPI.Connect 7860
- 166.7 TAPI.CreateCall 7861
- 166.8 TAPI.Dial 7863
- 166.9 TAPI.Disconnect 7864
- 166.10 TAPI.Finish 7865
- 166.11 TAPI.GetCallStateEvaluate 7866
- 166.12 TAPI.GetCallStateScriptFileName 7867
- 166.13 TAPI.GetCallStateScriptName 7868
- 166.14 TAPI.GetCallStateURL 7869
- 166.15 TAPI.GetNewCallEvaluate 7870
- 166.16 TAPI.GetNewCallScriptFileName 7871
- 166.17 TAPI.GetNewCallScriptName 7872
- 166.18 TAPI.GetNewCallURL 7873
- 166.19 TAPI.HandoffDirect 7874
- 166.20 TAPI.Hold 7875
- 166.21 TAPI.Initialize 7876
- 166.22 TAPI.IsInitialized 7877
- 166.23 TAPI.ListenOnAddress 7878

	527
• 166.24 TAPI.ListenOnAllAddresses	7879
• 166.25 TAPI.ParkDirect	7880
• 166.26 TAPI.ParkIndirect	7881
• 166.27 TAPI.Pickup	7882
• 166.28 TAPI.Release	7883
• 166.29 TAPI.ReleaseAll	7884
• 166.30 TAPI.RemoveFromConference	7885
• 166.31 TAPI.SetCallStateEvaluate	7886
• 166.32 TAPI.SetCallStateScript	7887
• 166.33 TAPI.SetCallStateURL	7888
• 166.34 TAPI.SetNewCallEvaluate	7889
• 166.35 TAPI.SetNewCallScript	7890
• 166.36 TAPI.SetNewCallURL	7891
• 166.37 TAPI.Shutdown	7892
• 166.38 TAPI.Transfer	7893
• 166.39 TAPI.Unpark	7894
• 167.1 Text.AddLineNumbers	7895
• 167.2 Text.AppendTextFile	7897
• 167.3 Text.CapitalCase	7899
• 167.4 Text.Character	7901
• 167.5 Text.Characters	7903
• 167.6 Text.Code	7904
• 167.7 Text.ConvertFromTextEncoding	7905
• 167.8 Text.ConvertToTextEncoding	7911
• 167.9 Text.ConvertUnicodeToCharacterComposition	7918
• 167.10 Text.ConvertUnicodeToCharacterDecomposition	7920
• 167.11 Text.CountWords	7921
• 167.12 Text.DecodeBytesFromBase64	7922
• 167.13 Text.DecodeFromBase64	7923

- 167.14 Text.DecodeFromBase64URL 7924
- 167.15 Text.DecodeFromBytes 7925
- 167.16 Text.DecodeFromHTML 7926
- 167.17 Text.DecodeFromHex 7928
- 167.18 Text.DecodeFromQuotedPrintable 7930
- 167.19 Text.DecodeFromURL 7931
- 167.20 Text.DecodeFromXML 7933
- 167.21 Text.DecodeHexFromBase64 7934
- 167.22 Text.DecodeIMAPFolderName 7935
- 167.23 Text.DecodeURLComponent 7936
- 167.24 Text.Deserialize 7937
- 167.25 Text.EncodeBytesToBase64 7938
- 167.26 Text.EncodeEmailSubject 7939
- 167.27 Text.EncodeHexToBase64 7940
- 167.28 Text.EncodeToBase64 7941
- 167.29 Text.EncodeToBase64URL 7942
- 167.30 Text.EncodeToBytes 7944
- 167.31 Text.EncodeToHTML 7945
- 167.32 Text.EncodeToHex 7947
- 167.33 Text.EncodeToQuotedPrintable 7949
- 167.34 Text.EncodeToURL 7950
- 167.35 Text.EncodeToXML 7952
- 167.36 Text.EncodeURLComponent 7954
- 167.37 Text.FileExtensionToMimeType 7956
- 167.38 Text.FilterUTF16 7958
- 167.39 Text.FindBetween 7959
- 167.40 Text.InvalidCharactersForEncoding 7961
- 167.41 Text.JaroWinklerDistance 7962
- 167.42 Text.Length 7963

	529
• 167.43 Text.LevenshteinDistance	7964
• 167.44 Text.ListWords	7965
• 167.45 Text.LowerCase	7966
• 167.46 Text.MergeFields	7967
• 167.47 Text.MimeTypeToFileExtension	7969
• 167.48 Text.ReadEMLXFile	7970
• 167.49 Text.ReadTextFile	7971
• 167.50 Text.ReadTextFromContainer	7975
• 167.51 Text.RedefineEncoding	7976
• 167.52 Text.RemoveAccents	7977
• 167.53 Text.RemoveAccentsCaseInsensitive	7978
• 167.54 Text.RemoveControlCharacters	7979
• 167.55 Text.RemoveNewLine	7980
• 167.56 Text.RemovePostfix	7981
• 167.57 Text.RemovePrefix	7982
• 167.58 Text.ReplaceAll	7984
• 167.59 Text.ReplaceNewline	7985
• 167.60 Text.Serialize	7988
• 167.61 Text.SoundEx	7989
• 167.62 Text.SoundExGerman	7990
• 167.63 Text.Styles	7991
• 167.64 Text.TextToHTML	7993
• 167.65 Text.TextToRTF	7995
• 167.66 Text.Trim	7997
• 167.67 Text.UpperCase	7998
• 167.68 Text.WriteTextFile	7999
• 167.69 Text.WriteToContainer	8003
• 168.1 TextView.CanUndo	8005
• 168.2 TextView.Copy	8006

- 168.3 `TextView.CreateOnPopoverWithControl` 8007
- 168.4 `TextView.CreateOnPopoverWithSize` 8009
- 168.5 `TextView.CreateWithControl` 8010
- 168.6 `TextView.CreateWithSize` 8012
- 168.7 `TextView.CreateWithWindow` 8013
- 168.8 `TextView.Cut` 8014
- 168.9 `TextView.GetAutoCorrectionEnabled` 8015
- 168.12 `TextView.GetHeight` 8018
- 168.13 `TextView.GetLeft` 8019
- 168.14 `TextView.GetPlainText` 8020
- 168.15 `TextView.GetRTF` 8021
- 168.16 `TextView.GetReadOnly` 8022
- 168.18 `TextView.GetSpellCheckingEnabled` 8024
- 168.19 `TextView.GetStyled` 8025
- 168.20 `TextView.GetTag` 8026
- 168.21 `TextView.GetTop` 8027
- 168.22 `TextView.GetVisible` 8028
- 168.23 `TextView.GetWidth` 8029
- 168.24 `TextView.GetWindowRef` 8030
- 168.25 `TextView.List` 8031
- 168.26 `TextView.Paste` 8032
- 168.27 `TextView.Release` 8033
- 168.28 `TextView.ReleaseAll` 8034
- 168.29 `TextView.SetAutoCorrectionEnabled` 8035
- 168.31 `TextView.SetFocus` 8038
- 168.32 `TextView.SetFrame` 8039
- 168.33 `TextView.SetFrameWithControl` 8040
- 168.35 `TextView.SetPlainText` 8042
- 168.36 `TextView.SetRTF` 8043

	531
• 168.37 TextView.SetReadOnly	8044
• 168.39 TextView.SetSpellCheckingEnabled	8046
• 168.40 TextView.SetStyled	8047
• 168.41 TextView.SetTag	8048
• 168.42 TextView.SetVisible	8049
• 168.43 TextView.ShowFontPanel	8050
• 168.44 TextView.Undo	8051
• 169.1 Time.Format	8053
• 178.13 Time.Sleep	8372
• 169.3 Time.TimeStampToUTC	8061
• 169.4 Time.TimeZoneOffset	8062
• 178.14 Time.UnixTimeStamp	8373
• 169.5 Time.UnixTimeStampToFileMaker	8063
• 127.52 Trace	6434
• 127.56 Trace.GetErrorsOnly	6440
• 127.57 Trace.GetWithTimes	6441
• 127.58 Trace.Off	6442
• 127.59 Trace.SetErrorsOnly	6443
• 127.60 Trace.SetWithTimes	6444
• 127.61 Trace.WriteLine	6445
• 172.1 Twain.Acquire	8115
• 172.2 Twain.ClearCancelScript	8117
• 172.3 Twain.ClearNotificationScript	8118
• 172.4 Twain.CloseDS	8119
• 172.5 Twain.CloseDSM	8120
• 172.6 Twain.CurrentDSIdentity	8121
• 172.7 Twain.CurrentImage	8122
• 172.8 Twain.DisableDS	8123
• 172.9 Twain.GetAutofeed	8124

- 172.10 Twain.GetAutomaticBorderDetection 8125
- 172.11 Twain.GetAutomaticBrightness 8126
- 172.12 Twain.GetAutomaticRotate 8127
- 172.13 Twain.GetBrightness 8128
- 172.14 Twain.GetCloseAfterTransfer 8129
- 172.15 Twain.GetCompressionQuality 8130
- 172.16 Twain.GetContrast 8131
- 172.17 Twain.GetDSIdentitiesCount 8132
- 172.18 Twain.GetDSIdentity 8133
- 172.19 Twain.GetDefaultIdentity 8134
- 172.20 Twain.GetDiscardBlankPages 8135
- 172.21 Twain.GetDuplexEnabled 8136
- 172.22 Twain.GetFeededEnabled 8137
- 172.23 Twain.GetFilePaths 8138
- 172.24 Twain.GetFileType 8139
- 172.25 Twain.GetFolderPath 8140
- 172.26 Twain.GetGamma 8141
- 172.27 Twain.GetHighlight 8142
- 172.28 Twain.GetImageCount 8143
- 172.29 Twain.GetOrientation 8144
- 172.30 Twain.GetPaper 8145
- 172.31 Twain.GetPixelType 8146
- 172.32 Twain.GetResolutionX 8147
- 172.33 Twain.GetResolutionY 8148
- 172.34 Twain.GetShadow 8149
- 172.35 Twain.GetUIVisible 8150
- 172.36 Twain.ImageInfo 8151
- 172.37 Twain.Initialize 8153
- 172.38 Twain.IsDSEnabled 8155



	533
• 172.39 Twain.IsInitialized	8156
• 172.40 Twain.OpenDS	8157
• 172.41 Twain.OpenDSM	8158
• 172.42 Twain.SelectDS	8159
• 172.43 Twain.SelectDSIdentity	8160
• 172.44 Twain.SetAutofeed	8161
• 172.45 Twain.SetAutomaticBorderDetection	8162
• 172.46 Twain.SetAutomaticBrightness	8163
• 172.47 Twain.SetAutomaticRotate	8164
• 172.48 Twain.SetBrightness	8165
• 172.49 Twain.SetCancelScript	8166
• 172.50 Twain.SetCloseAfterTransfer	8167
• 172.51 Twain.SetCompressionQuality	8168
• 172.52 Twain.SetContrast	8169
• 172.53 Twain.SetDefaultDSIdentity	8170
• 172.54 Twain.SetDiscardBlankPages	8171
• 172.55 Twain.SetDuplexEnabled	8172
• 172.56 Twain.SetFeededEnabled	8173
• 172.57 Twain.SetFileType	8175
• 172.58 Twain.SetFolderPath	8176
• 172.59 Twain.SetGamma	8177
• 172.60 Twain.SetHighlight	8178
• 172.61 Twain.SetNotificationScript	8179
• 172.62 Twain.SetOrientation	8180
• 172.63 Twain.SetPaper	8181
• 172.64 Twain.SetPaperSize	8183
• 172.65 Twain.SetPixelType	8184
• 172.66 Twain.SetResolutionX	8185
• 172.67 Twain.SetResolutionY	8186

- 172.68 Twain.SetShadow 8187
- 172.69 Twain.SupportsBW 8188
- 172.70 Twain.SupportsGray 8189
- 172.71 Twain.SupportsMemoryTransfer 8190
- 172.72 Twain.SupportsRGB 8191
- 172.73 Twain.TransferImage 8192
- 175.1 URLScheme.GetDefaultHandler 8269
- 175.3 URLScheme.SetDefaultHandler 8272
- 176.1 USB.Count 8275
- 176.2 USB.FindDevice 8277
- 176.3 USB.FindSerialNumber 8278
- 176.4 USB.GetProductID 8279
- 176.5 USB.GetProductName 8280
- 176.6 USB.GetSerialNumber 8281
- 176.7 USB.GetVendorID 8282
- 176.8 USB.GetVendorName 8283
- 179.1 UUID.Formatted 8375
- 179.2 UUID.FromNumber 8377
- 179.3 UUID.Hex 8379
- 179.4 UUID.Number 8380
- 179.5 UUID.Raw 8381
- 179.6 UUID.ToNumber 8382
- 54.3 UnZipFile.Close 1512
- 54.4 UnZipFile.ExtractFiles 1513
- 54.5 UnZipFile.GlobalComment 1515
- 54.6 UnZipFile.ItemCRC 1516
- 54.7 UnZipFile.ItemComment 1517
- 54.8 UnZipFile.ItemCompressedSize 1518
- 54.9 UnZipFile.ItemCompressionMethod 1519

	535
• 54.10 UnZipFile.ItemCount	1520
• 54.11 UnZipFile.ItemDate	1521
• 54.12 UnZipFile.ItemDiskNumberStart	1522
• 54.13 UnZipFile.ItemExternalFileAttributes	1523
• 54.14 UnZipFile.ItemFlag	1524
• 54.15 UnZipFile.ItemInternalFileAttributes	1526
• 54.16 UnZipFile.ItemName	1527
• 54.17 UnZipFile.ItemSizeFileComment	1528
• 54.18 UnZipFile.ItemSizeFileExtra	1529
• 54.19 UnZipFile.ItemSizeFileName	1530
• 54.20 UnZipFile.ItemUncompressedSize	1531
• 54.21 UnZipFile.ItemVersion	1532
• 54.22 UnZipFile.ItemVersionNeeded	1533
• 54.23 UnZipFile.OpenContainer	1534
• 54.24 UnZipFile.OpenFile	1535
• 54.25 UnZipFile.ReadAsFileContainer	1537
• 54.26 UnZipFile.ReadAsGIFContainer	1538
• 54.27 UnZipFile.ReadAsHex	1539
• 54.28 UnZipFile.ReadAsJPEGContainer	1540
• 54.29 UnZipFile.ReadAsPNGContainer	1541
• 54.30 UnZipFile.ReadAsText	1542
• 54.31 UnZipFile.ReadToFile	1543
• 54.32 UnZipFile.UsePassword	1544
• 174.1 Updater.CheckForUpdates	8257
• 174.2 Updater.CheckForUpdatesInBackground	8258
• 174.3 Updater.GetAutomaticallyChecksForUpdates	8259
• 174.7 Updater.LastUpdateCheckDate	8263
• 174.8 Updater.SetAutomaticallyChecksForUpdates	8264
• 127.62 Version	6446

- 127.63 VersionAutoUpdate 6448
- 184.1 WIA.ClearCurrentDevice 8629
- 184.2 WIA.DeviceCount 8630
- 184.3 WIA.DeviceProperties 8631
- 184.4 WIA.DevicePropertyKeys 8633
- 184.5 WIA.DevicePropertyValue 8636
- 184.6 WIA.GetCurrentDevice 8639
- 184.7 WIA.GetCurrentItem 8640
- 184.8 WIA.Image 8641
- 184.9 WIA.ImageCount 8643
- 184.10 WIA.ImageDialog 8644
- 184.11 WIA.Images 8646
- 184.12 WIA.Initialize 8647
- 184.13 WIA.ItemProperties 8648
- 184.14 WIA.ItemPropertyKeys 8650
- 184.15 WIA.ItemPropertyValue 8653
- 184.16 WIA.ListItems 8656
- 184.17 WIA.Scan 8657
- 184.18 WIA.SelectDeviceDialog 8659
- 184.19 WIA.SetCurrentDevice 8660
- 184.20 WIA.SetDevicePropertyValue 8661
- 184.21 WIA.SetItemPropertyValue 8663
- 190.1 WMFP.Create 8905
- 190.2 WMFP.FrameStep 8908
- 190.3 WMFP.GetBalance 8909
- 190.4 WMFP.GetDuration 8910
- 190.5 WMFP.GetIdealVideoSize 8911
- 190.6 WMFP.GetLoop 8912
- 190.7 WMFP.GetMute 8913

	537
• 190.8 WMFP.GetNativeVideoSize	8914
• 190.9 WMFP.GetPosition	8915
• 190.10 WMFP.GetRate	8916
• 190.11 WMFP.GetState	8917
• 190.12 WMFP.GetTag	8918
• 190.13 WMFP.GetVisible	8919
• 190.14 WMFP.GetVolume	8920
• 190.15 WMFP.Pause	8921
• 190.16 WMFP.Play	8922
• 190.17 WMFP.Release	8923
• 190.18 WMFP.Screenshot	8924
• 190.19 WMFP.SetBalance	8925
• 190.20 WMFP.SetBorder	8926
• 190.21 WMFP.SetFrame	8927
• 190.22 WMFP.SetLoop	8928
• 190.23 WMFP.SetMute	8929
• 190.24 WMFP.SetPlaybackEndedScriptTrigger	8930
• 190.25 WMFP.SetPosition	8931
• 190.26 WMFP.SetRate	8932
• 190.27 WMFP.SetTag	8933
• 190.28 WMFP.SetVisible	8934
• 190.29 WMFP.SetVolume	8935
• 190.30 WMFP.Stop	8936
• 190.31 WMFP.UpdateVideo	8937
• 191.1 WMIQuery.Connect	8939
• 191.2 WMIQuery.New	8943
• 191.3 WMIQuery.Next	8944
• 191.4 WMIQuery.PropertyNames	8945
• 191.5 WMIQuery.PropertyType	8946

- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948
- 191.8 WMIQuery.Release 8950
- 183.29 WebView.CallFunction 8445
- 183.30 WebView.ClearBrowserSession 8446
- 183.31 WebView.ClearSelection 8447
- 183.32 WebView.ClickInput 8448
- 183.37 WebView.Copy 8454
- 183.38 WebView.CopyFormattedText 8455
- 183.41 WebView.Cut 8460
- 183.43 WebView.EstimatedProgress 8462
- 183.44 WebView.Evaluate 8463
- 183.45 WebView.ExecCommand 8467
- 183.46 WebView.FindByName 8469
- 183.47 WebView.FindWindowByIndex 8471
- 183.48 WebView.FindWindowByTitle 8472
- 183.49 WebView.FormReset 8474
- 183.50 WebView.FormSubmit 8475
- 183.54 WebView.GetEditable 8480
- 183.55 WebView.GetForm 8481
- 183.56 WebView.GetFormButtonValue 8482
- 183.57 WebView.GetFormCount 8483
- 183.58 WebView.GetFormInputChecked 8484
- 183.59 WebView.GetFormInputValue 8485
- 183.60 WebView.GetFormSelectOptions 8487
- 183.61 WebView.GetFormSelectValue 8488
- 183.62 WebView.GetFormTextAreaValue 8490
- 183.63 WebView.GetFormValue 8492
- 183.65 WebView.GetHTMLText 8496

	539
• 183.68 WebView.GetImage	8500
• 183.69 WebView.GetImageCount	8502
• 183.70 WebView.GetInternetExplorerHiDPI	8503
• 183.71 WebView.GetInternetExplorerVersion	8504
• 183.72 WebView.GetLink	8505
• 183.73 WebView.GetLinkCount	8506
• 183.74 WebView.GetPlainText	8507
• 183.78 WebView.GetSilent	8513
• 183.79 WebView.GetSource	8514
• 183.81 WebView.GetTitle	8516
• 183.82 WebView.GetURL	8517
• 183.83 WebView.GoBack	8518
• 183.84 WebView.GoForward	8519
• 183.85 WebView.HasOnlySecureContent	8520
• 183.86 WebView.InstallCallback	8521
• 183.89 WebView.IsLoading	8526
• 183.90 WebView.LoadHTML	8528
• 183.91 WebView.LoadJavascriptURL	8529
• 183.92 WebView.LoadURL	8530
• 183.99 WebView.Paste	8540
• 183.100 WebView.PostURL	8541
• 183.101 WebView.PressKey	8543
• 183.102 WebView.Print	8544
• 183.103 WebView.PrintPreview	8546
• 183.105 WebView.Release	8549
• 183.106 WebView.Reload	8550
• 183.109 WebView.RenderImage	8553
• 183.111 WebView.RunJavaScript	8557
• 183.112 WebView.RunJavaScriptReturnTitle	8567

- 183.113 WebView.Screenshot 8569
- 183.119 WebView.SearchText 8576
- 183.120 WebView.SelectAll 8578
- 183.121 WebView.SelectedText 8579
- 183.122 WebView.SendCommand 8581
- 183.126 WebView.SetEditable 8587
- 183.127 WebView.SetFocus 8588
- 183.128 WebView.SetFormButtonValue 8589
- 183.129 WebView.SetFormInputChecked 8591
- 183.130 WebView.SetFormInputValue 8593
- 183.131 WebView.SetFormSelectValue 8596
- 183.132 WebView.SetFormTextAreaValue 8598
- 183.133 WebView.SetFormValue 8600
- 183.135 WebView.SetInternetExplorerHiDPI 8603
- 183.136 WebView.SetInternetExplorerVersion 8604
- 183.140 WebView.SetSilent 8613
- 183.141 WebView.SetTitle 8614
- 183.152 WebView.setZoom 8625
- 189.1 WinSendMail.AddAttachmentContainer 8877
- 189.2 WinSendMail.AddAttachmentFile 8879
- 189.3 WinSendMail.AddAttachmentText 8881
- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886
- 189.7 WinSendMail.AddTo 8888
- 189.8 WinSendMail.AttachmentCount 8890
- 189.9 WinSendMail.ClearAttachments 8891
- 189.10 WinSendMail.ClearRecipients 8892
- 189.11 WinSendMail.CreateEmail 8893



	541
• 189.12 WinSendMail.GetSubject	8895
• 189.13 WinSendMail.GetText	8896
• 189.14 WinSendMail.Release	8897
• 189.15 WinSendMail.Send	8898
• 189.16 WinSendMail.SendAnsi	8899
• 189.17 WinSendMail.SendAsync	8900
• 189.18 WinSendMail.SetFrom	8901
• 189.19 WinSendMail.SetSubject	8902
• 189.20 WinSendMail.SetText	8903
• 185.5 Window.Activate	8673
• 185.8 Window.ClearFocus	8678
• 185.11 Window.Current	8681
• 185.12 Window.DisableScrollbars	8682
• 185.13 Window.EnableScrollbars	8683
• 185.14 Window.Fade	8684
• 185.15 Window.FindByIndex	8686
• 185.16 Window.FindByTitle	8688
• 185.17 Window.FlashWindow	8692
• 185.18 Window.GetAlpha	8694
• 185.19 Window.GetClassName	8695
• 185.20 Window.GetCurrentTag	8696
• 185.21 Window.GetHeight	8697
• 185.22 Window.GetLeft	8698
• 185.27 Window.GetTag	8703
• 185.28 Window.GetTitle	8704
• 185.34 Window.GetTop	8710
• 185.35 Window.GetTopMost	8711
• 185.36 Window.GetWidth	8712
• 185.37 Window.HasCloseButton	8713

- 185.38 Window.HasMiniaturizeButton 8714
- 185.40 Window.HasZoomButton 8716
- 185.41 Window.Hide 8717
- 185.44 Window.HideScrollbars 8721
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728
- 185.52 Window.IsVisible 8730
- 185.53 Window.List 8731
- 185.55 Window.Maximize 8733
- 185.56 Window.Minimize 8734
- 185.57 Window.ModalDialogFront 8735
- 185.58 Window.Move 8736
- 185.59 Window.PositionNextDialog 8738
- 185.60 Window.RemoveMenu 8740
- 185.61 Window.Resizable 8741
- 185.62 Window.Resize 8742
- 185.66 Window.Screenshot 8749
- 185.69 Window.Scrollbar.getHorizontalMaximum 8754
- 185.70 Window.Scrollbar.getHorizontalPosition 8755
- 185.71 Window.Scrollbar.getVerticalMaximum 8756
- 185.72 Window.Scrollbar.getVerticalPosition 8757
- 185.73 Window.Scrollbar.set 8758
- 185.74 Window.ScrollbarsVisible 8759
- 185.75 Window.SetAlpha 8760
- 185.76 Window.SetBounds 8762
- 185.77 Window.SetCloseButton 8764
- 185.78 Window.SetCurrentTag 8766
- 185.80 Window.SetFocus 8769
- 185.88 Window.SetMiniaturizeButton 8777

	543
• 185.90 Window.SetProgress	8780
• 185.91 Window.SetResizable	8782
• 185.94 Window.SetTag	8787
• 185.95 Window.SetTitle	8788
• 185.96 Window.SetTitleIcon	8789
• 185.101 Window.SetTopMost	8795
• 185.102 Window.SetZoomButton	8796
• 185.103 Window.Show	8798
• 185.104 Window.ShowCharacterPalette	8800
• 185.106 Window.ShowKeyboard	8802
• 185.108 Window.ShowScrollbars	8805
• 185.112 Window.TopHeight	8810
• 185.113 Window.Update	8811
• 186.1 WindowsScript.AddCode	8813
• 186.2 WindowsScript.Close	8818
• 186.3 WindowsScript.Create	8822
• 186.4 WindowsScript.ErrorClear	8826
• 186.5 WindowsScript.ErrorColumn	8827
• 186.6 WindowsScript.ErrorDescription	8828
• 186.7 WindowsScript.ErrorLine	8829
• 186.8 WindowsScript.ErrorNumber	8830
• 186.9 WindowsScript.ErrorSource	8831
• 186.10 WindowsScript.ErrorText	8832
• 186.11 WindowsScript.Eval	8833
• 186.12 WindowsScript.ExecuteFunction	8834
• 186.13 WindowsScript.ExecuteStatement	8838
• 186.14 WindowsScript.GetAllowUI	8839
• 186.15 WindowsScript.GetLanguage	8840
• 186.16 WindowsScript.GetTimeout	8841

- 186.17 WindowsScript.GetUseSafeSubset 8842
- 186.18 WindowsScript.SetAllowUI 8843
- 186.19 WindowsScript.SetLanguage 8844
- 186.20 WindowsScript.SetTimeout 8847
- 186.21 WindowsScript.SetUseSafeSubset 8848
- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.6 WindowsUserNotification.HideNotification 8854
- 187.7 WindowsUserNotification.Initialize 8855
- 187.8 WindowsUserNotification.Isinitialized 8857
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866
- 187.16 WindowsUserNotification.ShowNotification 8868
- 187.17 WindowsUserNotification.XMLUsed 8869
- 192.1 WordFile.AddMediaFile 8951
- 192.2 WordFile.Append 8953
- 192.3 WordFile.AppendTableRow 8954
- 192.4 WordFile.DuplicateTableRow 8956
- 192.5 WordFile.FieldNames 8957
- 192.6 WordFile.GetCaseless 8958
- 192.7 WordFile.GetFieldText 8959

	545
• 192.8 WordFile.GetMediaFile	8960
• 192.9 WordFile.GetXML	8961
• 192.10 WordFile.HasTag	8962
• 192.11 WordFile.MediaFiles	8963
• 192.12 WordFile.OpenContainer	8964
• 192.13 WordFile.OpenFile	8966
• 192.14 WordFile.OpenText	8968
• 192.15 WordFile.Parts	8969
• 192.16 WordFile.Release	8970
• 192.17 WordFile.RemoveTableRow	8971
• 192.18 WordFile.ReplaceTag	8973
• 192.19 WordFile.SetCaseless	8976
• 192.20 WordFile.SetFieldText	8977
• 192.21 WordFile.SetMarkers	8978
• 192.22 WordFile.SetMediaFile	8979
• 192.23 WordFile.SetXML	8981
• 192.24 WordFile.Texts	8982
• 192.25 WordFile.WriteFile	8984
• 49.22 X509.Description	1403
• 49.23 X509.Duplicate	1404
• 49.24 X509.IssuerName	1405
• 49.25 X509.Name	1406
• 49.26 X509.Read	1407
• 49.27 X509.ReadFromContainer	1408
• 49.28 X509.ReadFromFile	1409
• 49.29 X509.Release	1410
• 49.30 X509.SerialNumber	1411
• 49.32 X509.SubjectName	1413
• 49.33 X509.Version	1414

- 49.34 X509.Write 1415
- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.4 XL.Book.AddPictureContainer 8995
- 193.5 XL.Book.AddPictureFile 8997
- 193.6 XL.Book.AddSheet 8998
- 193.7 XL.Book.BiffVersion 9000
- 193.8 XL.Book.CustomNumFormat 9001
- 193.9 XL.Book.DeleteSheet 9002
- 193.10 XL.Book.DeleteSheetsExcept 9005
- 193.11 XL.Book.FontCount 9006
- 193.12 XL.Book.FormatCount 9007
- 193.13 XL.Book.GetActiveSheet 9008
- 193.14 XL.Book.GetCalcMode 9009
- 193.15 XL.Book.GetDefaultFontName 9010
- 193.16 XL.Book.GetDefaultFontSize 9011
- 193.17 XL.Book.GetPicture 9012
- 193.18 XL.Book.GetPictureType 9013
- 193.19 XL.Book.GetRGBMode 9014
- 193.20 XL.Book.GetRefR1C1 9015
- 193.21 XL.Book.GetText 9016
- 193.22 XL.Book.InsertSheet 9017
- 193.23 XL.Book.IsDate1904 9018
- 193.24 XL.Book.IsTemplate 9019
- 193.25 XL.Book.MoveSheet 9020
- 193.26 XL.Book.PictureCount 9021
- 193.27 XL.Book.Release 9022
- 193.28 XL.Book.ReleaseAll 9024

	547
• 193.29 XL.Book.Save	9025
• 193.30 XL.Book.SaveToFile	9027
• 193.31 XL.Book.SetActiveSheet	9029
• 193.32 XL.Book.SetCalcMode	9030
• 193.33 XL.Book.SetDate1904	9031
• 193.34 XL.Book.SetDefaultFont	9032
• 193.35 XL.Book.SetRGBMode	9033
• 193.36 XL.Book.SetRefR1C1	9034
• 193.37 XL.Book.SetTemplate	9035
• 193.38 XL.Book.SheetCount	9036
• 193.39 XL.Book.SheetIndexForName	9037
• 193.40 XL.Book.Sheets	9038
• 193.41 XL.Book.Version	9039
• 193.42 XL.Color.Pack	9040
• 193.43 XL.Color.UnPack	9042
• 193.44 XL.CopyContent	9044
• 193.45 XL.CopyRow	9046
• 193.46 XL.CopySheet	9048
• 193.47 XL.Date.DoubleToTimeStamp	9050
• 193.48 XL.Date.Pack	9051
• 193.49 XL.Date.TimeStampToDouble	9053
• 193.50 XL.Date.UnPack	9054
• 193.51 XL.Font.GetBold	9055
• 193.52 XL.Font.GetColor	9056
• 193.53 XL.Font.GetItalic	9057
• 193.54 XL.Font.GetName	9058
• 193.55 XL.Font.GetScript	9059
• 193.56 XL.Font.GetSize	9060
• 193.57 XL.Font.GetStrikeOut	9061

- 193.58 XL.Font.GetUnderline 9062
- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.61 XL.Font.SetItalic 9068
- 193.62 XL.Font.SetName 9069
- 193.63 XL.Font.SetScript 9071
- 193.64 XL.Font.SetSize 9072
- 193.65 XL.Font.SetStrikeOut 9074
- 193.66 XL.Font.SetUnderline 9075
- 193.67 XL.Format.GetAlignH 9076
- 193.68 XL.Format.GetAlignV 9077
- 193.69 XL.Format.GetBorderBottom 9078
- 193.70 XL.Format.GetBorderBottomColor 9079
- 193.71 XL.Format.GetBorderDiagonal 9080
- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.73 XL.Format.GetBorderDiagonalStyle 9082
- 193.74 XL.Format.GetBorderLeft 9083
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.76 XL.Format.GetBorderRight 9085
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.78 XL.Format.GetBorderTop 9087
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.80 XL.Format.GetFillPattern 9089
- 193.81 XL.Format.GetFont 9090
- 193.82 XL.Format.GetHidden 9091
- 193.83 XL.Format.GetIndent 9092
- 193.84 XL.Format.GetLocked 9093
- 193.85 XL.Format.GetNumFormat 9094
- 193.86 XL.Format.GetPatternBackgroundColor 9095



	549
• 193.87 XL.Format.GetPatternForegroundColor	9096
• 193.88 XL.Format.GetRotation	9097
• 193.89 XL.Format.GetShrinkToFit	9098
• 193.90 XL.Format.GetWrap	9099
• 193.91 XL.Format.SetAlignH	9100
• 193.92 XL.Format.SetAlignV	9103
• 193.93 XL.Format.SetBorder	9105
• 193.94 XL.Format.SetBorderBottom	9107
• 193.95 XL.Format.SetBorderBottomColor	9109
• 193.96 XL.Format.SetBorderColor	9110
• 193.97 XL.Format.SetBorderDiagonal	9112
• 193.98 XL.Format.SetBorderDiagonalColor	9114
• 193.99 XL.Format.SetBorderDiagonalStyle	9115
• 193.100 XL.Format.SetBorderLeft	9116
• 193.101 XL.Format.SetBorderLeftColor	9118
• 193.102 XL.Format.SetBorderRight	9119
• 193.103 XL.Format.SetBorderRightColor	9121
• 193.104 XL.Format.SetBorderTop	9122
• 193.105 XL.Format.SetBorderTopColor	9124
• 193.106 XL.Format.SetFillPattern	9125
• 193.107 XL.Format.SetFont	9127
• 193.108 XL.Format.SetHidden	9129
• 193.109 XL.Format.SetIndent	9130
• 193.110 XL.Format.SetLocked	9131
• 193.111 XL.Format.SetNumFormat	9133
• 193.112 XL.Format.SetPatternBackgroundColor	9136
• 193.113 XL.Format.SetPatternForegroundColor	9138
• 193.114 XL.Format.SetRotation	9140
• 193.115 XL.Format.SetShrinkToFit	9141

- 193.116 XL.Format.SetWrap 9142
- 193.117 XL.Initialize 9145
- 193.118 XL.IsInitialized 9148
- 193.119 XL.LoadBook 9150
- 193.120 XL.LoadBookPartially 9153
- 193.121 XL.NewBook 9155
- 193.122 XL.Sheet.AddHyperlink 9157
- 193.123 XL.Sheet.AddIgnoredError 9159
- 193.124 XL.Sheet.AddrToRowCol 9161
- 193.125 XL.Sheet.ApplyFilter 9162
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.133 XL.Sheet.AutoFilter.GetCustomFilter 9173
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.136 XL.Sheet.AutoFilter.GetSortRange 9176
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177
- 193.138 XL.Sheet.AutoFilter.SetCustomFilter 9178
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183
- 193.142 XL.Sheet.CellIsDate 9185
- 193.143 XL.Sheet.CellIsFormula 9186
- 193.144 XL.Sheet.CellIsStyledText 9187

	551
• 193.145 XL.Sheet.CellReadBlank	9189
• 193.146 XL.Sheet.CellReadBoolean	9190
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.151 XL.Sheet.CellReadDates	9198
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.153 XL.Sheet.CellReadFormulas	9202
• 193.154 XL.Sheet.CellReadNumber	9204
• 193.155 XL.Sheet.CellReadNumbers	9205
• 193.156 XL.Sheet.CellReadStyledText	9207
• 193.157 XL.Sheet.CellReadText	9209
• 193.158 XL.Sheet.CellReadTexts	9211
• 193.159 XL.Sheet.CellType	9213
• 193.160 XL.Sheet.CellWriteBlank	9214
• 193.161 XL.Sheet.CellWriteBlanks	9216
• 193.162 XL.Sheet.CellWriteBoolean	9218
• 193.163 XL.Sheet.CellWriteBooleans	9220
• 193.164 XL.Sheet.CellWriteComment	9222
• 193.165 XL.Sheet.CellWriteComments	9224
• 193.166 XL.Sheet.CellWriteDate	9226
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.168 XL.Sheet.CellWriteError	9230
• 193.169 XL.Sheet.CellWriteFormula	9232
• 193.170 XL.Sheet.CellWriteFormulaBoolean	9235
• 193.171 XL.Sheet.CellWriteFormulaNumber	9237
• 193.172 XL.Sheet.CellWriteFormulaText	9239
• 193.173 XL.Sheet.CellWriteFormulas	9241

- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.179 XL.Sheet.Clear 9256
- 193.180 XL.Sheet.ClearPrintArea 9257
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.182 XL.Sheet.CopyCell 9259
- 193.183 XL.Sheet.DelHyperlink 9260
- 193.184 XL.Sheet.DelMergeByIndex 9261
- 193.185 XL.Sheet.DeleteMerge 9262
- 193.186 XL.Sheet.DeleteNamedRange 9263
- 193.187 XL.Sheet.GetCellError 9264
- 193.188 XL.Sheet.GetCellErrors 9265
- 193.189 XL.Sheet.GetCellFormat 9267
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.191 XL.Sheet.GetColHidden 9270
- 193.192 XL.Sheet.GetColWidth 9271
- 193.193 XL.Sheet.GetColWidthPixel 9272
- 193.194 XL.Sheet.GetDisplayGridlines 9273
- 193.195 XL.Sheet.GetFirstCol 9274
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.197 XL.Sheet.GetFooter 9276
- 193.198 XL.Sheet.GetFooterMargin 9277
- 193.199 XL.Sheet.GetGroupSummaryBelow 9278
- 193.200 XL.Sheet.GetGroupSummaryRight 9279
- 193.201 XL.Sheet.GetHCenter 9280
- 193.202 XL.Sheet.GetHeader 9281

	553
• 193.203 XL.Sheet.GetHeaderMargin	9282
• 193.204 XL.Sheet.GetHidden	9283
• 193.205 XL.Sheet.GetHorPageBreak	9284
• 193.206 XL.Sheet.GetHorPageBreakCount	9285
• 193.207 XL.Sheet.GetLandscape	9286
• 193.208 XL.Sheet.GetLastCol	9287
• 193.209 XL.Sheet.GetLastRow	9288
• 193.210 XL.Sheet.GetMarginBottom	9289
• 193.211 XL.Sheet.GetMarginLeft	9290
• 193.212 XL.Sheet.GetMarginRight	9291
• 193.213 XL.Sheet.GetMarginTop	9292
• 193.214 XL.Sheet.GetMerge	9293
• 193.215 XL.Sheet.GetName	9295
• 193.216 XL.Sheet.GetNamedRange	9296
• 193.217 XL.Sheet.GetPaper	9297
• 193.218 XL.Sheet.GetPicture	9299
• 193.219 XL.Sheet.GetPrintArea	9301
• 193.220 XL.Sheet.GetPrintFit	9302
• 193.221 XL.Sheet.GetPrintGridlines	9303
• 193.222 XL.Sheet.GetPrintRepeatCols	9304
• 193.223 XL.Sheet.GetPrintRepeatRows	9305
• 193.224 XL.Sheet.GetPrintRow	9306
• 193.225 XL.Sheet.GetPrintZoom	9307
• 193.226 XL.Sheet.GetProtect	9308
• 193.227 XL.Sheet.GetRowHeight	9309
• 193.228 XL.Sheet.GetRowHeightPixel	9310
• 193.229 XL.Sheet.GetRowHidden	9311
• 193.230 XL.Sheet.GetText	9312
• 193.231 XL.Sheet.GetTopLeftView	9313

- 193.232 XL.Sheet.GetVCenter 9314
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.235 XL.Sheet.GetZoom 9317
- 193.236 XL.Sheet.GroupCols 9318
- 193.237 XL.Sheet.GroupRows 9319
- 193.238 XL.Sheet.Hyperlink 9320
- 193.239 XL.Sheet.HyperlinkSize 9321
- 193.240 XL.Sheet.InsertCol 9322
- 193.241 XL.Sheet.InsertRow 9323
- 193.242 XL.Sheet.Merge 9324
- 193.243 XL.Sheet.MergeSize 9325
- 193.244 XL.Sheet.NamedRange 9326
- 193.245 XL.Sheet.NamedRangeCount 9327
- 193.246 XL.Sheet.PictureCount 9328
- 193.247 XL.Sheet.RemoveCol 9329
- 193.248 XL.Sheet.RemoveComment 9330
- 193.249 XL.Sheet.RemoveComments 9332
- 193.250 XL.Sheet.RemoveFilter 9334
- 193.251 XL.Sheet.RemovePicture 9335
- 193.252 XL.Sheet.RemovePictureByIndex 9336
- 193.253 XL.Sheet.RemoveRow 9337
- 193.254 XL.Sheet.RightToLeft 9339
- 193.255 XL.Sheet.RowColToAddr 9340
- 193.256 XL.Sheet.SetAutoFitArea 9342
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.258 XL.Sheet.SetCellFormats 9345
- 193.259 XL.Sheet.SetCol 9347
- 193.260 XL.Sheet.SetColHidden 9350

	555
• 193.261 XL.Sheet.SetColumn	9351
• 193.262 XL.Sheet.SetDisplayGridlines	9353
• 193.263 XL.Sheet.SetFooter	9354
• 193.264 XL.Sheet.SetGroupSummaryBelow	9356
• 193.265 XL.Sheet.SetGroupSummaryRight	9357
• 193.266 XL.Sheet.SetHCenter	9358
• 193.267 XL.Sheet.SetHeader	9359
• 193.268 XL.Sheet.SetHorPageBreak	9361
• 193.269 XL.Sheet.SetLandscape	9362
• 193.270 XL.Sheet.SetMarginBottom	9363
• 193.271 XL.Sheet.SetMarginLeft	9364
• 193.272 XL.Sheet.SetMarginRight	9365
• 193.273 XL.Sheet.SetMarginTop	9366
• 193.274 XL.Sheet.SetMerge	9367
• 193.275 XL.Sheet.SetName	9369
• 193.276 XL.Sheet.SetNamedRange	9370
• 193.277 XL.Sheet.SetPaper	9372
• 193.278 XL.Sheet.SetPictureWithScale	9374
• 193.279 XL.Sheet.SetPictureWithSize	9376
• 193.280 XL.Sheet.SetPrintArea	9379
• 193.281 XL.Sheet.SetPrintFit	9381
• 193.282 XL.Sheet.SetPrintGridlines	9382
• 193.283 XL.Sheet.SetPrintRepeatCols	9383
• 193.284 XL.Sheet.SetPrintRepeatRows	9384
• 193.285 XL.Sheet.SetPrintRow	9385
• 193.286 XL.Sheet.SetPrintZoom	9386
• 193.287 XL.Sheet.SetProtect	9387
• 193.288 XL.Sheet.SetProtectEx	9388
• 193.289 XL.Sheet.SetRightToLeft	9390

- 193.290 XL.Sheet.SetRow 9391
- 193.291 XL.Sheet.SetRowHidden 9393
- 193.292 XL.Sheet.SetTabColor 9394
- 193.293 XL.Sheet.SetTabColorRGB 9395
- 193.294 XL.Sheet.SetTopLeftView 9396
- 193.295 XL.Sheet.SetVCenter 9397
- 193.296 XL.Sheet.SetVerPageBreak 9398
- 193.297 XL.Sheet.SetZoom 9399
- 193.298 XL.Sheet.Split 9400
- 193.299 XL.Sheet.SplitInfo 9401
- 193.300 XL.Sheet.Table 9402
- 193.301 XL.Sheet.TableSize 9403
- 193.302 XL.Sheet.Type 9404
- 193.303 XL.Uninitialize 9405
- 194.2 XML.ApplyStylesheet 9410
- 194.3 XML.Canonical 9412
- 194.4 XML.ClearVariables 9414
- 194.5 XML.Colorize 9415
- 194.6 XML.Compact 9417
- 194.7 XML.DeletePath 9418
- 194.8 XML.ExtractText 9420
- 194.9 XML.Format 9422
- 194.10 XML.GetAttribute 9424
- 194.11 XML.GetPathValue 9425
- 194.12 XML.HasAttribute 9427
- 194.13 XML.Import 9428
- 194.14 XML.Import.Cancel 9432
- 194.15 XML.Import.ErrorCount 9433
- 194.16 XML.Import.Errors 9434



	557
• 194.17 XML.Import.SetBaseFields	9435
• 194.18 XML.Import.SetExtraField	9436
• 194.19 XML.Import.Status	9437
• 194.20 XML.Import.TODO	9438
• 194.21 XML.Import.Total	9439
• 194.22 XML.Import.Work	9440
• 194.23 XML.ListAttributes	9442
• 194.24 XML.NodeCount	9443
• 194.25 XML.NodeNames	9444
• 194.26 XML.Parse	9446
• 194.27 XML.Query	9448
• 194.28 XML.ReadContainer	9451
• 194.29 XML.ReadFile	9452
• 194.30 XML.Release	9454
• 194.31 XML.ReleaseAll	9455
• 194.32 XML.SetPathValue	9456
• 194.33 XML.SetPathXML	9458
• 194.34 XML.SetVariables	9460
• 194.35 XML.SubTree	9462
• 194.36 XML.ToJSON	9465
• 194.37 XML.Validate	9466
• 194.38 XML.ValidateFile	9468
• 54.33 ZipFile.CRCFile	1545
• 54.34 ZipFile.Close	1546
• 54.35 ZipFile.CompressFiles	1547
• 54.36 ZipFile.CreateFile	1549
• 54.37 ZipFile.Open	1551
• 54.38 ZipFile.SetCompressionLevel	1553
• 54.39 ZipFile.UsePassword	1554

- 54.40 ZipFile.WriteContainer 1556
- 54.41 ZipFile.WriteFile 1557
- 54.42 ZipFile.WriteHex 1559
- 54.43 ZipFile.WriteText 1560

4025 functions.

## Chapter 6

# Functions compatible with Server

• 39.1 AVAsset.AvailableMetadataFormats	999
• 39.2 AVAsset.Duration	1001
• 39.3 AVAsset.Framerate	1002
• 39.4 AVAsset.HasProtectedContent	1003
• 39.5 AVAsset.Image	1004
• 39.6 AVAsset.ImageActualTime	1006
• 39.7 AVAsset.IsComposable	1007
• 39.8 AVAsset.IsExportable	1008
• 39.9 AVAsset.IsPlayable	1009
• 39.10 AVAsset.IsReadable	1010
• 39.11 AVAsset.Loaded	1011
• 39.12 AVAsset.Lyrics	1012
• 39.13 AVAsset.Metadata	1013
• 39.14 AVAsset.MetadataKeys	1014
• 39.15 AVAsset.NaturalHeight	1016
• 39.16 AVAsset.NaturalWidth	1017
• 39.17 AVAsset.OpenContainer	1018
• 39.18 AVAsset.OpenFile	1020
• 39.19 AVAsset.OpenURL	1022

- 39.20 AVAsset.PreferredRate 1024
- 39.21 AVAsset.PreferredVolume 1025
- 39.22 AVAsset.Release 1026
- 39.23 AVAsset.ReleaseAll 1028
- 39.24 AVAsset.RequestImageTimePrecision 1029
- 39.25 AVAsset.TimeCodes 1031
- 39.26 AVAsset.TrackCount 1032
- 39.27 AVAsset.TrackInfo 1033
- 39.28 AVAsset.URL 1037
- 39.29 AVAsset.WaitForLoaded 1038
- 40.1 AVExport.AllExportPresets 1041
- 40.2 AVExport.CancelExport 1043
- 40.3 AVExport.Duration 1044
- 40.4 AVExport.Error 1045
- 40.5 AVExport.EstimatedOutputFileLength 1046
- 40.6 AVExport.ExportAsynchronously 1047
- 40.7 AVExport.ExportSession 1049
- 40.8 AVExport.ExportSessionMerge 1052
- 40.9 AVExport.GetOutputFileType 1054
- 40.10 AVExport.GetOutputPath 1055
- 40.11 AVExport.GetOutputURL 1056
- 40.12 AVExport.GetShouldOptimizeForNetworkUse 1057
- 40.13 AVExport.GetTimeRange 1058
- 40.14 AVExport.OutputFileExtension 1059
- 40.15 AVExport.PresetName 1060
- 40.16 AVExport.Progress 1061
- 40.17 AVExport.Release 1062
- 40.18 AVExport.SetOutputFileType 1063
- 40.19 AVExport.SetOutputPath 1064

	561
• 40.20 AVExport.SetOutputURL	1066
• 40.21 AVExport.SetShouldOptimizeForNetworkUse	1067
• 40.22 AVExport.SetTimeRange	1068
• 40.23 AVExport.Status	1069
• 40.24 AVExport.SupportedFileTypes	1070
• 35.3 App.CompactMemory	923
• 35.4 App.EffectiveUserID	924
• 35.6 App.GetDockIcon	926
• 35.7 App.GetProcessName	927
• 35.8 App.GetProcessPath	928
• 35.9 App.MemoryUsed	929
• 35.11 App.ProcessID	931
• 35.14 App.SetDockIcon	934
• 35.15 App.SetProcessName	935
• 35.16 App.UserID	936
• 36.1 AppleScript.Close	937
• 36.2 AppleScript.Compile	939
• 36.3 AppleScript.Execute	940
• 36.4 AppleScript.GetPropertyName	941
• 36.5 AppleScript.GetPropertyValue	943
• 36.6 AppleScript.LastError	944
• 36.7 AppleScript.LastErrorMessage	945
• 36.8 AppleScript.PropertyCount	946
• 36.9 AppleScript.Run	947
• 36.10 AppleScript.SetPropertyValue	952
• 37.1 Archive.Compress	955
• 37.2 Archive.Content	958
• 37.3 Archive.Extract	960
• 37.4 Archive.FileList	961

- 37.5 Archive.LibVersion 962
- 37.6 Archive.LibVersionDetails 963
- 37.7 Archive.SupportedFormats 964
- 37.8 Archive.Verify 965
- 38.1 Audit.Backup 967
- 38.2 Audit.Backup2 969
- 38.3 Audit.Changed 970
- 38.4 Audit.Changed2 974
- 38.5 Audit.ClearCaches 976
- 38.6 Audit.Delete 977
- 38.7 Audit.Delete2 979
- 38.8 Audit.FieldIDForName 980
- 38.9 Audit.FieldNameForID 981
- 38.10 Audit.GetEnabled 982
- 38.11 Audit.GetIgnoreCalculations 983
- 38.12 Audit.GetIgnoreSummaryFields 984
- 38.13 Audit.GetIgnoreUnderscoreFieldNames 985
- 38.14 Audit.GetIgnoredFieldNames 986
- 38.15 Audit.GetLogAccess 987
- 38.16 Audit.GetUUIDField 988
- 38.17 Audit.SetEnabled 989
- 38.18 Audit.SetIgnoreCalculations 990
- 38.19 Audit.SetIgnoreSummaryFields 991
- 38.20 Audit.SetIgnoreUnderscoreFieldNames 992
- 38.21 Audit.SetIgnoredFieldNames 993
- 38.22 Audit.SetLogAccess 995
- 38.23 Audit.SetUUIDField 996
- 38.24 Audit.TableIDForName 997
- 38.25 Audit.TableNameForID 998

	563
• 44.1 Barcode.Detect	1171
• 44.2 Barcode.DrawBarcode	1174
• 44.3 Barcode.EANChecksum	1176
• 44.4 Barcode.Generate	1177
• 44.5 Barcode.GenerateJSON	1183
• 44.6 Barcode.GetInputMode	1185
• 44.7 Barcode.GetOption	1186
• 44.8 Barcode.GetPrimary	1187
• 44.9 Barcode.ISBNChecksum	1188
• 44.10 Barcode.LibVersion	1190
• 44.11 Barcode.SetInputMode	1191
• 44.12 Barcode.SetOption	1193
• 44.13 Barcode.SetOptions	1195
• 44.14 Barcode.SetPrimary	1198
• 44.15 Barcode.UPCChecksum	1200
• 44.16 Barcode.WriteFile	1201
• 45.1 BinaryFile.Append	1205
• 45.2 BinaryFile.Close	1207
• 45.3 BinaryFile.Create	1208
• 45.4 BinaryFile.EOF	1210
• 45.5 BinaryFile.Length	1211
• 45.6 BinaryFile.Open	1212
• 45.7 BinaryFile.Position	1214
• 45.8 BinaryFile.ReadByte	1215
• 45.9 BinaryFile.ReadContainer	1216
• 45.10 BinaryFile.ReadFloat	1217
• 45.11 BinaryFile.ReadHex	1218
• 45.12 BinaryFile.ReadInt	1220
• 45.13 BinaryFile.ReadPDF	1221

- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225
- 45.16 BinaryFile.WriteByte 1226
- 45.17 BinaryFile.WriteContainer 1227
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 47.1 Bonjour.Browse 1257
- 47.2 Bonjour.JSON 1259
- 47.3 Bonjour.Register 1261
- 47.4 Bonjour.RegisteredName 1262
- 50.1 CGImageSource.ClearProperties 1417
- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.7 CGImageSource.FileName 1426
- 50.8 CGImageSource.HasProperty 1427
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435
- 50.13 CGImageSource.Release 1437
- 50.14 CGImageSource.SetProperty 1439
- 50.15 CGImageSource.Status 1441
- 50.16 CGImageSource.SupportedExportTypes 1443
- 50.17 CGImageSource.SupportedTypes 1444



	565
• 50.18 CGImageSource.ThumbnailAtIndex	1445
• 50.19 CGImageSource.Type	1447
• 178.1 CGPSConverter.Convert	8357
• 51.1 CLGeocoder.Cancel	1449
• 51.2 CLGeocoder.Cancelled	1451
• 51.3 CLGeocoder.Close	1452
• 51.4 CLGeocoder.Distance	1453
• 51.5 CLGeocoder.Done	1455
• 51.6 CLGeocoder.Error	1456
• 51.7 CLGeocoder.ErrorMessage	1457
• 51.8 CLGeocoder.GeocodeAddressString	1458
• 51.9 CLGeocoder.JSON	1460
• 51.10 CLGeocoder.PlacemarkCount	1462
• 51.11 CLGeocoder.PlacemarkValue	1463
• 51.12 CLGeocoder.ReverseGeocodeLocation	1466
• 61.1 CUPS.CancelJob	1771
• 61.2 CUPS.GetDefaultPrinterName	1773
• 61.3 CUPS.GetJobCompletionTime	1774
• 61.4 CUPS.GetJobCreationTime	1775
• 61.5 CUPS.GetJobFormat	1776
• 61.6 CUPS.GetJobID	1777
• 61.7 CUPS.GetJobIndex	1778
• 61.8 CUPS.GetJobPrinter	1779
• 61.9 CUPS.GetJobPriority	1780
• 61.10 CUPS.GetJobProcessingTime	1781
• 61.11 CUPS.GetJobSize	1782
• 61.12 CUPS.GetJobState	1783
• 61.13 CUPS.GetJobTitle	1784
• 61.14 CUPS.GetJobUser	1785

- 61.15 CUPS.GetJobsCount 1786
- 61.16 CUPS.GetPrinterCount 1788
- 61.17 CUPS.GetPrinterDefault 1789
- 61.18 CUPS.GetPrinterName 1790
- 61.19 CUPS.LastErrorCode 1791
- 61.20 CUPS.LastErrorMessage 1792
- 61.21 CUPS.PrintData 1793
- 61.22 CUPS.PrintDataEncoding 1795
- 61.23 CUPS.PrintFile 1797
- 62.1 CURL.AddInputFile 1799
- 62.2 CURL.AddInputGIF 1801
- 62.3 CURL.AddInputJPEG 1802
- 62.4 CURL.AddInputPDF 1803
- 62.5 CURL.AddInputPNG 1804
- 62.6 CURL.AddInputText 1806
- 62.7 CURL.Cancel 1808
- 62.8 CURL.Check 1809
- 62.9 CURL.CloseDebugFile 1810
- 62.10 CURL.CloseHeaderFile 1811
- 62.11 CURL.CloseInputFile 1812
- 62.12 CURL.CloseOutputFile 1813
- 62.13 CURL.CreateDebugOutputFile 1815
- 62.14 CURL.CreateHeaderOutputFile 1817
- 62.15 CURL.CreateOutputFile 1819
- 62.16 CURL.ErrorCode 1823
- 62.17 CURL.ErrorMessage 1826
- 62.18 CURL.Features 1827
- 62.19 CURL.FileInfos 1828
- 62.20 CURL.FormAddKeyContainer 1831

	567
• 62.21 CURL.FormAddKeyContainerContentType	1833
• 62.22 CURL.FormAddKeyFile	1835
• 62.23 CURL.FormAddKeyFileContentType	1837
• 62.24 CURL.FormAddKeyText	1839
• 62.25 CURL.FormAddKeyTextContentType	1841
• 62.26 CURL.FormAddKeyValue	1843
• 62.27 CURL.FormAddKeyValueContentType	1845
• 62.28 CURL.FormClear	1847
• 62.29 CURL.FormFinish	1848
• 62.30 CURL.GetActiveSocket	1850
• 62.31 CURL.GetAppConnectTime	1851
• 62.32 CURL.GetBatchCurrentFileName	1852
• 62.33 CURL.GetBatchCurrentFilePath	1853
• 62.34 CURL.GetBatchDestinationPath	1854
• 62.35 CURL.GetBatchFileNames	1855
• 62.36 CURL.GetCertInfo	1856
• 62.37 CURL.GetConditionUnmet	1858
• 62.38 CURL.GetConnectTime	1859
• 62.39 CURL.GetContentLengthDownload	1860
• 62.40 CURL.GetContentLengthUpload	1861
• 62.41 CURL.GetContentType	1862
• 62.42 CURL.GetCookieList	1863
• 62.43 CURL.GetDebugAsText	1866
• 62.44 CURL.GetDebugLength	1869
• 62.45 CURL.GetDebugWithData	1870
• 62.46 CURL.GetDebugWithProgress	1871
• 62.47 CURL.GetDebugWithTime	1872
• 62.48 CURL.GetEffectiveURL	1873
• 62.49 CURL.GetFTPEntryPath	1875

- 62.50 `CURL.GetFileTime` 1876
- 62.51 `CURL.GetFinishedEvaluate` 1877
- 62.52 `CURL.GetFinishedFileName` 1878
- 62.53 `CURL.GetFinishedScriptName` 1879
- 62.54 `CURL.GetFormData` 1880
- 62.55 `CURL.GetHTTPAuthAvail` 1882
- 62.56 `CURL.GetHTTPConnectCode` 1883
- 62.57 `CURL.GetHTTPVersion` 1884
- 62.58 `CURL.GetHeaderAsJSON` 1885
- 62.59 `CURL.GetHeaderAsText` 1887
- 62.60 `CURL.GetHeaderLength` 1889
- 62.61 `CURL.GetHeaderSize` 1890
- 62.62 `CURL.GetInputAsText` 1891
- 62.63 `CURL.GetInputLength` 1893
- 62.64 `CURL.GetLastSocket` 1894
- 62.65 `CURL.GetLocalIP` 1895
- 62.66 `CURL.GetLocalPort` 1896
- 62.67 `CURL.GetMultiOptionChunkLengthPenaltySize` 1897
- 62.68 `CURL.GetMultiOptionContentLengthPenaltySize` 1898
- 62.69 `CURL.GetMultiOptionMaxConcurrentStreams` 1899
- 62.70 `CURL.GetMultiOptionMaxConnects` 1900
- 62.71 `CURL.GetMultiOptionMaxHostConnections` 1901
- 62.72 `CURL.GetMultiOptionMaxPipelineLength` 1902
- 62.73 `CURL.GetMultiOptionMaxTotalConnections` 1903
- 62.74 `CURL.GetMultiOptionPipelining` 1904
- 62.75 `CURL.GetMultiRunningTransfers` 1905
- 62.76 `CURL.GetNameLookupTime` 1906
- 62.77 `CURL.GetNumConnects` 1907
- 62.78 `CURL.GetOS_errno` 1908

	569
• 62.79 CURL.GetOptionConnectTo	1909
• 62.80 CURL.GetOptionHTTP200Aliases	1910
• 62.81 CURL.GetOptionHTTPHeader	1911
• 62.82 CURL.GetOptionMailRecipients	1912
• 62.83 CURL.GetOptionPostQuote	1913
• 62.84 CURL.GetOptionPreQuote	1914
• 62.85 CURL.GetOptionProxyHeader	1915
• 62.86 CURL.GetOptionQuote	1916
• 62.87 CURL.GetOptionResolve	1917
• 62.88 CURL.GetOptionTelnetOptions	1918
• 62.89 CURL.GetPreTransferTime	1919
• 62.90 CURL.GetPrimaryIP	1920
• 62.91 CURL.GetPrimaryPort	1921
• 62.92 CURL.GetProgressCurrentDownload	1922
• 62.93 CURL.GetProgressCurrentUpload	1923
• 62.94 CURL.GetProgressEvaluate	1924
• 62.95 CURL.GetProgressFileName	1925
• 62.96 CURL.GetProgressPercent	1926
• 62.97 CURL.GetProgressScriptName	1927
• 62.98 CURL.GetProgressTotalDownload	1928
• 62.99 CURL.GetProgressTotalUpload	1929
• 62.100 CURL.GetProtocol	1930
• 62.101 CURL.GetProxyAuthAvail	1931
• 62.102 CURL.GetProxySSLVerifyResult	1932
• 62.103 CURL.GetRTSPCSEQRecv	1933
• 62.104 CURL.GetRTSPClientCSEQ	1934
• 62.105 CURL.GetRTSPServerCSEQ	1935
• 62.106 CURL.GetRTSPSessionID	1936
• 62.107 CURL.GetRedirectCount	1937

- 62.108 CURL.GetRedirectTime 1938
- 62.109 CURL.GetRedirectURL 1939
- 62.110 CURL.GetRequestSize 1941
- 62.111 CURL.GetResponseCode 1942
- 62.112 CURL.GetResultAsContainer 1944
- 62.113 CURL.GetResultAsData 1947
- 62.114 CURL.GetResultAsEMailList 1949
- 62.115 CURL.GetResultAsEmail 1951
- 62.116 CURL.GetResultAsGIF 1953
- 62.117 CURL.GetResultAsJPEG 1955
- 62.118 CURL.GetResultAsMime 1957
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.121 CURL.GetResultAsText 1963
- 62.122 CURL.GetResultLength 1967
- 62.123 CURL.GetSSLEngines 1968
- 62.124 CURL.GetSSLVerifyResult 1969
- 62.125 CURL.GetScheme 1970
- 62.126 CURL.GetSizeDownload 1971
- 62.127 CURL.GetSizeUpload 1972
- 62.128 CURL.GetSpeedDownload 1973
- 62.129 CURL.GetSpeedUpload 1974
- 62.130 CURL.GetStartTransferTime 1975
- 62.131 CURL.GetTag 1976
- 62.132 CURL.GetTotalTime 1977
- 62.133 CURL.Host 1978
- 62.134 CURL.IsRunning 1979
- 62.135 CURL.LibIDNVersion 1980
- 62.136 CURL.LibSSHVersion 1981

	571
• 62.137 CURL.LibSSLVersion	1982
• 62.138 CURL.List	1983
• 62.139 CURL.LoadLibrary	1984
• 62.140 CURL.New	1985
• 62.141 CURL.NumberOfRunningTransfers	1988
• 62.142 CURL.OpenInputFile	1989
• 62.143 CURL.Perform	1992
• 62.145 CURL.PerformInBackground	2003
• 62.146 CURL.Protocols	2005
• 62.147 CURL.ReceiveData	2006
• 62.148 CURL.ReceiveText	2008
• 62.149 CURL.Release	2011
• 62.150 CURL.ReleaseAll	2013
• 62.151 CURL.Reset	2014
• 62.152 CURL.RunningTransfers	2015
• 62.153 CURL.SendData	2016
• 62.154 CURL.SendText	2018
• 62.155 CURL.SetBatchDestinationPath	2020
• 62.156 CURL.SetDebugWithData	2022
• 62.157 CURL.SetDebugWithProgress	2024
• 62.158 CURL.SetDebugWithTime	2026
• 62.159 CURL.SetFinishedEvaluate	2028
• 62.161 CURL.SetInputFile	2032
• 62.162 CURL.SetInputGIF	2035
• 62.163 CURL.SetInputJPEG	2037
• 62.164 CURL.SetInputPDF	2039
• 62.165 CURL.SetInputPNG	2041
• 62.166 CURL.SetInputText	2043
• 62.167 CURL.SetMultiOptionChunkLengthPenaltySize	2046

- 62.168 `CURL.SetMultiOptionContentLengthPenaltySize` 2047
- 62.169 `CURL.SetMultiOptionMaxConcurrentStreams` 2048
- 62.170 `CURL.SetMultiOptionMaxConnects` 2049
- 62.171 `CURL.SetMultiOptionMaxHostConnections` 2050
- 62.172 `CURL.SetMultiOptionMaxPipelineLength` 2051
- 62.173 `CURL.SetMultiOptionMaxTotalConnections` 2052
- 62.174 `CURL.SetMultiOptionPipelining` 2053
- 62.175 `CURL.SetOptionAbstractUnixSocket` 2054
- 62.176 `CURL.SetOptionAcceptEncoding` 2055
- 62.177 `CURL.SetOptionAcceptTimeoutMS` 2057
- 62.178 `CURL.SetOptionAddressScope` 2058
- 62.179 `CURL.SetOptionAppend` 2059
- 62.180 `CURL.SetOptionAutoReferer` 2060
- 62.181 `CURL.SetOptionBufferSize` 2061
- 62.182 `CURL.SetOptionCAINFO` 2063
- 62.183 `CURL.SetOptionCAPATH` 2066
- 62.184 `CURL.SetOptionCRLF` 2068
- 62.185 `CURL.SetOptionCRLFFile` 2069
- 62.186 `CURL.SetOptionCertInfo` 2071
- 62.187 `CURL.SetOptionConnectOnly` 2073
- 62.188 `CURL.SetOptionConnectTimeoutMS` 2076
- 62.189 `CURL.SetOptionConnectTo` 2077
- 62.190 `CURL.SetOptionConnectionTimeout` 2078
- 62.191 `CURL.SetOptionCookie` 2080
- 62.192 `CURL.SetOptionCookieFile` 2082
- 62.193 `CURL.SetOptionCookieJar` 2085
- 62.194 `CURL.SetOptionCookieList` 2087
- 62.195 `CURL.SetOptionCookieSession` 2088
- 62.196 `CURL.SetOptionCustomRequest` 2089



	573
• 62.197 CURL.SetOptionDNSCacheTimeout	2094
• 62.198 CURL.SetOptionDNSInterface	2095
• 62.199 CURL.SetOptionDNSLocalIPv4	2096
• 62.200 CURL.SetOptionDNSLocalIPv6	2097
• 62.201 CURL.SetOptionDNSServers	2098
• 62.202 CURL.SetOptionDNSShuffleAddresses	2099
• 62.203 CURL.SetOptionDOHURL	2100
• 62.204 CURL.SetOptionDefaultProtocol	2102
• 62.205 CURL.SetOptionDirListOnly	2103
• 62.206 CURL.SetOptionDisallowUserNameInURL	2105
• 62.207 CURL.SetOptionEGDSocket	2106
• 62.208 CURL.SetOptionExpect100TimeoutMS	2107
• 62.209 CURL.SetOptionFTPAccount	2108
• 62.210 CURL.SetOptionFTPAlternativeToUser	2109
• 62.211 CURL.SetOptionFTPCreateMissingDirs	2110
• 62.212 CURL.SetOptionFTPFileMethod	2113
• 62.213 CURL.SetOptionFTPPort	2114
• 62.214 CURL.SetOptionFTPResponseTimeout	2116
• 62.215 CURL.SetOptionFTPSSLAUTH	2117
• 62.216 CURL.SetOptionFTPSSLCCC	2119
• 62.217 CURL.SetOptionFTPSkipPasvIP	2120
• 62.218 CURL.SetOptionFTPUseEPRT	2121
• 62.219 CURL.SetOptionFTPUseEPSV	2122
• 62.220 CURL.SetOptionFTPUsePret	2123
• 62.221 CURL.SetOptionFailOnError	2124
• 62.222 CURL.SetOptionFileOnlyMode	2125
• 62.223 CURL.SetOptionFileTime	2126
• 62.224 CURL.SetOptionFollowLocation	2127
• 62.225 CURL.SetOptionForbidReuse	2129

- 62.226 CURL.SetOptionFreshConnect 2130
- 62.227 CURL.SetOptionGSSAPIDelegation 2131
- 62.228 CURL.SetOptionGet 2132
- 62.229 CURL.SetOptionHAProxyProtocol 2134
- 62.230 CURL.SetOptionHTTP200Aliases 2135
- 62.231 CURL.SetOptionHTTPOAuth 2136
- 62.232 CURL.SetOptionHTTPContentDecoding 2138
- 62.233 CURL.SetOptionHTTPHeader 2139
- 62.234 CURL.SetOptionHTTPProxyTunnel 2143
- 62.235 CURL.SetOptionHTTPTransferDecoding 2144
- 62.236 CURL.SetOptionHTTPVersion 2145
- 62.237 CURL.SetOptionHappyEyeballsTimeOutMS 2146
- 62.238 CURL.SetOptionHeader 2147
- 62.239 CURL.SetOptionHeaderOptions 2148
- 62.240 CURL.SetOptionIPResolve 2149
- 62.241 CURL.SetOptionIgnoreContentLength 2150
- 62.242 CURL.SetOptionInFileSize 2151
- 62.243 CURL.SetOptionInterface 2153
- 62.244 CURL.SetOptionIssuerCert 2154
- 62.245 CURL.SetOptionKRBLevel 2156
- 62.246 CURL.SetOptionKeepSendingOnError 2157
- 62.247 CURL.SetOptionKeyPassword 2158
- 62.248 CURL.SetOptionLocalPort 2160
- 62.249 CURL.SetOptionLocalPortRange 2161
- 62.250 CURL.SetOptionLoginOptions 2162
- 62.251 CURL.SetOptionLowSpeedLimit 2164
- 62.252 CURL.SetOptionLowSpeedTime 2165
- 62.253 CURL.SetOptionMailAuth 2166
- 62.254 CURL.SetOptionMailFrom 2168

	575
• 62.255 CURL.SetOptionMailRecipients	2169
• 62.256 CURL.SetOptionMaxAgeConn	2170
• 62.257 CURL.SetOptionMaxConnects	2171
• 62.258 CURL.SetOptionMaxFileSize	2172
• 62.259 CURL.SetOptionMaxRecvSpeed	2173
• 62.260 CURL.SetOptionMaxRedirs	2174
• 62.261 CURL.SetOptionMaxSendSpeed	2176
• 62.262 CURL.SetOptionNETRCFile	2177
• 62.263 CURL.SetOptionNetRC	2178
• 62.264 CURL.SetOptionNewDirectoryPerms	2180
• 62.265 CURL.SetOptionNewFilePerms	2181
• 62.266 CURL.SetOptionNoBody	2182
• 62.267 CURL.SetOptionNoProxy	2184
• 62.268 CURL.SetOptionPassword	2186
• 62.269 CURL.SetOptionPathAsIs	2189
• 62.270 CURL.SetOptionPinnedPublicKey	2190
• 62.271 CURL.SetOptionPipeWait	2191
• 62.272 CURL.SetOptionPort	2192
• 62.273 CURL.SetOptionPost	2194
• 62.274 CURL.SetOptionPostFieldSize	2198
• 62.275 CURL.SetOptionPostFields	2199
• 62.276 CURL.SetOptionPostQuote	2203
• 62.277 CURL.SetOptionPostRedir	2205
• 62.278 CURL.SetOptionPreProxy	2207
• 62.279 CURL.SetOptionPreQuote	2208
• 62.280 CURL.SetOptionProtocols	2210
• 62.281 CURL.SetOptionProxy	2212
• 62.282 CURL.SetOptionProxyAuth	2214
• 62.283 CURL.SetOptionProxyCAInfo	2215

- 62.284 CURL.SetOptionProxyCAPath 2216
- 62.285 CURL.SetOptionProxyCRLFile 2217
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.287 CURL.SetOptionProxyKeyPassword 2219
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.289 CURL.SetOptionProxyPinnedPublicKey 2221
- 62.290 CURL.SetOptionProxyPort 2222
- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.293 CURL.SetOptionProxySSLCipherList 2225
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.296 CURL.SetOptionProxySSLOptions 2228
- 62.297 CURL.SetOptionProxySSLVerifyHost 2229
- 62.298 CURL.SetOptionProxySSLVerifyPeer 2230
- 62.299 CURL.SetOptionProxySSLVersion 2231
- 62.300 CURL.SetOptionProxyServiceName 2233
- 62.301 CURL.SetOptionProxyTLS13Ciphers 2234
- 62.302 CURL.SetOptionProxyTLSAuthPassword 2235
- 62.303 CURL.SetOptionProxyTLSAuthType 2236
- 62.304 CURL.SetOptionProxyTLSAuthUsername 2237
- 62.305 CURL.SetOptionProxyTransferMode 2238
- 62.306 CURL.SetOptionProxyType 2239
- 62.307 CURL.SetOptionProxyUsername 2241
- 62.308 CURL.SetOptionPut 2242
- 62.309 CURL.SetOptionQuote 2244
- 62.310 CURL.SetOptionRTSPClientCSEQ 2247
- 62.311 CURL.SetOptionRTSPRequest 2248
- 62.312 CURL.SetOptionRTSPServerCSEQ 2249

	577
• 62.313 CURL.SetOptionRTSPSessionID	2250
• 62.314 CURL.SetOptionRTSPStreamURI	2251
• 62.315 CURL.SetOptionRTSPTransport	2252
• 62.316 CURL.SetOptionRandomFile	2253
• 62.317 CURL.SetOptionRange	2254
• 62.318 CURL.SetOptionRedirProtocols	2256
• 62.319 CURL.SetOptionReferer	2258
• 62.320 CURL.SetOptionRequestTarget	2259
• 62.321 CURL.SetOptionResolve	2260
• 62.322 CURL.SetOptionResumeFrom	2261
• 62.323 CURL.SetOptionSASLAuthZID	2262
• 62.324 CURL.SetOptionSASLIR	2263
• 62.325 CURL.SetOptionSSHAUTHTypes	2264
• 62.326 CURL.SetOptionSSHCompression	2266
• 62.327 CURL.SetOptionSSHHostPublicKeyMD5	2267
• 62.328 CURL.SetOptionSSHKnownHosts	2268
• 62.329 CURL.SetOptionSSHPrivateKeyfile	2269
• 62.330 CURL.SetOptionSSHPublicKeyfile	2271
• 62.331 CURL.SetOptionSSLCert	2273
• 62.332 CURL.SetOptionSSLCertType	2277
• 62.333 CURL.SetOptionSSLCipherList	2279
• 62.334 CURL.SetOptionSSEnableALPN	2281
• 62.335 CURL.SetOptionSSEnableNPN	2282
• 62.336 CURL.SetOptionSSEngine	2283
• 62.337 CURL.SetOptionSSEngineDefault	2284
• 62.338 CURL.SetOptionSSLFalseStart	2285
• 62.339 CURL.SetOptionSSLKey	2286
• 62.340 CURL.SetOptionSSLKeyType	2288
• 62.341 CURL.SetOptionSSLOptions	2290

- 62.342 CURL.SetOptionSSLSessionIDCache 2291
- 62.343 CURL.SetOptionSSLVerifyHost 2292
- 62.344 CURL.SetOptionSSLVerifyPeer 2295
- 62.345 CURL.SetOptionSSLVerifyStatus 2298
- 62.346 CURL.SetOptionSSLVersion 2299
- 62.347 CURL.SetOptionServiceName 2302
- 62.348 CURL.SetOptionSocks5Auth 2303
- 62.349 CURL.SetOptionSocks5GSSAPINec 2304
- 62.350 CURL.SetOptionSocks5GSSAPIService 2305
- 62.351 CURL.SetOptionStreamDepends 2306
- 62.352 CURL.SetOptionStreamDependsE 2307
- 62.353 CURL.SetOptionStreamWeight 2308
- 62.354 CURL.SetOptionSuppressConnectHeaders 2309
- 62.355 CURL.SetOptionTCPFastOpen 2310
- 62.356 CURL.SetOptionTCPKeepAlive 2311
- 62.357 CURL.SetOptionTCPKeepIdle 2312
- 62.358 CURL.SetOptionTCPKeepInterval 2313
- 62.359 CURL.SetOptionTCPNoDelay 2314
- 62.360 CURL.SetOptionTFTPBlockSize 2315
- 62.361 CURL.SetOptionTFTPNoOptions 2316
- 62.362 CURL.SetOptionTLS13Ciphers 2317
- 62.363 CURL.SetOptionTLSAuthPassword 2318
- 62.364 CURL.SetOptionTLSAuthType 2319
- 62.365 CURL.SetOptionTLSAuthUsername 2320
- 62.366 CURL.SetOptionTelnetOptions 2321
- 62.367 CURL.SetOptionTimeCondition 2322
- 62.368 CURL.SetOptionTimeOut 2323
- 62.369 CURL.SetOptionTimeValue 2325
- 62.370 CURL.SetOptionTimeoutMS 2326

	579
• 62.371 CURL.SetOptionTransferEncoding	2327
• 62.372 CURL.SetOptionTransferText	2328
• 62.373 CURL.SetOptionURL	2329
• 62.374 CURL.SetOptionUnixSocketPath	2337
• 62.375 CURL.SetOptionUnrestrictedAuth	2338
• 62.376 CURL.SetOptionUpkeepIntervalMS	2339
• 62.377 CURL.SetOptionUpload	2340
• 62.378 CURL.SetOptionUploadBufferSize	2342
• 62.379 CURL.SetOptionUseSSL	2343
• 62.380 CURL.SetOptionUserAgent	2345
• 62.381 CURL.SetOptionUsername	2346
• 62.382 CURL.SetOptionVerbose	2348
• 62.383 CURL.SetOptionWildCardMatch	2350
• 62.384 CURL.SetOptionXOAuth2Bearer	2353
• 62.385 CURL.SetProgressEvaluate	2354
• 62.387 CURL.SetTag	2357
• 62.388 CURL.SetUpdateProgressDialog	2359
• 62.389 CURL.SetupAWS	2361
• 62.390 CURL.SetupOAuth	2365
• 62.391 CURL.Upkeep	2370
• 62.392 CURL.UseSystemCertificates	2371
• 62.393 CURL.Version	2373
• 48.34 Calendar.Initialize	1300
• 127.1 ClearRegistration	6369
• 52.1 Clipboard.DetectFileMakerDataType	1469
• 127.2 CompileDate	6370
• 127.3 CompileTime	6371
• 56.1 Container.Compress	1641
• 56.2 Container.DecodeFromBase64	1643

- 56.3 Container.DecodeFromHex 1645
- 56.4 Container.Decompress 1646
- 56.5 Container.Deserialize 1648
- 56.6 Container.Export 1649
- 56.7 Container.ExtractStream 1652
- 56.8 Container.GetBase64 1653
- 56.9 Container.GetCount 1655
- 56.10 Container.GetDataURL 1657
- 56.11 Container.GetHeight 1658
- 56.12 Container.GetHex 1659
- 56.17 Container.GetName 1664
- 56.18 Container.GetResolution 1665
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.21 Container.GetTotalSize 1671
- 56.22 Container.GetType 1672
- 56.23 Container.GetTypeSize 1674
- 56.24 Container.GetTypes 1676
- 56.25 Container.GetWidth 1678
- 56.26 Container.IsCompressed 1679
- 56.27 Container.ReadArchive 1680
- 56.28 Container.ReadFile 1681
- 56.29 Container.ReadImage 1684
- 56.30 Container.Remove 1686
- 56.31 Container.Rename 1688
- 56.32 Container.RenameStream 1690
- 56.33 Container.Serialize 1691
- 56.34 Container.WriteArchive 1692
- 56.35 Container.WriteFile 1694



	581
• 58.1 CoreImage.Detect	1703
• 59.1 CoreLocation.ClearFailHandler	1705
• 59.2 CoreLocation.ClearUpdateLocationHandler	1706
• 59.9 CoreLocation.altitude	1714
• 59.11 CoreLocation.course	1716
• 59.12 CoreLocation.description	1717
• 59.13 CoreLocation.desiredAccuracy	1718
• 59.15 CoreLocation.distanceFilter	1720
• 59.16 CoreLocation.distanceFromLocation	1721
• 59.17 CoreLocation.hasLocation	1722
• 59.18 CoreLocation.headingAvailable	1723
• 59.19 CoreLocation.horizontalAccuracy	1724
• 59.20 CoreLocation.latitude	1725
• 59.21 CoreLocation.locationServicesEnabled	1726
• 59.22 CoreLocation.longitude	1727
• 59.23 CoreLocation.purpose	1728
• 59.27 CoreLocation.setDesiredAccuracy	1732
• 59.28 CoreLocation.setDistanceFilter	1733
• 59.29 CoreLocation.setPurpose	1734
• 59.30 CoreLocation.significantLocationChangeMonitoringAvailable	1735
• 59.31 CoreLocation.speed	1736
• 59.32 CoreLocation.startMonitoringSignificantLocationChanges	1737
• 59.34 CoreLocation.startUpdatingLocation	1739
• 59.35 CoreLocation.stopMonitoringSignificantLocationChanges	1740
• 59.37 CoreLocation.stopUpdatingLocation	1742
• 59.38 CoreLocation.timestamp	1743
• 59.39 CoreLocation.verticalAccuracy	1744
• 60.1 CoreML.Add2DArrayParameter	1745
• 60.2 CoreML.AddArrayParameter	1747

- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751
- 60.6 CoreML.AddTextParameter 1752
- 60.7 CoreML.AddUndefinedParameter 1753
- 60.8 CoreML.Available 1754
- 60.9 CoreML.Clear 1755
- 60.10 CoreML.CompileModel 1756
- 60.11 CoreML.Description 1758
- 60.12 CoreML.GetUsesCPUOnly 1761
- 60.13 CoreML.OpenModel 1762
- 60.14 CoreML.PredictionFromFeatures 1764
- 60.15 CoreML.Release 1766
- 60.16 CoreML.ResultImage 1767
- 60.17 CoreML.SetUsesCPUOnly 1768
- 60.18 CoreML.Update 1769
- 68.1 DNSLookup.Address 2493
- 68.2 DNSLookup.AddressCount 2495
- 68.3 DNSLookup.Alias 2496
- 68.4 DNSLookup.AliasCount 2497
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.6 DNSLookup.LookupHostByName 2500
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 66.4 Dictionary.Clear 2446
- 66.5 Dictionary.Clone 2447

	583
• 66.6 Dictionary.Count	2448
• 66.7 Dictionary.Create	2449
• 66.8 Dictionary.CreateNamed	2452
• 66.9 Dictionary.Deserialize	2453
• 66.10 Dictionary.HasKey	2455
• 66.11 Dictionary.KeyAtIndex	2456
• 66.12 Dictionary.Keys	2457
• 66.13 Dictionary.List	2458
• 66.14 Dictionary.Release	2459
• 66.15 Dictionary.RemoveKey	2460
• 66.16 Dictionary.Serialize	2461
• 66.17 Dictionary.SetList	2463
• 66.18 Dictionary.SetQuickList	2464
• 66.19 Dictionary.SetValueForKey	2465
• 66.20 Dictionary.SetVariables	2468
• 102.1 Dictionary.ToJSON	5303
• 66.22 Dictionary.ToText	2471
• 194.1 Dictionary.ToXML	9407
• 66.24 Dictionary.ValueForKey	2475
• 66.25 Dictionary.ValueTypeForKey	2477
• 66.26 Dictionary.Values	2478
• 67.1 DirectoryWatcher.AddDirectory	2479
• 67.2 DirectoryWatcher.ChangeCount	2481
• 67.3 DirectoryWatcher.Create	2482
• 67.7 DirectoryWatcher.NextChange	2486
• 67.8 DirectoryWatcher.Release	2487
• 67.9 DirectoryWatcher.ReleaseAll	2488
• 71.1 DynaPDF.AddActionToObj	2591
• 71.2 DynaPDF.AddAnnotToPage	2594

- 71.3 DynaPDF.AddBookmark 2595
- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.5 DynaPDF.AddButtonImage 2599
- 71.6 DynaPDF.AddContinueText 2601
- 71.7 DynaPDF.AddDeviceNProcessColorants 2602
- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.9 DynaPDF.AddFontSearchPath 2607
- 71.10 DynaPDF.AddOutputIntent 2608
- 71.11 DynaPDF.AddOutputIntentEx 2609
- 71.12 DynaPDF.AddValToChoiceField 2611
- 71.13 DynaPDF.AllowPageBreak 2613
- 71.14 DynaPDF.AppendImagePage 2615
- 71.15 DynaPDF.AppendImagePages 2617
- 71.16 DynaPDF.AppendPage 2619
- 71.17 DynaPDF.ApplyShading 2621
- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.19 DynaPDF.AttachFile 2624
- 71.20 DynaPDF.AttachFileContainer 2626
- 71.21 DynaPDF.AttachFileText 2627
- 71.22 DynaPDF.BeginContinueText 2629
- 71.23 DynaPDF.BeginLayer 2631
- 71.24 DynaPDF.BeginPattern 2632
- 71.25 DynaPDF.BeginTemplate 2633
- 71.26 DynaPDF.Bezier123 2634
- 71.27 DynaPDF.Bezier13 2636
- 71.28 DynaPDF.Bezier23 2637
- 71.29 DynaPDF.CMYK 2638
- 71.30 DynaPDF.ChangeAnnotName 2640
- 71.31 DynaPDF.ChangeAnnotPos 2641

	585
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.33 DynaPDF.ChangeFont	2644
• 71.34 DynaPDF.ChangeFontSize	2645
• 71.35 DynaPDF.ChangeFontStyle	2646
• 71.36 DynaPDF.ChangeFontStyleEx	2647
• 71.37 DynaPDF.ChangeLinkAnnot	2648
• 71.38 DynaPDF.ChangeSeparationColor	2649
• 71.39 DynaPDF.CheckConformance	2650
• 71.40 DynaPDF.CheckFieldNames	2653
• 71.41 DynaPDF.CircleAnnot	2654
• 71.42 DynaPDF.Clear	2656
• 71.43 DynaPDF.ClipPath	2657
• 71.44 DynaPDF.CloseImportFile	2659
• 71.45 DynaPDF.ClosePath	2660
• 71.46 DynaPDF.ConvertColors	2662
• 71.47 DynaPDF.ConvertStyledText	2664
• 71.48 DynaPDF.CreateAxialShading	2665
• 71.49 DynaPDF.CreateButton	2667
• 71.50 DynaPDF.CreateCheckBox	2670
• 71.51 DynaPDF.CreateComboBox	2672
• 71.52 DynaPDF.CreateDeviceNColorSpace	2675
• 71.53 DynaPDF.CreateGoToAction	2677
• 71.54 DynaPDF.CreateGoToActionEx	2679
• 71.55 DynaPDF.CreateGoToRAction	2681
• 71.56 DynaPDF.CreateGoToRActionEx	2683
• 71.57 DynaPDF.CreateGroupField	2685
• 71.58 DynaPDF.CreateJSAction	2687
• 71.59 DynaPDF.CreateListBox	2690
• 71.60 DynaPDF.CreateNamedDest	2693

- 71.61 DynaPDF.CreateRadialShading 2695
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.64 DynaPDF.CreateSigField 2702
- 71.65 DynaPDF.CreateSigFieldAP 2705
- 71.66 DynaPDF.CreateStructureTree 2707
- 71.67 DynaPDF.CreateTextField 2709
- 71.68 DynaPDF.CreateXFASStream 2711
- 71.69 DynaPDF.DeleteAcroForm 2712
- 71.70 DynaPDF.DeleteActionFromObjEx 2713
- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.73 DynaPDF.DeleteEmbeddedFile 2716
- 71.74 DynaPDF.DeleteField 2717
- 71.75 DynaPDF.DeleteFieldEx 2718
- 71.76 DynaPDF.DeleteJavaScripts 2719
- 71.77 DynaPDF.DeletePage 2720
- 71.78 DynaPDF.DeletePageLabels 2721
- 71.79 DynaPDF.DeleteSeparationInfo 2722
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.82 DynaPDF.DeleteXFAForm 2725
- 71.83 DynaPDF.DrawArc 2726
- 71.84 DynaPDF.DrawArcEx 2728
- 71.85 DynaPDF.DrawChord 2730
- 71.86 DynaPDF.DrawCircle 2732
- 71.87 DynaPDF.DrawPie 2734
- 71.88 DynaPDF.EditPage 2736
- 71.89 DynaPDF.EditTemplate 2738

	587
• 71.90 DynaPDF.EditTemplate2	2740
• 71.91 DynaPDF.Ellipse	2741
• 71.92 DynaPDF.EnableEncryption	2743
• 71.93 DynaPDF.EndLayer	2746
• 71.94 DynaPDF.EndPage	2747
• 71.95 DynaPDF.EndPattern	2749
• 71.96 DynaPDF.EndTemplate	2750
• 71.97 DynaPDF.ExchangeBookmarks	2751
• 71.98 DynaPDF.ExchangePages	2752
• 71.99 DynaPDF.ExtractDocumentText	2753
• 71.100 DynaPDF.ExtractImages	2755
• 71.101 DynaPDF.ExtractPageRectText	2757
• 71.102 DynaPDF.ExtractPageText	2759
• 71.103 DynaPDF.ExtractText	2761
• 71.104 DynaPDF.FileAttachAnnot	2764
• 71.105 DynaPDF.FileAttachAnnotEx	2766
• 71.106 DynaPDF.FileLink	2768
• 71.107 DynaPDF.FindBookmark	2770
• 71.108 DynaPDF.FindEmbeddedFile	2772
• 71.109 DynaPDF.FindField	2773
• 71.110 DynaPDF.FindLinkAnnot	2774
• 71.111 DynaPDF.FindNextBookmark	2775
• 71.112 DynaPDF.FindPattern	2776
• 71.113 DynaPDF.FindText	2777
• 71.114 DynaPDF.FlattenAnnotOrField	2779
• 71.115 DynaPDF.FlattenAnnots	2780
• 71.116 DynaPDF.FlattenForm	2782
• 71.117 DynaPDF.FlushPages	2784
• 71.118 DynaPDF.FontInfo	2786

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.120 DynaPDF.GeneratePreview 2790
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.124 DynaPDF.GetAnnotType 2796
- 71.125 DynaPDF.GetAnnotation 2798
- 71.126 DynaPDF.GetAscent 2800
- 71.127 DynaPDF.GetBBox 2801
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.131 DynaPDF.GetCMapCount 2807
- 71.132 DynaPDF.GetCharacterSpacing 2808
- 71.133 DynaPDF.GetCheckBoxChar 2809
- 71.134 DynaPDF.GetCheckBoxCharEx 2810
- 71.135 DynaPDF.GetCheckBoxDefState 2811
- 71.136 DynaPDF.GetColorSpace 2812
- 71.137 DynaPDF.GetColorSpaceCount 2813
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.140 DynaPDF.GetCompressionLevel 2816
- 71.141 DynaPDF.GetContent 2817
- 71.142 DynaPDF.GetDocInfo 2818
- 71.143 DynaPDF.GetDocInfoCount 2820
- 71.144 DynaPDF.GetDocUsesTransparency 2821
- 71.145 DynaPDF.GetDrawDirection 2822
- 71.146 DynaPDF.GetDynaPDFVersion 2823
- 71.147 DynaPDF.GetEmbeddedFile 2824



	589
• 71.148 DynaPDF.GetEmbeddedFileAsContainer	2826
• 71.149 DynaPDF.GetEmbeddedFileCount	2827
• 71.150 DynaPDF.GetFTextHeight	2829
• 71.151 DynaPDF.GetFTextHeightEx	2831
• 71.152 DynaPDF.GetField	2833
• 71.153 DynaPDF.GetFieldBackColor	2835
• 71.154 DynaPDF.GetFieldBorderColor	2836
• 71.155 DynaPDF.GetFieldBorderStyle	2837
• 71.156 DynaPDF.GetFieldBorderWidth	2838
• 71.157 DynaPDF.GetFieldChoiceValue	2839
• 71.158 DynaPDF.GetFieldColor	2840
• 71.159 DynaPDF.GetFieldCount	2841
• 71.160 DynaPDF.GetFieldExpValCount	2842
• 71.161 DynaPDF.GetFieldExpValue	2843
• 71.162 DynaPDF.GetFieldExpValueEx	2844
• 71.163 DynaPDF.GetFieldFlags	2846
• 71.164 DynaPDF.GetFieldGroupType	2847
• 71.165 DynaPDF.GetFieldHighlightMode	2848
• 71.166 DynaPDF.GetFieldIndex	2849
• 71.167 DynaPDF.GetFieldMapName	2850
• 71.168 DynaPDF.GetFieldName	2851
• 71.169 DynaPDF.GetFieldOrientation	2852
• 71.170 DynaPDF.GetFieldTextAlign	2853
• 71.171 DynaPDF.GetFieldTextColor	2854
• 71.172 DynaPDF.GetFieldToolTip	2855
• 71.173 DynaPDF.GetFieldType	2856
• 71.174 DynaPDF.GetFontCount	2857
• 71.175 DynaPDF.GetFontOrigin	2858
• 71.176 DynaPDF.GetFontSelMode	2859

- 71.177 DynaPDF.GetFontWeight 2860
- 71.178 DynaPDF.GetGStateFlags 2861
- 71.179 DynaPDF.GetImage 2862
- 71.180 DynaPDF.GetImageCount 2866
- 71.181 DynaPDF.GetImportDocInfo 2868
- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.185 DynaPDF.GetImportPDFVersion 2873
- 71.186 DynaPDF.GetImportPageBounds 2874
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.188 DynaPDF.GetInDocInfoCount 2879
- 71.189 DynaPDF.GetInFieldCount 2880
- 71.190 DynaPDF.GetInIsCollection 2881
- 71.191 DynaPDF.GetInIsEncrypted 2882
- 71.192 DynaPDF.GetInIsSigned 2883
- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.194 DynaPDF.GetInIsXFAForm 2885
- 71.195 DynaPDF.GetInMetadata 2886
- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.197 DynaPDF.GetInRepairMode 2889
- 71.198 DynaPDF.GetIsFixedPitch 2890
- 71.199 DynaPDF.GetIsTaggingEnabled 2891
- 71.200 DynaPDF.GetJPEGQuality 2892
- 71.201 DynaPDF.GetJavaScriptCount 2893
- 71.202 DynaPDF.GetLanguage 2894
- 71.203 DynaPDF.GetLastErrorMessage 2895
- 71.204 DynaPDF.GetLastTextPosX 2896
- 71.205 DynaPDF.GetLastTextPosY 2897

	591
• 71.206 DynaPDF.GetLeading	2898
• 71.207 DynaPDF.GetLineWidth	2899
• 71.208 DynaPDF.GetLinkHighlightMode	2900
• 71.209 DynaPDF.GetLogMetafileSize	2901
• 71.210 DynaPDF.GetLogMetafileSizeEx	2902
• 71.211 DynaPDF.GetMetaConvFlags	2903
• 71.212 DynaPDF.GetMetadata	2904
• 71.213 DynaPDF.GetOCG	2906
• 71.214 DynaPDF.GetOCGContUsage	2909
• 71.215 DynaPDF.GetOCGCount	2911
• 71.216 DynaPDF.GetOCGUsageUserName	2912
• 71.217 DynaPDF.GetOpacity	2913
• 71.218 DynaPDF.GetOrientation	2914
• 71.219 DynaPDF.GetOutputIntent	2915
• 71.220 DynaPDF.GetOutputIntentCount	2917
• 71.221 DynaPDF.GetPDFVersion	2918
• 71.222 DynaPDF.GetPageAnnotCount	2919
• 71.223 DynaPDF.GetPageAnnotation	2920
• 71.224 DynaPDF.GetPageBBox	2921
• 71.225 DynaPDF.GetPageCoords	2923
• 71.226 DynaPDF.GetPageCount	2924
• 71.227 DynaPDF.GetPageFieldCount	2926
• 71.228 DynaPDF.GetPageHeight	2927
• 71.229 DynaPDF.GetPageLabel	2929
• 71.230 DynaPDF.GetPageLabelCount	2931
• 71.231 DynaPDF.GetPageLayout	2932
• 71.232 DynaPDF.GetPageMode	2933
• 71.233 DynaPDF.GetPageNum	2934
• 71.234 DynaPDF.GetPageWidth	2935

- 71.235 DynaPDF.GetPrintSettings 2937
- 71.236 DynaPDF.GetReplaceICCProfile 2938
- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.238 DynaPDF.GetReplaceICCProfilesCounter 2940
- 71.239 DynaPDF.GetResolution 2941
- 71.240 DynaPDF.GetSaveNewImageFormat 2942
- 71.241 DynaPDF.GetTemplCount 2943
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.244 DynaPDF.GetTextDrawMode 2946
- 71.245 DynaPDF.GetTextFieldDefaultValue 2947
- 71.246 DynaPDF.GetTextFieldValue 2948
- 71.247 DynaPDF.GetTextRise 2949
- 71.248 DynaPDF.GetTextScaling 2950
- 71.249 DynaPDF.GetTextWidth 2951
- 71.250 DynaPDF.GetTransparentColor 2953
- 71.251 DynaPDF.GetTrapped 2954
- 71.252 DynaPDF.GetUseExactPwd 2955
- 71.253 DynaPDF.GetUseGlobalImpFiles 2956
- 71.254 DynaPDF.GetUseStdFonts 2957
- 71.255 DynaPDF.GetUseSystemFonts 2958
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.257 DynaPDF.GetUseVisibleCoords 2960
- 71.258 DynaPDF.GetUserRights 2961
- 71.259 DynaPDF.GetUserUnit 2962
- 71.260 DynaPDF.GetUsesTransparency 2963
- 71.261 DynaPDF.GetViewerPreferences 2965
- 71.262 DynaPDF.GetWMFDefExtent 2966
- 71.263 DynaPDF.GetWMFPixelPerInch 2967

	593
• 71.264 DynaPDF.GetWordSpacing	2968
• 71.265 DynaPDF.GetXFASStream	2969
• 71.266 DynaPDF.GetXFASStreamCount	2971
• 71.267 DynaPDF.HaveOpenDocument	2972
• 71.268 DynaPDF.HaveOpenPage	2973
• 71.269 DynaPDF.HighlightAnnot	2974
• 71.270 DynaPDF.HighlightPattern	2976
• 71.271 DynaPDF.ImportEncryptionSettings	2978
• 71.272 DynaPDF.ImportPDFFile	2979
• 71.273 DynaPDF.ImportPDFPage	2982
• 71.274 DynaPDF.ImportPageAsTemplate	2985
• 71.275 DynaPDF.InitColorManagement	2987
• 71.276 DynaPDF.InitColorManagementEx	2990
• 71.277 DynaPDF.Initialize	2992
• 71.278 DynaPDF.InsertBookmark	2999
• 71.279 DynaPDF.InsertBookmarkEx	3001
• 71.280 DynaPDF.InsertImage	3003
• 71.281 DynaPDF.InsertImageFile	3007
• 71.282 DynaPDF.InsertMetafile	3010
• 71.283 DynaPDF.InsertMetafileEx	3012
• 71.284 DynaPDF.IsColorPage	3014
• 71.285 DynaPDF.IsEmptyPage	3016
• 71.286 DynaPDF.IsInitialized	3017
• 71.287 DynaPDF.LineAnnot	3020
• 71.288 DynaPDF.LineTo	3022
• 71.289 DynaPDF.List	3024
• 71.290 DynaPDF.ListImages	3025
• 71.291 DynaPDF.LockLayer	3028
• 71.292 DynaPDF.MovePage	3029

- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.296 DynaPDF.OpenOutputFileEncrypted 3037
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.299 DynaPDF.Optimize 3046
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.302 DynaPDF.PageStatistics 3059
- 71.303 DynaPDF.ParseContent 3062
- 71.304 DynaPDF.PlaceSigFieldValidateIcon 3064
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.307 DynaPDF.Print 3070
- 71.312 DynaPDF.RGB 3079
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.314 DynaPDF.ReadImageResolution 3083
- 71.315 DynaPDF.Rectangle 3084
- 71.316 DynaPDF.Release 3086
- 71.317 DynaPDF.RenameSpotColor 3088
- 71.318 DynaPDF.RenderPDFFile 3089
- 71.319 DynaPDF.RenderPDFFileEx 3091
- 71.320 DynaPDF.RenderPage 3093
- 71.321 DynaPDF.ReplaceImage 3097
- 71.322 DynaPDF.ReplacePattern 3100
- 71.323 DynaPDF.ResetEncryptionSettings 3103
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.325 DynaPDF.RotateCoords 3106

	595
• 71.326 DynaPDF.RotateTemplate	3109
• 71.327 DynaPDF.RoundRect	3112
• 71.328 DynaPDF.RoundRectEx	3114
• 71.329 DynaPDF.Save	3116
• 71.330 DynaPDF.SaveAndSignFile	3119
• 71.331 DynaPDF.SaveAndSignFileWinCrypt	3121
• 71.333 DynaPDF.SaveGraphicState	3125
• 71.334 DynaPDF.ScaleCoords	3126
• 71.335 DynaPDF.SetAlpha	3128
• 71.336 DynaPDF.SetAnnotBorderStyle	3130
• 71.337 DynaPDF.SetAnnotBorderWidth	3132
• 71.338 DynaPDF.SetAnnotColor	3133
• 71.339 DynaPDF.SetAnnotDate	3135
• 71.340 DynaPDF.SetAnnotFlags	3137
• 71.341 DynaPDF.SetAnnotFlagsEx	3139
• 71.342 DynaPDF.SetAnnotHighlightMode	3140
• 71.343 DynaPDF.SetAnnotIcon	3141
• 71.344 DynaPDF.SetAnnotLineEndStyle	3142
• 71.345 DynaPDF.SetAnnotOpacity	3143
• 71.346 DynaPDF.SetAnnotOpenState	3144
• 71.347 DynaPDF.SetAnnotString	3145
• 71.348 DynaPDF.SetAnnotSubject	3146
• 71.349 DynaPDF.SetBBox	3147
• 71.350 DynaPDF.SetBookmarkDest	3149
• 71.351 DynaPDF.SetBookmarkStyle	3151
• 71.352 DynaPDF.SetBorderStyle	3153
• 71.353 DynaPDF.SetCMapDir	3154
• 71.354 DynaPDF.SetCharacterSpacing	3155
• 71.355 DynaPDF.SetCheckBoxChar	3156

- 71.356 DynaPDF.SetCheckBoxDefState 3157
- 71.357 DynaPDF.SetCheckBoxState 3158
- 71.358 DynaPDF.SetColorSpace 3159
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.360 DynaPDF.SetCompressionLevel 3163
- 71.361 DynaPDF.SetContent 3164
- 71.362 DynaPDF.SetDocInfo 3165
- 71.363 DynaPDF.SetDocInfoEx 3167
- 71.364 DynaPDF.SetDrawDirection 3169
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172
- 71.367 DynaPDF.SetExtStrokeColorSpace 3173
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.376 DynaPDF.SetFieldExpValueEx 3186
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.380 DynaPDF.SetFieldFontSize 3194
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.383 DynaPDF.SetFieldMapName 3197
- 71.384 DynaPDF.SetFieldName 3198



	597
• 71.385 DynaPDF.SetFieldOrientation	3200
• 71.386 DynaPDF.SetFieldTextAlign	3201
• 71.387 DynaPDF.SetFieldTextColor	3202
• 71.388 DynaPDF.SetFieldToolTip	3203
• 71.389 DynaPDF.SetFillColor	3204
• 71.390 DynaPDF.SetFloatPrecision	3207
• 71.391 DynaPDF.SetFont	3208
• 71.392 DynaPDF.SetFontEx	3210
• 71.393 DynaPDF.SetFontOrigin	3212
• 71.394 DynaPDF.SetFontSearchOrder	3213
• 71.395 DynaPDF.SetFontSelMode	3215
• 71.396 DynaPDF.SetFontWeight	3216
• 71.397 DynaPDF.SetGStateFlags	3218
• 71.398 DynaPDF.SetImportFlags	3220
• 71.399 DynaPDF.SetImportFlags2	3224
• 71.400 DynaPDF.SetJPEGQuality	3226
• 71.401 DynaPDF.SetLanguage	3228
• 71.402 DynaPDF.SetLeading	3230
• 71.403 DynaPDF.SetLineJoinStyle	3231
• 71.404 DynaPDF.SetLineWidth	3232
• 71.405 DynaPDF.SetLinkHighlightMode	3234
• 71.406 DynaPDF.SetMetaConvFlags	3236
• 71.407 DynaPDF.SetMetadata	3238
• 71.408 DynaPDF.SetMiterLimit	3240
• 71.409 DynaPDF.SetNumberFormat	3241
• 71.410 DynaPDF.SetOCGState	3243
• 71.411 DynaPDF.SetOpacity	3245
• 71.412 DynaPDF.SetOrientation	3246
• 71.413 DynaPDF.SetOrientationEx	3247

- 71.414 DynaPDF.SetPDFVersion 3250
- 71.415 DynaPDF.SetPageBBox 3252
- 71.416 DynaPDF.SetPageCoords 3254
- 71.417 DynaPDF.SetPageFormat 3256
- 71.418 DynaPDF.SetPageHeight 3258
- 71.419 DynaPDF.SetPageLayout 3261
- 71.420 DynaPDF.SetPageMode 3262
- 71.421 DynaPDF.SetPageWidth 3263
- 71.422 DynaPDF.SetPrintSettings 3266
- 71.423 DynaPDF.SetReplaceICCProfile 3268
- 71.424 DynaPDF.SetReplaceICCProfileData 3270
- 71.425 DynaPDF.SetResolution 3272
- 71.426 DynaPDF.SetSaveNewImageFormat 3274
- 71.427 DynaPDF.SetSeparationInfo 3276
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.429 DynaPDF.SetTextDrawMode 3279
- 71.430 DynaPDF.SetTextFieldValue 3281
- 71.431 DynaPDF.SetTextFieldValueEx 3283
- 71.432 DynaPDF.SetTextRect 3284
- 71.433 DynaPDF.SetTextRise 3286
- 71.434 DynaPDF.SetTextScaling 3287
- 71.435 DynaPDF.SetTransparentColor 3288
- 71.436 DynaPDF.SetTrapped 3289
- 71.437 DynaPDF.SetUseExactPwd 3290
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291
- 71.439 DynaPDF.SetUseStdFonts 3292
- 71.440 DynaPDF.SetUseSystemFonts 3294
- 71.441 DynaPDF.SetUseTransparency 3296
- 71.442 DynaPDF.SetUseVisibleCoords 3298

	599
• 71.443 DynaPDF.SetUserUnit	3299
• 71.444 DynaPDF.SetViewerPreferences	3300
• 71.445 DynaPDF.SetWMFDefExtent	3301
• 71.446 DynaPDF.SetWMFPixelPerInch	3302
• 71.447 DynaPDF.SetWordSpacing	3303
• 71.448 DynaPDF.SetXFASStream	3304
• 71.449 DynaPDF.ShowDifferences	3305
• 71.450 DynaPDF.SkewCoords	3307
• 71.451 DynaPDF.SquareAnnot	3309
• 71.452 DynaPDF.StampAnnot	3311
• 71.453 DynaPDF.StrokePath	3313
• 71.454 DynaPDF.SysFontInfo	3315
• 71.455 DynaPDF.Table.AddColumn	3317
• 71.456 DynaPDF.Table.AddRow	3318
• 71.457 DynaPDF.Table.AddRows	3320
• 71.458 DynaPDF.Table.ClearColumn	3321
• 71.459 DynaPDF.Table.ClearContent	3322
• 71.460 DynaPDF.Table.ClearRow	3324
• 71.461 DynaPDF.Table.Create	3326
• 71.462 DynaPDF.Table.DeleteCol	3329
• 71.463 DynaPDF.Table.DeleteRow	3330
• 71.464 DynaPDF.Table.DeleteRows	3331
• 71.465 DynaPDF.Table.Draw	3332
• 71.466 DynaPDF.Table.GetFirstRow	3335
• 71.467 DynaPDF.Table.GetNextHeight	3336
• 71.468 DynaPDF.Table.GetNextHeightRow	3337
• 71.469 DynaPDF.Table.GetNextRow	3338
• 71.470 DynaPDF.Table.GetNumCols	3339
• 71.471 DynaPDF.Table.GetNumRows	3340

- 71.472 DynaPDF.Table.GetPDF 3341
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.475 DynaPDF.Table.HaveMore 3344
- 71.476 DynaPDF.Table.Release 3345
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.478 DynaPDF.Table.SetBoxProperty 3348
- 71.479 DynaPDF.Table.SetCellAction 3350
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.482 DynaPDF.Table.SetCellOrientation 3357
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.489 DynaPDF.Table.SetColor 3372
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.491 DynaPDF.Table.SetFlags 3376
- 71.492 DynaPDF.Table.SetFont 3378
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.494 DynaPDF.Table.SetFontSize 3381
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.496 DynaPDF.Table.SetPDF 3385
- 71.497 DynaPDF.Table.SetRGBColor 3386
- 71.498 DynaPDF.Table.SetRowHeight 3388
- 71.499 DynaPDF.Table.SetTableWidth 3389
- 71.500 DynaPDF.TextAnnot 3391

	601
• 71.501 DynaPDF.TranslateCoords	3393
• 71.502 DynaPDF.Triangle	3395
• 71.503 DynaPDF.UnlockLayer	3397
• 71.504 DynaPDF.Uninitialize	3398
• 71.505 DynaPDF.WatermarkAnnot	3399
• 71.506 DynaPDF.WebLink	3401
• 71.507 DynaPDF.WriteDemoText	3404
• 71.508 DynaPDF.WriteFText	3406
• 71.509 DynaPDF.WriteFTextEx	3408
• 71.510 DynaPDF.WriteFTextExRotated	3412
• 71.511 DynaPDF.WriteStyledText	3414
• 71.512 DynaPDF.WriteStyledTextEx	3416
• 71.513 DynaPDF.WriteStyledTextExRotated	3418
• 71.514 DynaPDF.WriteText	3420
• 152.1 ECKey.BuiltInCurves	7175
• 152.2 ECKey.CanSign	7177
• 152.3 ECKey.Description	7178
• 152.4 ECKey.Duplicate	7179
• 152.5 ECKey.Generate	7180
• 152.6 ECKey.PrivateKey	7182
• 152.7 ECKey.PublicKey	7183
• 152.8 ECKey.ReadPrivateKey	7184
• 152.9 ECKey.ReadPublicKey	7185
• 152.10 ECKey.Release	7186
• 152.11 ECKey.Sign	7187
• 152.12 ECKey.Size	7188
• 152.13 ECKey.Valid	7189
• 152.14 ECKey.Verify	7190
• 178.2 Email.Verify	8359

- 73.1 EmailParser.Address 3459
- 73.2 EmailParser.AddressCount 3461
- 73.3 EmailParser.AttachedEmails 3462
- 73.4 EmailParser.Attachment 3463
- 73.5 EmailParser.AttachmentCount 3465
- 73.6 EmailParser.Free 3466
- 73.7 EmailParser.HTMLText 3468
- 73.8 EmailParser.HTMLToPlainText 3470
- 73.9 EmailParser.HasHeader 3471
- 73.10 EmailParser.Hash 3472
- 73.11 EmailParser.Header 3473
- 73.12 EmailParser.HeaderCount 3475
- 73.13 EmailParser.HeaderValue 3476
- 73.14 EmailParser.Inline 3477
- 73.15 EmailParser.InlineCount 3479
- 73.16 EmailParser.List 3480
- 73.17 EmailParser.MessageID 3481
- 73.18 EmailParser.Parse 3482
- 73.19 EmailParser.ParseContainer 3486
- 73.20 EmailParser.ParseFile 3487
- 73.21 EmailParser.PlainText 3488
- 73.22 EmailParser.ProcessImageReferences 3490
- 73.23 EmailParser.ReceiveDate 3491
- 73.24 EmailParser.SentDate 3492
- 73.25 EmailParser.Source 3493
- 73.26 EmailParser.SourceWithoutAttachments 3494
- 73.27 EmailParser.Subject 3495
- 73.28 EmailParser.WriteAttachment 3497
- 73.29 EmailParser.WriteInline 3498

	603
• 74.1 Encryption.Cipher	3499
• 74.2 Encryption.CipherNames	3505
• 74.3 Encryption.DecryptAES	3506
• 74.4 Encryption.DecryptBlowfish	3508
• 74.5 Encryption.DecryptContainerAES	3510
• 74.6 Encryption.DecryptContainerBlowfish	3512
• 74.7 Encryption.DigestNames	3514
• 74.8 Encryption.EncryptAES	3515
• 74.9 Encryption.EncryptBlowfish	3517
• 74.10 Encryption.EncryptContainerAES	3519
• 74.11 Encryption.EncryptContainerBlowfish	3521
• 75.1 EnvironmentVariables.ClearValue	3539
• 75.2 EnvironmentVariables.Count	3541
• 75.3 EnvironmentVariables.Name	3542
• 75.4 EnvironmentVariables.Names	3543
• 75.5 EnvironmentVariables.SetValue	3544
• 75.6 EnvironmentVariables.Value	3545
• 76.3 EventMonitor.GetEnabled	3549
• 76.10 EventMonitor.SetEnabled	3558
• 80.2 FM.Argument	3939
• 80.3 FM.ArgumentCount	3940
• 80.4 FM.Beep	3941
• 81.3 FM.CompareTables	4127
• 80.7 FM.CurrentLayoutID	3947
• 80.8 FM.CurrentLayoutName	3948
• 80.9 FM.CurrentScriptID	3949
• 80.10 FM.CurrentScriptName	3950
• 80.11 FM.CurrentThreadID	3951
• 80.12 FM.DataType	3952

• 81.4 FM.DeleteRecord	4131
• 81.5 FM.DeleteRecords	4134
• 80.19 FM.Evaluate	3963
• 81.6 FM.ExecuteFileSQL	4137
• 81.7 FM.ExecuteFileSQLOnIdle	4144
• 81.8 FM.ExecuteSQL	4146
• 81.9 FM.ExecuteSQL.LastError	4152
• 81.10 FM.ExecuteSQL.LastErrorMessage	4154
• 81.11 FM.ExecuteSQL.LastSQL	4157
• 81.13 FM.GetSQLBatchMode	4161
• 80.31 FM.InitMessageFilter	3992
• 81.14 FM.InsertOrUpdateRecord	4162
• 81.15 FM.InsertOrUpdateRecord2	4165
• 81.16 FM.InsertOrUpdateRecord3	4168
• 81.17 FM.InsertOrUpdateRecordQuery	4171
• 81.18 FM.InsertRecord	4173
• 81.19 FM.InsertRecordCSV	4177
• 81.20 FM.InsertRecordQuery	4180
• 81.21 FM.InsertRecordQueryIgnoreDuplicates	4184
• 81.22 FM.InsertRecordTSV	4187
• 80.42 FM.IsMainThread	4023
• 80.43 FM.LayoutIDForLayoutName	4024
• 80.44 FM.LayoutNameForLayoutID	4025
• 80.45 FM.LayoutNames	4026
• 80.46 FM.Loop	4027
• 80.47 FM.MainThreadID	4031
• 81.24 FM.NULL	4192
• 80.51 FM.QueryBaseTableNames	4037
• 80.52 FM.QueryFieldsForBaseTableName	4038



	605
• 80.53 FM.QueryFieldsForTableName	4039
• 80.54 FM.QueryTableNames	4041
• 80.60 FM.SQL.Avg	4051
• 81.25 FM.SQL.CSV	4193
• 81.26 FM.SQL.Execute	4196
• 81.27 FM.SQL.Field	4199
• 81.28 FM.SQL.FieldCount	4201
• 81.29 FM.SQL.FieldType	4203
• 81.30 FM.SQL.InsertRecords	4204
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 102.2 FM.SQL.JSONRecord	5306
• 102.3 FM.SQL.JSONRecords	5308
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.34 FM.SQL.Release	4213
• 81.35 FM.SQL.RowCount	4215
• 80.74 FM.SQL.Sum	4081
• 81.36 FM.SQL.Text	4217
• 80.76 FM.ScriptIDForScriptName	4086
• 80.77 FM.ScriptNameForScriptID	4087
• 80.78 FM.ScriptNames	4088
• 81.37 FM.SetSQLBatchMode	4220
• 80.81 FM.SetThreadName	4092
• 80.82 FM.StopScriptIdle	4093
• 80.83 FM.TableStatistics	4094
• 81.38 FM.UpdateRecord	4222
• 80.85 FM.UpdateRecord2	4100
• 80.86 FM.UpdateRecord3	4102
• 81.39 FM.UpdateRecords	4225

- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109
- 181.1 FM.VariableAdd 8387
- 181.2 FM.VariableAppend 8389
- 181.3 FM.VariableClear 8390
- 181.4 FM.VariableClearAll 8391
- 181.5 FM.VariableExists 8392
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397
- 181.10 FM.VariableSet 8398
- 84.1 FSEvents.Create 4263
- 84.2 FSEvents.CreateRelativeToDevice 4267
- 84.3 FSEvents.CurrentEventId 4268
- 84.4 FSEvents.Description 4269
- 84.5 FSEvents.DeviceBeingWatched 4270
- 84.6 FSEvents.DeviceID 4271
- 84.7 FSEvents.EventCount 4272
- 84.8 FSEvents.FlushASync 4273
- 84.9 FSEvents.FlushSync 4274
- 84.10 FSEvents.GetEvaluate 4275
- 84.11 FSEvents.GetExclusionPaths 4276
- 84.12 FSEvents.GetFileName 4277
- 84.13 FSEvents.GetScriptName 4278
- 84.14 FSEvents.HasNextEvent 4279
- 84.15 FSEvents.LastEventIdForDeviceBeforeTime 4280
- 84.16 FSEvents.LatestEventId 4281
- 84.17 FSEvents.NextEvent 4282

	607
• 84.18 FSEvents.PathsBeingWatched	4286
• 84.19 FSEvents.Release	4287
• 84.21 FSEvents.SetExclusionPaths	4289
• 84.24 FSEvents.Show	4292
• 84.25 FSEvents.Start	4293
• 84.26 FSEvents.Started	4294
• 84.27 FSEvents.Stop	4295
• 84.28 FSEvents.UUIDForDevice	4296
• 79.1 Files.AccessDate	3825
• 79.2 Files.AddedToDirectoryDate	3827
• 79.3 Files.AppPath	3828
• 79.4 Files.AudioTags	3829
• 79.5 Files.CanOpenFile	3831
• 79.6 Files.CopyFile	3832
• 79.7 Files.CopyFiles	3834
• 79.8 Files.CreateAlias	3836
• 79.9 Files.CreateBookmark	3838
• 79.10 Files.CreateDirectory	3839
• 79.11 Files.CreateHardLink	3841
• 79.12 Files.CreateSymbolicLink	3843
• 79.13 Files.CreationDate	3844
• 79.14 Files.Delete	3846
• 79.15 Files.DeleteFolder	3848
• 79.16 Files.DirectoryExists	3850
• 79.17 Files.DiskInfo	3852
• 79.18 Files.FileDisplayName	3854
• 79.19 Files.FileExists	3855
• 79.20 Files.FileExtension	3857
• 79.21 Files.FileInfo	3858

- 79.22 Files.FileKind 3860
- 79.23 Files.FileName 3861
- 79.24 Files.FileSize 3862
- 79.25 Files.FileUTITypes 3864
- 79.26 Files.FolderSize 3865
- 79.27 Files.GetComment 3867
- 79.28 Files.GetFinderLabel 3868
- 79.29 Files.GetNodeID 3869
- 79.30 Files.GetPathFromNodeID 3871
- 79.31 Files.GetPosixPermissions 3873
- 79.32 Files.GetTagNames 3874
- 79.33 Files.IsHidden 3875
- 79.34 Files.ItemExists 3876
- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 79.37 Files.List 3882
- 79.38 Files.ListRecursive 3885
- 79.39 Files.ListVolumes 3887
- 79.40 Files.ModificationDate 3888
- 79.41 Files.Mount 3890
- 79.42 Files.MountPath 3893
- 79.43 Files.MoveFile 3894
- 79.44 Files.MoveToTrash 3896
- 79.45 Files.ReadFile 3898
- 79.46 Files.ReadJPEG 3901
- 79.47 Files.ReadPDF 3903
- 79.48 Files.ReadPNG 3905
- 79.49 Files.RenameFile 3907
- 79.50 Files.ResolveAlias 3909

	609
• 79.51 Files.ResolveBookmark	3911
• 79.53 Files.SetAudioTags	3914
• 79.54 Files.SetComment	3916
• 79.55 Files.SetCreationDate	3917
• 79.56 Files.SetFinderLabel	3918
• 79.57 Files.SetHidden	3919
• 79.58 Files.SetModificationDate	3920
• 79.59 Files.SetPosixPermissions	3921
• 79.60 Files.SetTagNames	3923
• 79.61 Files.Unmount	3924
• 79.62 Files.WriteFile	3925
• 82.1 Folders.Applications	4227
• 82.2 Folders.LocalFonts	4228
• 82.3 Folders.LocalPreferences	4229
• 82.4 Folders.SharedDocuments	4230
• 82.5 Folders.System	4231
• 82.6 Folders.SystemFonts	4232
• 82.7 Folders.SystemTemporary	4233
• 82.8 Folders.UserDesktop	4235
• 82.9 Folders.UserDocuments	4237
• 82.11 Folders.UserFonts	4240
• 82.12 Folders.UserHome	4241
• 82.13 Folders.UserMusic	4242
• 82.14 Folders.UserPictures	4243
• 82.15 Folders.UserPreferences	4244
• 82.16 Folders.UserTemporary	4245
• 82.17 Folders.UserTrash	4247
• 82.18 Folders.UserVideo	4248
• 82.19 Folders.Windows	4249

- 83.2 Font.CalculateTextFits 4253
- 83.3 Font.CalculateTextHeight 4255
- 83.4 Font.CalculateTextWidth 4257
- 87.1 GMImage.AdaptiveThreshold 4399
- 87.2 GMImage.AddNoise 4401
- 87.3 GMImage.AddNoiseChannel 4402
- 87.4 GMImage.AddPathArcAbs 4403
- 87.5 GMImage.AddPathArcRel 4405
- 87.6 GMImage.AddPathClosePath 4407
- 87.7 GMImage.AddPathCurvetoAbs 4408
- 87.8 GMImage.AddPathCurvetoRel 4410
- 87.9 GMImage.AddPathLinetoAbs 4412
- 87.10 GMImage.AddPathLinetoHorizontalAbs 4413
- 87.11 GMImage.AddPathLinetoHorizontalRel 4414
- 87.12 GMImage.AddPathLinetoRel 4415
- 87.13 GMImage.AddPathLinetoVerticalAbs 4416
- 87.14 GMImage.AddPathLinetoVerticalRel 4417
- 87.15 GMImage.AddPathMovetoAbs 4418
- 87.16 GMImage.AddPathMovetoRel 4419
- 87.17 GMImage.AddPathQuadraticCurvetoAbs 4420
- 87.18 GMImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GMImage.AddPathSmoothCurvetoAbs 4422
- 87.20 GMImage.AddPathSmoothCurvetoRel 4423
- 87.21 GMImage.AddPathSmoothQuadraticCurvetoAbs 4424
- 87.22 GMImage.AddPathSmoothQuadraticCurvetoRel 4425
- 87.23 GMImage.Affine 4426
- 87.24 GMImage.Annotate 4427
- 87.25 GMImage.AutoOrient 4431
- 87.26 GMImage.AveragePixelValue 4432

	611
• 87.27 GMImage.BaseColumns	4434
• 87.28 GMImage.BaseFilename	4435
• 87.29 GMImage.BaseRows	4436
• 87.30 GMImage.Blur	4437
• 87.31 GMImage.BlurChannel	4439
• 87.32 GMImage.Border	4440
• 87.33 GMImage.BoundingBox	4442
• 87.34 GMImage.Channel	4443
• 87.35 GMImage.Charcoal	4445
• 87.36 GMImage.Chop	4447
• 87.37 GMImage.ClipMask	4448
• 87.38 GMImage.ClipPath	4449
• 87.39 GMImage.Coders	4450
• 87.40 GMImage.Colorize	4451
• 87.41 GMImage.ColorizeRGB	4453
• 87.42 GMImage.Columns	4455
• 87.43 GMImage.Compare	4456
• 87.44 GMImage.Composite	4458
• 87.45 GMImage.CompositeXY	4460
• 87.46 GMImage.Contrast	4462
• 87.47 GMImage.Copy	4463
• 87.48 GMImage.CopyChannel	4464
• 87.49 GMImage.Crop	4467
• 87.50 GMImage.CycleColormap	4469
• 87.51 GMImage.Despeckle	4470
• 87.52 GMImage.Directory	4471
• 87.53 GMImage.DrawArc	4472
• 87.54 GMImage.DrawCircle	4474
• 87.55 GMImage.DrawEllipse	4476

- 87.56 GImage.DrawLine 4478
- 87.57 GImage.DrawPath 4480
- 87.58 GImage.DrawRectangle 4481
- 87.59 GImage.DrawRoundRectangle 4484
- 87.60 GImage.Edge 4486
- 87.61 GImage.Emboss 4487
- 87.62 GImage.Enhance 4489
- 87.63 GImage.Equalize 4490
- 87.64 GImage.Erase 4491
- 87.65 GImage.ExifThumbnail 4492
- 87.66 GImage.Extent 4493
- 87.67 GImage.FillPattern 4495
- 87.68 GImage.FindColorInColumn 4496
- 87.69 GImage.FindColorInRow 4498
- 87.70 GImage.Flip 4500
- 87.71 GImage.FloodFillColor 4502
- 87.72 GImage.FloodFillColorXY 4504
- 87.73 GImage.FloodFillOpacity 4506
- 87.74 GImage.FloodFillTexture 4507
- 87.75 GImage.FloodFillTextureXY 4508
- 87.76 GImage.Flop 4509
- 87.77 GImage.FontMap 4511
- 87.78 GImage.FontTypeMetrics 4512
- 87.79 GImage.Format 4514
- 87.80 GImage.Frame 4515
- 87.81 GImage.Free 4517
- 87.82 GImage.FreeAll 4519
- 87.83 GImage.Gamma 4520
- 87.84 GImage.GaussianBlur 4521



	613
• 87.85 GMImage.GaussianBlurChannel	4522
• 87.86 GMImage.Geometry	4523
• 87.87 GMImage.GetAdjoin	4524
• 87.88 GMImage.GetAnimationDelay	4525
• 87.89 GMImage.GetAnimationIterations	4526
• 87.90 GMImage.GetAntiAlias	4527
• 87.91 GMImage.GetAttribute	4528
• 87.92 GMImage.GetAttributeNames	4530
• 87.93 GMImage.GetAttributesJSON	4531
• 87.94 GMImage.GetBackgroundColor	4533
• 87.95 GMImage.GetBackgroundTexture	4534
• 87.96 GMImage.GetBorderColor	4535
• 87.97 GMImage.GetBoxColor	4536
• 87.98 GMImage.GetChannelDepth	4537
• 87.99 GMImage.GetClassType	4538
• 87.100 GMImage.GetClipMask	4539
• 87.101 GMImage.GetColorFuzz	4540
• 87.102 GMImage.GetColorMapSize	4541
• 87.103 GMImage.GetColorSpace	4542
• 87.104 GMImage.GetComment	4544
• 87.105 GMImage.GetCompose	4545
• 87.106 GMImage.GetCompressType	4546
• 87.107 GMImage.GetDebug	4547
• 87.108 GMImage.GetDefineSet	4548
• 87.109 GMImage.GetDefineValue	4549
• 87.110 GMImage.GetDensity	4550
• 87.111 GMImage.GetDepth	4551
• 87.112 GMImage.GetEXIFOrientation	4552
• 87.113 GMImage.GetEndian	4553

- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.116 GImage.GetFillColor 4556
- 87.117 GImage.GetFillRule 4557
- 87.118 GImage.GetFilterType 4558
- 87.119 GImage.GetFont 4559
- 87.120 GImage.GetFontSize 4560
- 87.121 GImage.GetGamma 4561
- 87.122 GImage.GetGifDisposeMethod 4562
- 87.123 GImage.GetHeight 4563
- 87.124 GImage.GetICCColorProfile 4565
- 87.125 GImage.GetIPTCProfile 4566
- 87.126 GImage.GetIPTCProfileValues 4567
- 87.127 GImage.GetInterlaceType 4568
- 87.128 GImage.GetIsValid 4569
- 87.129 GImage.GetJPEGAsBase64 4570
- 87.130 GImage.GetJPEGAsHex 4571
- 87.131 GImage.GetLabel 4572
- 87.132 GImage.GetLineWidth 4573
- 87.133 GImage.GetMagick 4574
- 87.134 GImage.GetMatte 4575
- 87.135 GImage.GetMatteColor 4576
- 87.136 GImage.GetModulusDepth 4577
- 87.137 GImage.GetMonochrome 4578
- 87.138 GImage.GetOrientation 4579
- 87.139 GImage.GetPNGAsBase64 4581
- 87.140 GImage.GetPNGAsHex 4582
- 87.141 GImage.GetPage 4583
- 87.142 GImage.GetPixelColor 4584

	615
• 87.143 GImage.GetProfile	4586
• 87.144 GImage.GetQuality	4587
• 87.145 GImage.GetQuantizeColorSpace	4588
• 87.146 GImage.GetQuantizeColors	4589
• 87.147 GImage.GetQuantizeDither	4590
• 87.148 GImage.GetQuantizeTreeDepth	4591
• 87.149 GImage.GetQuiet	4592
• 87.150 GImage.GetRenderingIntent	4593
• 87.151 GImage.GetResolutionUnits	4594
• 87.152 GImage.GetScene	4595
• 87.153 GImage.GetSize	4596
• 87.154 GImage.GetStrokeAntiAlias	4597
• 87.155 GImage.GetStrokeColor	4598
• 87.156 GImage.GetStrokeDashArray	4599
• 87.157 GImage.GetStrokeDashOffset	4600
• 87.158 GImage.GetStrokeLineCap	4601
• 87.159 GImage.GetStrokeLineJoin	4602
• 87.160 GImage.GetStrokeMiterLimit	4603
• 87.161 GImage.GetStrokeWidth	4604
• 87.162 GImage.GetSubImage	4605
• 87.163 GImage.GetSubRange	4606
• 87.164 GImage.GetTextEncoding	4607
• 87.165 GImage.GetTileName	4608
• 87.166 GImage.GetType	4609
• 87.167 GImage.GetVerbose	4610
• 87.168 GImage.GetView	4611
• 87.169 GImage.GetWidth	4612
• 87.170 GImage.GetXMP	4614
• 87.171 GImage.GetcolorMap	4616

- 87.172 GImage.Hash 4617
- 87.173 GImage.ImageCount 4619
- 87.174 GImage.Implode 4620
- 87.175 GImage.InvertChannel 4621
- 87.176 GImage.IsGray 4623
- 87.177 GImage.Level 4624
- 87.178 GImage.LevelChannel 4625
- 87.179 GImage.List 4627
- 87.180 GImage.Magnify 4628
- 87.181 GImage.Map 4629
- 87.182 GImage.MatteFloodfill 4630
- 87.183 GImage.MeanErrorPerPixel 4631
- 87.184 GImage.MedianFilter 4632
- 87.185 GImage.Minify 4633
- 87.186 GImage.Modulate 4634
- 87.187 GImage.MontageGeometry 4636
- 87.188 GImage.MotionBlur 4637
- 87.189 GImage.MultiplyChannel 4638
- 87.190 GImage.Negate 4640
- 87.191 GImage.New 4642
- 87.192 GImage.NewFromBase64 4645
- 87.193 GImage.NewFromContainer 4646
- 87.194 GImage.NewFromFile 4648
- 87.195 GImage.NewFromHex 4650
- 87.196 GImage.NewImagesFromContainer 4651
- 87.197 GImage.NewImagesFromFile 4652
- 87.198 GImage.Normalize 4654
- 87.199 GImage.NormalizedMaxError 4655
- 87.200 GImage.NormalizedMeanError 4657

	617
• 87.201 GImage.OilPaint	4658
• 87.202 GImage.Opacity	4659
• 87.203 GImage.Opaque	4660
• 87.204 GImage.PopClipPath	4661
• 87.205 GImage.PurgeTemporaryFiles	4662
• 87.206 GImage.PushClipPath	4663
• 87.207 GImage.Quantize	4664
• 87.208 GImage.QuantumDepth	4666
• 87.209 GImage.Raise	4667
• 87.210 GImage.RandomThreshold	4669
• 87.211 GImage.RandomThresholdChannel	4670
• 87.212 GImage.Read	4671
• 86.1 GImage.ReadFromContainer	4395
• 87.213 GImage.ReduceNoise	4673
• 87.214 GImage.Release	4674
• 87.215 GImage.ReleaseAll	4676
• 87.216 GImage.Repage	4677
• 87.217 GImage.ReplaceColor	4678
• 87.218 GImage.Resize	4681
• 87.219 GImage.Roll	4683
• 87.220 GImage.Rollxy	4684
• 87.221 GImage.Rotate	4685
• 87.222 GImage.Rotating	4687
• 87.223 GImage.Rows	4688
• 87.224 GImage.Sample	4689
• 87.225 GImage.Scale	4690
• 87.226 GImage.Scaling	4694
• 87.227 GImage.Segment	4695
• 87.228 GImage.SetAdjoin	4696

- 87.229 GImage.SetAnimationDelay 4697
- 87.230 GImage.SetAnimationIterations 4698
- 87.231 GImage.SetAntiAlias 4699
- 87.232 GImage.SetAttribute 4700
- 87.233 GImage.SetBackgroundColor 4701
- 87.234 GImage.SetBackgroundTexture 4703
- 87.235 GImage.SetBorderColor 4704
- 87.236 GImage.SetBoxColor 4706
- 87.237 GImage.SetCacheThreshold 4707
- 87.238 GImage.SetClassType 4708
- 87.239 GImage.SetColorFuzz 4709
- 87.240 GImage.SetColorMapSize 4711
- 87.241 GImage.SetColorSpace 4712
- 87.242 GImage.SetComment 4713
- 87.243 GImage.SetCompose 4714
- 87.244 GImage.SetCompressType 4715
- 87.245 GImage.SetDebug 4717
- 87.246 GImage.SetDefineSet 4718
- 87.247 GImage.SetDefineValue 4719
- 87.248 GImage.SetDensity 4720
- 87.249 GImage.SetDepth 4722
- 87.250 GImage.SetEXIFOrientation 4723
- 87.251 GImage.SetEndian 4724
- 87.252 GImage.SetFileName 4725
- 87.253 GImage.SetFillColor 4726
- 87.254 GImage.SetFillRule 4728
- 87.255 GImage.SetFilterType 4729
- 87.256 GImage.SetFont 4730
- 87.257 GImage.SetFontPointsize 4731

	619
• 87.258 GImage.SetGifDisposeMethod	4732
• 87.259 GImage.SetICCColorProfile	4733
• 87.260 GImage.SetIPTCProfile	4735
• 87.261 GImage.SetInterlaceType	4736
• 87.262 GImage.SetIsValid	4737
• 87.263 GImage.SetLabel	4738
• 87.264 GImage.SetLineWidth	4739
• 87.265 GImage.SetMagick	4740
• 87.266 GImage.SetMatte	4742
• 87.267 GImage.SetMatteColor	4744
• 87.268 GImage.SetModulusDepth	4745
• 87.269 GImage.SetMonochrome	4746
• 87.270 GImage.SetOrientation	4747
• 87.271 GImage.SetPage	4749
• 87.272 GImage.SetPixelColor	4750
• 87.273 GImage.SetProfile	4752
• 87.274 GImage.SetQuality	4754
• 87.275 GImage.SetQuantizeColorSpace	4756
• 87.276 GImage.SetQuantizeColors	4757
• 87.277 GImage.SetQuantizeDither	4758
• 87.278 GImage.SetQuantizeTreeDepth	4759
• 87.279 GImage.SetQuiet	4760
• 87.280 GImage.SetRenderingIntent	4761
• 87.281 GImage.SetResolutionUnits	4762
• 87.282 GImage.SetScene	4764
• 87.283 GImage.SetSize	4765
• 87.284 GImage.SetStrokeAntiAlias	4766
• 87.285 GImage.SetStrokeColor	4768
• 87.286 GImage.SetStrokeDashArray	4770

- 87.287 GImage.SetStrokeDashOffset 4771
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773
- 87.290 GImage.SetStrokeMiterLimit 4774
- 87.291 GImage.SetStrokeWidth 4775
- 87.292 GImage.SetSubImage 4776
- 87.293 GImage.SetSubRange 4777
- 87.294 GImage.SetTextEncoding 4778
- 87.295 GImage.SetTileName 4779
- 87.296 GImage.SetType 4780
- 87.297 GImage.SetVerbose 4783
- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.300 GImage.SetchannelDepth 4786
- 87.301 GImage.SetcolorMap 4787
- 87.302 GImage.Shade 4788
- 87.303 GImage.Sharpen 4789
- 87.304 GImage.SharpenChannel 4791
- 87.305 GImage.Shave 4792
- 87.306 GImage.Shear 4794
- 87.307 GImage.Signature 4795
- 87.308 GImage.SkewX 4796
- 87.309 GImage.SkewY 4797
- 87.310 GImage.Solarize 4798
- 87.311 GImage.Spread 4800
- 87.312 GImage.Stegano 4801
- 87.313 GImage.Stereo 4802
- 87.314 GImage.Strip 4803
- 87.315 GImage.StrokePattern 4804



	621
• 87.316 GImage.Swirl	4805
• 87.317 GImage.Texture	4806
• 87.318 GImage.Threshold	4807
• 87.319 GImage.TotalColors	4809
• 87.320 GImage.Transform	4810
• 87.321 GImage.TransformOrigin	4811
• 87.322 GImage.TransformReset	4813
• 87.323 GImage.TransformRotation	4814
• 87.324 GImage.TransformScale	4815
• 87.325 GImage.TransformSkewX	4816
• 87.326 GImage.TransformSkewY	4817
• 87.327 GImage.Translation	4818
• 87.328 GImage.Transparent	4819
• 87.329 GImage.Trim	4821
• 87.330 GImage.Unsharpmask	4823
• 87.331 GImage.UnsharpmaskChannel	4824
• 87.332 GImage.Wave	4825
• 87.333 GImage.WriteImages	4826
• 87.334 GImage.WriteToBMPContainer	4828
• 87.335 GImage.WriteToContainer	4829
• 87.336 GImage.WriteToFile	4831
• 87.337 GImage.WriteToGIFContainer	4834
• 87.338 GImage.WriteToJPEGContainer	4836
• 87.339 GImage.WriteToPDFContainer	4838
• 87.340 GImage.WriteToPNGContainer	4840
• 87.341 GImage.WriteToTiffContainer	4843
• 87.342 GImage.XResolution	4845
• 87.343 GImage.YResolution	4846
• 87.344 GImage.Zoom	4847

• 54.1 GZipFile.Compress	1509
• 54.2 GZipFile.Decompress	1511
• 88.1 Hash.CRC32	4849
• 88.2 Hash.Digest	4851
• 88.3 Hash.DigestFile	4855
• 88.4 Hash.MD5	4857
• 88.5 Hash.MD5.HMAC	4859
• 88.6 Hash.PBKDF2.HMAC	4861
• 88.7 Hash.RandomHexString	4863
• 88.8 Hash.RandomString	4864
• 88.9 Hash.SHA1	4866
• 88.10 Hash.SHA1.HMAC	4869
• 88.11 Hash.SHA256	4871
• 88.12 Hash.SHA256.HMAC	4873
• 88.13 Hash.SHA512	4876
• 88.14 Hash.SHA512.HMAC	4878
• 137.1 Icon.ClearIcon	6729
• 137.2 Icon.GetIcon	6731
• 137.3 Icon.GetIconWithQuickLook	6733
• 137.4 Icon.SetIcon	6735
• 127.4 Is64bit	6372
• 127.5 IsClient	6373
• 127.6 IsError	6374
• 127.7 IsIOS	6376
• 127.8 IsIOSDevice	6377
• 127.9 IsIOSSimulator	6378
• 127.10 IsLinux	6379
• 127.11 IsMacOS	6380
• 127.12 IsMobile	6381

	623
• 127.13 IsRegistered	6382
• 127.14 IsRuntime	6385
• 127.15 IsServer	6386
• 127.16 IsWindows	6388
• 100.1 JS.AddFileMakerEvaluateFunction	5253
• 100.2 JS.AddFileMakerRunScriptFunction	5255
• 100.3 JS.AddFileMakerSQLFunction	5257
• 100.4 JS.AddFunction	5258
• 100.5 JS.CallFunction	5260
• 100.6 JS.Evaluate	5262
• 100.7 JS.EvaluateToString	5266
• 100.8 JS.Free	5268
• 100.9 JS.GetGlobalProperty	5270
• 100.10 JS.GetGlobalPropertyValue	5272
• 100.11 JS.New	5273
• 100.12 JS.Now	5275
• 100.13 JS.ObjectCount	5276
• 100.14 JS.SetGlobalProperty	5277
• 100.15 JS.SetGlobalPropertyValue	5279
• 100.16 JS.StringCount	5281
• 100.17 JS.TimeToDateComponents	5282
• 100.18 JS.TimeToUTCDate	5284
• 100.19 JS.UTCDateToTime	5285
• 102.4 JSON.AddArrayToArray	5310
• 102.5 JSON.AddBooleanToObject	5311
• 102.6 JSON.AddFalseToObject	5313
• 102.7 JSON.AddItemToArray	5315
• 102.8 JSON.AddItemToObject	5317
• 102.9 JSON.AddNullToObject	5320

- 102.10 JSON.AddNumberToArray 5322
- 102.11 JSON.AddNumberToObject 5324
- 102.12 JSON.AddStringToArray 5326
- 102.13 JSON.AddStringToObject 5328
- 102.14 JSON.AddTrueToObject 5331
- 102.15 JSON.Clone 5333
- 102.16 JSON.Colorize 5334
- 102.17 JSON.Compact 5336
- 102.18 JSON.CreateArray 5337
- 102.19 JSON.CreateArrayRef 5338
- 102.20 JSON.CreateBool 5341
- 102.21 JSON.CreateBoolean 5342
- 102.22 JSON.CreateDoubleArray 5343
- 102.23 JSON.CreateFalse 5344
- 102.24 JSON.CreateIntegerArray 5345
- 102.25 JSON.CreateNull 5346
- 102.26 JSON.CreateNumber 5347
- 102.27 JSON.CreateObject 5349
- 102.28 JSON.CreateObjectRef 5351
- 102.29 JSON.CreateString 5354
- 102.30 JSON.CreateStringArray 5355
- 102.31 JSON.CreateStringArrayWithList 5356
- 102.32 JSON.CreateTrue 5357
- 102.33 JSON.CreateValue 5358
- 102.34 JSON.DeleteItemFromArray 5359
- 102.35 JSON.DeleteItemFromObject 5360
- 102.36 JSON.EqualContent 5361
- 102.37 JSON.Equals 5362
- 102.38 JSON.FindValueInArray 5364

	625
• 102.39 JSON.FindValueInObjectArray	5366
• 102.40 JSON.Format	5368
• 102.41 JSON.GetArrayItem	5370
• 102.42 JSON.GetArrayItemsAsList	5372
• 102.43 JSON.GetArrayPathItems	5374
• 102.44 JSON.GetArraySize	5376
• 102.45 JSON.GetDoubleValue	5377
• 102.46 JSON.GetIntegerValue	5378
• 102.47 JSON.GetObjectItem	5379
• 102.48 JSON.GetObjectItemTree	5382
• 102.49 JSON.GetObjectItemTreeRef	5383
• 102.50 JSON.GetObjectName	5384
• 102.51 JSON.GetObjectNameList	5385
• 102.52 JSON.GetObjectSize	5386
• 102.53 JSON.GetPathItem	5387
• 102.54 JSON.GetStringValue	5390
• 102.55 JSON.GetType	5392
• 102.56 JSON.GetValue	5393
• 102.57 JSON.Import	5395
• 102.58 JSON.Import.Cancel	5398
• 102.59 JSON.Import.ErrorCount	5399
• 102.60 JSON.Import.Errors	5400
• 102.61 JSON.Import.Status	5401
• 102.62 JSON.Import.TODO	5402
• 102.63 JSON.Import.Total	5403
• 102.64 JSON.Import.Work	5404
• 102.65 JSON.IsValid	5405
• 102.66 JSON.Parse	5406
• 102.67 JSON.Release	5409

- 102.68 JSON.ReleaseAll 5411
- 102.69 JSON.ReplaceItemInArray 5412
- 102.70 JSON.ReplaceItemInObject 5413
- 102.71 JSON.SetPathItem 5414
- 102.72 JSON.Sort 5416
- 102.73 JSON.SortWithEvaluate 5417
- 102.74 JSON.ToHTML 5419
- 99.1 Java.CallObjectMethod 5229
- 99.2 Java.CallStaticMethod 5231
- 99.3 Java.GetContainerFileName 5233
- 99.4 Java.GetObjectField 5234
- 99.5 Java.GetStaticField 5236
- 99.6 Java.Initialize 5238
- 99.7 Java.Initialized 5241
- 99.8 Java.NewClassObject 5242
- 99.9 Java.ObjectClassName 5244
- 99.10 Java.Release 5245
- 99.11 Java.ReleaseAll 5246
- 99.12 Java.SetContainerFileName 5247
- 99.13 Java.SetObjectField 5248
- 99.14 Java.SetStaticField 5250
- 101.1 JavaScript.CheckScriptSyntax 5287
- 101.2 JavaScript.EvaluateScript 5289
- 101.3 JavaScript.GetProperty 5292
- 101.4 JavaScript.HasProperty 5293
- 101.5 JavaScript.New 5294
- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.7 JavaScript.RegisterFunction 5297
- 101.8 JavaScript.RegisterRunScriptFunction 5299

	627
• 101.9 JavaScript.RegisterSQLQueryFunction	5300
• 101.10 JavaScript.Release	5301
• 101.11 JavaScript.SetProperty	5302
• 178.3 LCMS.ProfileInfo	8360
• 104.1 LDAP.Add	5439
• 104.2 LDAP.AddJSON	5441
• 104.3 LDAP.AddList	5445
• 104.4 LDAP.AddRecord	5447
• 104.5 LDAP.Bind	5449
• 104.6 LDAP.Connect	5451
• 104.7 LDAP.Delete	5454
• 104.8 LDAP.GetNetworkTimeOut	5455
• 104.9 LDAP.GetProtocolVersion	5456
• 104.10 LDAP.GetReferrals	5457
• 104.11 LDAP.GetTimeOut	5458
• 104.12 LDAP.JSON	5459
• 104.13 LDAP.Modify	5464
• 104.14 LDAP.ModifyJSON	5465
• 104.15 LDAP.ModifyRecord	5467
• 104.16 LDAP.Release	5469
• 104.17 LDAP.Rename	5470
• 104.18 LDAP.Search	5471
• 104.19 LDAP.SearchResult.AttributeCount	5473
• 104.20 LDAP.SearchResult.AttributeName	5475
• 104.21 LDAP.SearchResult.AttributeNames	5476
• 104.22 LDAP.SearchResult.AttributeValue	5477
• 104.23 LDAP.SearchResult.AttributeValueCount	5478
• 104.24 LDAP.SearchResult.AttributeValues	5479
• 104.25 LDAP.SearchResult.AttributeValuesByName	5481

• 104.26 LDAP.SearchResult.Count	5483
• 104.27 LDAP.SearchResult.DistinguishedName	5485
• 104.28 LDAP.SetNetworkTimeOut	5486
• 104.29 LDAP.SetProtocolVersion	5487
• 104.30 LDAP.SetReferrals	5488
• 104.31 LDAP.SetTimeOut	5489
• 104.32 LDAP.SimpleBind	5490
• 104.33 LDAP.StartTLS	5491
• 105.1 List.AddPostfix	5493
• 105.2 List.AddPrefix	5495
• 105.3 List.AddValue	5496
• 105.4 List.And	5497
• 105.5 List.AndColumn	5499
• 105.6 List.BestMatch	5501
• 105.7 List.CSVSplit	5502
• 105.8 List.CountValues	5504
• 105.9 List.CountValuesMatching	5505
• 105.10 List.CrossProduct	5506
• 105.11 List.DeCombine	5508
• 105.12 List.Deserialize	5510
• 105.13 List.FindEquals	5511
• 105.14 List.FindUnequals	5512
• 105.15 List.GetValue	5514
• 105.16 List.HasDuplicateItems	5515
• 105.17 List.HasValue	5516
• 105.18 List.IndexOfFirstValueMatching	5518
• 105.19 List.InsertValue	5519
• 105.20 List.MatchesPostfix	5520
• 105.21 List.MatchesPrefix	5521



	629
• 105.22 List.Not	5522
• 105.23 List.NotColumn	5523
• 105.24 List.Or	5525
• 105.25 List.OrColumn	5526
• 105.26 List.RegExMatch	5528
• 105.27 List.Remove	5530
• 105.28 List.RemoveDuplicateItems	5531
• 105.29 List.RemoveEmptyItems	5533
• 105.30 List.RemovePostfix	5534
• 105.31 List.RemovePrefix	5536
• 105.32 List.RemoveValue	5538
• 105.33 List.Reverse	5540
• 105.34 List.Serialize	5541
• 105.35 List.SetValue	5542
• 105.36 List.Sort	5543
• 105.37 List.SortWithEvaluate	5546
• 105.38 List.SubList	5548
• 105.39 List.Trim	5550
• 105.40 List.ValueIndex	5551
• 105.41 List.XOr	5552
• 105.42 List.XOrColumn	5553
• 178.4 Log	8361
• 108.10 MapView.FormatDistance	5739
• 108.51 MapView.ParseDistance	5782
• 108.52 MapView.PlanRoute	5783
• 108.58 MapView.RemoveOverlays	5790
• 108.95 MapView.Snapshot	5832
• 109.1 Markdown.CSS	5835
• 109.2 Markdown.Create	5836

- 109.3 Markdown.HTML 5837
- 109.4 Markdown.Release 5838
- 110.1 Math.BitwiseAND 5839
- 110.2 Math.BitwiseNOT 5841
- 110.3 Math.BitwiseOR 5842
- 110.4 Math.BitwiseShiftLeft 5843
- 110.5 Math.BitwiseShiftRight 5844
- 110.6 Math.BitwiseXOR 5845
- 110.7 Math.DecToHex 5846
- 110.8 Math.DecodeNumber 5847
- 110.9 Math.EncodeNumber 5849
- 110.10 Math.HexToDec 5851
- 110.11 Math.InchToPixel 5852
- 110.12 Math.InsidePolygon 5853
- 110.13 Math.IsValidCC 5854
- 110.14 Math.MillimeterToPixel 5855
- 110.15 Math.NumberToText 5856
- 110.16 Math.PixelToInch 5857
- 110.17 Math.PixelToMillimeter 5858
- 110.18 Math.PolylineDecode 5859
- 110.19 Math.PolylineEncode 5860
- 110.20 Math.TextToNumber 5862
- 111.1 Matrix.Add 5865
- 111.2 Matrix.AddColumn 5868
- 111.3 Matrix.AddColumns 5869
- 111.4 Matrix.AddRow 5870
- 111.5 Matrix.AddRows 5871
- 111.6 Matrix.Avg 5872
- 111.7 Matrix.CSV 5873

	631
• 111.8 Matrix.Clear	5875
• 111.9 Matrix.ClearValues	5876
• 111.10 Matrix.Clone	5877
• 111.11 Matrix.CopyColumn	5878
• 111.12 Matrix.CopyRow	5879
• 111.13 Matrix.DataType	5880
• 111.14 Matrix.Evaluate	5881
• 111.15 Matrix.Free	5883
• 111.16 Matrix.GetColumn	5884
• 111.17 Matrix.GetColumnName	5885
• 111.18 Matrix.GetColumnNames	5886
• 111.19 Matrix.GetRow	5887
• 111.20 Matrix.GetRowName	5888
• 111.21 Matrix.GetRowNames	5889
• 111.22 Matrix.GetText	5890
• 111.23 Matrix.GetValue	5891
• 111.24 Matrix.Height	5893
• 111.25 Matrix.InsertRecords	5894
• 111.26 Matrix.InsertRecordsToSQL	5896
• 111.27 Matrix.JSONRecord	5898
• 111.28 Matrix.JSONRecords	5899
• 111.29 Matrix.Max	5900
• 111.30 Matrix.Min	5901
• 111.31 Matrix.New	5902
• 111.32 Matrix.NewWithSQL	5904
• 111.33 Matrix.RemoveColumn	5905
• 111.34 Matrix.RemoveRow	5906
• 111.35 Matrix.Resize	5907
• 111.36 Matrix.SetColumn	5908

- 111.37 Matrix.SetColumnName 5910
- 111.38 Matrix.SetRow 5912
- 111.39 Matrix.SetRowName 5914
- 111.40 Matrix.SetValue 5916
- 111.41 Matrix.Sum 5918
- 111.42 Matrix.Text 5920
- 111.43 Matrix.Width 5922
- 112.1 MatrixDongle.Count 5923
- 112.2 MatrixDongle.Find 5925
- 112.3 MatrixDongle.GetDriverFlag 5926
- 112.4 MatrixDongle.GetVersionAPI 5927
- 112.5 MatrixDongle.GetVersionDRV 5928
- 112.6 MatrixDongle.GetVersionDRV.USB 5929
- 112.7 MatrixDongle.Initialize 5930
- 112.8 MatrixDongle.Initialized 5932
- 112.9 MatrixDongle.MemorySize 5933
- 112.10 MatrixDongle.Model 5934
- 112.11 MatrixDongle.ReadHex 5935
- 112.12 MatrixDongle.ReadSerialNumber 5937
- 112.13 MatrixDongle.ReadText 5938
- 112.14 MatrixDongle.Release 5940
- 112.15 MatrixDongle.SetDriverFlag 5941
- 112.16 MatrixDongle.Version 5943
- 112.17 MatrixDongle.WriteHex 5944
- 112.18 MatrixDongle.WriteText 5945
- 117.1 MetaDataQuery.AttributesForFile 6131
- 117.2 MetaDataQuery.Close 6133
- 117.3 MetaDataQuery.Create 6134
- 117.4 MetaDataQuery.GetEvaluate 6135

	633
• 117.5 MetaDataQuery.GetScriptFileName	6136
• 117.6 MetaDataQuery.GetScriptName	6137
• 117.7 MetaDataQuery.IsGathering	6138
• 117.8 MetaDataQuery.IsStarted	6139
• 117.9 MetaDataQuery.IsStopped	6140
• 117.10 MetaDataQuery.PathAtIndex	6141
• 117.11 MetaDataQuery.Paths	6143
• 117.12 MetaDataQuery.QueryString	6144
• 117.13 MetaDataQuery.ResultAtIndex	6145
• 117.14 MetaDataQuery.ResultCount	6146
• 117.15 MetaDataQuery.Results	6147
• 117.16 MetaDataQuery.SearchScopes	6148
• 117.17 MetaDataQuery.SetEvaluate	6149
• 117.18 MetaDataQuery.SetQueryString	6150
• 117.19 MetaDataQuery.SetScript	6152
• 117.20 MetaDataQuery.SetSearchScopes	6153
• 117.21 MetaDataQuery.StartQuery	6155
• 117.22 MetaDataQuery.StopQuery	6156
• 178.5 Modbus.CalculateRTUMessageCRC	8362
• 178.8 MouseCursor.Set	8365
• 178.10 MsgBox	8369
• 119.1 Mutex.Create	6189
• 119.2 Mutex.Free	6191
• 119.3 Mutex.List	6192
• 119.4 Mutex.Lock	6193
• 119.5 Mutex.Name	6194
• 119.6 Mutex.TryLock	6195
• 119.7 Mutex.Unlock	6196
• 120.1 NetworkInterfaces.Count	6197

- 120.2 NetworkInterfaces.Default 6198
- 120.3 NetworkInterfaces.JSON 6199
- 120.4 NetworkInterfaces.Update 6200
- 120.5 NetworkInterfaces.Value 6201
- 121.1 Notification.List 6203
- 121.3 Notification.Send 6207
- 121.4 Notification.SendDirect 6208
- 121.5 Notification.Unlisten 6209
- 121.6 Notification.UnlistenAll 6210
- 123.1 OCR.Cleanup 6217
- 123.2 OCR.Clear 6218
- 123.3 OCR.GetBoxText 6219
- 123.4 OCR.GetHOCText 6220
- 123.5 OCR.GetPageSegMode 6221
- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224
- 123.8 OCR.GetVariable 6226
- 123.9 OCR.Initialize 6227
- 123.10 OCR.IsInitialized 6229
- 123.11 OCR.Language 6230
- 123.12 OCR.MeanTextConf 6231
- 123.13 OCR.Recognize 6232
- 123.14 OCR.SetImage 6233
- 123.15 OCR.SetPageSegMode 6235
- 123.16 OCR.SetRectangle 6237
- 123.17 OCR.SetResolution 6238
- 123.18 OCR.SetVariable 6239
- 123.19 OCR.WriteToPDF 6240
- 125.1 PDFKit.AddEmptyPage 6261

	635
• 125.2 PDFKit.AddImageFilePage	6263
• 125.3 PDFKit.AddImagePage	6265
• 125.4 PDFKit.AppendPages	6267
• 125.5 PDFKit.Combine	6268
• 125.6 PDFKit.CombineRef	6270
• 125.7 PDFKit.GeneratePreview	6272
• 125.8 PDFKit.GetCurrentFilter	6274
• 125.9 PDFKit.GetIgnoreCombineErrors	6275
• 125.10 PDFKit.GetPDFAttribute	6276
• 125.11 PDFKit.GetPDFDocument	6279
• 125.12 PDFKit.GetPDFPageCount	6281
• 125.13 PDFKit.GetPDFPageDisplayAnnotation	6283
• 125.14 PDFKit.GetPDFPageFormattedText	6284
• 125.15 PDFKit.GetPDFPageImage	6285
• 125.16 PDFKit.GetPDFPagePDF	6288
• 125.17 PDFKit.GetPDFPagePDFRef	6290
• 125.18 PDFKit.GetPDFPageRotation	6291
• 125.19 PDFKit.GetPDFPageText	6292
• 125.20 PDFKit.GetPDFPageValue	6294
• 125.21 PDFKit.GetPDFPagesPDF	6296
• 125.22 PDFKit.GetPDFPagesPDFRef	6298
• 125.23 PDFKit.GetPDFText	6299
• 125.26 PDFKit.GetPrintSetting	6302
• 125.27 PDFKit.NewPDFDocument	6304
• 125.28 PDFKit.Open	6306
• 125.29 PDFKit.OpenContainer	6308
• 125.30 PDFKit.OpenPath	6310
• 125.31 PDFKit.OpenURL	6312
• 125.32 PDFKit.PageBounds	6313

- 125.33 PDFKit.Print 6315
- 125.34 PDFKit.Release 6317
- 125.35 PDFKit.ResetPrintSettings 6319
- 125.36 PDFKit.RestorePrintSettings 6320
- 125.37 PDFKit.SavePrintSettings 6321
- 125.38 PDFKit.SetCurrentFilter 6322
- 125.39 PDFKit.SetIgnoreCombineErrors 6324
- 125.40 PDFKit.SetPDFAttribute 6325
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328
- 125.42 PDFKit.SetPDFPageRotation 6330
- 125.44 PDFKit.SetPrintSetting 6334
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341
- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.49 PDFKit.isEncrypted 6347
- 125.50 PDFKit.isLocked 6349
- 126.1 PHP.Execute 6355
- 126.2 PHP.ExistsVariable 6357
- 126.3 PHP.GetResultContainer 6358
- 126.4 PHP.GetResultString 6359
- 126.5 PHP.GetVariable 6360
- 126.6 PHP.Init 6361
- 126.7 PHP.IsInitialized 6363
- 126.8 PHP.Load 6364
- 126.9 PHP.Run 6365
- 126.10 PHP.SetVariable 6366
- 126.11 PHP.ShutDown 6367
- 49.1 PKCS12.CA 1379



	637
• 49.2 PKCS12.CACount	1381
• 49.3 PKCS12.Cert	1382
• 49.4 PKCS12.PKey	1383
• 49.5 PKCS12.ReadFromContainer	1384
• 49.6 PKCS12.ReadFromFile	1386
• 49.7 PKCS12.Release	1388
• 49.9 PKCS7.ReadFromContainer	1390
• 49.10 PKCS7.ReadFromFile	1391
• 49.11 PKCS7.Release	1392
• 49.12 PKCS7.SignedDataCert	1393
• 49.13 PKCS7.SignedDataCertCount	1394
• 49.14 PKCS7.SignedDataContent	1395
• 49.15 PKey.Bits	1396
• 49.16 PKey.DescriptionPrivateKey	1397
• 49.17 PKey.DescriptionPublicKey	1398
• 49.18 PKey.GetPrivateKey	1399
• 49.19 PKey.GetPublicKey	1400
• 49.20 PKey.Release	1401
• 49.21 PKey.Type	1402
• 124.1 Path.AddPathComponent	6243
• 124.2 Path.FileMakerPathToNativePath	6247
• 124.3 Path.FilePathToFileURL	6249
• 124.4 Path.FileURLToFilePath	6251
• 124.5 Path.LastPathComponent	6252
• 124.6 Path.LongPath	6254
• 124.7 Path.NativePathToFileMakerPath	6255
• 124.8 Path.RemoveLastPathComponent	6257
• 124.9 Path.ShortPath	6259
• 127.17 Platform	6389

- 127.18 Plugin.BuildNumber 6391
- 127.19 Plugin.CallCounter 6392
- 127.21 Plugin.CompileDate 6394
- 127.22 Plugin.DisableFunction 6395
- 127.23 Plugin.FunctionCount 6396
- 127.24 Plugin.Functions 6397
- 127.25 Plugin.GetSuccessReturn 6398
- 127.26 Plugin.InstallSignalHandlers 6399
- 127.27 Plugin.IsPrerelease 6400
- 127.28 Plugin.JasperVersion 6401
- 127.29 Plugin.LibSSHVersion 6402
- 127.30 Plugin.LicenseName 6403
- 127.31 Plugin.LimitFunction 6405
- 127.32 Plugin.LockFunction 6407
- 127.33 Plugin.OpenSSLVersion 6408
- 127.34 Plugin.PNGVersion 6409
- 127.35 Plugin.Path 6410
- 127.36 Plugin.ScriptStepParameter 6412
- 127.37 Plugin.ScriptStepParameterCount 6413
- 127.38 Plugin.Seats 6414
- 127.40 Plugin.SetFunctions 6417
- 127.41 Plugin.SetPreviewSize 6419
- 127.42 Plugin.SetSuccessReturn 6420
- 127.43 Plugin.StartTimeStamp 6421
- 127.44 Plugin.TiffVersion 6422
- 127.45 Plugin.UnlockFunction 6423
- 127.46 Plugin.UsedFunctions 6424
- 127.47 Plugin.ZLibVersion 6425
- 127.48 Plugin.isDebug 6426

	639
• 129.2 Preferences.DeleteValue	6482
• 129.3 Preferences.GetTextSelectionWithDragAndDrop	6483
• 129.4 Preferences.GetValue	6484
• 129.5 Preferences.GetValueType	6487
• 129.6 Preferences.HasValue	6488
• 129.7 Preferences.SetTextSelectionWithDragAndDrop	6489
• 129.8 Preferences.SetValue	6490
• 131.7 Printer.GetDefaultPrinter	6569
• 131.11 Printer.PrinterCount	6577
• 131.12 Printer.PrinterInfo	6578
• 131.13 Printer.PrinterName	6580
• 132.4 Process.GetCurrentDirectory	6590
• 132.6 Process.IsRunning	6592
• 132.8 Process.LoadLibrary	6594
• 132.9 Process.SetCurrentDirectory	6595
• 132.10 Process.SetFrontMost	6596
• 132.11 ProcessActivity.List	6597
• 132.12 ProcessActivity.Options	6598
• 132.13 ProcessActivity.Reason	6599
• 132.14 ProcessActivity.beginActivity	6600
• 132.15 ProcessActivity.endActivity	6602
• 133.15 ProgressDialog.Reset	6620
• 134.1 Proj.BatchTransform	6657
• 134.2 Proj.Initialize	6659
• 134.3 Proj.IsInitialized	6660
• 134.4 Proj.Transform	6661
• 105.43 QuickList.AddList	5555
• 105.44 QuickList.AddMultiValue	5557
• 105.45 QuickList.AddPostfix	5559

- 105.46 QuickList.AddPrefix 5561
- 105.47 QuickList.AddQuickList 5563
- 105.48 QuickList.AddSQL 5564
- 105.49 QuickList.AddValue 5566
- 105.50 QuickList.And 5568
- 105.51 QuickList.AndColumn 5570
- 105.52 QuickList.BestMatch 5572
- 105.53 QuickList.CSVSplit 5573
- 105.54 QuickList.Clear 5574
- 105.55 QuickList.Clone 5575
- 105.56 QuickList.Count 5576
- 105.57 QuickList.CountValuesMatching 5578
- 105.58 QuickList.CrossProduct 5579
- 105.59 QuickList.DeCombine 5581
- 105.60 QuickList.Deserialize 5583
- 105.61 QuickList.FindEquals 5584
- 105.62 QuickList.FindUnequals 5585
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.65 QuickList.GetValue 5590
- 105.66 QuickList.HasDuplicateItems 5592
- 105.67 QuickList.HasValue 5593
- 105.68 QuickList.IndexOfFirstValueMatching 5595
- 105.69 QuickList.InsertValue 5596
- 105.70 QuickList.List 5597
- 105.71 QuickList.MatchesPostfix 5598
- 105.72 QuickList.MatchesPrefix 5600
- 105.73 QuickList.MatchesSubString 5602
- 105.74 QuickList.New 5604

	641
• 105.75 QuickList.Not	5606
• 105.76 QuickList.NotColumn	5608
• 105.77 QuickList.Or	5610
• 105.78 QuickList.OrColumn	5612
• 105.79 QuickList.Pop	5614
• 105.80 QuickList.PopFirst	5615
• 105.81 QuickList.Push	5616
• 105.82 QuickList.RegExMatch	5617
• 105.83 QuickList.Remove	5618
• 105.84 QuickList.RemoveDuplicateItems	5619
• 105.85 QuickList.RemoveEmptyItems	5620
• 105.86 QuickList.RemovePostfix	5621
• 105.87 QuickList.RemovePrefix	5623
• 105.88 QuickList.RemoveValue	5625
• 105.89 QuickList.Reserve	5626
• 105.90 QuickList.Reverse	5627
• 105.91 QuickList.Serialize	5628
• 105.92 QuickList.SetList	5630
• 105.93 QuickList.SetValue	5631
• 105.94 QuickList.Sort	5633
• 105.95 QuickList.SortWith	5635
• 105.96 QuickList.SortWithEvaluate	5638
• 105.97 QuickList.SubList	5639
• 105.98 QuickList.Trim	5641
• 105.99 QuickList.ValueIndex	5642
• 105.100 QuickList.XOr	5643
• 105.101 QuickList.XOrColumn	5644
• 74.12 RSA.DecryptPrivateKey	3523
• 74.13 RSA.EncryptPrivateKey	3525

- 152.15 RSA.GeneratePrivateKey 7191
- 152.16 RSA.GetPublicKey 7193
- 74.14 RSA.PrivateDecrypt 3527
- 74.15 RSA.PrivateEncrypt 3530
- 74.16 RSA.PublicDecrypt 3533
- 74.17 RSA.PublicEncrypt 3536
- 152.17 RSA.Sign 7195
- 152.18 RSA.Verify 7200
- 138.1 RegEx.CaptureCount 6757
- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762
- 138.4 RegEx.FindMatches 6765
- 138.5 RegEx.Free 6768
- 138.6 RegEx.List 6769
- 138.7 RegEx.Match 6770
- 138.8 RegEx.MatchList 6772
- 138.9 RegEx.MinimumLength 6774
- 138.10 RegEx.NameCount 6775
- 138.11 RegEx.NamedSubstring 6776
- 138.12 RegEx.Options 6777
- 138.13 RegEx.Pattern 6778
- 138.14 RegEx.Quote 6779
- 138.15 RegEx.Replace 6780
- 138.16 RegEx.ReplaceAll 6782
- 138.17 RegEx.Results 6784
- 138.18 RegEx.Size 6786
- 138.19 RegEx.StringNumber 6787
- 138.20 RegEx.Study 6788
- 138.21 RegEx.Substring 6789

	643
• 138.22 RegEx.SubstringList	6791
• 138.23 RegEx.Version	6792
• 127.49 Register	6428
• 127.50 Registration	6431
• 139.1 Registry.CreateKey	6793
• 139.2 Registry.DeleteKey	6795
• 139.3 Registry.DeleteTree	6796
• 139.4 Registry.DeleteValue	6797
• 139.5 Registry.FlushKey	6798
• 139.6 Registry.GetValue	6799
• 139.7 Registry.GetValueType	6801
• 139.8 Registry.ListKeys	6802
• 139.9 Registry.ListValues	6803
• 139.10 Registry.SetValue	6804
• 141.1 RichText.AppendFormattedText	6827
• 141.2 RichText.AppendText	6828
• 141.3 RichText.Attribute	6829
• 141.4 RichText.Clear	6830
• 141.5 RichText.FormattedText	6831
• 141.6 RichText.GeneratePDF	6833
• 141.7 RichText.HTMLText	6834
• 141.8 RichText.RTF	6835
• 141.9 RichText.ReadContainer	6836
• 141.10 RichText.ReadFile	6838
• 141.12 RichText.ReadRTF	6842
• 141.13 RichText.ReadText	6843
• 141.14 RichText.ReadURL	6845
• 141.16 RichText.Release	6847
• 141.17 RichText.ReplaceText	6848

- 141.18 RichText.ReplaceTexts 6850
- 141.19 RichText.SetAttribute 6851
- 141.20 RichText.SetFormattedText 6852
- 141.21 RichText.SetText 6854
- 141.22 RichText.Text 6855
- 141.23 RichText.TextLength 6856
- 141.24 RichText.WriteContainer 6857
- 141.25 RichText.WriteDOC 6859
- 141.26 RichText.WriteFile 6861
- 141.27 RichText.WritePDF 6864
- 141.28 RichText.WriteRTF 6866
- 142.1 RunTask.AddArgument 6869
- 142.2 RunTask.GetArgument 6871
- 142.3 RunTask.GetArgumentCount 6872
- 142.4 RunTask.GetCurrentDirectoryPath 6873
- 142.5 RunTask.GetLaunchPath 6874
- 142.6 RunTask.GetVerb 6875
- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.9 RunTask.NewTask 6880
- 142.10 RunTask.ProcessIdentifier 6882
- 142.11 RunTask.ReadErrorText 6883
- 142.12 RunTask.ReadOutputText 6884
- 142.13 RunTask.SetArguments 6885
- 142.14 RunTask.SetCurrentDirectoryPath 6888
- 142.15 RunTask.SetLaunchPath 6889
- 142.16 RunTask.SetVerb 6891
- 142.17 RunTask.Terminate 6892
- 142.18 RunTask.TerminationReason 6893



	645
• 142.19 RunTask.TerminationStatus	6894
• 142.20 RunTask.Wait	6895
• 142.21 RunTask.WriteInputText	6897
• 154.1 SNMP.Get	7239
• 154.2 SNMP.SetRetries	7241
• 154.3 SNMP.SetTimeout	7242
• 159.2 SQL.Cancel	7411
• 159.3 SQL.ClientVersion	7412
• 159.4 SQL.Close	7413
• 159.5 SQL.CommandText	7414
• 159.6 SQL.CommandType	7415
• 159.7 SQL.Commit	7416
• 159.8 SQL.Connect	7418
• 159.9 SQL.Disconnect	7424
• 159.10 SQL.Execute	7425
• 159.11 SQL.FetchFirst	7429
• 159.12 SQL.FetchLast	7430
• 159.13 SQL.FetchNext	7432
• 159.14 SQL.FetchPos	7435
• 159.15 SQL.FetchPrior	7436
• 159.16 SQL.FieldCount	7437
• 159.17 SQL.FreeAllConnections	7439
• 159.18 SQL.FreeCommand	7440
• 159.19 SQL.FreeConnection	7442
• 159.20 SQL.GetAutoCommit	7444
• 159.21 SQL.GetCommandOption	7445
• 159.22 SQL.GetCommandOptions	7446
• 159.23 SQL.GetCommandTag	7447
• 159.24 SQL.GetConnectionOption	7448

- 159.25 SQL.GetConnectionOptions 7449
- 159.26 SQL.GetConnectionTag 7450
- 159.27 SQL.GetFieldAsBoolean 7451
- 159.28 SQL.GetFieldAsContainer 7452
- 159.29 SQL.GetFieldAsDate 7453
- 159.30 SQL.GetFieldAsDateTime 7455
- 159.31 SQL.GetFieldAsFloat 7456
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.33 SQL.GetFieldAsNumber 7460
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.38 SQL.GetFieldDataType 7469
- 159.39 SQL.GetFieldIsNull 7470
- 159.40 SQL.GetFieldName 7471
- 159.41 SQL.GetFieldNameList 7473
- 159.42 SQL.GetFieldOption 7475
- 159.43 SQL.GetFieldOptions 7476
- 159.44 SQL.GetFieldValue 7477
- 159.45 SQL.GetFieldValueList 7478
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.47 SQL.GetIsolationLevel 7482
- 159.48 SQL.GetParamAsBoolean 7483
- 159.49 SQL.GetParamAsContainer 7484
- 159.50 SQL.GetParamAsDate 7485
- 159.51 SQL.GetParamAsDateTime 7486
- 159.52 SQL.GetParamAsFloat 7487
- 159.53 SQL.GetParamAsJPEG 7489

	647
• 159.54 SQL.GetParamAsNumber	7491
• 159.55 SQL.GetParamAsPDF	7493
• 159.56 SQL.GetParamAsPNG	7495
• 159.57 SQL.GetParamAsText	7497
• 159.58 SQL.GetParamAsTime	7498
• 159.59 SQL.GetParamDataType	7499
• 159.60 SQL.GetParamIsDefault	7500
• 159.61 SQL.GetParamIsNull	7501
• 159.62 SQL.GetParamName	7502
• 159.63 SQL.GetParamNameList	7503
• 159.64 SQL.GetParamOption	7505
• 159.65 SQL.GetParamOptions	7506
• 159.66 SQL.GetParamValue	7507
• 159.67 SQL.GetParamValueList	7508
• 159.68 SQL.GetParamsAsJSON	7510
• 159.69 SQL.GetRecordsAsJSON	7512
• 159.70 SQL.GetRecordsAsText	7514
• 159.71 SQL.InsertOrUpdateRecords	7516
• 159.72 SQL.InsertRecords	7519
• 159.73 SQL.InternalSQLiteLibrary.Activate	7521
• 159.74 SQL.InternalSQLiteLibrary.Activated	7522
• 159.75 SQL.InternalSQLiteLibrary.Deactivate	7523
• 159.76 SQL.InternalSQLiteLibrary.SourceID	7524
• 159.77 SQL.InternalSQLiteLibrary.Version	7525
• 159.78 SQL.InternalSQLiteLibrary.VersionNumber	7526
• 159.79 SQL.ListCommands	7527
• 159.80 SQL.ListConnections	7528
• 159.81 SQL.MySQL.InsertID	7529
• 159.82 SQL.NewCommand	7530

- 159.83 SQL.NewConnection 7534
- 159.84 SQL.Open 7537
- 159.85 SQL.ParamCount 7538
- 159.86 SQL.Prepare 7539
- 159.87 SQL.ResetCommand 7540
- 159.88 SQL.ResetConnection 7541
- 159.89 SQL.Rollback 7542
- 159.90 SQL.RowsAffected 7543
- 159.91 SQL.SQLite3.EnableLoadExtension 7545
- 159.92 SQL.SQLite3.LastInsertRowID 7546
- 159.93 SQL.SQLite3.MemoryHighwater 7547
- 159.94 SQL.SQLite3.MemoryUsed 7548
- 159.95 SQL.SQLite3.ReKey 7549
- 159.96 SQL.SQLite3.SetKey 7551
- 159.97 SQL.ServerVersion 7553
- 159.98 SQL.ServerVersionString 7554
- 159.99 SQL.SetAutoCommit 7555
- 159.100 SQL.SetClient 7556
- 159.101 SQL.SetCommandOption 7558
- 159.102 SQL.SetCommandTag 7560
- 159.103 SQL.SetCommandText 7561
- 159.104 SQL.SetConnectionOption 7563
- 159.105 SQL.SetConnectionTag 7568
- 159.106 SQL.SetFieldOption 7569
- 159.107 SQL.SetIsolationLevel 7570
- 159.108 SQL.SetParamAsBoolean 7571
- 159.109 SQL.SetParamAsContainer 7572
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576

	649
• 159.112 SQL.SetParamAsFloat	7578
• 159.113 SQL.SetParamAsNumber	7580
• 159.114 SQL.SetParamAsText	7582
• 159.115 SQL.SetParamAsTime	7584
• 159.116 SQL.SetParamDataType	7585
• 159.117 SQL.SetParamDefault	7586
• 159.118 SQL.SetParamNull	7587
• 159.119 SQL.SetParamOption	7588
• 159.120 SQL.SetParamTypesValues	7589
• 159.121 SQL.SetParamUnknown	7591
• 159.122 SQL.SetParamValue	7592
• 159.123 SQL.SetParamValues	7594
• 159.124 SQL.SetParamsWithJSON	7596
• 159.125 SQL.isAlive	7598
• 159.126 SQL.isConnected	7599
• 159.127 SQL.isExecuted	7600
• 159.128 SQL.isOpened	7601
• 159.129 SQL.isResultSet	7602
• 160.1 SSH.CloseChannel	7603
• 160.2 SSH.Connect	7605
• 160.3 SSH.Disconnect	7609
• 160.4 SSH.EOF	7610
• 160.5 SSH.Execute	7611
• 160.6 SSH.Flush	7614
• 160.7 SSH.FreeChannel	7615
• 160.8 SSH.GetExitState	7616
• 160.9 SSH.GetIP	7617
• 160.10 SSH.GetPort	7618
• 160.11 SSH.GetTag	7619

- 160.12 SSH.GetTimeout 7620
- 160.13 SSH.GetUserName 7621
- 160.14 SSH.HostKey 7622
- 160.15 SSH.HostKeyHash 7623
- 160.16 SSH.IsAuthenticated 7624
- 160.17 SSH.New 7625
- 160.18 SSH.OpenSession 7628
- 160.19 SSH.ReadHex 7629
- 160.20 SSH.ReadText 7630
- 160.21 SSH.Release 7632
- 160.22 SSH.RequestPTY 7633
- 160.23 SSH.SendEOF 7634
- 160.24 SSH.SessionHandshake 7635
- 160.25 SSH.SetEnv 7636
- 160.26 SSH.SetTag 7637
- 160.27 SSH.SetTimeout 7638
- 160.28 SSH.Shell 7639
- 160.29 SSH.Tunnel.BytesReceived 7640
- 160.30 SSH.Tunnel.BytesSent 7641
- 160.31 SSH.Tunnel.Cancel 7642
- 160.32 SSH.Tunnel.Cancelled 7643
- 160.33 SSH.Tunnel.GetKeepAlive 7644
- 160.34 SSH.Tunnel.Messages 7645
- 160.35 SSH.Tunnel.Run 7646
- 160.36 SSH.Tunnel.Running 7648
- 160.37 SSH.Tunnel.SetKeepAlive 7649
- 160.38 SSH.UserAuthKeyboardInteractive 7650
- 160.39 SSH.UserAuthList 7651
- 160.40 SSH.UserAuthPassword 7652

	651
• 160.41 SSH.UserAuthPublicKey	7653
• 160.42 SSH.UserAuthPublicKeyFile	7655
• 160.43 SSH.WaitClosed	7657
• 160.44 SSH.WaitEOF	7658
• 160.45 SSH.WaitSocket	7659
• 160.46 SSH.WriteHex	7660
• 160.47 SSH.WriteText	7661
• 143.16 Schedule.GetLastTimeStamp	6921
• 143.24 Schedule.GetURL	6929
• 143.27 Schedule.ReleaseAll	6933
• 143.36 Schedule.SetURL	6942
• 144.1 Screen.Count	6951
• 144.3 Screen.DockWidth	6953
• 144.4 Screen.Height	6954
• 144.5 Screen.Left	6955
• 144.6 Screen.Scale	6956
• 144.7 Screen.Top	6957
• 144.8 Screen.Width	6958
• 144.9 Screenshot	6959
• 144.10 ScreenshotRect	6961
• 178.11 SendCommand	8370
• 146.1 SendMail.AddAttachmentContainer	6989
• 146.2 SendMail.AddAttachmentFile	6992
• 146.3 SendMail.AddAttachmentText	6995
• 146.4 SendMail.AddBCC	6997
• 146.5 SendMail.AddCC	6999
• 146.6 SendMail.AddHeader	7001
• 146.7 SendMail.AddRecipient	7003
• 146.8 SendMail.AddReplyTo	7005

- 146.9 SendMail.AddTo 7006
- 146.10 SendMail.AttachmentCount 7008
- 146.11 SendMail.ClearAttachments 7009
- 146.12 SendMail.ClearHeaders 7010
- 146.13 SendMail.ClearRecipients 7011
- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.16 SendMail.GetInReplyTo 7015
- 146.17 SendMail.GetMessageID 7016
- 146.18 SendMail.GetPlainText 7017
- 146.19 SendMail.GetRichText 7018
- 146.20 SendMail.GetSMTPPassword 7019
- 146.21 SendMail.GetSMTPServer 7020
- 146.22 SendMail.GetSMTPUserName 7021
- 146.23 SendMail.GetSource 7022
- 146.24 SendMail.GetSubject 7023
- 146.25 SendMail.PrepareCURL 7024
- 146.26 SendMail.Release 7026
- 146.27 SendMail.SetFrom 7027
- 146.28 SendMail.SetHTMLText 7029
- 146.29 SendMail.SetInReplyTo 7031
- 146.30 SendMail.SetMessageID 7032
- 146.31 SendMail.SetPlainText 7033
- 146.32 SendMail.SetRichText 7035
- 146.33 SendMail.SetSMTPPassword 7037
- 146.34 SendMail.SetSMTPServer 7039
- 146.35 SendMail.SetSMTPUserName 7041
- 146.36 SendMail.SetSubject 7043
- 147.1 SerialPort.AvailableBytes 7045



	653
• 147.4 SerialPort.Close	7049
• 147.5 SerialPort.CloseAll	7050
• 147.6 SerialPort.GetBaudRate	7051
• 147.7 SerialPort.GetCTS	7052
• 147.8 SerialPort.GetDSR	7053
• 147.9 SerialPort.GetDTR	7054
• 147.10 SerialPort.GetDataBits	7055
• 147.11 SerialPort.GetParity	7056
• 147.12 SerialPort.GetRTS	7057
• 147.13 SerialPort.GetStopBits	7058
• 147.14 SerialPort.GetXON	7059
• 147.15 SerialPort.HasLine	7060
• 147.17 SerialPort.LastError	7062
• 147.18 SerialPort.List	7063
• 147.19 SerialPort.Open	7064
• 147.20 SerialPort.Read	7070
• 147.21 SerialPort.ReadByte	7073
• 147.22 SerialPort.ReadHex	7074
• 147.23 SerialPort.ReadLine	7075
• 147.25 SerialPort.SetBaudRate	7077
• 147.26 SerialPort.SetCTS	7078
• 147.27 SerialPort.SetDSR	7079
• 147.28 SerialPort.SetDTR	7080
• 147.31 SerialPort.SetDataBits	7084
• 147.32 SerialPort.SetParity	7085
• 147.33 SerialPort.SetRTS	7086
• 147.34 SerialPort.SetStopBits	7087
• 147.35 SerialPort.SetXON	7088
• 147.37 SerialPort.Write	7091

- 147.38 SerialPort.WriteByte 7093
- 147.39 SerialPort.WriteHex 7094
- 148.1 ServerSocket.Check 7097
- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.3 ServerSocket.GetAllowedTypes 7099
- 148.4 ServerSocket.SendQuery 7100
- 148.5 ServerSocket.SetAllowedScripts 7102
- 148.6 ServerSocket.SetAllowedTypes 7103
- 148.7 ServerSocket.Start 7104
- 148.8 ServerSocket.Stop 7106
- 150.1 SharedMemory.Exists 7111
- 150.2 SharedMemory.GetValue 7112
- 150.3 SharedMemory.SetValue 7113
- 151.1 Shell.AddArgument 7115
- 151.2 Shell.AddEnvironment 7118
- 151.3 Shell.AvailableBytesError 7119
- 151.4 Shell.AvailableBytesOutput 7120
- 151.5 Shell.ClearArguments 7121
- 151.6 Shell.ClearEnvironment 7122
- 151.7 Shell.CloseInput 7123
- 151.8 Shell.CloseStreams 7124
- 151.9 Shell.Execute 7125
- 151.10 Shell.ExitCode 7133
- 151.11 Shell.GetApplicationName 7134
- 151.12 Shell.GetArgument 7135
- 151.13 Shell.GetArgumentCount 7136
- 151.14 Shell.GetArguments 7137
- 151.18 Shell.GetCurrentDirectory 7141
- 151.22 Shell.GetDomain 7145

	655
• 151.23 Shell.GetEnvironment	7146
• 151.24 Shell.GetPassword	7147
• 151.25 Shell.GetUsername	7148
• 151.26 Shell.IsRunning	7149
• 151.27 Shell.New	7150
• 151.28 Shell.PeekErrorText	7151
• 151.29 Shell.PeekOutputText	7152
• 151.30 Shell.ProcessIdentifier	7153
• 151.31 Shell.ReadErrorText	7154
• 151.32 Shell.ReadOutputText	7155
• 151.33 Shell.Release	7157
• 151.34 Shell.SetApplicationName	7158
• 151.35 Shell.SetArguments	7159
• 151.36 Shell.SetArgumentsList	7160
• 151.39 Shell.SetCurrentDirectory	7163
• 151.42 Shell.SetDomain	7166
• 151.43 Shell.SetPassword	7167
• 151.44 Shell.SetUsername	7168
• 151.45 Shell.Terminate	7169
• 151.46 Shell.TerminationReason	7170
• 151.47 Shell.Wait	7171
• 151.48 Shell.WriteInputText	7173
• 178.12 ShowURL	8371
• 153.1 SmartCard.Available	7203
• 153.2 SmartCard.BeginTransaction	7204
• 153.3 SmartCard.Cancel	7205
• 153.4 SmartCard.CancelTransaction	7206
• 153.5 SmartCard.Connect	7207
• 153.6 SmartCard.Control	7209

- 153.7 SmartCard.Disconnect 7210
- 153.8 SmartCard.EndTransaction 7211
- 153.9 SmartCard.GetActiveProtocol 7212
- 153.10 SmartCard.GetAttribute 7213
- 153.12 SmartCard.Init 7216
- 153.13 SmartCard.ListReaderGroups 7219
- 153.14 SmartCard.ListReaders 7220
- 153.15 SmartCard.PerformSignature 7222
- 153.16 SmartCard.ReadCertificate 7223
- 153.17 SmartCard.ReadFile 7224
- 153.18 SmartCard.Reconnect 7227
- 153.19 SmartCard.Release 7228
- 153.20 SmartCard.SetAttribute 7229
- 153.21 SmartCard.SplitValues 7230
- 153.22 SmartCard.Status 7232
- 153.23 SmartCard.Transmit 7233
- 153.24 SmartCard.TransmitReceiveHeader 7236
- 153.25 SmartCard.Valid 7237
- 157.1 Socket.AcceptNewConnection 7301
- 157.2 Socket.AddMembership 7303
- 157.3 Socket.AvailableBytes 7304
- 157.4 Socket.Check 7305
- 157.5 Socket.CheckAll 7306
- 157.6 Socket.ClearDataAvailableHandler 7307
- 157.7 Socket.ClearErrorHandler 7308
- 157.8 Socket.ClearNewConnectionHandler 7309
- 157.9 Socket.Close 7310
- 157.10 Socket.CloseAll 7312
- 157.11 Socket.Connect 7313

	657
• 157.12 Socket.DropMembership	7318
• 157.13 Socket.GetBroadcast	7319
• 157.14 Socket.GetMulticastInterface	7320
• 157.15 Socket.GetMulticastLoop	7321
• 157.16 Socket.GetMulticastTimeToLive	7322
• 157.17 Socket.GetTag	7323
• 157.18 Socket.GetTimeToLive	7324
• 157.19 Socket.IsClosed	7325
• 157.20 Socket.IsListening	7326
• 157.21 Socket.LastError	7327
• 157.22 Socket.LastMessageIP	7328
• 157.23 Socket.LastMessagePort	7329
• 157.24 Socket.List	7330
• 157.25 Socket.Listen	7331
• 157.26 Socket.LocalIP	7333
• 157.27 Socket.LocalPort	7334
• 157.28 Socket.NewTCPSocket	7335
• 157.29 Socket.NewUDPSocket	7337
• 157.30 Socket.Peek	7339
• 157.31 Socket.PeekAll	7340
• 157.32 Socket.PeekAllHex	7341
• 157.33 Socket.PeekHex	7342
• 157.34 Socket.Read	7343
• 157.35 Socket.ReadAll	7346
• 157.36 Socket.ReadAllHex	7348
• 157.37 Socket.ReadHex	7349
• 157.38 Socket.ReadLine	7350
• 157.39 Socket.ReadLineHex	7352
• 157.40 Socket.ReadMLLP	7353

- 157.41 Socket.RemoteIP 7354
- 157.42 Socket.RemotePort 7355
- 157.43 Socket.SSL.Accept 7356
- 157.44 Socket.SSL.Connect 7357
- 157.45 Socket.SSL.GetMethod 7358
- 157.46 Socket.SSL.Initialize 7359
- 157.47 Socket.SSL.Prepare 7360
- 157.48 Socket.SSL.SetMethod 7361
- 157.49 Socket.SSL.UseCertificateFile 7362
- 157.50 Socket.SSL.UsePrivateKeyFile 7363
- 157.51 Socket.SendMessage 7364
- 157.52 Socket.SendMessageHex 7366
- 157.53 Socket.SetBroadcast 7367
- 157.56 Socket.SetDataAvailableURL 7371
- 157.59 Socket.SetErrorURL 7375
- 157.60 Socket.SetMulticastInterface 7376
- 157.61 Socket.SetMulticastLoop 7377
- 157.62 Socket.SetMulticastTimeToLive 7378
- 157.65 Socket.SetNewConnectionURL 7382
- 157.66 Socket.SetTag 7383
- 157.67 Socket.SetTimeToLive 7384
- 157.68 Socket.Write 7385
- 157.69 Socket.WriteByte 7387
- 157.70 Socket.WriteHex 7388
- 157.71 Socket.WriteMLLP 7390
- 158.7 SpeechRecognition.AuthorizationStatus 7398
- 158.8 SpeechRecognition.Initialize 7399
- 158.9 SpeechRecognition.IsInitialized 7400
- 158.10 SpeechRecognition.Recognize 7401

	659
• 158.11 SpeechRecognition.RequestAuthorization	7403
• 158.12 SpeechRecognition.SupportedLocales	7404
• 158.13 SpeechRecognition.SupportsOnDeviceRecognition	7406
• 127.51 StoreRegistration	6432
• 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize	7719
• 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize	7759
• 163.1 System.Logout	7775
• 163.2 System.Restart	7776
• 163.3 System.Shutdown	7777
• 163.4 System.Sleep	7778
• 164.2 SystemInfo.AvailableRAM	7781
• 164.3 SystemInfo.CPUBrandString	7782
• 164.4 SystemInfo.ComputerName	7783
• 164.5 SystemInfo.DomainName	7784
• 164.6 SystemInfo.DoubleClickTime	7785
• 164.7 SystemInfo.HardDiscSerial	7786
• 164.8 SystemInfo.HostDNSName	7787
• 164.9 SystemInfo.HostName	7788
• 164.11 SystemInfo.Is64bitWindows	7790
• 164.12 SystemInfo.IsAdminUser	7791
• 164.13 SystemInfo.MACAddress	7792
• 164.15 SystemInfo.MacBoardID	7794
• 164.16 SystemInfo.MacBugFixVersion	7795
• 164.17 SystemInfo.MacHasHardwareAcceleratedCoreImage	7796
• 164.18 SystemInfo.MacMajorVersion	7797
• 164.19 SystemInfo.MacMinorVersion	7798
• 164.20 SystemInfo.MacModel	7799
• 164.21 SystemInfo.MacROMBootVersion	7800
• 164.22 SystemInfo.MacSerialNumber	7801

- 164.23 SystemInfo.MacSystemDarkMode 7802
- 164.24 SystemInfo.MacUUID 7803
- 164.25 SystemInfo.MacVRAMSize 7804
- 164.26 SystemInfo.NetworkStats 7805
- 164.27 SystemInfo.OSName 7808
- 164.28 SystemInfo.OSVersionString 7809
- 164.29 SystemInfo.PhysicalRAM 7810
- 164.30 SystemInfo.ProcessorCount 7811
- 164.31 SystemInfo.SystemFont 7812
- 164.32 SystemInfo.Time 7813
- 164.33 SystemInfo.UserName 7814
- 164.34 SystemInfo.UserShortName 7815
- 164.35 SystemInfo.WinBuildNumber 7816
- 164.36 SystemInfo.WinCSDVersion 7817
- 164.37 SystemInfo.WinMajorVersion 7818
- 164.38 SystemInfo.WinMinorVersion 7819
- 164.39 SystemInfo.WinPlatformId 7820
- 164.40 SystemInfo.WinProductKey 7821
- 164.41 SystemInfo.WinProductType 7822
- 164.42 SystemInfo.WinServicePackMajor 7823
- 164.43 SystemInfo.WinServicePackMinor 7824
- 164.44 SystemInfo.WinSuiteMask 7825
- 164.45 SystemInfo.WinSystemMetrics 7826
- 164.46 SystemInfo.WindowsAero 7828
- 164.47 SystemInfo.isCatalina 7829
- 164.48 SystemInfo.isElCapitan 7830
- 164.49 SystemInfo.isHighSierra 7831
- 164.50 SystemInfo.isLeopard 7832
- 164.51 SystemInfo.isLion 7833



	661
• 164.52 SystemInfo.isMacOSX	7834
• 164.53 SystemInfo.isMavericks	7835
• 164.54 SystemInfo.isMojave	7836
• 164.55 SystemInfo.isMountainLion	7837
• 164.56 SystemInfo.isSierra	7838
• 164.57 SystemInfo.isSnowLeopard	7839
• 164.58 SystemInfo.isWindows10	7840
• 164.59 SystemInfo.isWindows2000	7841
• 164.60 SystemInfo.isWindows7	7842
• 164.61 SystemInfo.isWindows8	7843
• 164.62 SystemInfo.isWindowsVista	7844
• 164.63 SystemInfo.isWindowsXP	7845
• 164.64 SystemInfo.isYosemite	7846
• 166.1 TAPI.AddressCount	7853
• 166.2 TAPI.AddressValue	7855
• 166.3 TAPI.Answer	7856
• 166.4 TAPI.BlindTransfer	7857
• 166.5 TAPI.CallInfo	7858
• 166.6 TAPI.Connect	7860
• 166.7 TAPI.CreateCall	7861
• 166.8 TAPI.Dial	7863
• 166.9 TAPI.Disconnect	7864
• 166.10 TAPI.Finish	7865
• 166.11 TAPI.GetCallStateEvaluate	7866
• 166.12 TAPI.GetCallStateScriptFileName	7867
• 166.13 TAPI.GetCallStateScriptName	7868
• 166.14 TAPI.GetCallStateURL	7869
• 166.15 TAPI.GetNewCallEvaluate	7870
• 166.16 TAPI.GetNewCallScriptFileName	7871

- 166.17 TAPI.GetNewCallScriptName 7872
- 166.18 TAPI.GetNewCallURL 7873
- 166.19 TAPI.HandoffDirect 7874
- 166.20 TAPI.Hold 7875
- 166.21 TAPI.Initialize 7876
- 166.22 TAPI.IsInitialized 7877
- 166.23 TAPI.ListenOnAddress 7878
- 166.24 TAPI.ListenOnAllAddresses 7879
- 166.25 TAPI.ParkDirect 7880
- 166.26 TAPI.ParkIndirect 7881
- 166.27 TAPI.Pickup 7882
- 166.28 TAPI.Release 7883
- 166.29 TAPI.ReleaseAll 7884
- 166.30 TAPI.RemoveFromConference 7885
- 166.31 TAPI.SetCallStateEvaluate 7886
- 166.33 TAPI.SetCallStateURL 7888
- 166.34 TAPI.SetNewCallEvaluate 7889
- 166.36 TAPI.SetNewCallURL 7891
- 166.37 TAPI.Shutdown 7892
- 166.38 TAPI.Transfer 7893
- 166.39 TAPI.Unpark 7894
- 167.1 Text.AddLineNumbers 7895
- 167.2 Text.AppendTextFile 7897
- 167.3 Text.CapitalCase 7899
- 167.4 Text.Character 7901
- 167.5 Text.Characters 7903
- 167.6 Text.Code 7904
- 167.7 Text.ConvertFromTextEncoding 7905
- 167.8 Text.ConvertToTextEncoding 7911

	663
• 167.9 Text.ConvertUnicodeToCharacterComposition	7918
• 167.10 Text.ConvertUnicodeToCharacterDecomposition	7920
• 167.11 Text.CountWords	7921
• 167.12 Text.DecodeBytesFromBase64	7922
• 167.13 Text.DecodeFromBase64	7923
• 167.14 Text.DecodeFromBase64URL	7924
• 167.15 Text.DecodeFromBytes	7925
• 167.16 Text.DecodeFromHTML	7926
• 167.17 Text.DecodeFromHex	7928
• 167.18 Text.DecodeFromQuotedPrintable	7930
• 167.19 Text.DecodeFromURL	7931
• 167.20 Text.DecodeFromXML	7933
• 167.21 Text.DecodeHexFromBase64	7934
• 167.22 Text.DecodeIMAPFolderName	7935
• 167.23 Text.DecodeURLComponent	7936
• 167.24 Text.Deserialize	7937
• 167.25 Text.EncodeBytesToBase64	7938
• 167.26 Text.EncodeEmailSubject	7939
• 167.27 Text.EncodeHexToBase64	7940
• 167.28 Text.EncodeToBase64	7941
• 167.29 Text.EncodeToBase64URL	7942
• 167.30 Text.EncodeToBytes	7944
• 167.31 Text.EncodeToHTML	7945
• 167.32 Text.EncodeToHex	7947
• 167.33 Text.EncodeToQuotedPrintable	7949
• 167.34 Text.EncodeToURL	7950
• 167.35 Text.EncodeToXML	7952
• 167.36 Text.EncodeURLComponent	7954
• 167.37 Text.FileExtensionToMimeType	7956

- 167.38 Text.FilterUTF16 7958
- 167.39 Text.FindBetween 7959
- 167.40 Text.InvalidCharactersForEncoding 7961
- 167.41 Text.JaroWinklerDistance 7962
- 167.42 Text.Length 7963
- 167.43 Text.LevenshteinDistance 7964
- 167.44 Text.ListWords 7965
- 167.45 Text.LowerCase 7966
- 167.46 Text.MergeFields 7967
- 167.47 Text.MimeTypeToFileExtension 7969
- 167.48 Text.ReadEMLXFile 7970
- 167.49 Text.ReadTextFile 7971
- 167.50 Text.ReadTextFromContainer 7975
- 167.51 Text.RedefineEncoding 7976
- 167.52 Text.RemoveAccents 7977
- 167.53 Text.RemoveAccentsCaseInsensitive 7978
- 167.54 Text.RemoveControlCharacters 7979
- 167.55 Text.RemoveNewLine 7980
- 167.56 Text.RemovePostfix 7981
- 167.57 Text.RemovePrefix 7982
- 167.58 Text.ReplaceAll 7984
- 167.59 Text.ReplaceNewline 7985
- 167.60 Text.Serialize 7988
- 167.61 Text.SoundEx 7989
- 167.62 Text.SoundExGerman 7990
- 167.63 Text.Styles 7991
- 167.64 Text.TextToHTML 7993
- 167.65 Text.TextToRTF 7995
- 167.66 Text.Trim 7997

	665
• 167.67 Text.UpperCase	7998
• 167.68 Text.WriteTextFile	7999
• 167.69 Text.WriteToContainer	8003
• 169.1 Time.Format	8053
• 169.2 Time.Parse	8057
• 178.13 Time.Sleep	8372
• 169.3 Time.TimeStampToUTC	8061
• 169.4 Time.TimeZoneOffset	8062
• 178.14 Time.UnixTimeStamp	8373
• 169.5 Time.UnixTimeStampToFileMaker	8063
• 127.52 Trace	6434
• 127.56 Trace.GetErrorsOnly	6440
• 127.57 Trace.GetWithTimes	6441
• 127.58 Trace.Off	6442
• 127.59 Trace.SetErrorsOnly	6443
• 127.60 Trace.SetWithTimes	6444
• 127.61 Trace.WriteLine	6445
• 175.1 URLScheme.GetDefaultHandler	8269
• 176.1 USB.Count	8275
• 176.2 USB.FindDevice	8277
• 176.3 USB.FindSerialNumber	8278
• 176.4 USB.GetProductID	8279
• 176.5 USB.GetProductName	8280
• 176.6 USB.GetSerialNumber	8281
• 176.7 USB.GetVendorID	8282
• 176.8 USB.GetVendorName	8283
• 179.1 UUID.Formatted	8375
• 179.2 UUID.FromNumber	8377
• 179.3 UUID.Hex	8379

- 179.4 UUID.Number 8380
- 179.5 UUID.Raw 8381
- 179.6 UUID.ToNumber 8382
- 54.3 UnZipFile.Close 1512
- 54.4 UnZipFile.ExtractFiles 1513
- 54.5 UnZipFile.GlobalComment 1515
- 54.6 UnZipFile.ItemCRC 1516
- 54.7 UnZipFile.ItemComment 1517
- 54.8 UnZipFile.ItemCompressedSize 1518
- 54.9 UnZipFile.ItemCompressionMethod 1519
- 54.10 UnZipFile.ItemCount 1520
- 54.11 UnZipFile.ItemDate 1521
- 54.12 UnZipFile.ItemDiskNumberStart 1522
- 54.13 UnZipFile.ItemExternalFileAttributes 1523
- 54.14 UnZipFile.ItemFlag 1524
- 54.15 UnZipFile.ItemInternalFileAttributes 1526
- 54.16 UnZipFile.ItemName 1527
- 54.17 UnZipFile.ItemSizeFileComment 1528
- 54.18 UnZipFile.ItemSizeFileExtra 1529
- 54.19 UnZipFile.ItemSizeFileName 1530
- 54.20 UnZipFile.ItemUncompressedSize 1531
- 54.21 UnZipFile.ItemVersion 1532
- 54.22 UnZipFile.ItemVersionNeeded 1533
- 54.23 UnZipFile.OpenContainer 1534
- 54.24 UnZipFile.OpenFile 1535
- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.27 UnZipFile.ReadAsHex 1539
- 54.28 UnZipFile.ReadAsJPEGContainer 1540

	667
• 54.29 UnZipFile.ReadAsPNGContainer	1541
• 54.30 UnZipFile.ReadAsText	1542
• 54.31 UnZipFile.ReadToFile	1543
• 54.32 UnZipFile.UsePassword	1544
• 180.1 Validate.CheckReceipt	8383
• 180.2 Validate.Exit	8385
• 180.3 Validate.FindReceipt	8386
• 127.62 Version	6446
• 127.63 VersionAutoUpdate	6448
• 182.1 Vision.ClassifyImage	8401
• 182.2 Vision.DetectBarcode	8403
• 182.3 Vision.KnownClassifications	8405
• 182.4 Vision.RecognizeText	8406
• 182.5 Vision.SupportedRecognitionLanguages	8408
• 182.6 Vision.SupportedSymbologies	8409
• 190.1 WMFP.Create	8905
• 190.2 WMFP.FrameStep	8908
• 190.3 WMFP.GetBalance	8909
• 190.4 WMFP.GetDuration	8910
• 190.5 WMFP.GetIdealVideoSize	8911
• 190.7 WMFP.GetMute	8913
• 190.8 WMFP.GetNativeVideoSize	8914
• 190.9 WMFP.GetPosition	8915
• 190.10 WMFP.GetRate	8916
• 190.11 WMFP.GetState	8917
• 190.12 WMFP.GetTag	8918
• 190.14 WMFP.GetVolume	8920
• 190.15 WMFP.Pause	8921
• 190.16 WMFP.Play	8922

- 190.17 WMFP.Release 8923
- 190.19 WMFP.SetBalance 8925
- 190.21 WMFP.SetFrame 8927
- 190.23 WMFP.SetMute 8929
- 190.24 WMFP.SetPlaybackEndedScriptTrigger 8930
- 190.25 WMFP.SetPosition 8931
- 190.26 WMFP.SetRate 8932
- 190.27 WMFP.SetTag 8933
- 190.29 WMFP.SetVolume 8935
- 190.30 WMFP.Stop 8936
- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.3 WMIQuery.Next 8944
- 191.4 WMIQuery.PropertyNames 8945
- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948
- 191.8 WMIQuery.Release 8950
- 183.28 WebView.AllowsAnyHTTPSCertificateForHost 8444
- 183.122 WebView.SendCommand 8581
- 186.1 WindowsScript.AddCode 8813
- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822
- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.6 WindowsScript.ErrorDescription 8828
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831



	669
• 186.10 WindowsScript.ErrorText	8832
• 186.11 WindowsScript.Eval	8833
• 186.12 WindowsScript.ExecuteFunction	8834
• 186.13 WindowsScript.ExecuteStatement	8838
• 186.14 WindowsScript.GetAllowUI	8839
• 186.15 WindowsScript.GetLanguage	8840
• 186.16 WindowsScript.GetTimeout	8841
• 186.17 WindowsScript.GetUseSafeSubset	8842
• 186.18 WindowsScript.SetAllowUI	8843
• 186.19 WindowsScript.SetLanguage	8844
• 186.20 WindowsScript.SetTimeout	8847
• 186.21 WindowsScript.SetUseSafeSubset	8848
• 192.1 WordFile.AddMediaFile	8951
• 192.2 WordFile.Append	8953
• 192.3 WordFile.AppendTableRow	8954
• 192.4 WordFile.DuplicateTableRow	8956
• 192.5 WordFile.FieldNames	8957
• 192.6 WordFile.GetCaseless	8958
• 192.7 WordFile.GetFieldText	8959
• 192.8 WordFile.GetMediaFile	8960
• 192.9 WordFile.GetXML	8961
• 192.10 WordFile.HasTag	8962
• 192.11 WordFile.MediaFiles	8963
• 192.12 WordFile.OpenContainer	8964
• 192.13 WordFile.OpenFile	8966
• 192.14 WordFile.OpenText	8968
• 192.15 WordFile.Parts	8969
• 192.16 WordFile.Release	8970
• 192.17 WordFile.RemoveTableRow	8971

- 192.18 WordFile.ReplaceTag 8973
- 192.19 WordFile.SetCaseless 8976
- 192.20 WordFile.SetFieldText 8977
- 192.21 WordFile.SetMarkers 8978
- 192.22 WordFile.SetMediaFile 8979
- 192.23 WordFile.SetXML 8981
- 192.24 WordFile.Texts 8982
- 192.25 WordFile.WriteFile 8984
- 49.22 X509.Description 1403
- 49.23 X509.Duplicate 1404
- 49.24 X509.IssuerName 1405
- 49.25 X509.Name 1406
- 49.26 X509.Read 1407
- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409
- 49.29 X509.Release 1410
- 49.30 X509.SerialNumber 1411
- 49.32 X509.SubjectName 1413
- 49.33 X509.Version 1414
- 49.34 X509.Write 1415
- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.4 XL.Book.AddPictureContainer 8995
- 193.5 XL.Book.AddPictureFile 8997
- 193.6 XL.Book.AddSheet 8998
- 193.7 XL.Book.BiffVersion 9000
- 193.8 XL.Book.CustomNumFormat 9001
- 193.9 XL.Book.DeleteSheet 9002

	671
• 193.10 XL.Book.DeleteSheetsExcept	9005
• 193.11 XL.Book.FontCount	9006
• 193.12 XL.Book.FormatCount	9007
• 193.13 XL.Book.GetActiveSheet	9008
• 193.14 XL.Book.GetCalcMode	9009
• 193.15 XL.Book.GetDefaultFontName	9010
• 193.16 XL.Book.GetDefaultFontSize	9011
• 193.17 XL.Book.GetPicture	9012
• 193.18 XL.Book.GetPictureType	9013
• 193.19 XL.Book.GetRGBMode	9014
• 193.20 XL.Book.GetRefR1C1	9015
• 193.21 XL.Book.GetText	9016
• 193.22 XL.Book.InsertSheet	9017
• 193.23 XL.Book.IsDate1904	9018
• 193.24 XL.Book.IsTemplate	9019
• 193.25 XL.Book.MoveSheet	9020
• 193.26 XL.Book.PictureCount	9021
• 193.27 XL.Book.Release	9022
• 193.28 XL.Book.ReleaseAll	9024
• 193.29 XL.Book.Save	9025
• 193.30 XL.Book.SaveToFile	9027
• 193.31 XL.Book.SetActiveSheet	9029
• 193.32 XL.Book.SetCalcMode	9030
• 193.33 XL.Book.SetDate1904	9031
• 193.34 XL.Book.SetDefaultFont	9032
• 193.35 XL.Book.SetRGBMode	9033
• 193.36 XL.Book.SetRefR1C1	9034
• 193.37 XL.Book.SetTemplate	9035
• 193.38 XL.Book.SheetCount	9036

- 193.39 XL.Book.SheetIndexForName 9037
- 193.40 XL.Book.Sheets 9038
- 193.41 XL.Book.Version 9039
- 193.42 XL.Color.Pack 9040
- 193.43 XL.Color.UnPack 9042
- 193.44 XL.CopyContent 9044
- 193.45 XL.CopyRow 9046
- 193.46 XL.CopySheet 9048
- 193.47 XL.Date.DoubleToTimeStamp 9050
- 193.48 XL.Date.Pack 9051
- 193.49 XL.Date.TimeStampToDouble 9053
- 193.50 XL.Date.UnPack 9054
- 193.51 XL.Font.GetBold 9055
- 193.52 XL.Font.GetColor 9056
- 193.53 XL.Font.GetItalic 9057
- 193.54 XL.Font.GetName 9058
- 193.55 XL.Font.GetScript 9059
- 193.56 XL.Font.GetSize 9060
- 193.57 XL.Font.GetStrikeOut 9061
- 193.58 XL.Font.GetUnderline 9062
- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.61 XL.Font.SetItalic 9068
- 193.62 XL.Font.SetName 9069
- 193.63 XL.Font.SetScript 9071
- 193.64 XL.Font.SetSize 9072
- 193.65 XL.Font.SetStrikeOut 9074
- 193.66 XL.Font.SetUnderline 9075
- 193.67 XL.Format.GetAlignH 9076

	673
• 193.68 XL.Format.GetAlignV	9077
• 193.69 XL.Format.GetBorderBottom	9078
• 193.70 XL.Format.GetBorderBottomColor	9079
• 193.71 XL.Format.GetBorderDiagonal	9080
• 193.72 XL.Format.GetBorderDiagonalColor	9081
• 193.73 XL.Format.GetBorderDiagonalStyle	9082
• 193.74 XL.Format.GetBorderLeft	9083
• 193.75 XL.Format.GetBorderLeftColor	9084
• 193.76 XL.Format.GetBorderRight	9085
• 193.77 XL.Format.GetBorderRightColor	9086
• 193.78 XL.Format.GetBorderTop	9087
• 193.79 XL.Format.GetBorderTopColor	9088
• 193.80 XL.Format.GetFillPattern	9089
• 193.81 XL.Format.GetFont	9090
• 193.82 XL.Format.GetHidden	9091
• 193.83 XL.Format.GetIndent	9092
• 193.84 XL.Format.GetLocked	9093
• 193.85 XL.Format.GetNumFormat	9094
• 193.86 XL.Format.GetPatternBackgroundColor	9095
• 193.87 XL.Format.GetPatternForegroundColor	9096
• 193.88 XL.Format.GetRotation	9097
• 193.89 XL.Format.GetShrinkToFit	9098
• 193.90 XL.Format.GetWrap	9099
• 193.91 XL.Format.SetAlignH	9100
• 193.92 XL.Format.SetAlignV	9103
• 193.93 XL.Format.SetBorder	9105
• 193.94 XL.Format.SetBorderBottom	9107
• 193.95 XL.Format.SetBorderBottomColor	9109
• 193.96 XL.Format.SetBorderColor	9110

- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.100 XL.Format.SetBorderLeft 9116
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.106 XL.Format.SetFillPattern 9125
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130
- 193.110 XL.Format.SetLocked 9131
- 193.111 XL.Format.SetNumFormat 9133
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.114 XL.Format.SetRotation 9140
- 193.115 XL.Format.SetShrinkToFit 9141
- 193.116 XL.Format.SetWrap 9142
- 193.117 XL.Initialize 9145
- 193.118 XL.IsInitialized 9148
- 193.119 XL.LoadBook 9150
- 193.120 XL.LoadBookPartially 9153
- 193.121 XL.NewBook 9155
- 193.122 XL.Sheet.AddHyperlink 9157
- 193.123 XL.Sheet.AddIgnoredError 9159
- 193.124 XL.Sheet.AddrToRowCol 9161
- 193.125 XL.Sheet.ApplyFilter 9162

	675
• 193.126 XL.Sheet.AutoFilter	9163
• 193.127 XL.Sheet.AutoFilter.AddFilter	9165
• 193.128 XL.Sheet.AutoFilter.Clear	9167
• 193.129 XL.Sheet.AutoFilter.ColumnSize	9168
• 193.130 XL.Sheet.AutoFilter.Filter	9169
• 193.131 XL.Sheet.AutoFilter.FilterSize	9170
• 193.132 XL.Sheet.AutoFilter.FilterType	9171
• 193.133 XL.Sheet.AutoFilter.GetCustomFilter	9173
• 193.134 XL.Sheet.AutoFilter.GetRef	9174
• 193.135 XL.Sheet.AutoFilter.GetSort	9175
• 193.136 XL.Sheet.AutoFilter.GetSortRange	9176
• 193.137 XL.Sheet.AutoFilter.GetTop10	9177
• 193.138 XL.Sheet.AutoFilter.SetCustomFilter	9178
• 193.139 XL.Sheet.AutoFilter.SetRef	9180
• 193.140 XL.Sheet.AutoFilter.SetSort	9182
• 193.141 XL.Sheet.AutoFilter.SetTop10	9183
• 193.142 XL.Sheet.CellsIsDate	9185
• 193.143 XL.Sheet.CellsIsFormula	9186
• 193.144 XL.Sheet.CellsIsStyledText	9187
• 193.145 XL.Sheet.CellReadBlank	9189
• 193.146 XL.Sheet.CellReadBoolean	9190
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.151 XL.Sheet.CellReadDates	9198
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.153 XL.Sheet.CellReadFormulas	9202
• 193.154 XL.Sheet.CellReadNumber	9204

- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.156 XL.Sheet.CellReadStyledText 9207
- 193.157 XL.Sheet.CellReadText 9209
- 193.158 XL.Sheet.CellReadTexts 9211
- 193.159 XL.Sheet.CellType 9213
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.161 XL.Sheet.CellWriteBlanks 9216
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.166 XL.Sheet.CellWriteDate 9226
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.168 XL.Sheet.CellWriteError 9230
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235
- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.172 XL.Sheet.CellWriteFormulaText 9239
- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.179 XL.Sheet.Clear 9256
- 193.180 XL.Sheet.ClearPrintArea 9257
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.182 XL.Sheet.CopyCell 9259
- 193.183 XL.Sheet.DelHyperlink 9260



	677
• 193.184 XL.Sheet.DelMergeByIndex	9261
• 193.185 XL.Sheet.DeleteMerge	9262
• 193.186 XL.Sheet.DeleteNamedRange	9263
• 193.187 XL.Sheet.GetCellError	9264
• 193.188 XL.Sheet.GetCellErrors	9265
• 193.189 XL.Sheet.GetCellFormat	9267
• 193.190 XL.Sheet.GetCellFormats	9268
• 193.191 XL.Sheet.GetColHidden	9270
• 193.192 XL.Sheet.GetColWidth	9271
• 193.193 XL.Sheet.GetColWidthPixel	9272
• 193.194 XL.Sheet.GetDisplayGridlines	9273
• 193.195 XL.Sheet.GetFirstCol	9274
• 193.196 XL.Sheet.GetFirstRow	9275
• 193.197 XL.Sheet.GetFooter	9276
• 193.198 XL.Sheet.GetFooterMargin	9277
• 193.199 XL.Sheet.GetGroupSummaryBelow	9278
• 193.200 XL.Sheet.GetGroupSummaryRight	9279
• 193.201 XL.Sheet.GetHCenter	9280
• 193.202 XL.Sheet.GetHeader	9281
• 193.203 XL.Sheet.GetHeaderMargin	9282
• 193.204 XL.Sheet.GetHidden	9283
• 193.205 XL.Sheet.GetHorPageBreak	9284
• 193.206 XL.Sheet.GetHorPageBreakCount	9285
• 193.207 XL.Sheet.GetLandscape	9286
• 193.208 XL.Sheet.GetLastCol	9287
• 193.209 XL.Sheet.GetLastRow	9288
• 193.210 XL.Sheet.GetMarginBottom	9289
• 193.211 XL.Sheet.GetMarginLeft	9290
• 193.212 XL.Sheet.GetMarginRight	9291

- 193.213 XL.Sheet.GetMarginTop 9292
- 193.214 XL.Sheet.GetMerge 9293
- 193.215 XL.Sheet.GetName 9295
- 193.216 XL.Sheet.GetNamedRange 9296
- 193.217 XL.Sheet.GetPaper 9297
- 193.218 XL.Sheet.GetPicture 9299
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.221 XL.Sheet.GetPrintGridlines 9303
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.226 XL.Sheet.GetProtect 9308
- 193.227 XL.Sheet.GetRowHeight 9309
- 193.228 XL.Sheet.GetRowHeightPixel 9310
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.230 XL.Sheet.GetText 9312
- 193.231 XL.Sheet.GetTopLeftView 9313
- 193.232 XL.Sheet.GetVCenter 9314
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.235 XL.Sheet.GetZoom 9317
- 193.236 XL.Sheet.GroupCols 9318
- 193.237 XL.Sheet.GroupRows 9319
- 193.238 XL.Sheet.Hyperlink 9320
- 193.239 XL.Sheet.HyperlinkSize 9321
- 193.240 XL.Sheet.InsertCol 9322
- 193.241 XL.Sheet.InsertRow 9323

	679
• 193.242 XL.Sheet.Merge	9324
• 193.243 XL.Sheet.MergeSize	9325
• 193.244 XL.Sheet.NamedRange	9326
• 193.245 XL.Sheet.NamedRangeCount	9327
• 193.246 XL.Sheet.PictureCount	9328
• 193.247 XL.Sheet.RemoveCol	9329
• 193.248 XL.Sheet.RemoveComment	9330
• 193.249 XL.Sheet.RemoveComments	9332
• 193.250 XL.Sheet.RemoveFilter	9334
• 193.251 XL.Sheet.RemovePicture	9335
• 193.252 XL.Sheet.RemovePictureByIndex	9336
• 193.253 XL.Sheet.RemoveRow	9337
• 193.254 XL.Sheet.RightToLeft	9339
• 193.255 XL.Sheet.RowColToAddr	9340
• 193.256 XL.Sheet.SetAutoFitArea	9342
• 193.257 XL.Sheet.SetCellFormat	9343
• 193.258 XL.Sheet.SetCellFormats	9345
• 193.259 XL.Sheet.SetCol	9347
• 193.260 XL.Sheet.SetColHidden	9350
• 193.261 XL.Sheet.SetColumn	9351
• 193.262 XL.Sheet.SetDisplayGridlines	9353
• 193.263 XL.Sheet.SetFooter	9354
• 193.264 XL.Sheet.SetGroupSummaryBelow	9356
• 193.265 XL.Sheet.SetGroupSummaryRight	9357
• 193.266 XL.Sheet.SetHCenter	9358
• 193.267 XL.Sheet.SetHeader	9359
• 193.268 XL.Sheet.SetHorPageBreak	9361
• 193.269 XL.Sheet.SetLandscape	9362
• 193.270 XL.Sheet.SetMarginBottom	9363

- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366
- 193.274 XL.Sheet.SetMerge 9367
- 193.275 XL.Sheet.SetName 9369
- 193.276 XL.Sheet.SetNamedRange 9370
- 193.277 XL.Sheet.SetPaper 9372
- 193.278 XL.Sheet.SetPictureWithScale 9374
- 193.279 XL.Sheet.SetPictureWithSize 9376
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.282 XL.Sheet.SetPrintGridlines 9382
- 193.283 XL.Sheet.SetPrintRepeatCols 9383
- 193.284 XL.Sheet.SetPrintRepeatRows 9384
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386
- 193.287 XL.Sheet.SetProtect 9387
- 193.288 XL.Sheet.SetProtectEx 9388
- 193.289 XL.Sheet.SetRightToLeft 9390
- 193.290 XL.Sheet.SetRow 9391
- 193.291 XL.Sheet.SetRowHidden 9393
- 193.292 XL.Sheet.SetTabColor 9394
- 193.293 XL.Sheet.SetTabColorRGB 9395
- 193.294 XL.Sheet.SetTopLeftView 9396
- 193.295 XL.Sheet.SetVCenter 9397
- 193.296 XL.Sheet.SetVerPageBreak 9398
- 193.297 XL.Sheet.SetZoom 9399
- 193.298 XL.Sheet.Split 9400
- 193.299 XL.Sheet.SplitInfo 9401

	681
• 193.300 XL.Sheet.Table	9402
• 193.301 XL.Sheet.TableSize	9403
• 193.302 XL.Sheet.Type	9404
• 193.303 XL.Uninitialize	9405
• 194.2 XML.ApplyStylesheet	9410
• 194.3 XML.Canonical	9412
• 194.4 XML.ClearVariables	9414
• 194.5 XML.Colorize	9415
• 194.6 XML.Compact	9417
• 194.7 XML.DeletePath	9418
• 194.8 XML.ExtractText	9420
• 194.9 XML.Format	9422
• 194.10 XML.GetAttribute	9424
• 194.11 XML.GetPathValue	9425
• 194.12 XML.HasAttribute	9427
• 194.13 XML.Import	9428
• 194.14 XML.Import.Cancel	9432
• 194.15 XML.Import.ErrorCount	9433
• 194.16 XML.Import.Errors	9434
• 194.17 XML.Import.SetBaseFields	9435
• 194.18 XML.Import.SetExtraField	9436
• 194.19 XML.Import.Status	9437
• 194.20 XML.Import.TODO	9438
• 194.21 XML.Import.Total	9439
• 194.22 XML.Import.Work	9440
• 194.23 XML.ListAttributes	9442
• 194.24 XML.NodeCount	9443
• 194.25 XML.NodeNames	9444
• 194.26 XML.Parse	9446

• 194.27 XML.Query	9448
• 194.28 XML.ReadContainer	9451
• 194.29 XML.ReadFile	9452
• 194.30 XML.Release	9454
• 194.31 XML.ReleaseAll	9455
• 194.32 XML.SetPathValue	9456
• 194.33 XML.SetPathXML	9458
• 194.34 XML.SetVariables	9460
• 194.35 XML.SubTree	9462
• 194.36 XML.ToJSON	9465
• 194.37 XML.Validate	9466
• 194.38 XML.ValidateFile	9468
• 54.33 ZipFile.CRCFile	1545
• 54.34 ZipFile.Close	1546
• 54.35 ZipFile.CompressFiles	1547
• 54.36 ZipFile.CreateFile	1549
• 54.37 ZipFile.Open	1551
• 54.38 ZipFile.SetCompressionLevel	1553
• 54.39 ZipFile.UsePassword	1554
• 54.40 ZipFile.WriteContainer	1556
• 54.41 ZipFile.WriteFile	1557
• 54.42 ZipFile.WriteHex	1559
• 54.43 ZipFile.WriteText	1560

3580 functions.

# Chapter 7

## New in Version 6.0

- 52.5 Clipboard.GetHTMLText 1475
- 52.13 Clipboard.SetHTMLText 1486
- 68.1 DNSLookup.Address 2493
- 68.2 DNSLookup.AddressCount 2495
- 68.3 DNSLookup.Alias 2496
- 68.4 DNSLookup.AliasCount 2497
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.6 DNSLookup.LookupHostByName 2500
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.19 DynaPDF.AttachFile 2624
- 71.20 DynaPDF.AttachFileContainer 2626
- 71.21 DynaPDF.AttachFileText 2627
- 71.99 DynaPDF.ExtractDocumentText 2753
- 71.244 DynaPDF.GetTextDrawMode 2946
- 71.276 DynaPDF.InitColorManagementEx 2990
- 71.299 DynaPDF.Optimize 3046
- 71.345 DynaPDF.SetAnnotOpacity 3143

• 71.429 DynaPDF.SetTextDrawMode	3279
• 81.4 FM.DeleteRecord	4131
• 81.5 FM.DeleteRecords	4134
• 81.14 FM.InsertOrUpdateRecord	4162
• 81.21 FM.InsertRecordQueryIgnoreDuplicates	4184
• 80.81 FM.SetThreadName	4092
• 81.38 FM.UpdateRecord	4222
• 81.39 FM.UpdateRecords	4225
• 84.2 FSEvents.CreateRelativeToDevice	4267
• 84.5 FSEvents.DeviceBeingWatched	4270
• 84.6 FSEvents.DeviceID	4271
• 84.11 FSEvents.GetExclusionPaths	4276
• 84.15 FSEvents.LastEventIdForDeviceBeforeTime	4280
• 84.21 FSEvents.SetExclusionPaths	4289
• 84.28 FSEvents.UUIDForDevice	4296
• 102.5 JSON.AddBooleanToObject	5311
• 102.19 JSON.CreateArrayRef	5338
• 102.21 JSON.CreateBoolean	5342
• 102.28 JSON.CreateObjectRef	5351
• 102.49 JSON.GetObjectItemTreeRef	5383
• 102.66 JSON.Parse	5406
• 102.67 JSON.Release	5409
• 102.68 JSON.ReleaseAll	5411
• 104.1 LDAP.Add	5439
• 104.5 LDAP.Bind	5449
• 104.6 LDAP.Connect	5451
• 104.7 LDAP.Delete	5454
• 104.8 LDAP.GetNetworkTimeOut	5455
• 104.9 LDAP.GetProtocolVersion	5456



	685
• 104.10 LDAP.GetReferrals	5457
• 104.11 LDAP.GetTimeOut	5458
• 104.13 LDAP.Modify	5464
• 104.16 LDAP.Release	5469
• 104.17 LDAP.Rename	5470
• 104.18 LDAP.Search	5471
• 104.19 LDAP.SearchResult.AttributeCount	5473
• 104.20 LDAP.SearchResult.AttributeName	5475
• 104.21 LDAP.SearchResult.AttributeNames	5476
• 104.22 LDAP.SearchResult.AttributeValue	5477
• 104.23 LDAP.SearchResult.AttributeValueCount	5478
• 104.24 LDAP.SearchResult.AttributeValues	5479
• 104.26 LDAP.SearchResult.Count	5483
• 104.27 LDAP.SearchResult.DistinguishedName	5485
• 104.28 LDAP.SetNetworkTimeOut	5486
• 104.29 LDAP.SetProtocolVersion	5487
• 104.30 LDAP.SetReferrals	5488
• 104.31 LDAP.SetTimeOut	5489
• 104.32 LDAP.SimpleBind	5490
• 125.13 PDFKit.GetPDFPageDisplayAnnotation	6283
• 125.41 PDFKit.SetPDFPageDisplayAnnotation	6328
• 124.1 Path.AddPathComponent	6243
• 124.5 Path.LastPathComponent	6252
• 124.8 Path.RemoveLastPathComponent	6257
• 129.2 Preferences.DeleteValue	6482
• 129.6 Preferences.HasValue	6488
• 105.73 QuickList.MatchesSubString	5602
• 141.7 RichText.HTMLText	6834
• 162.13 SyntaxColoring.ContextualMenuEnabled.GetEnabled	7703

- 162.14 SyntaxColoring.ContextualMenuEnabled.SetEnabled 7704
- 54.4 UnZipFile.ExtractFiles 1513
- 185.29 Window.GetTitleVisible 8705
- 185.30 Window.GetTitlebarAppearsTransparent 8706
- 185.55 Window.Maximize 8733
- 185.56 Window.Minimize 8734
- 185.63 Window.ResizeContentView 8744
- 185.97 Window.SetTitleVisible 8791
- 185.98 Window.SetTitlebarAppearsTransparent 8792
- 54.35 ZipFile.CompressFiles 1547

87 functions.

# Chapter 8

## New in Version 6.1

• 40.1 AVExport.AllExportPresets	1041
• 40.2 AVExport.CancelExport	1043
• 40.3 AVExport.Duration	1044
• 40.4 AVExport.Error	1045
• 40.5 AVExport.EstimatedOutputFileLength	1046
• 40.6 AVExport.ExportAsynchronously	1047
• 40.7 AVExport.ExportSession	1049
• 40.9 AVExport.GetOutputFileType	1054
• 40.10 AVExport.GetOutputPath	1055
• 40.11 AVExport.GetOutputURL	1056
• 40.12 AVExport.GetShouldOptimizeForNetworkUse	1057
• 40.13 AVExport.GetTimeRange	1058
• 40.14 AVExport.OutputFileExtension	1059
• 40.15 AVExport.PresetName	1060
• 40.16 AVExport.Progress	1061
• 40.17 AVExport.Release	1062
• 40.18 AVExport.SetOutputFileType	1063
• 40.19 AVExport.SetOutputPath	1064
• 40.20 AVExport.SetOutputURL	1066

- 40.21 AVExport.SetShouldOptimizeForNetworkUse 1067
- 40.22 AVExport.SetTimeRange 1068
- 40.23 AVExport.Status 1069
- 40.24 AVExport.SupportedFileTypes 1070
- 42.1 AVRecorder.AddPreviewToWindow 1123
- 42.2 AVRecorder.AudioDeviceCount 1125
- 42.3 AVRecorder.AudioDeviceInfo 1126
- 42.6 AVRecorder.ClosePreview 1132
- 42.10 AVRecorder.GetAudioDevice 1136
- 42.13 AVRecorder.GetFilePath 1139
- 42.14 AVRecorder.GetVideoDevice 1140
- 42.17 AVRecorder.Init 1143
- 42.18 AVRecorder.IsRecording 1146
- 42.20 AVRecorder.Release 1148
- 42.22 AVRecorder.SetAudioDevice 1150
- 42.25 AVRecorder.SetFilePath 1153
- 42.27 AVRecorder.SetVideoDevice 1156
- 42.30 AVRecorder.StartPreview 1160
- 42.32 AVRecorder.StartRecording 1163
- 42.34 AVRecorder.StopRecording 1165
- 42.35 AVRecorder.VideoDeviceCount 1166
- 42.36 AVRecorder.VideoDeviceInfo 1167
- 34.39 Addressbook.multivalue.identifiers 859
- 34.45 Addressbook.multivalue.labels 866
- 34.53 Addressbook.multivalue.valueForLabel 877
- 34.54 Addressbook.multivalue.values 878
- 34.58 Addressbook.person.ExternalUID 882
- 34.84 Addressbook.searchPersonWithExternalUID 919
- 35.1 App.CancelUserAttentionRequest 921

	689
• 35.12 App.RequestUserAttention	932
• 51.4 CLGeocoder.Distance	1453
• 62.51 CURL.GetFinishedEvaluate	1877
• 62.94 CURL.GetProgressEvaluate	1924
• 62.159 CURL.SetFinishedEvaluate	2028
• 62.385 CURL.SetProgressEvaluate	2354
• 66.5 Dictionary.Clone	2447
• 102.1 Dictionary.ToJSON	5303
• 66.22 Dictionary.ToText	2471
• 194.1 Dictionary.ToXML	9407
• 71.236 DynaPDF.GetReplaceICCProfile	2938
• 71.238 DynaPDF.GetReplaceICCProfilesCounter	2940
• 71.423 DynaPDF.SetReplaceICCProfile	3268
• 80.12 FM.DataType	3952
• 81.15 FM.InsertOrUpdateRecord2	4165
• 81.16 FM.InsertOrUpdateRecord3	4168
• 90.2 HotKey.GetEvaluate	4896
• 90.17 HotKey.SetEvaluate	4914
• 127.7 IsIOS	6376
• 127.10 IsLinux	6379
• 127.11 IsMacOS	6380
• 127.16 IsWindows	6388
• 102.15 JSON.Clone	5333
• 102.53 JSON.GetPathItem	5387
• 102.56 JSON.GetValue	5393
• 102.71 JSON.SetPathItem	5414
• 105.1 List.AddPostfix	5493
• 105.2 List.AddPrefix	5495
• 105.10 List.CrossProduct	5506

- 105.30 List.RemovePostfix 5534
- 105.31 List.RemovePrefix 5536
- 114.9 Menu.GetEvaluate 5969
- 114.30 Menu.SetEvaluate 5995
- 114.44 MenuItem.GetEvaluate 6011
- 114.85 MenuItem.SetEvaluate 6055
- 115.7 Menubar.SetMenuCommandTitle 6103
- 130.39 PrintDialog.GetTray 6535
- 130.57 PrintDialog.SetTray 6558
- 135.1 QTExport.CloseMovie 6663
- 135.2 QTExport.Duration 6665
- 135.3 QTExport.Export 6666
- 135.4 QTExport.GetHighResolution 6668
- 135.5 QTExport.GetMovieHeight 6669
- 135.6 QTExport.GetMovieWidth 6670
- 135.7 QTExport.GetSettings 6671
- 135.8 QTExport.GetShowProgress 6672
- 135.9 QTExport.GetSoundChannelCount 6673
- 135.10 QTExport.GetSoundSampleRate 6674
- 135.11 QTExport.GetSoundSampleSize 6675
- 135.12 QTExport.ListExporters 6676
- 135.13 QTExport.OpenExporter 6677
- 135.14 QTExport.OpenMovie 6679
- 135.15 QTExport.Release 6680
- 135.16 QTExport.SetHighResolution 6681
- 135.17 QTExport.SetMovieHeight 6682
- 135.18 QTExport.SetMovieWidth 6683
- 135.19 QTExport.SetSettings 6684
- 135.20 QTExport.SetShowProgress 6685

	691
• 135.21 QTEExport.SetSoundChannelCount	6686
• 135.22 QTEExport.SetSoundSampleRate	6687
• 135.23 QTEExport.SetSoundSampleSize	6688
• 135.24 QTEExport.SetupDialog	6689
• 135.25 QTEExport.Validate	6690
• 105.45 QuickList.AddPostfix	5559
• 105.46 QuickList.AddPrefix	5561
• 105.55 QuickList.Clone	5575
• 105.58 QuickList.CrossProduct	5579
• 105.86 QuickList.RemovePostfix	5621
• 105.87 QuickList.RemovePrefix	5623
• 146.12 SendMail.ClearHeaders	7010
• 162.32 SyntaxColoring.GetScriptIfColor	7723
• 162.33 SyntaxColoring.GetScriptLoopColor	7724
• 162.34 SyntaxColoring.GetScriptSearchColor	7725
• 162.40 SyntaxColoring.GetUseBoldFont	7731
• 162.69 SyntaxColoring.SetScriptIfColor	7764
• 162.70 SyntaxColoring.SetScriptLoopColor	7765
• 162.71 SyntaxColoring.SetScriptSearchColor	7766
• 162.75 SyntaxColoring.SetUseBoldFont	7770
• 167.56 Text.RemovePostfix	7981
• 167.57 Text.RemovePrefix	7982
• 169.3 Time.TimeStampToUTC	8061
• 185.8 Window.ClearFocus	8678
• 185.17 Window.FlashWindow	8692

131 functions.





# Chapter 9

## New in Version 6.2

- 40.8 AVExport.ExportSessionMerge 1052
- 42.5 AVRecorder.CaptureStillPhoto 1130
- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.4 Addressbook.Account.isMainAccount 815
- 34.9 Addressbook.Notification.Evaluate 821
- 34.18 Addressbook.Record.Account 830
- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836
- 34.56 Addressbook.persistentAccounts 880
- 62.45 CURL.GetDebugWithData 1870
- 62.47 CURL.GetDebugWithTime 1872
- 62.156 CURL.SetDebugWithData 2022
- 62.158 CURL.SetDebugWithTime 2026
- 48.79 Calendar.Notification.Evaluate 1354
- 59.5 CoreLocation.SetFailEvaluate 1709
- 59.7 CoreLocation.SetUpdateLocationEvaluate 1711

- 64.17 Dialog.GetSheetEvaluate 2398
- 64.41 Dialog.SetSheetEvaluate 2424
- 66.17 Dictionary.SetList 2463
- 71.101 DynaPDF.ExtractPageRectText 2757
- 77.1 Events.Alarm.Copy 3559
- 77.2 Events.Alarm.GetAbsoluteDate 3561
- 77.3 Events.Alarm.GetEmailAddress 3562
- 77.4 Events.Alarm.GetProximity 3563
- 77.5 Events.Alarm.GetRelativeOffset 3564
- 77.6 Events.Alarm.GetSound 3565
- 77.7 Events.Alarm.GetStructuredLocation 3566
- 77.8 Events.Alarm.GetURL 3567
- 77.9 Events.Alarm.SetAbsoluteDate 3568
- 77.10 Events.Alarm.SetEmailAddress 3569
- 77.11 Events.Alarm.SetProximity 3570
- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.13 Events.Alarm.SetSound 3573
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.15 Events.Alarm.SetURL 3577
- 77.16 Events.Alarm.TriggerDateRelativeTo 3578
- 77.17 Events.Alarm.Type 3579
- 77.18 Events.AuthorizationStatusForEntityType 3580
- 77.19 Events.Calendar.AllowsContentModifications 3582
- 77.20 Events.Calendar.CalendarIdentifier 3583
- 77.21 Events.Calendar.Duplicate 3584
- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589

	695
• 77.26 Events.Calendar.Immutable	3590
• 77.27 Events.Calendar.SetColor	3591
• 77.28 Events.Calendar.SetSource	3592
• 77.29 Events.Calendar.SetTitle	3593
• 77.30 Events.Calendar.Subscribed	3594
• 77.31 Events.Calendar.allowedEntityTypes	3595
• 77.32 Events.Calendar.supportedEventAvailabilities	3596
• 77.33 Events.CalendarCount	3597
• 77.34 Events.CalendarItemsWithExternalIdentifier	3598
• 77.35 Events.Calendars	3599
• 77.36 Events.ClearNotification	3600
• 77.37 Events.Commit	3601
• 77.38 Events.CompletedReminders	3602
• 77.39 Events.DelegateSources	3603
• 77.40 Events.Event.BirthdayPersonUniqueID	3604
• 77.41 Events.Event.GetAllDay	3605
• 77.42 Events.Event.GetAvailability	3606
• 77.43 Events.Event.GetEndDate	3607
• 77.44 Events.Event.GetStartDate	3608
• 77.45 Events.Event.GetStructuredLocation	3609
• 77.46 Events.Event.IsDetached	3610
• 77.47 Events.Event.OccurrenceDate	3611
• 77.48 Events.Event.Refresh	3612
• 77.49 Events.Event.SetAllDay	3613
• 77.50 Events.Event.SetAvailability	3614
• 77.51 Events.Event.SetEndDate	3615
• 77.52 Events.Event.SetStartDate	3617
• 77.53 Events.Event.SetStructuredLocation	3619
• 77.54 Events.Event.Status	3620

- 77.55 Events.Event.compareStartDateWithEvent 3621
- 77.56 Events.Event.organizer 3622
- 77.57 Events.EventStoreIdentifier 3623
- 77.58 Events.Events 3624
- 77.59 Events.IncompleteReminders 3625
- 77.60 Events.Initialize 3626
- 77.61 Events.Item.AddAlarm 3627
- 77.62 Events.Item.AddRecurrenceRule 3629
- 77.63 Events.Item.Alarms 3630
- 77.64 Events.Item.Attendees 3631
- 77.65 Events.Item.CalendarItemExternalIdentifier 3632
- 77.66 Events.Item.CalendarItemIdentifier 3634
- 77.67 Events.Item.Duplicate 3635
- 77.68 Events.Item.GetCalendar 3636
- 77.69 Events.Item.GetLocation 3637
- 77.70 Events.Item.GetNotes 3638
- 77.71 Events.Item.GetTimeZone 3639
- 77.72 Events.Item.GetTitle 3640
- 77.73 Events.Item.GetURL 3641
- 77.74 Events.Item.HasAlarms 3642
- 77.75 Events.Item.HasAttendees 3643
- 77.76 Events.Item.HasNotes 3644
- 77.77 Events.Item.HasRecurrenceRules 3645
- 77.78 Events.Item.RecurrenceRules 3646
- 77.79 Events.Item.RemoveAlarm 3647
- 77.80 Events.Item.RemoveRecurrenceRule 3648
- 77.81 Events.Item.SetCalendar 3649
- 77.82 Events.Item.SetLocation 3651
- 77.83 Events.Item.SetNotes 3653

	697
• 77.84 Events.Item.SetTimeZone	3655
• 77.85 Events.Item.SetTitle	3656
• 77.86 Events.Item.SetURL	3658
• 77.87 Events.Item.creationDate	3660
• 77.88 Events.Item.lastModifiedDate	3661
• 77.89 Events.NewAlarm	3662
• 77.90 Events.NewAlarmWithAbsoluteDate	3664
• 77.91 Events.NewAlarmWithRelativeOffset	3665
• 77.92 Events.NewCalendar	3666
• 77.93 Events.NewEvent	3667
• 77.94 Events.NewReminder	3669
• 77.95 Events.Object.HasChanges	3671
• 77.96 Events.Object.IsNew	3672
• 77.97 Events.Object.Refresh	3673
• 77.98 Events.Object.Reset	3674
• 77.99 Events.Object.Rollback	3675
• 77.100 Events.Participant.GetName	3676
• 77.101 Events.Participant.GetStatus	3677
• 77.102 Events.Participant.IsCurrentUser	3678
• 77.103 Events.Participant.Name	3679
• 77.104 Events.Participant.Person	3680
• 77.105 Events.Participant.Role	3681
• 77.106 Events.Participant.Status	3682
• 77.107 Events.Participant.Type	3683
• 77.108 Events.Participant.URL	3684
• 77.109 Events.RecurrenceDayOfWeek.Copy	3685
• 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek	3686
• 77.111 Events.RecurrenceDayOfWeek.NewWithDayOfTheWeek	3687
• 77.112 Events.RecurrenceDayOfWeek.WeekNumber	3688

• 77.113 Events.RecurrenceEnd.Copy	3689
• 77.114 Events.RecurrenceEnd.EndDate	3690
• 77.115 Events.RecurrenceEnd.NewWithEndDate	3691
• 77.116 Events.RecurrenceEnd.NewWithOccurrenceCount	3692
• 77.117 Events.RecurrenceEnd.OccurrenceCount	3693
• 77.118 Events.RecurrenceRule.CalendarIdentifier	3694
• 77.119 Events.RecurrenceRule.Copy	3695
• 77.120 Events.RecurrenceRule.DaysOfTheMonth	3696
• 77.121 Events.RecurrenceRule.DaysOfTheWeek	3697
• 77.122 Events.RecurrenceRule.DaysOfTheYear	3698
• 77.124 Events.RecurrenceRule.FirstDayOfTheWeek	3700
• 77.125 Events.RecurrenceRule.Frequency	3701
• 77.126 Events.RecurrenceRule.GetRecurrenceEnd	3702
• 77.127 Events.RecurrenceRule.Interval	3703
• 77.128 Events.RecurrenceRule.MonthsOfTheYear	3704
• 77.129 Events.RecurrenceRule.NewWithFrequency	3705
• 77.130 Events.RecurrenceRule.SetPositions	3708
• 77.131 Events.RecurrenceRule.SetRecurrenceEnd	3709
• 77.132 Events.RecurrenceRule.WeeksOfTheYear	3710
• 77.133 Events.RefreshSourcesIfNecessary	3711
• 77.134 Events.Reminder.GetCompleted	3712
• 77.135 Events.Reminder.GetCompletionDate	3713
• 77.136 Events.Reminder.GetDueDate	3714
• 77.138 Events.Reminder.GetPriority	3716
• 77.139 Events.Reminder.GetStartDate	3717
• 77.141 Events.Reminder.SetCompleted	3719
• 77.142 Events.Reminder.SetCompletionDate	3720
• 77.143 Events.Reminder.SetDueDate	3721
• 77.144 Events.Reminder.SetDueDateComponents	3723

	699
• 77.145 Events.Reminder.SetPriority	3725
• 77.146 Events.Reminder.SetStartDate	3727
• 77.147 Events.Reminder.SetStartDateComponents	3729
• 77.148 Events.Reminders	3731
• 77.149 Events.RemoveCalendar	3732
• 77.150 Events.RemoveEvent	3733
• 77.151 Events.RemoveReminder	3734
• 77.152 Events.Reset	3735
• 77.153 Events.SaveCalendar	3736
• 77.154 Events.SaveEvent	3737
• 77.155 Events.SaveReminder	3739
• 77.156 Events.SelectEvent	3742
• 77.157 Events.SetNotification	3743
• 77.158 Events.SetNotificationEvaluate	3745
• 77.159 Events.Source.Calendars	3746
• 77.160 Events.Source.Title	3747
• 77.161 Events.Source.Type	3748
• 77.162 Events.SourceWithType	3749
• 77.163 Events.Sources	3750
• 77.164 Events.StructuredLocation.Copy	3751
• 77.165 Events.StructuredLocation.GetGeoLocation	3752
• 77.166 Events.StructuredLocation.GetRadius	3753
• 77.167 Events.StructuredLocation.NewLocationWithTitle	3754
• 77.168 Events.StructuredLocation.SetGeoLocation	3756
• 77.169 Events.StructuredLocation.SetRadius	3757
• 77.170 Events.StructuredLocation.Title	3758
• 77.171 Events.defaultCalendarForNewEvents	3759
• 77.172 Events.defaultCalendarForNewReminders	3760
• 77.173 Events.requestAccessToEntityType	3761

- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 84.10 FSEvents.GetEvaluate 4275
- 84.20 FSEvents.SetEvaluate 4288
- 79.26 Files.FolderSize 3865
- 79.27 Files.GetComment 3867
- 79.28 Files.GetFinderLabel 3868
- 79.54 Files.SetComment 3916
- 79.56 Files.SetFinderLabel 3918
- 82.10 Folders.UserDownloads 4239
- 82.16 Folders.UserTemporary 4245
- 83.6 FontManager.FontFile 4260
- 87.126 GImage.GetIPTCProfileValues 4567
- 115.4 Menubar.RemoveMenuCommand 6098
- 127.29 Plugin.LibSSHVersion 6402
- 127.33 Plugin.OpenSSLVersion 6408
- 130.19 PrintDialog.ClearOption 6513
- 130.20 PrintDialog.ClearOptions 6514
- 130.23 PrintDialog.GetAllPages 6518
- 130.25 PrintDialog.GetCopies 6520
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.30 PrintDialog.GetLastSettings 6525
- 130.32 PrintDialog.GetOption 6528
- 130.41 PrintDialog.SetAllPages 6538
- 130.43 PrintDialog.SetCopies 6540
- 130.46 PrintDialog.SetFirstPage 6544
- 130.47 PrintDialog.SetLastPage 6545
- 130.49 PrintDialog.SetOption 6548
- 105.95 QuickList.SortWith 5635



	701
• 152.15 RSA.GeneratePrivateKey	7191
• 152.16 RSA.GetPublicKey	7193
• 74.14 RSA.PrivateDecrypt	3527
• 74.15 RSA.PrivateEncrypt	3530
• 74.16 RSA.PublicDecrypt	3533
• 74.17 RSA.PublicEncrypt	3536
• 152.17 RSA.Sign	7195
• 152.18 RSA.Verify	7200
• 140.10 RemoteControl.PressDialogButton	6817
• 140.11 RemoteControl.PressDialogButton.Clear	6818
• 140.13 RemoteControl.PressKeyLater	6822
• 159.28 SQL.GetFieldAsContainer	7452
• 159.49 SQL.GetParamAsContainer	7484
• 143.16 Schedule.GetLastTimeStamp	6921
• 147.29 SerialPort.SetDataAvailableEvaluate	7081
• 157.54 Socket.SetDataAvailableEvaluate	7368
• 157.57 Socket.SetErrorEvaluate	7372
• 157.63 Socket.SetNewConnectionEvaluate	7379
• 183.28 WebView.AllowsAnyHTTTPSCertificateForHost	8444
• 183.101 WebView.PressKey	8543
• 185.69 Window.Scrollbar.getHorizontalMaximum	8754
• 185.70 Window.Scrollbar.getHorizontalPosition	8755
• 185.71 Window.Scrollbar.getVerticalMaximum	8756
• 185.72 Window.Scrollbar.getVerticalPosition	8757
• 185.73 Window.Scrollbar.set	8758
• 192.9 WordFile.GetXML	8961
• 192.15 WordFile.Parts	8969
• 192.23 WordFile.SetXML	8981
• 194.3 XML.Canonical	9412
• 194.9 XML.Format	9422

252 functions.



# Chapter 10

## New in Version 6.3

- 61.22 CUPS.PrintDataEncoding 1795
- 62.46 CURL.GetDebugWithProgress 1871
- 62.157 CURL.SetDebugWithProgress 2024
- 52.6 Clipboard.GetPicture 1476
- 52.14 Clipboard.SetPicture 1488
- 71.14 DynaPDF.AppendImagePage 2615
- 71.15 DynaPDF.AppendImagePages 2617
- 71.108 DynaPDF.FindEmbeddedFile 2772
- 73.19 EmailParser.ParseContainer 3486
- 73.22 EmailParser.ProcessImageReferences 3490
- 76.3 EventMonitor.GetEnabled 3549
- 76.10 EventMonitor.SetEnabled 3558
- 80.13 FM.DataViewerContent 3953
- 80.48 FM.MouseWheelScriptTrigger 4032
- 79.11 Files.CreateHardLink 3841
- 79.12 Files.CreateSymbolicLink 3843
- 87.170 GImage.GetXMP 4614
- 87.299 GImage.SetXMP 4785
- 102.65 JSON.IsValid 5405

- 105.11 List.DeCombine 5508
- 114.66 MenuItem.GetSelectable 6033
- 114.103 MenuItem.SetSelectable 6081
- 115.2 Menubar.IsMenuCommandChecked 6095
- 159.17 SQL.FreeAllConnections 7439
- 160.1 SSH.CloseChannel 7603
- 160.2 SSH.Connect 7605
- 160.3 SSH.Disconnect 7609
- 160.4 SSH.EOF 7610
- 160.5 SSH.Execute 7611
- 160.6 SSH.Flush 7614
- 160.7 SSH.FreeChannel 7615
- 160.8 SSH.GetExitState 7616
- 160.9 SSH.GetIP 7617
- 160.10 SSH.GetPort 7618
- 160.11 SSH.GetTag 7619
- 160.12 SSH.GetTimeout 7620
- 160.13 SSH.GetUserName 7621
- 160.14 SSH.HostKey 7622
- 160.15 SSH.HostKeyHash 7623
- 160.16 SSH.IsAuthenticated 7624
- 160.17 SSH.New 7625
- 160.18 SSH.OpenSession 7628
- 160.19 SSH.ReadHex 7629
- 160.20 SSH.ReadText 7630
- 160.21 SSH.Release 7632
- 160.22 SSH.RequestPTY 7633
- 160.23 SSH.SendEOF 7634
- 160.24 SSH.SessionHandshake 7635

	705
• 160.25 SSH.SetEnv	7636
• 160.26 SSH.SetTag	7637
• 160.27 SSH.SetTimeout	7638
• 160.28 SSH.Shell	7639
• 160.38 SSH.UserAuthKeyboardInteractive	7650
• 160.39 SSH.UserAuthList	7651
• 160.40 SSH.UserAuthPassword	7652
• 160.41 SSH.UserAuthPublicKey	7653
• 160.42 SSH.UserAuthPublicKeyFile	7655
• 160.43 SSH.WaitClosed	7657
• 160.44 SSH.WaitEOF	7658
• 160.45 SSH.WaitSocket	7659
• 160.46 SSH.WriteHex	7660
• 160.47 SSH.WriteText	7661
• 153.1 SmartCard.Available	7203
• 153.2 SmartCard.BeginTransaction	7204
• 153.3 SmartCard.Cancel	7205
• 153.4 SmartCard.CancelTransaction	7206
• 153.5 SmartCard.Connect	7207
• 153.6 SmartCard.Control	7209
• 153.7 SmartCard.Disconnect	7210
• 153.8 SmartCard.EndTransaction	7211
• 153.9 SmartCard.GetActiveProtocol	7212
• 153.10 SmartCard.GetAttribute	7213
• 153.12 SmartCard.Init	7216
• 153.13 SmartCard.ListReaderGroups	7219
• 153.14 SmartCard.ListReaders	7220
• 153.18 SmartCard.Reconnect	7227
• 153.19 SmartCard.Release	7228

• 153.20 SmartCard.SetAttribute	7229
• 153.22 SmartCard.Status	7232
• 153.23 SmartCard.Transmit	7233
• 153.24 SmartCard.TransmitReceiveHeader	7236
• 153.25 SmartCard.Valid	7237
• 158.6 Speech.Speak	7396
• 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize	7719
• 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize	7759
• 164.45 SystemInfo.WinSystemMetrics	7826
• 164.48 SystemInfo.isElCapitan	7830
• 164.56 SystemInfo.isSierra	7838
• 164.64 SystemInfo.isYosemite	7846
• 183.96 WebView.Passwords.Clear	8535
• 183.97 WebView.Passwords.Install	8536
• 183.98 WebView.Passwords.Set	8538
• 185.20 Window.GetCurrentTag	8696
• 185.27 Window.GetTag	8703
• 185.78 Window.SetCurrentTag	8766
• 185.94 Window.SetTag	8787
• 192.8 WordFile.GetMediaFile	8960
• 192.11 WordFile.MediaFiles	8963
• 192.21 WordFile.SetMarkers	8978
• 192.22 WordFile.SetMediaFile	8979

100 functions.

# Chapter 11

## New in Version 6.4

- 56.28 Container.ReadFile 1681
- 56.35 Container.WriteFile 1694
- 64.1 Dialog.AddField 2381
- 64.2 Dialog.ClearFields 2383
- 64.9 Dialog.GetFieldText 2390
- 64.34 Dialog.SetFieldText 2417
- 71.1 DynaPDF.AddActionToObj 2591
- 71.49 DynaPDF.CreateButton 2667
- 71.58 DynaPDF.CreateJSAction 2687
- 71.127 DynaPDF.GetBBox 2801
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.179 DynaPDF.GetImage 2862
- 71.180 DynaPDF.GetImageCount 2866
- 71.290 DynaPDF.ListImages 3025
- 71.296 DynaPDF.OpenOutputFileEncrypted 3037
- 71.409 DynaPDF.SetNumberFormat 3241
- 73.23 EmailParser.ReceiveDate 3491
- 81.13 FM.GetSQLBatchMode 4161
- 81.30 FM.SQL.InsertRecords 4204

• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 81.37 FM.SetSQLBatchMode	4220
• 79.2 Files.AddedToDirectoryDate	3827
• 92.7 IkslideShow.Count	4966
• 92.8 IkslideShow.GetAudioFile	4967
• 92.13 IkslideShow.GetScreen	4972
• 92.17 IkslideShow.ItemAtIndex	4976
• 92.19 IkslideShow.SetAudioFile	4979
• 92.24 IkslideShow.SetScreen	4984
• 93.64 ImageCapture.CloseDevice	5059
• 93.66 ImageCapture.DeviceInfo	5061
• 93.67 ImageCapture.Devices	5063
• 93.70 ImageCapture.Features	5067
• 93.71 ImageCapture.GetFeatureValue	5068
• 93.73 ImageCapture.GetParameter	5070
• 93.75 ImageCapture.ImagePaths	5074
• 93.76 ImageCapture.Initialize	5075
• 93.79 ImageCapture.OpenDevice	5078
• 93.81 ImageCapture.PreferredDevice	5081
• 93.85 ImageCapture.RequestOverviewScan	5085
• 93.86 ImageCapture.RequestScan	5086
• 93.87 ImageCapture.RequestSelectFunctionalUnit	5089
• 93.90 ImageCapture.SetFeatureValue	5093
• 93.91 ImageCapture.SetParameter	5094
• 93.93 ImageCapture.cancelScan	5099
• 104.3 LDAP.AddList	5445
• 105.17 List.HasValue	5516
• 110.8 Math.DecodeNumber	5847
• 110.9 Math.EncodeNumber	5849



	709
• 126.3 PHP.GetResultContainer	6358
• 133.15 ProgressDialog.Reset	6620
• 141.18 RichText.ReplaceTexts	6850
• 142.20 RunTask.Wait	6895
• 159.23 SQL.GetCommandTag	7447
• 159.26 SQL.GetConnectionTag	7450
• 159.79 SQL.ListCommands	7527
• 159.80 SQL.ListConnections	7528
• 159.102 SQL.SetCommandTag	7560
• 159.105 SQL.SetConnectionTag	7568
• 143.27 Schedule.ReleaseAll	6933
• 153.11 SmartCard.HeaderTemplate	7215
• 158.1 Speech.AvailableVoices	7391
• 169.1 Time.Format	8053
• 169.2 Time.Parse	8057
• 170.4 Toolbar.SetImage	8070
• 170.5 Toolbar.SetLabel	8072
• 170.6 Toolbar.SetPaletteLabel	8074
• 170.7 Toolbar.SetTooltip	8075
• 183.71 WebView.GetInternetExplorerVersion	8504
• 183.136 WebView.SetInternetExplorerVersion	8604

69 functions.



# Chapter 12

## New in Version 6.5

• 39.6 AVAsset.ImageActualTime	1006
• 39.24 AVAsset.RequestImageTimePrecision	1029
• 35.9 App.MemoryUsed	929
• 56.3 Container.DecodeFromHex	1645
• 56.12 Container.GetHex	1659
• 71.47 DynaPDF.ConvertStyledText	2664
• 71.265 DynaPDF.GetXFASStream	2969
• 71.266 DynaPDF.GetXFASStreamCount	2971
• 71.390 DynaPDF.SetFloatPrecision	3207
• 71.511 DynaPDF.WriteStyledText	3414
• 71.512 DynaPDF.WriteStyledTextEx	3416
• 81.7 FM.ExecuteFileSQLOnIdle	4144
• 79.39 Files.ListVolumes	3887
• 83.4 Font.CalculateTextWidth	4257
• 87.112 GMImage.GetEXIFOrientation	4552
• 87.250 GMImage.SetEXIFOrientation	4723
• 93.1 IKDeviceBrowserPanel.Close	4989
• 93.2 IKDeviceBrowserPanel.GetCancelButtonLabel	4991
• 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras	4992

- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.10 IKDeviceBrowserPanel.GetSelectButtonLabel 4999
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.12 IKDeviceBrowserPanel.GetWindowTitle 5001
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.15 IKDeviceBrowserPanel.SelectedDeviceID 5004
- 93.16 IKDeviceBrowserPanel.SelectedDeviceName 5005
- 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel 5006
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel 5014
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.28 IKDeviceBrowserPanel.SetWindowTitle 5018
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021
- 93.31 IKScannerDevicePanel.ClearImage 5022
- 93.32 IKScannerDevicePanel.Close 5023

	713
• 93.33 IKScannerDevicePanel.GetCombine	5024
• 93.34 IKScannerDevicePanel.GetDocumentName	5025
• 93.35 IKScannerDevicePanel.GetDownloadsDirectory	5026
• 93.36 IKScannerDevicePanel.GetHeight	5027
• 93.37 IKScannerDevicePanel.GetMode	5028
• 93.38 IKScannerDevicePanel.GetOverviewControlLabel	5029
• 93.39 IKScannerDevicePanel.GetScanControlLabel	5030
• 93.40 IKScannerDevicePanel.GetScannerDeviceID	5031
• 93.41 IKScannerDevicePanel.GetScannerDeviceName	5032
• 93.42 IKScannerDevicePanel.GetWidth	5033
• 93.43 IKScannerDevicePanel.GetWindowTitle	5034
• 93.44 IKScannerDevicePanel.Hide	5035
• 93.45 IKScannerDevicePanel.ImageCount	5036
• 93.46 IKScannerDevicePanel.NextImage	5037
• 93.47 IKScannerDevicePanel.Reset	5038
• 93.49 IKScannerDevicePanel.SetCombine	5041
• 93.50 IKScannerDevicePanel.SetDocumentName	5042
• 93.51 IKScannerDevicePanel.SetDownloadsDirectory	5043
• 93.52 IKScannerDevicePanel.SetHeight	5044
• 93.53 IKScannerDevicePanel.SetMode	5045
• 93.54 IKScannerDevicePanel.SetOverviewControlLabel	5046
• 93.55 IKScannerDevicePanel.SetScanControlLabel	5047
• 93.56 IKScannerDevicePanel.SetScannerDeviceID	5048
• 93.57 IKScannerDevicePanel.SetScannerDeviceName	5049
• 93.58 IKScannerDevicePanel.SetTrigger	5050
• 93.59 IKScannerDevicePanel.SetWidth	5052
• 93.60 IKScannerDevicePanel.SetWindowTitle	5053
• 93.61 IKScannerDevicePanel.Show	5054
• 93.62 IKScannerDevicePanel.Visible	5056

- 99.1 Java.CallObjectMethod 5229
- 99.2 Java.CallStaticMethod 5231
- 99.3 Java.GetContainerFileName 5233
- 99.4 Java.GetObjectField 5234
- 99.5 Java.GetStaticField 5236
- 99.6 Java.Initialize 5238
- 99.7 Java.Initialized 5241
- 99.8 Java.NewClassObject 5242
- 99.9 Java.ObjectClassName 5244
- 99.10 Java.Release 5245
- 99.11 Java.ReleaseAll 5246
- 99.12 Java.SetContainerFileName 5247
- 99.13 Java.SetObjectField 5248
- 99.14 Java.SetStaticField 5250
- 106.14 ListDialog.GetPositionX 5661
- 106.15 ListDialog.GetPositionY 5662
- 106.34 ListDialog.SetPosition 5681
- 106.35 ListDialog.SetPositionX 5682
- 106.36 ListDialog.SetPositionY 5683
- 114.16 Menu.GetURL 5976
- 114.36 Menu.SetURL 6002
- 114.41 MenuItem.GetBackColor 6008
- 114.45 MenuItem.GetFontColor 6012
- 114.68 MenuItem.GetStrikeOut 6035
- 114.73 MenuItem.GetURL 6041
- 114.82 MenuItem.SetBackColor 6050
- 114.86 MenuItem.SetFontColor 6056
- 114.105 MenuItem.SetStrikeOut 6084
- 114.110 MenuItem.SetURL 6089

	715
• 123.7 OCR.GetTextWithCoordinates	6224
• 129.1 Preferences.ClearRecentFiles	6481
• 130.38 PrintDialog.GetResetDestination	6534
• 130.56 PrintDialog.SetResetDestination	6557
• 131.2 Printer.CurrentPaperFormat	6560
• 131.3 Printer.CurrentPaperSource	6562
• 131.4 Printer.CurrentPrintWhat	6564
• 131.5 Printer.CurrentPrinterName	6566
• 131.6 Printer.ErrorLog	6568
• 131.8 Printer.PaperFormats	6570
• 131.9 Printer.PaperSources	6572
• 131.10 Printer.Print	6574
• 131.12 Printer.PrinterInfo	6578
• 131.14 Printer.PrinterNames	6582
• 131.15 Printer.SetPrinter	6584
• 132.4 Process.GetCurrentDirectory	6590
• 132.8 Process.LoadLibrary	6594
• 132.9 Process.SetCurrentDirectory	6595
• 141.8 RichText.RTF	6835
• 143.24 Schedule.GetURL	6929
• 143.36 Schedule.SetURL	6942
• 146.3 SendMail.AddAttachmentText	6995
• 146.10 SendMail.AttachmentCount	7008
• 157.56 Socket.SetDataAvailableURL	7371
• 157.59 Socket.SetErrorURL	7375
• 157.65 Socket.SetNewConnectionURL	7382
• 162.53 SyntaxColoring.ScriptIfLoopHighlight.GetEnabled	7746
• 162.54 SyntaxColoring.ScriptIfLoopHighlight.SetEnabled	7747
• 166.11 TAPI.GetCallStateEvaluate	7866

- 166.14 TAPI.GetCallStateURL 7869
- 166.15 TAPI.GetNewCallEvaluate 7870
- 166.18 TAPI.GetNewCallURL 7873
- 166.31 TAPI.SetCallStateEvaluate 7886
- 166.33 TAPI.SetCallStateURL 7888
- 166.34 TAPI.SetNewCallEvaluate 7889
- 166.36 TAPI.SetNewCallURL 7891
- 171.2 TouchBar.AddButton 8088
- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093
- 171.5 TouchBar.Available 8095
- 171.6 TouchBar.Clear 8096
- 171.7 TouchBar.Create 8097
- 171.8 TouchBar.GetAutomaticCustomizeTouchBarItemEnabled 8098
- 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers 8099
- 171.10 TouchBar.GetCustomizationIdentifier 8100
- 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers 8101
- 171.12 TouchBar.GetDefaultItemIdentifiers 8102
- 171.13 TouchBar.GetItemIdentifiers 8103
- 171.14 TouchBar.GetPrincipalItemIdentifier 8104
- 171.15 TouchBar.Release 8105
- 171.16 TouchBar.SetAutomaticCustomizeTouchBarItemEnabled 8106
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107
- 171.18 TouchBar.SetCustomizationIdentifier 8108
- 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers 8109
- 171.20 TouchBar.SetDefaultItemIdentifiers 8110
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111
- 171.22 TouchBar.ToggleCustomizationPalette 8112
- 171.23 TouchBar.Visible 8113



	717
• 174.1 Updater.CheckForUpdates	8257
• 174.2 Updater.CheckForUpdatesInBackground	8258
• 174.3 Updater.GetAutomaticallyChecksForUpdates	8259
• 174.4 Updater.GetAutomaticallyDownloadsUpdates	8260
• 174.5 Updater.GetFeedURL	8261
• 174.6 Updater.GetSendsSystemProfile	8262
• 174.7 Updater.LastUpdateCheckDate	8263
• 174.8 Updater.SetAutomaticallyChecksForUpdates	8264
• 174.9 Updater.SetAutomaticallyDownloadsUpdates	8265
• 174.10 Updater.SetSendsSystemProfile	8266
• 174.11 Updater.UpdateInProgress	8267
• 184.1 WIA.ClearCurrentDevice	8629
• 184.2 WIA.DeviceCount	8630
• 184.4 WIA.DevicePropertyKeys	8633
• 184.5 WIA.DevicePropertyValue	8636
• 184.6 WIA.GetCurrentDevice	8639
• 184.8 WIA.Image	8641
• 184.9 WIA.ImageCount	8643
• 184.10 WIA.ImageDialog	8644
• 184.12 WIA.Initialize	8647
• 184.14 WIA.ItemPropertyKeys	8650
• 184.15 WIA.ItemPropertyValue	8653
• 184.16 WIA.ListItems	8656
• 184.17 WIA.Scan	8657
• 184.18 WIA.SelectDeviceDialog	8659
• 184.19 WIA.SetCurrentDevice	8660
• 184.20 WIA.SetDevicePropertyValue	8661
• 184.21 WIA.SetItemPropertyValue	8663
• 183.78 WebView.GetSilent	8513

- 183.140 `WebView.SetSilent` 8613
- 185.23 `Window.GetMaxHeight` 8699
- 185.24 `Window.GetMaxWidth` 8700
- 185.25 `Window.GetMinHeight` 8701
- 185.26 `Window.GetMinWidth` 8702
- 185.54 `Window.ListCommands` 8732
- 185.64 `Window.RunCommand` 8746
- 185.67 `Window.Scrollbar.GetScrollElasticity` 8751
- 185.68 `Window.Scrollbar.SetScrollElasticity` 8752
- 185.84 `Window.SetMaxHeight` 8773
- 185.85 `Window.SetMaxWidth` 8774
- 185.86 `Window.SetMinHeight` 8775
- 185.87 `Window.SetMinWidth` 8776
- 185.109 `Window.ShowTableViewDialog` 8807
- 193.45 `XL.CopyRow` 9046
- 193.46 `XL.CopySheet` 9048
- 193.170 `XL.Sheet.CellWriteFormulaBoolean` 9235
- 193.171 `XL.Sheet.CellWriteFormulaNumber` 9237
- 193.172 `XL.Sheet.CellWriteFormulaText` 9239
- 193.248 `XL.Sheet.RemoveComment` 9330

213 functions.

# Chapter 13

## New in Version 7.0

- 62.32 `CURL.GetBatchCurrentFileName` 1852
- 62.33 `CURL.GetBatchCurrentFilePath` 1853
- 62.34 `CURL.GetBatchDestinationPath` 1854
- 62.35 `CURL.GetBatchFileNames` 1855
- 62.155 `CURL.SetBatchDestinationPath` 2020
- 71.2 `DynaPDF.AddAnnotToPage` 2594
- 71.96 `DynaPDF.EndTemplate` 2750
- 71.141 `DynaPDF.GetContent` 2817
- 71.208 `DynaPDF.GetLinkHighlightMode` 2900
- 71.271 `DynaPDF.ImportEncryptionSettings` 2978
- 71.300 `DynaPDF.PageLink` 3052
- 71.301 `DynaPDF.PageLinkEx` 3055
- 71.308 `DynaPDF.Print.GetDevMode` 3074
- 71.309 `DynaPDF.Print.GetDevNames` 3075
- 71.310 `DynaPDF.Print.SetDevMode` 3076
- 71.311 `DynaPDF.Print.SetDevNames` 3078
- 71.323 `DynaPDF.ResetEncryptionSettings` 3103
- 71.326 `DynaPDF.RotateTemplate` 3109
- 71.361 `DynaPDF.SetContent` 3164

- 71.405 DynaPDF.SetLinkHighlightMode 3234
- 71.505 DynaPDF.WatermarkAnnot 3399
- 80.1 FM.AllowFileDragDrop 3937
- 81.25 FM.SQL.CSV 4193
- 81.36 FM.SQL.Text 4217
- 87.215 GMImage.ReleaseAll 4676
- 104.4 LDAP.AddRecord 5447
- 104.15 LDAP.ModifyRecord 5467
- 49.1 PKCS12.CA 1379
- 49.2 PKCS12.CACount 1381
- 49.3 PKCS12.Cert 1382
- 49.4 PKCS12.PKey 1383
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388
- 49.15 PKey.Bits 1396
- 49.16 PKey.DescriptionPrivateKey 1397
- 49.17 PKey.DescriptionPublicKey 1398
- 49.18 PKey.GetPrivateKey 1399
- 49.19 PKey.GetPublicKey 1400
- 49.20 PKey.Release 1401
- 49.21 PKey.Type 1402
- 128.10 PortMidi.GetDeviceID 6458
- 128.12 PortMidi.GetDeviceName 6461
- 128.26 PortMidi.TimeStamp 6480
- 130.33 PrintDialog.GetPageNumberingOffset 6529
- 130.37 PrintDialog.GetReset 6533
- 130.50 PrintDialog.SetPageNumberingOffset 6550
- 130.55 PrintDialog.SetReset 6556

	721
• 147.15 SerialPort.HasLine	7060
• 147.23 SerialPort.ReadLine	7075
• 153.15 SmartCard.PerformSignature	7222
• 153.16 SmartCard.ReadCertificate	7223
• 192.17 WordFile.RemoveTableRow	8971
• 49.22 X509.Description	1403
• 49.23 X509.Duplicate	1404
• 49.24 X509.IssuerName	1405
• 49.25 X509.Name	1406
• 49.26 X509.Read	1407
• 49.27 X509.ReadFromContainer	1408
• 49.28 X509.ReadFromFile	1409
• 49.29 X509.Release	1410
• 49.30 X509.SerialNumber	1411
• 49.32 X509.SubjectName	1413
• 49.33 X509.Version	1414
• 194.4 XML.ClearVariables	9414
• 194.8 XML.ExtractText	9420
• 194.10 XML.GetAttribute	9424
• 194.12 XML.HasAttribute	9427
• 194.23 XML.ListAttributes	9442
• 194.24 XML.NodeCount	9443
• 194.25 XML.NodeNames	9444
• 194.34 XML.SetVariables	9460
• 194.35 XML.SubTree	9462

73 functions.



# Chapter 14

## New in Version 7.1

• 41.7 AVPlayer.GetDuration	1079
• 41.11 AVPlayer.GetMuted	1083
• 41.14 AVPlayer.GetRate	1086
• 41.18 AVPlayer.GetTime	1090
• 41.20 AVPlayer.GetVolume	1092
• 41.22 AVPlayer.OpenContainer	1094
• 41.23 AVPlayer.OpenFile	1096
• 41.24 AVPlayer.OpenURL	1098
• 41.25 AVPlayer.Pause	1099
• 41.26 AVPlayer.Play	1100
• 41.27 AVPlayer.Release	1102
• 41.28 AVPlayer.ReleaseAll	1103
• 41.35 AVPlayer.SetMuted	1111
• 41.38 AVPlayer.SetRate	1115
• 41.42 AVPlayer.SetTime	1119
• 41.44 AVPlayer.SetVolume	1121
• 38.10 Audit.GetEnabled	982
• 38.17 Audit.SetEnabled	989
• 44.8 Barcode.GetPrimary	1187

- 44.14 Barcode.SetPrimary 1198
- 64.5 Dialog.GetButton 2386
- 64.31 Dialog.SetButton 2413
- 66.18 Dictionary.SetQuickList 2464
- 67.1 DirectoryWatcher.AddDirectory 2479
- 67.2 DirectoryWatcher.ChangeCount 2481
- 67.3 DirectoryWatcher.Create 2482
- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.6 DirectoryWatcher.GetScriptName 2485
- 67.7 DirectoryWatcher.NextChange 2486
- 67.8 DirectoryWatcher.Release 2487
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.11 DirectoryWatcher.SetFileName 2490
- 67.12 DirectoryWatcher.SetScriptName 2491
- 71.267 DynaPDF.HaveOpenDocument 2972
- 71.268 DynaPDF.HaveOpenPage 2973
- 79.33 Files.IsHidden 3875
- 79.57 Files.SetHidden 3919
- 90.5 HotKey.GetKeyUp 4899
- 90.19 HotKey.SetKeyUp 4918
- 102.43 JSON.GetArrayPathItems 5374
- 105.3 List.AddValue 5496
- 105.15 List.GetValue 5514
- 105.19 List.InsertValue 5519
- 105.27 List.Remove 5530
- 105.32 List.RemoveValue 5538
- 105.35 List.SetValue 5542
- 127.48 Plugin.isDebug 6426



	725
• 128.5 PortMidi.CurrentEvent	6453
• 132.7 Process.KeepFrontMost	6593
• 133.33 Progressdialog.GetEvaluate	6651
• 133.34 Progressdialog.GetFileName	6652
• 133.35 Progressdialog.GetScriptName	6653
• 133.36 Progressdialog.SetEvaluate	6654
• 133.37 Progressdialog.SetScript	6655
• 136.25 QTMovie.ReleaseAll	6720
• 146.15 SendMail.GetHTMLText	7014
• 146.16 SendMail.GetInReplyTo	7015
• 146.17 SendMail.GetMessageID	7016
• 146.18 SendMail.GetPlainText	7017
• 146.19 SendMail.GetRichText	7018
• 146.20 SendMail.GetSMTPPassword	7019
• 146.21 SendMail.GetSMTPServer	7020
• 146.22 SendMail.GetSMTPUserName	7021
• 146.24 SendMail.GetSubject	7023
• 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable	7697
• 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable	7698
• 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled	7699
• 183.66 WebView.GetHidden	8498
• 183.134 WebView.SetHidden	8602
• 189.1 WinSendMail.AddAttachmentContainer	8877
• 189.2 WinSendMail.AddAttachmentFile	8879
• 189.3 WinSendMail.AddAttachmentText	8881
• 189.4 WinSendMail.AddBCC	8882
• 189.5 WinSendMail.AddCC	8884
• 189.6 WinSendMail.AddRecipient	8886
• 189.7 WinSendMail.AddTo	8888

• 189.8 WinSendMail.AttachmentCount	8890
• 189.9 WinSendMail.ClearAttachments	8891
• 189.10 WinSendMail.ClearRecipients	8892
• 189.11 WinSendMail.CreateEmail	8893
• 189.12 WinSendMail.GetSubject	8895
• 189.13 WinSendMail.GetText	8896
• 189.14 WinSendMail.Release	8897
• 189.15 WinSendMail.Send	8898
• 189.16 WinSendMail.SendAnsi	8899
• 189.18 WinSendMail.SetFrom	8901
• 189.19 WinSendMail.SetSubject	8902
• 189.20 WinSendMail.SetText	8903
• 192.3 WordFile.AppendTableRow	8954
• 192.4 WordFile.DuplicateTableRow	8956
• 194.17 XML.Import.SetBaseFields	9435
• 194.18 XML.Import.SetExtraField	9436

93 functions.

# Chapter 15

## New in Version 7.2

- 62.147 CURL.ReceiveData 2006
- 62.148 CURL.ReceiveText 2008
- 62.153 CURL.SendData 2016
- 62.154 CURL.SendText 2018
- 62.187 CURL.SetOptionConnectOnly 2073
- 62.389 CURL.SetupAWS 2361
- 62.392 CURL.UseSystemCertificates 2371
- 56.20 Container.GetText 1669
- 64.6 Dialog.GetButtonPressed 2387
- 71.38 DynaPDF.ChangeSeparationColor 2649
- 71.106 DynaPDF.FileLink 2768
- 71.317 DynaPDF.RenameSpotColor 3088
- 77.123 Events.RecurrenceRule.Description 3699
- 79.55 Files.SetCreationDate 3917
- 79.58 Files.SetModificationDate 3920
- 82.14 Folders.UserPictures 4243
- 127.12 IsMobile 6381
- 121.6 Notification.UnlistenAll 6210
- 125.2 PDFKit.AddImageFilePage 6263

- 127.23 Plugin.FunctionCount 6396
- 127.36 Plugin.ScriptStepParameter 6412
- 127.37 Plugin.ScriptStepParameterCount 6413
- 105.44 QuickList.AddMultiValue 5557
- 139.1 Registry.CreateKey 6793
- 139.2 Registry.DeleteKey 6795
- 139.3 Registry.DeleteTree 6796
- 139.4 Registry.DeleteValue 6797
- 139.5 Registry.FlushKey 6798
- 139.6 Registry.GetValue 6799
- 139.7 Registry.GetValueType 6801
- 139.8 Registry.ListKeys 6802
- 139.9 Registry.ListValues 6803
- 139.10 Registry.SetValue 6804
- 157.8 Socket.ClearNewConnectionHandler 7309
- 162.27 SyntaxColoring.GetMinCalcFontSize 7718
- 162.64 SyntaxColoring.SetMinCalcFontSize 7758
- 162.78 SyntaxColoring.ZoomButton.GetEnabled 7773
- 162.79 SyntaxColoring.ZoomButton.SetEnabled 7774
- 167.42 Text.Length 7963
- 173.1 UNNotification.Action 8193
- 173.2 UNNotification.AddUserInfo 8195
- 173.5 UNNotification.Badge 8198
- 173.6 UNNotification.Body 8199
- 173.7 UNNotification.CategoryIdentifier 8200
- 173.8 UNNotification.Date 8201
- 173.10 UNNotification.DeliveredNotifications 8203
- 173.12 UNNotification.Identifier 8205
- 173.13 UNNotification.IsRegisteredForRemoteNotifications 8206

	729
• 173.14 UNNotification.LaunchImageName	8207
• 173.15 UNNotification.New	8208
• 173.16 UNNotification.NextTriggerDate	8210
• 173.17 UNNotification.NotificationSettings	8211
• 173.18 UNNotification.PendingNotificationRequests	8213
• 173.19 UNNotification.Region	8214
• 173.20 UNNotification.Release	8216
• 173.21 UNNotification.ReleaseAll	8217
• 173.22 UNNotification.RemoteNotificationsDeviceToken	8218
• 173.23 UNNotification.RemoteNotificationsError	8219
• 173.24 UNNotification.RemoveAllDeliveredNotifications	8220
• 173.25 UNNotification.RemoveAllPendingNotificationRequests	8221
• 173.26 UNNotification.RemoveDeliveredNotificationsWithIdentifiers	8222
• 173.27 UNNotification.RemovePendingNotificationRequestsWithIdentifiers	8223
• 173.28 UNNotification.Repeats	8224
• 173.29 UNNotification.Schedule	8225
• 173.30 UNNotification.SetActionScript	8227
• 173.31 UNNotification.SetBadge	8228
• 173.32 UNNotification.SetBody	8230
• 173.34 UNNotification.SetCalendarTrigger	8233
• 173.35 UNNotification.SetCategoryIdentifier	8235
• 173.36 UNNotification.SetLaunchImageName	8236
• 173.37 UNNotification.SetLocationTrigger	8237
• 173.39 UNNotification.SetScript	8240
• 173.40 UNNotification.SetSound	8242
• 173.41 UNNotification.SetSubTitle	8243
• 173.42 UNNotification.SetThreadIdentifier	8244
• 173.43 UNNotification.SetTimeIntervalTrigger	8245
• 173.44 UNNotification.SetTitle	8247

- 173.45 UNNotification.SubTitle 8249
- 173.46 UNNotification.ThreadIdentifier 8250
- 173.47 UNNotification.TimeInterval 8251
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254
- 173.50 UNNotification.UserInfoKeys 8255
- 173.51 UNNotification.UserInfoValue 8256
- 185.104 Window.ShowCharacterPalette 8800
- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.6 WindowsUserNotification.HideNotification 8854
- 187.7 WindowsUserNotification.Initialize 8855
- 187.8 WindowsUserNotification.Isinitialized 8857
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.16 WindowsUserNotification.ShowNotification 8868
- 187.17 WindowsUserNotification.XMLUsed 8869
- 193.23 XL.Book.IsDate1904 9018
- 193.24 XL.Book.IsTemplate 9019
- 193.25 XL.Book.MoveSheet 9020
- 193.33 XL.Book.SetDate1904 9031
- 193.37 XL.Book.SetTemplate 9035

	731
• 193.41 XL.Book.Version	9039
• 193.123 XL.Sheet.AddIgnoredError	9159
• 193.125 XL.Sheet.ApplyFilter	9162
• 193.126 XL.Sheet.AutoFilter	9163
• 193.129 XL.Sheet.AutoFilter.ColumnSize	9168
• 193.134 XL.Sheet.AutoFilter.GetRef	9174
• 193.135 XL.Sheet.AutoFilter.GetSort	9175
• 193.136 XL.Sheet.AutoFilter.GetSortRange	9176
• 193.139 XL.Sheet.AutoFilter.SetRef	9180
• 193.140 XL.Sheet.AutoFilter.SetSort	9182
• 193.168 XL.Sheet.CellWriteError	9230
• 193.250 XL.Sheet.RemoveFilter	9334
• 193.254 XL.Sheet.RightToLeft	9339
• 193.288 XL.Sheet.SetProtectEx	9388
• 193.289 XL.Sheet.SetRightToLeft	9390
• 193.292 XL.Sheet.SetTabColor	9394
• 193.293 XL.Sheet.SetTabColorRGB	9395
• 193.300 XL.Sheet.Table	9402
• 193.301 XL.Sheet.TableSize	9403
• 193.302 XL.Sheet.Type	9404
• 97.1 iOSDevice.BatteryLevel	5205
• 97.2 iOSDevice.BatteryState	5206
• 97.3 iOSDevice.IdentifierForVendor	5207
• 97.4 iOSDevice.IsBatteryMonitoringEnabled	5208
• 97.5 iOSDevice.LocalizedModel	5209
• 97.6 iOSDevice.Model	5210
• 97.7 iOSDevice.Name	5211
• 97.8 iOSDevice.Orientation	5212
• 97.9 iOSDevice.OrientationIsLandscape	5213

- 97.10 `iOSDevice.OrientationIsPortrait` 5214
- 97.11 `iOSDevice.SetBatteryMonitoringEnabled` 5215
- 97.12 `iOSDevice.SystemName` 5216
- 97.13 `iOSDevice.SystemVersion` 5217
- 97.14 `iOSDevice.UserInterfaceIdiom` 5218

140 functions.



# Chapter 16

## New in Version 7.3

- 41.3 AVPlayer.FindPlayers 1075
- 41.4 AVPlayer.GetAsset 1076
- 38.14 Audit.GetIgnoredFieldNames 986
- 38.16 Audit.GetUUIDField 988
- 38.23 Audit.SetUUIDField 996
- 45.1 BinaryFile.Append 1205
- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.4 BinaryFile.EOF 1210
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.7 BinaryFile.Position 1214
- 45.8 BinaryFile.ReadByte 1215
- 45.9 BinaryFile.ReadContainer 1216
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223

- 45.15 BinaryFile.Seek 1225
- 45.16 BinaryFile.WriteByte 1226
- 45.17 BinaryFile.WriteContainer 1227
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 64.13 Dialog.GetLeft 2394
- 64.25 Dialog.GetTop 2406
- 64.37 Dialog.SetLeft 2420
- 64.47 Dialog.SetTop 2431
- 71.209 DynaPDF.GetLogMetafileSize 2901
- 71.210 DynaPDF.GetLogMetafileSizeEx 2902
- 71.211 DynaPDF.GetMetaConvFlags 2903
- 71.262 DynaPDF.GetWMFDefExtent 2966
- 71.263 DynaPDF.GetWMFPixelPerInch 2967
- 71.282 DynaPDF.InsertMetafile 3010
- 71.283 DynaPDF.InsertMetafileEx 3012
- 71.406 DynaPDF.SetMetaConvFlags 3236
- 71.445 DynaPDF.SetWMFDefExtent 3301
- 71.446 DynaPDF.SetWMFPixelPerInch 3302
- 76.2 EventMonitor.ClearCardWindow 3548
- 76.7 EventMonitor.LastMousePositionX 3553
- 76.8 EventMonitor.LastMousePositionY 3554
- 76.9 EventMonitor.SetCardWindow 3555
- 82.12 Folders.UserHome 4241
- 87.48 GImage.CopyChannel 4464
- 87.78 GImage.FontTypeMetrics 4512
- 87.100 GImage.GetClipMask 4539

	735
• 94.6 ImagePicker.AvailableCaptureModesForCameraDevice	5107
• 94.7 ImagePicker.AvailableMediaTypesForSourceType	5108
• 94.8 ImagePicker.ClearMedia	5109
• 94.10 ImagePicker.Dismiss	5111
• 94.11 ImagePicker.GetAllowsEditing	5112
• 94.12 ImagePicker.GetCameraCaptureMode	5113
• 94.13 ImagePicker.GetCameraDevice	5114
• 94.14 ImagePicker.GetCameraFlashMode	5115
• 94.15 ImagePicker.GetEvaluate	5116
• 94.16 ImagePicker.GetFileName	5117
• 94.17 ImagePicker.GetScriptName	5118
• 94.18 ImagePicker.GetShowsCameraControls	5119
• 94.19 ImagePicker.GetSourceType	5120
• 94.20 ImagePicker.GetVideoMaximumDuration	5121
• 94.21 ImagePicker.HasMedia	5122
• 94.22 ImagePicker.IsCameraDeviceAvailable	5123
• 94.23 ImagePicker.IsFlashAvailableForCameraDevice	5124
• 94.24 ImagePicker.IsPresented	5125
• 94.25 ImagePicker.IsSourceTypeAvailable	5126
• 94.26 ImagePicker.MediaCropRect	5128
• 94.27 ImagePicker.MediaEditedImage	5129
• 94.28 ImagePicker.MediaIsImage	5130
• 94.29 ImagePicker.MediaIsVideo	5131
• 94.31 ImagePicker.MediaOriginalImage	5133
• 94.32 ImagePicker.MediaPath	5135
• 94.33 ImagePicker.MediaReferenceURL	5136
• 94.34 ImagePicker.MediaType	5137
• 94.35 ImagePicker.MediaTypes	5138
• 94.36 ImagePicker.MediaURL	5139

- 94.37 UIImagePickerController.New 5140
- 94.38 UIImagePickerController.Present 5142
- 94.39 UIImagePickerController.SetAllowsEditing 5144
- 94.40 UIImagePickerController.SetCameraCaptureMode 5145
- 94.41 UIImagePickerController.SetCameraDevice 5146
- 94.42 UIImagePickerController.SetCameraFlashMode 5147
- 94.43 UIImagePickerController.SetEvaluate 5148
- 94.45 UIImagePickerController.SetScript 5150
- 94.46 UIImagePickerController.SetShowsCameraControls 5151
- 94.47 UIImagePickerController.SetSourceType 5152
- 94.48 UIImagePickerController.SetVideoMaximumDuration 5153
- 94.49 UIImagePickerController.StartVideoCapture 5154
- 94.50 UIImagePickerController.StopVideoCapture 5155
- 94.51 UIImagePickerController.TakePicture 5156
- 94.52 UIImagePickerController.VideoIsCompatibleWithSavedPhotosAlbum 5157
- 94.53 UIImagePickerController.WriteImageToSavedPhotosAlbum 5158
- 94.54 UIImagePickerController.WriteVideoToSavedPhotosAlbum 5160
- 107.1 MailComposer.AddAttachmentContainer 5693
- 107.2 MailComposer.AddAttachmentFile 5695
- 107.3 MailComposer.AddAttachmentText 5696
- 107.4 MailComposer.CanSendMail 5697
- 107.5 MailComposer.Dismiss 5698
- 107.6 MailComposer.Error 5699
- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.9 MailComposer.GetEvaluate 5702
- 107.10 MailComposer.GetFileName 5703
- 107.11 MailComposer.GetMessageBody 5704
- 107.12 MailComposer.GetScriptName 5705

	737
• 107.13 MailComposer.GetSubject	5706
• 107.14 MailComposer.GetTORecipients	5707
• 107.15 MailComposer.IsPresented	5708
• 107.16 MailComposer.New	5709
• 107.17 MailComposer.Present	5710
• 107.18 MailComposer.Result	5712
• 107.19 MailComposer.SetBCCRecipients	5713
• 107.20 MailComposer.SetCCRecipients	5714
• 107.21 MailComposer.SetEvaluate	5715
• 107.22 MailComposer.SetMessageBody	5716
• 107.23 MailComposer.SetScript	5717
• 107.24 MailComposer.SetSubject	5719
• 107.25 MailComposer.SetTORecipients	5720
• 116.1 MessageComposer.AddAttachmentContainer	6105
• 116.2 MessageComposer.AddAttachmentFile	6107
• 116.3 MessageComposer.AttachmentCount	6108
• 116.4 MessageComposer.CanSendAttachments	6109
• 116.5 MessageComposer.CanSendSubject	6110
• 116.6 MessageComposer.CanSendText	6111
• 116.7 MessageComposer.Dismiss	6112
• 116.8 MessageComposer.GetEvaluate	6113
• 116.9 MessageComposer.GetFileName	6114
• 116.10 MessageComposer.GetMessageBody	6115
• 116.11 MessageComposer.GetRecipients	6116
• 116.12 MessageComposer.GetScriptName	6117
• 116.13 MessageComposer.GetSubject	6118
• 116.14 MessageComposer.IsPresented	6119
• 116.15 MessageComposer.New	6120
• 116.16 MessageComposer.Present	6121

- 116.17 MessageComposer.Result 6123
- 116.18 MessageComposer.SetEvaluate 6124
- 116.19 MessageComposer.SetMessageBody 6125
- 116.20 MessageComposer.SetRecipients 6126
- 116.21 MessageComposer.SetScript 6127
- 116.22 MessageComposer.SetSubject 6129
- 116.23 MessageComposer.disableUserAttachments 6130
- 126.7 PHP.IsInitialized 6363
- 127.34 Plugin.PNGVersion 6409
- 159.71 SQL.InsertOrUpdateRecords 7516
- 156.1 SocialComposer.AddImageContainer 7275
- 156.2 SocialComposer.AddImageFile 7277
- 156.3 SocialComposer.AddURL 7278
- 156.4 SocialComposer.Dismiss 7279
- 156.5 SocialComposer.GetEvaluate 7280
- 156.6 SocialComposer.GetFileName 7281
- 156.7 SocialComposer.GetInitialText 7282
- 156.8 SocialComposer.GetScriptName 7283
- 156.9 SocialComposer.ImageCount 7284
- 156.10 SocialComposer.IsAvailableForServiceType 7285
- 156.11 SocialComposer.IsPresented 7286
- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289
- 156.14 SocialComposer.RemoveAllImages 7291
- 156.15 SocialComposer.RemoveAllURLs 7292
- 156.16 SocialComposer.Result 7293
- 156.17 SocialComposer.ServiceType 7294
- 156.18 SocialComposer.SetEvaluate 7295
- 156.19 SocialComposer.SetInitialText 7296

	739
• 156.20 SocialComposer.SetScript	7297
• 156.21 SocialComposer.URLCount	7299
• 167.58 Text.ReplaceAll	7984
• 173.3 UNNotification.AuthorizationError	8196
• 173.4 UNNotification.AuthorizationGranted	8197
• 183.45 WebView.ExecCommand	8467
• 183.122 WebView.SendCommand	8581
• 185.90 Window.SetProgress	8780
• 193.127 XL.Sheet.AutoFilter.AddFilter	9165
• 193.128 XL.Sheet.AutoFilter.Clear	9167
• 193.130 XL.Sheet.AutoFilter.Filter	9169
• 193.131 XL.Sheet.AutoFilter.FilterSize	9170
• 193.132 XL.Sheet.AutoFilter.FilterType	9171
• 193.133 XL.Sheet.AutoFilter.GetCustomFilter	9173
• 193.137 XL.Sheet.AutoFilter.GetTop10	9177
• 193.138 XL.Sheet.AutoFilter.SetCustomFilter	9178
• 193.141 XL.Sheet.AutoFilter.SetTop10	9183
• 194.26 XML.Parse	9446
• 194.30 XML.Release	9454
• 194.31 XML.ReleaseAll	9455

184 functions.





# Chapter 17

## New in Version 7.4

- 39.27 AVAsset.TrackInfo 1033
- 41.8 AVPlayer.GetFinishedEvaluate 1080
- 41.9 AVPlayer.GetFinishedFileName 1081
- 41.10 AVPlayer.GetFinishedScriptName 1082
- 41.12 AVPlayer.GetProgressEvaluate 1084
- 41.13 AVPlayer.GetProgressInterval 1085
- 41.31 AVPlayer.SetFinishedEvaluate 1107
- 41.32 AVPlayer.SetFinishedScript 1108
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 41.37 AVPlayer.SetProgressInterval 1114
- 42.11 AVRecorder.GetAutomaticallyAdjustsVideoMirroring 1137
- 42.15 AVRecorder.GetVideoMirrored 1141
- 42.19 AVRecorder.IsVideoMirroringSupported 1147
- 42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring 1151
- 42.28 AVRecorder.SetVideoMirrored 1157
- 35.10 App.OpenFile 930
- 61.7 CUPS.GetJobIndex 1778
- 58.1 CoreImage.Detect 1703
- 60.2 CoreML.AddArrayParameter 1747

- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751
- 60.6 CoreML.AddTextParameter 1752
- 60.7 CoreML.AddUndefinedParameter 1753
- 60.8 CoreML.Available 1754
- 60.9 CoreML.Clear 1755
- 60.10 CoreML.CompileModel 1756
- 60.11 CoreML.Description 1758
- 60.12 CoreML.GetUsesCPUOnly 1761
- 60.13 CoreML.OpenModel 1762
- 60.14 CoreML.PredictionFromFeatures 1764
- 60.15 CoreML.Release 1766
- 60.16 CoreML.ResultImage 1767
- 60.17 CoreML.SetUsesCPUOnly 1768
- 63.1 Debugger.BringToFront 2375
- 63.3 Debugger.GetCallStack 2377
- 63.4 Debugger.IsVisible 2378
- 63.5 Debugger.Title 2379
- 63.6 Debugger.Window 2380
- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 67.9 DirectoryWatcher.ReleaseAll 2488
- 71.7 DynaPDF.AddDeviceNProcessColorants 2602
- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.52 DynaPDF.CreateDeviceNColorSpace 2675
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172

	743
• 71.367 DynaPDF.SetExtStrokeColorSpace	3173
• 71.427 DynaPDF.SetSeparationInfo	3276
• 71.510 DynaPDF.WriteFTextExRotated	3412
• 71.513 DynaPDF.WriteStyledTextExRotated	3418
• 73.9 EmailParser.HasHeader	3471
• 73.13 EmailParser.HeaderValue	3476
• 81.11 FM.ExecuteSQL.LastSQL	4157
• 81.19 FM.InsertRecordCSV	4177
• 87.339 GMImage.WriteToPDFContainer	4838
• 95.1 ImageView.Clear	5161
• 95.2 ImageView.CreateWithControl	5162
• 95.3 ImageView.CreateWithSize	5164
• 95.4 ImageView.CreateWithWindow	5166
• 95.5 ImageView.GetHeight	5167
• 95.6 ImageView.GetLeft	5168
• 95.7 ImageView.GetTag	5169
• 95.8 ImageView.GetToolTip	5170
• 95.9 ImageView.GetTop	5171
• 95.10 ImageView.GetVisible	5172
• 95.11 ImageView.GetWidth	5173
• 95.12 ImageView.Release	5174
• 95.13 ImageView.ReleaseAll	5175
• 95.14 ImageView.SetFrame	5176
• 95.16 ImageView.SetImage	5178
• 95.17 ImageView.SetTag	5179
• 95.18 ImageView.SetToolTip	5180
• 95.19 ImageView.SetVisible	5181
• 104.25 LDAP.SearchResult.AttributeValuesByName	5481
• 105.7 List.CSVSplit	5502

- 105.53 QuickList.CSVSplit 5573
- 159.93 SQL.SQLite3.MemoryHighwater 7547
- 159.94 SQL.SQLite3.MemoryUsed 7548
- 145.1 ScriptWorkspace.BringToFront 6963
- 145.3 ScriptWorkspace.CurrentTab 6965
- 145.4 ScriptWorkspace.ExpandScriptFolders 6966
- 145.7 ScriptWorkspace.IsVisible 6969
- 145.8 ScriptWorkspace.LineCount 6970
- 145.9 ScriptWorkspace.OpenScript 6971
- 145.10 ScriptWorkspace.ScriptNames 6972
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.17 ScriptWorkspace.SelectedLine 6979
- 145.22 ScriptWorkspace.Tabs 6984
- 145.23 ScriptWorkspace.Title 6985
- 145.26 ScriptWorkspace.Window 6988
- 147.2 SerialPort.Clear 7047
- 147.16 SerialPort.IsSuspended 7061
- 147.24 SerialPort.Resume 7076
- 147.36 SerialPort.Suspend 7090
- 162.23 SyntaxColoring.GetBlackFieldPicker 7714
- 162.30 SyntaxColoring.GetResizeFieldPicker 7721
- 162.35 SyntaxColoring.GetShowFieldAndTableIDs 7726
- 162.37 SyntaxColoring.GetShowScriptIDs 7728
- 162.60 SyntaxColoring.SetBlackFieldPicker 7754
- 162.67 SyntaxColoring.SetResizeFieldPicker 7761
- 162.72 SyntaxColoring.SetShowFieldAndTableIDs 7767
- 162.74 SyntaxColoring.SetShowScriptIDs 7769
- 183.31 WebView.ClearSelection 8447
- 183.33 WebView.Close 8450

	745
• 183.37 WebView.Copy	8454
• 183.39 WebView.Create	8456
• 183.41 WebView.Cut	8460
• 183.99 WebView.Paste	8540
• 183.120 WebView.SelectAll	8578
• 192.6 WordFile.GetCaseless	8958
• 192.19 WordFile.SetCaseless	8976
• 194.7 XML.DeletePath	9418
• 194.11 XML.GetPathValue	9425
• 194.28 XML.ReadContainer	9451
• 194.29 XML.ReadFile	9452
• 194.32 XML.SetPathValue	9456
• 96.2 iOSApp.GetDidEnterBackgroundEvaluate	5184
• 96.3 iOSApp.GetDidEnterMemoryWarningEvaluate	5185
• 96.5 iOSApp.GetSignificantTimeChangeEvaluate	5187
• 96.6 iOSApp.GetWillEnterForegroundEvaluate	5188
• 96.10 iOSApp.SetDidEnterBackgroundEvaluate	5193
• 96.11 iOSApp.SetDidEnterBackgroundScript	5194
• 96.12 iOSApp.SetDidEnterMemoryWarningEvaluate	5195
• 96.13 iOSApp.SetDidEnterMemoryWarningScript	5196
• 96.15 iOSApp.SetSignificantTimeChangeEvaluate	5198
• 96.16 iOSApp.SetSignificantTimeChangeScript	5199
• 96.17 iOSApp.SetWillEnterForegroundEvaluate	5200
• 96.18 iOSApp.SetWillEnterForegroundScript	5201
• 98.1 iOSKeyboard.GetDidEnterEvaluate	5219
• 98.2 iOSKeyboard.GetDidEnterShowEvaluate	5220
• 98.3 iOSKeyboard.GetWillHideEvaluate	5221
• 98.4 iOSKeyboard.GetWillShowEvaluate	5222
• 98.5 iOSKeyboard.SetDidEnterEvaluate	5223

- 98.6 `iosKeyboard.SetDidShowEvaluate` 5224
- 98.7 `iosKeyboard.SetWillHideEvaluate` 5225
- 98.8 `iosKeyboard.SetWillShowEvaluate` 5226
- 98.9 `iosKeyboard.State` 5227

139 functions.

# Chapter 18

## New in Version 7.5

- 62.176 `CURL.SetOptionAcceptEncoding` 2055
- 56.26 `Container.IsCompressed` 1679
- 71.237 `DynaPDF.GetReplaceICCProfileData` 2939
- 71.321 `DynaPDF.ReplaceImage` 3097
- 71.424 `DynaPDF.SetReplaceICCProfileData` 3270
- 105.16 `List.HasDuplicateItems` 5515
- 105.38 `List.SubList` 5548
- 105.39 `List.Trim` 5550
- 106.44 `ListDialog.Sort` 5692
- 178.6 `MouseCursor.Hide` 8363
- 178.7 `MouseCursor.HideUntilMouseMoves` 8364
- 178.9 `MouseCursor.Show` 8368
- 123.8 `OCR.GetVariable` 6226
- 123.18 `OCR.SetVariable` 6239
- 125.7 `PDFKit.GeneratePreview` 6272
- 105.59 `QuickList.DeCombine` 5581
- 105.66 `QuickList.HasDuplicateItems` 5592
- 105.97 `QuickList.SubList` 5639
- 105.98 `QuickList.Trim` 5641

- 74.12 RSA.DecryptPrivateKey 3523
- 74.13 RSA.EncryptPrivateKey 3525
- 138.14 RegEx.Quote 6779
- 138.15 RegEx.Replace 6780
- 138.16 RegEx.ReplaceAll 6782
- 145.12 ScriptWorkspace.ScriptsVisible 6974
- 145.20 ScriptWorkspace.StepsVisible 6982
- 145.24 ScriptWorkspace.TriggerScripts 6986
- 145.25 ScriptWorkspace.TriggerSteps 6987
- 151.1 Shell.AddArgument 7115
- 151.2 Shell.AddEnvironment 7118
- 151.3 Shell.AvailableBytesError 7119
- 151.4 Shell.AvailableBytesOutput 7120
- 151.5 Shell.ClearArguments 7121
- 151.6 Shell.ClearEnvironment 7122
- 151.9 Shell.Execute 7125
- 151.10 Shell.ExitCode 7133
- 151.11 Shell.GetApplicationName 7134
- 151.12 Shell.GetArgument 7135
- 151.13 Shell.GetArgumentCount 7136
- 151.15 Shell.GetCompletedEvaluate 7138
- 151.16 Shell.GetCompletedScriptFileName 7139
- 151.17 Shell.GetCompletedScriptName 7140
- 151.18 Shell.GetCurrentDirectory 7141
- 151.22 Shell.GetDomain 7145
- 151.23 Shell.GetEnvironment 7146
- 151.24 Shell.GetPassword 7147
- 151.25 Shell.GetUsername 7148
- 151.26 Shell.IsRunning 7149



	749
• 151.27 Shell.New	7150
• 151.28 Shell.PeekErrorText	7151
• 151.29 Shell.PeekOutputText	7152
• 151.30 Shell.ProcessIdentifier	7153
• 151.31 Shell.ReadErrorText	7154
• 151.32 Shell.ReadOutputText	7155
• 151.33 Shell.Release	7157
• 151.34 Shell.SetApplicationName	7158
• 151.35 Shell.SetArguments	7159
• 151.36 Shell.SetArgumentsList	7160
• 151.37 Shell.SetCompletedEvaluate	7161
• 151.38 Shell.SetCompletedScript	7162
• 151.39 Shell.SetCurrentDirectory	7163
• 151.42 Shell.SetDomain	7166
• 151.43 Shell.SetPassword	7167
• 151.44 Shell.SetUsername	7168
• 151.45 Shell.Terminate	7169
• 151.46 Shell.TerminationReason	7170
• 151.47 Shell.Wait	7171
• 151.48 Shell.WriteInputText	7173
• 157.2 Socket.AddMembership	7303
• 157.12 Socket.DropMembership	7318
• 157.14 Socket.GetMulticastInterface	7320
• 157.60 Socket.SetMulticastInterface	7376
• 158.3 Speech.IsSpeaking	7393
• 162.36 SyntaxColoring.GetShowLayoutIDs	7727
• 162.56 SyntaxColoring.ScriptSearchBox.GetText	7749
• 162.58 SyntaxColoring.ScriptSearchBox.SetText	7752
• 162.73 SyntaxColoring.SetShowLayoutIDs	7768

- 164.49 SystemInfo.isHighSierra 7831
- 167.14 Text.DecodeFromBase64URL 7924
- 167.29 Text.EncodeToBase64URL 7942
- 183.52 WebView.GetAutoResizingMask 8477
- 183.124 WebView.SetAutoResizingMask 8583
- 185.79 Window.SetDockImage 8767
- 192.2 WordFile.Append 8953
- 192.5 WordFile.FieldNames 8957
- 192.7 WordFile.GetFieldText 8959
- 192.20 WordFile.SetFieldText 8977

87 functions.

# Chapter 19

## New in Version 8.0

• 39.29 AVAsset.WaitForLoaded	1038
• 35.4 App.EffectiveUserID	924
• 35.11 App.ProcessID	931
• 35.16 App.UserID	936
• 38.9 Audit.FieldNameForID	981
• 38.25 Audit.TableNameForID	998
• 71.103 DynaPDF.ExtractText	2761
• 71.105 DynaPDF.FileAttachAnnotEx	2766
• 71.319 DynaPDF.RenderPDFFileEx	3091
• 80.85 FM.UpdateRecord2	4100
• 80.86 FM.UpdateRecord3	4102
• 80.88 FM.UpdateRecords2	4107
• 80.89 FM.UpdateRecords3	4109
• 181.8 FM.VariableNames	8396
• 127.8 IsIOSDevice	6377
• 127.9 IsIOSSimulator	6378
• 104.2 LDAP.AddJSON	5441
• 104.12 LDAP.JSON	5459
• 104.14 LDAP.ModifyJSON	5465

- 117.1 MetaDataQuery.AttributesForFile 6131
- 117.2 MetaDataQuery.Close 6133
- 117.3 MetaDataQuery.Create 6134
- 117.4 MetaDataQuery.GetEvaluate 6135
- 117.5 MetaDataQuery.GetScriptFileName 6136
- 117.6 MetaDataQuery.GetScriptName 6137
- 117.7 MetaDataQuery.IsGathering 6138
- 117.8 MetaDataQuery.IsStarted 6139
- 117.9 MetaDataQuery.IsStopped 6140
- 117.10 MetaDataQuery.PathAtIndex 6141
- 117.11 MetaDataQuery.Paths 6143
- 117.12 MetaDataQuery.QueryString 6144
- 117.13 MetaDataQuery.ResultAtIndex 6145
- 117.14 MetaDataQuery.ResultCount 6146
- 117.15 MetaDataQuery.Results 6147
- 117.16 MetaDataQuery.SearchScopes 6148
- 117.17 MetaDataQuery.SetEvaluate 6149
- 117.18 MetaDataQuery.SetQueryString 6150
- 117.19 MetaDataQuery.SetScript 6152
- 117.20 MetaDataQuery.SetSearchScopes 6153
- 117.21 MetaDataQuery.StartQuery 6155
- 117.22 MetaDataQuery.StopQuery 6156
- 130.24 PrintDialog.GetConfiguration 6519
- 130.42 PrintDialog.SetConfiguration 6539
- 157.26 Socket.LocalIP 7333
- 157.27 Socket.LocalPort 7334
- 162.22 SyntaxColoring.GetAddFindbars 7713
- 162.59 SyntaxColoring.SetAddFindbars 7753
- 183.25 WebView.AddScriptMessageHandler 8438

	753
• 183.108 WebView.RemoveScriptMessageHandler	8552
• 193.120 XL.LoadBookPartially	9153
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.149 XL.Sheet.CellReadComments	9194
• 193.151 XL.Sheet.CellReadDates	9198
• 193.153 XL.Sheet.CellReadFormulas	9202
• 193.155 XL.Sheet.CellReadNumbers	9205
• 193.158 XL.Sheet.CellReadTexts	9211
• 193.161 XL.Sheet.CellWriteBlanks	9216
• 193.163 XL.Sheet.CellWriteBooleans	9220
• 193.165 XL.Sheet.CellWriteComments	9224
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.173 XL.Sheet.CellWriteFormulas	9241
• 193.175 XL.Sheet.CellWriteNumbers	9246
• 193.178 XL.Sheet.CellWriteTexts	9254
• 193.188 XL.Sheet.GetCellErrors	9265
• 193.190 XL.Sheet.GetCellFormats	9268
• 193.249 XL.Sheet.RemoveComments	9332
• 193.258 XL.Sheet.SetCellFormats	9345

67 functions.



# Chapter 20

## New in Version 8.1

- 44.6 Barcode.GetInputMode 1185
- 44.7 Barcode.GetOption 1186
- 44.11 Barcode.SetInputMode 1191
- 44.12 Barcode.SetOption 1193
- 66.8 Dictionary.CreateNamed 2452
- 70.15 DragDrop.GetFileDescriptor 2542
- 70.16 DragDrop.GetFileDescriptorCount 2544
- 71.289 DynaPDF.List 3024
- 80.50 FM.PatchNotificationProblem 4036
- 102.2 FM.SQL.JSONRecord 5306
- 102.3 FM.SQL.JSONRecords 5308
- 87.179 GImage.List 4627
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 105.8 List.CountValues 5504
- 127.47 Plugin.ZLibVersion 6425
- 167.11 Text.CountWords 7921
- 167.44 Text.ListWords 7965
- 183.40 WebView.CreateOnPopover 8458
- 194.33 XML.SetPathXML 9458
- 194.37 XML.Validate 9466

20 functions.





# Chapter 21

## New in Version 8.2

- 34.41 Addressbook.multivalue.indexForLabel 861
- 38.8 Audit.FieldIDForName 980
- 38.24 Audit.TableIDForName 997
- 62.30 CURL.GetActiveSocket 1850
- 62.54 CURL.GetFormData 1880
- 62.57 CURL.GetHTTPVersion 1884
- 62.64 CURL.GetLastSocket 1894
- 62.67 CURL.GetMultiOptionChunkLengthPenaltySize 1897
- 62.68 CURL.GetMultiOptionContentLengthPenaltySize 1898
- 62.70 CURL.GetMultiOptionMaxConnects 1900
- 62.71 CURL.GetMultiOptionMaxHostConnections 1901
- 62.72 CURL.GetMultiOptionMaxPipelineLength 1902
- 62.73 CURL.GetMultiOptionMaxTotalConnections 1903
- 62.74 CURL.GetMultiOptionPipelining 1904
- 62.75 CURL.GetMultiRunningTransfers 1905
- 62.79 CURL.GetOptionConnectTo 1909
- 62.80 CURL.GetOptionHTTP200Aliases 1910
- 62.81 CURL.GetOptionHTTPHeader 1911
- 62.82 CURL.GetOptionMailRecipients 1912

- 62.83 `CURL.GetOptionPostQuote` 1913
- 62.84 `CURL.GetOptionPreQuote` 1914
- 62.85 `CURL.GetOptionProxyHeader` 1915
- 62.86 `CURL.GetOptionQuote` 1916
- 62.87 `CURL.GetOptionResolve` 1917
- 62.88 `CURL.GetOptionTelnetOptions` 1918
- 62.100 `CURL.GetProtocol` 1930
- 62.102 `CURL.GetProxySSLVerifyResult` 1932
- 62.125 `CURL.GetScheme` 1970
- 62.135 `CURL.LibIDNVersion` 1980
- 62.136 `CURL.LibSSHVersion` 1981
- 62.167 `CURL.SetMultiOptionChunkLengthPenaltySize` 2046
- 62.168 `CURL.SetMultiOptionContentLengthPenaltySize` 2047
- 62.170 `CURL.SetMultiOptionMaxConnects` 2049
- 62.171 `CURL.SetMultiOptionMaxHostConnections` 2050
- 62.172 `CURL.SetMultiOptionMaxPipelineLength` 2051
- 62.173 `CURL.SetMultiOptionMaxTotalConnections` 2052
- 62.174 `CURL.SetMultiOptionPipelining` 2053
- 62.175 `CURL.SetOptionAbstractUnixSocket` 2054
- 62.177 `CURL.SetOptionAcceptTimeoutMS` 2057
- 62.189 `CURL.SetOptionConnectTo` 2077
- 62.201 `CURL.SetOptionDNSServers` 2098
- 62.202 `CURL.SetOptionDNSShuffleAddresses` 2099
- 62.204 `CURL.SetOptionDefaultProtocol` 2102
- 62.208 `CURL.SetOptionExpect100TimeoutMS` 2107
- 62.227 `CURL.SetOptionGSSAPIDelegation` 2131
- 62.229 `CURL.SetOptionHAProxyProtocol` 2134
- 62.237 `CURL.SetOptionHappyEyeballsTimeOutMS` 2146
- 62.239 `CURL.SetOptionHeaderOptions` 2148

	759
• 62.246 CURL.SetOptionKeepSendingOnError	2157
• 62.269 CURL.SetOptionPathAsIs	2189
• 62.270 CURL.SetOptionPinnedPublicKey	2190
• 62.271 CURL.SetOptionPipeWait	2191
• 62.278 CURL.SetOptionPreProxy	2207
• 62.283 CURL.SetOptionProxyCAInfo	2215
• 62.284 CURL.SetOptionProxyCAPath	2216
• 62.285 CURL.SetOptionProxyCRLFile	2217
• 62.286 CURL.SetOptionProxyHeader	2218
• 62.287 CURL.SetOptionProxyKeyPassword	2219
• 62.289 CURL.SetOptionProxyPinnedPublicKey	2221
• 62.291 CURL.SetOptionProxySSLCert	2223
• 62.292 CURL.SetOptionProxySSLCertType	2224
• 62.293 CURL.SetOptionProxySSLCipherList	2225
• 62.294 CURL.SetOptionProxySSLKey	2226
• 62.295 CURL.SetOptionProxySSLKeyType	2227
• 62.296 CURL.SetOptionProxySSLOptions	2228
• 62.297 CURL.SetOptionProxySSLVerifyHost	2229
• 62.298 CURL.SetOptionProxySSLVerifyPeer	2230
• 62.299 CURL.SetOptionProxySSLVersion	2231
• 62.300 CURL.SetOptionProxyServiceName	2233
• 62.302 CURL.SetOptionProxyTLSAuthPassword	2235
• 62.303 CURL.SetOptionProxyTLSAuthType	2236
• 62.304 CURL.SetOptionProxyTLSAuthUsername	2237
• 62.310 CURL.SetOptionRTSPClientCSEQ	2247
• 62.311 CURL.SetOptionRTSPRequest	2248
• 62.312 CURL.SetOptionRTSPServerCSEQ	2249
• 62.313 CURL.SetOptionRTSPSessionID	2250
• 62.314 CURL.SetOptionRTSPStreamURI	2251

- 62.315 `CURL.SetOptionRTSPTransport` 2252
- 62.320 `CURL.SetOptionRequestTarget` 2259
- 62.321 `CURL.SetOptionResolve` 2260
- 62.324 `CURL.SetOptionSASLIR` 2263
- 62.326 `CURL.SetOptionSSHCompression` 2266
- 62.334 `CURL.SetOptionSSLEnableALPN` 2281
- 62.335 `CURL.SetOptionSSLEnableNPN` 2282
- 62.338 `CURL.SetOptionSSLFalseStart` 2285
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.345 `CURL.SetOptionSSLVerifyStatus` 2298
- 62.347 `CURL.SetOptionServiceName` 2302
- 62.348 `CURL.SetOptionSocks5Auth` 2303
- 62.351 `CURL.SetOptionStreamDepends` 2306
- 62.352 `CURL.SetOptionStreamDependsE` 2307
- 62.353 `CURL.SetOptionStreamWeight` 2308
- 62.354 `CURL.SetOptionSuppressConnectHeaders` 2309
- 62.355 `CURL.SetOptionTCPFastOpen` 2310
- 62.361 `CURL.SetOptionTFTPNoOptions` 2316
- 62.374 `CURL.SetOptionUnixSocketPath` 2337
- 62.384 `CURL.SetOptionXOAuth2Bearer` 2353
- 71.144 `DynaPDF.GetDocUsesTransparency` 2821
- 71.260 `DynaPDF.GetUsesTransparency` 2963
- 71.363 `DynaPDF.SetDocInfoEx` 3167
- 71.415 `DynaPDF.SetPageBBox` 3252
- 80.4 `FM.Beep` 3941
- 80.46 `FM.Loop` 4027
- 80.83 `FM.TableStatistics` 4094
- 89.1 `HealthKit.AuthorizationStatusForType` 4881
- 89.2 `HealthKit.BiologicalSex` 4883

	761
• 89.3 HealthKit.BloodType	4884
• 89.4 HealthKit.DateOfBirth	4885
• 89.5 HealthKit.DateOfBirthComponents	4886
• 89.6 HealthKit.FitzpatrickSkinType	4887
• 89.7 HealthKit.RequestAuthorizationToShareTypes	4888
• 89.8 HealthKit.SampleQuery	4891
• 89.9 HealthKit.WheelchairUse	4893
• 89.10 HealthKit.isHealthDataAvailable	4894
• 102.16 JSON.Colorize	5334
• 102.74 JSON.ToHTML	5419
• 161.1 StoreKit.AddPayment	7663
• 161.2 StoreKit.CanMakePayments	7665
• 161.3 StoreKit.FinishTransaction	7666
• 161.4 StoreKit.InvalidProductIdentifiers	7667
• 161.5 StoreKit.IsProductViewVisible	7668
• 161.6 StoreKit.ProductQueryRunning	7669
• 161.7 StoreKit.Products	7670
• 161.8 StoreKit.QueryProducts	7671
• 161.9 StoreKit.RequestReview	7672
• 161.10 StoreKit.RestoreCompletedTransactions	7673
• 161.11 StoreKit.SetProductViewFinishedTrigger	7674
• 161.12 StoreKit.SetRestoreCompletedTransactionsTrigger	7675
• 161.13 StoreKit.SetUpdatedTransactionsTrigger	7676
• 161.14 StoreKit.ShowProductView	7677
• 161.15 StoreKit.Transactions	7678
• 167.66 Text.Trim	7997
• 179.2 UUID.FromNumber	8377
• 179.4 UUID.Number	8380
• 179.6 UUID.ToNumber	8382

- 194.5 XML.Colorize 9415
- 194.36 XML.ToJSON 9465
- 194.38 XML.ValidateFile 9468
- 96.1 iOSApp.GetDidBecomeActiveEvaluate 5183
- 96.7 iOSApp.GetWillResignActiveEvaluate 5189
- 96.8 iOSApp.SetDidBecomeActiveEvaluate 5190
- 96.9 iOSApp.SetDidBecomeActiveScript 5191
- 96.19 iOSApp.SetWillResignActiveEvaluate 5202
- 96.20 iOSApp.SetWillResignActiveScript 5203

144 functions.

# Chapter 22

## New in Version 8.3

- 50.11 CGImageSource.Properties 1432
- 62.206 CURL.SetOptionDisallowUserNameInURL 2105
- 62.301 CURL.SetOptionProxyTLS13Ciphers 2234
- 62.362 CURL.SetOptionTLS13Ciphers 2317
- 62.390 CURL.SetupOAuth 2365
- 53.1 ColorPanel.Choose 1495
- 53.2 ColorPanel.GetColor 1497
- 53.3 ColorPanel.GetColorChangedEvaluate 1498
- 53.4 ColorPanel.GetColorChangedScript 1499
- 53.6 ColorPanel.Hide 1501
- 53.7 ColorPanel.SetColor 1502
- 53.8 ColorPanel.SetColorChangedEvaluate 1503
- 53.9 ColorPanel.SetColorChangedScript 1504
- 53.11 ColorPanel.Show 1507
- 80.31 FM.InitMessageFilter 3992
- 181.1 FM.VariableAdd 8387
- 79.42 Files.MountPath 3893
- 87.176 GMImage.IsGray 4623
- 87.208 GMImage.QuantumDepth 4666

- 87.212 GImage.Read 4671
- 88.1 Hash.CRC32 4849
- 93.63 ImageCapture.CameraInfo 5057
- 93.65 ImageCapture.Contents 5060
- 93.68 ImageCapture.DevicesJSON 5065
- 93.69 ImageCapture.Download 5066
- 93.72 ImageCapture.GetFeatures 5069
- 93.74 ImageCapture.GetParameters 5073
- 93.77 ImageCapture.MediaFileNames 5076
- 93.78 ImageCapture.MediaFiles 5077
- 93.82 ImageCapture.RequestDeleteFiles 5082
- 93.83 ImageCapture.RequestDisableTethering 5083
- 93.84 ImageCapture.RequestEnableTethering 5084
- 93.88 ImageCapture.RequestSyncClock 5091
- 93.89 ImageCapture.RequestTakePicture 5092
- 93.92 ImageCapture.Thumbnail 5098
- 94.9 ImagePicker.ClearOverlay 5110
- 94.44 ImagePicker.SetOverlayImage 5149
- 127.30 Plugin.LicenseeName 6403
- 127.46 Plugin.UsedFunctions 6424
- 144.2 Screen.DockHeight 6952
- 144.3 Screen.DockWidth 6953
- 151.7 Shell.CloseInput 7123
- 151.8 Shell.CloseStreams 7124
- 157.17 Socket.GetTag 7323
- 157.66 Socket.SetTag 7383
- 158.2 Speech.IsPaused 7392
- 158.4 Speech.Pause 7394
- 158.5 Speech.Resume 7395



	765
• 166.22 TAPI.IsInitialized	7877
• 167.1 Text.AddLineNumbers	7895
• 169.5 Time.UnixTimeStampToFileMaker	8063
• 184.3 WIA.DeviceProperties	8631
• 184.7 WIA.GetCurrentItem	8640
• 184.13 WIA.ItemProperties	8648
• 185.10 Window.ConfigureToolbarMenu	8680
• 185.112 Window.TopHeight	8810
• 187.15 WindowsUserNotification.Setting	8866

57 functions.



# Chapter 23

## New in Version 8.4

- 42.4 AVRecorder.AuthorizationStatusForMediaType 1128
- 42.7 AVRecorder.CurrentQRCode 1133
- 42.16 AVRecorder.HasQRCode 1142
- 42.21 AVRecorder.RequestAccessForMediaType 1149
- 42.26 AVRecorder.SetScreenInput 1154
- 42.31 AVRecorder.StartQRCodeDetection 1161
- 42.33 AVRecorder.StopQRCodeDetection 1164
- 171.1 App.ClearTouchBar 8087
- 47.1 Bonjour.Browse 1257
- 47.2 Bonjour.JSON 1259
- 47.3 Bonjour.Register 1261
- 47.4 Bonjour.RegisteredName 1262
- 55.1 CNContact.AddEmailAddress 1563
- 55.2 CNContact.AddInstantMessage 1565
- 55.3 CNContact.AddInstantMessageJSON 1566
- 55.4 CNContact.AddPhoneNumber 1567
- 55.5 CNContact.AddPostalAddress 1568
- 55.6 CNContact.AddPostalAddressJSON 1570
- 55.7 CNContact.AddRelation 1571

- 55.8 CNContact.AddSocialProfile 1572
- 55.9 CNContact.AddSocialProfileJSON 1574
- 55.10 CNContact.AddURLAddress 1575
- 55.12 CNContact.EditInAddressbook 1578
- 55.14 CNContact.JSON 1580
- 55.15 CNContact.MailingAddress 1582
- 55.16 CNContact.Name 1583
- 55.17 CNContact.SetValue 1584
- 55.19 CNContact.ShowInAddressbook 1588
- 55.21 CNContact.Value 1590
- 55.26 CNContactStore.AddContact 1598
- 55.27 CNContactStore.AddGroup 1600
- 55.28 CNContactStore.AddMember 1602
- 55.29 CNContactStore.AddSubgroup 1603
- 55.30 CNContactStore.AuthorizationError 1604
- 55.31 CNContactStore.AuthorizationStatus 1605
- 55.33 CNContactStore.ContactsInContainer 1607
- 55.34 CNContactStore.ContactsInGroup 1608
- 55.35 CNContactStore.ContactsMatchingName 1609
- 55.36 CNContactStore.ContactsWithData 1610
- 55.37 CNContactStore.ContainerForContact 1611
- 55.38 CNContactStore.ContainerForGroup 1612
- 55.39 CNContactStore.Containers 1613
- 55.40 CNContactStore.Country 1614
- 55.41 CNContactStore.DataWithContacts 1615
- 55.42 CNContactStore.DefaultContainerIdentifier 1616
- 55.43 CNContactStore.DeleteContact 1617
- 55.44 CNContactStore.DeleteGroup 1618
- 55.46 CNContactStore.Groups 1621

	769
• 55.47 CNContactStore.GroupsByName	1623
• 55.48 CNContactStore.GroupsForContact	1624
• 55.49 CNContactStore.GroupsInContainer	1625
• 55.50 CNContactStore.NewContact	1626
• 55.51 CNContactStore.RemoveMember	1628
• 55.52 CNContactStore.RemoveSubgroup	1629
• 55.53 CNContactStore.RenameGroup	1630
• 55.54 CNContactStore.RequestAccesss	1631
• 55.55 CNContactStore.SetChangeScript	1633
• 55.56 CNContactStore.Subgroups	1634
• 55.57 CNContactStore.UnifiedMeContact	1635
• 55.58 CNContactStore.UpdateContact	1637
• 55.59 CNContainer.Name	1638
• 55.60 CNContainer.Type	1639
• 55.61 CNGroup.Name	1640
• 56.29 Container.ReadImage	1684
• 81.17 FM.InsertOrUpdateRecordQuery	4171
• 79.8 Files.CreateAlias	3836
• 79.50 Files.ResolveAlias	3909
• 83.2 Font.CalculateTextFits	4253
• 83.3 Font.CalculateTextHeight	4255
• 87.39 GMImage.Coders	4450
• 87.81 GMImage.Free	4517
• 87.82 GMImage.FreeAll	4519
• 87.175 GMImage.InvertChannel	4621
• 103.1 Keychain.AddPassword	5433
• 103.2 Keychain.DeletePassword	5435
• 103.3 Keychain.ListAccounts	5436
• 103.4 Keychain.ListDatabases	5437

- 103.5 Keychain.UpdatePassword 5438
- 120.3 NetworkInterfaces.JSON 6199
- 137.5 QLPreviewPanel.AddContainer 6736
- 137.10 QLPreviewPanel.CurrentPreviewItemIndex 6742
- 137.11 QLPreviewPanel.CurrentPreviewItemPath 6743
- 137.12 QLPreviewPanel.CurrentPreviewItemTitle 6744
- 137.21 QLPreviewPanel.SetCurrentPreviewItemIndex 6754
- 159.22 SQL.GetCommandOptions 7446
- 159.25 SQL.GetConnectionOptions 7449
- 159.43 SQL.GetFieldOptions 7476
- 159.64 SQL.GetParamOption 7505
- 159.65 SQL.GetParamOptions 7506
- 159.119 SQL.SetParamOption 7588
- 164.54 SystemInfo.isMojave 7836
- 183.27 WebView.AllCookies 8442
- 185.9 Window.ClearTouchBar 8679
- 194.2 XML.ApplyStylesheet 9410

94 functions.

# Chapter 24

## New in Version 8.5

• 35.3 App.CompactMemory	923
• 38.1 Audit.Backup	967
• 38.2 Audit.Backup2	969
• 55.13 CNContact.IsUnifiedWithContact	1579
• 55.20 CNContact.UnifiedContacts	1589
• 55.32 CNContactStore.Contacts	1606
• 55.45 CNContactStore.GroupHierarchy	1619
• 62.19 CURL.FileInfos	1828
• 62.203 CURL.SetOptionDOHURL	2100
• 62.376 CURL.SetOptionUpkeepIntervalMS	2339
• 62.378 CURL.SetOptionUploadBufferSize	2342
• 62.391 CURL.Upkeep	2370
• 63.2 Debugger.CurrentLineNumber	2376
• 70.44 DragDrop.SetFrameWithControl	2584
• 71.40 DynaPDF.CheckFieldNames	2653
• 74.2 Encryption.CipherNames	3505
• 74.7 Encryption.DigestNames	3514
• 78.25 FileDialog.GetUseSheet	3789
• 78.42 FileDialog.SetSheetScriptTrigger	3818

- 78.45 `FileDialog.SetUseSheet` 3821
- 85.1 `GameKit.Achievement.Completed` 4297
- 85.2 `GameKit.Achievement.GetPercentComplete` 4298
- 85.3 `GameKit.Achievement.GetShowsCompletionBanner` 4299
- 85.4 `GameKit.Achievement.LastReportedDate` 4300
- 85.5 `GameKit.Achievement.New` 4301
- 85.6 `GameKit.Achievement.Player` 4302
- 85.7 `GameKit.Achievement.SetPercentComplete` 4303
- 85.8 `GameKit.Achievement.SetShowsCompletionBanner` 4304
- 85.9 `GameKit.AchievementDescription.AchievedDescription` 4305
- 85.10 `GameKit.AchievementDescription.GroupIdentifier` 4306
- 85.11 `GameKit.AchievementDescription.Hidden` 4307
- 85.12 `GameKit.AchievementDescription.Image` 4308
- 85.13 `GameKit.AchievementDescription.IncompleteAchievementImage` 4309
- 85.14 `GameKit.AchievementDescription.MaximumPoints` 4310
- 85.15 `GameKit.AchievementDescription.PlaceholderCompletedAchievementImage` 4311
- 85.16 `GameKit.AchievementDescription.Replayable` 4312
- 85.17 `GameKit.AchievementDescription.Title` 4313
- 85.18 `GameKit.AchievementDescription.UnachievedDescription` 4314
- 85.19 `GameKit.AnonymousGuestPlayer` 4315
- 85.20 `GameKit.Challenge.Achievement` 4316
- 85.21 `GameKit.Challenge.CompletionDate` 4317
- 85.22 `GameKit.Challenge.Decline` 4318
- 85.23 `GameKit.Challenge.IssueDate` 4319
- 85.24 `GameKit.Challenge.IssuingPlayer` 4320
- 85.25 `GameKit.Challenge.Message` 4321
- 85.26 `GameKit.Challenge.ReceivingPlayer` 4322
- 85.27 `GameKit.Challenge.Score` 4323
- 85.28 `GameKit.Challenge.State` 4324



- 85.29 GameKit.DefaultLeaderboardIdentifier 4325
- 85.30 GameKit.GameCenterView.Dismiss 4326
- 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier 4327
- 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope 4328
- 85.33 GameKit.GameCenterView.GetViewState 4329
- 85.34 GameKit.GameCenterView.Initialize 4330
- 85.35 GameKit.GameCenterView.Present 4331
- 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier 4332
- 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope 4333
- 85.38 GameKit.GameCenterView.SetScriptTrigger 4334
- 85.39 GameKit.GameCenterView.SetViewState 4335
- 85.40 GameKit.GameCenterView.ShowBannerWithTitle 4336
- 85.41 GameKit.Initialize 4337
- 85.42 GameKit.Leaderboard.GetPlayerScope 4338
- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.44 GameKit.Leaderboard.GetTimeScope 4340
- 85.45 GameKit.Leaderboard.GroupIdentifier 4341
- 85.46 GameKit.Leaderboard.Image 4342
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.49 GameKit.Leaderboard.LocalPlayerScore 4345
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.51 GameKit.Leaderboard.New 4347
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.53 GameKit.Leaderboard.SetPlayerScope 4349
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.55 GameKit.Leaderboard.SetTimeScope 4351
- 85.56 GameKit.Leaderboard.Title 4352
- 85.57 GameKit.LeaderboardSet.GroupIdentifier 4353

- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355
- 85.60 GameKit.LoadAchievementDescriptions 4356
- 85.61 GameKit.LoadAchievements 4357
- 85.62 GameKit.LoadLeaderboardSets 4358
- 85.63 GameKit.LoadLeaderboards 4359
- 85.64 GameKit.LoadPlayers 4360
- 85.65 GameKit.LoadReceivedChallenges 4361
- 85.66 GameKit.LocalPlayer 4362
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364
- 85.69 GameKit.LocalPlayer.ClearAuthenticateHandler 4365
- 85.70 GameKit.LocalPlayer.isAuthenticated 4366
- 85.71 GameKit.LocalPlayer.isUnderage 4367
- 85.72 GameKit.Player.Alias 4368
- 85.73 GameKit.Player.DisplayName 4369
- 85.74 GameKit.Player.GuestIdentifier 4370
- 85.75 GameKit.Player.Photo 4371
- 85.76 GameKit.RecentPlayers 4372
- 85.77 GameKit.ReportAchievements 4373
- 85.78 GameKit.ReportAchievementsWithEligibleChallenges 4374
- 85.79 GameKit.ReportScores 4375
- 85.80 GameKit.ReportScoresWithEligibleChallenges 4376
- 85.81 GameKit.ResetAchievements 4377
- 85.82 GameKit.Score.Date 4378
- 85.83 GameKit.Score.FormattedValue 4379
- 85.84 GameKit.Score.GetContext 4380
- 85.85 GameKit.Score.GetShouldSetDefaultLeaderboard 4381
- 85.86 GameKit.Score.GetValue 4382

	775
• 85.87 GameKit.Score.LeaderboardIdentifier	4383
• 85.88 GameKit.Score.New	4384
• 85.89 GameKit.Score.Player	4385
• 85.90 GameKit.Score.Rank	4386
• 85.91 GameKit.Score.SetContext	4387
• 85.92 GameKit.Score.SetShouldSetDefaultLeaderboard	4388
• 85.93 GameKit.Score.SetValue	4389
• 85.94 GameKit.SelectChallengeablePlayers	4390
• 85.95 GameKit.SetDefaultLeaderboardIdentifier	4391
• 85.96 GameKit.SetPlayerDidChangeScriptTrigger	4392
• 85.97 GameKit.ShowChallengeComposeDialog	4393
• 127.20 Plugin.CallErrorScriptTrigger	6393
• 127.39 Plugin.SetErrorScriptTrigger	6415
• 128.3 PortMidi.ClearDataAvailableHandler	6451
• 128.23 PortMidi.SetDataAvailableEvaluate	6475
• 128.24 PortMidi.SetDataAvailableHandler	6476
• 160.29 SSH.Tunnel.BytesReceived	7640
• 160.30 SSH.Tunnel.BytesSent	7641
• 160.31 SSH.Tunnel.Cancel	7642
• 160.32 SSH.Tunnel.Cancelled	7643
• 160.34 SSH.Tunnel.Messages	7645
• 160.35 SSH.Tunnel.Run	7646
• 160.36 SSH.Tunnel.Running	7648
• 153.17 SmartCard.ReadFile	7224
• 153.21 SmartCard.SplitValues	7230
• 162.29 SyntaxColoring.GetRememberColumnWidths	7720
• 162.66 SyntaxColoring.SetRememberColumnWidths	7760
• 167.46 Text.MergeFields	7967
• 183.30 WebView.ClearBrowserSession	8446
• 185.80 Window.SetFocus	8769

136 functions.



# Chapter 25

## New in Version 9.0

• 36.11 Applescript.DeterminePermissionToAutomateTarget	953
• 37.1 Archive.Compress	955
• 37.2 Archive.Content	958
• 37.3 Archive.Extract	960
• 37.4 Archive.FileList	961
• 37.5 Archive.LibVersion	962
• 37.6 Archive.LibVersionDetails	963
• 37.7 Archive.SupportedFormats	964
• 62.28 CURL.FormClear	1847
• 62.114 CURL.GetResultAsEMailList	1949
• 87.25 GMImage.AutoOrient	4431
• 87.66 GMImage.Extent	4493
• 87.149 GMImage.GetQuiet	4592
• 87.216 GMImage.Repage	4677
• 87.218 GMImage.Resize	4681
• 87.279 GMImage.SetQuiet	4760
• 95.15 ImageView.SetFrameWithControl	5177
• 102.33 JSON.CreateValue	5358
• 102.37 JSON.Equals	5362

- 102.38 JSON.FindValueInArray 5364
- 102.39 JSON.FindValueInObjectArray 5366
- 108.2 MapView.AddPin 5723
- 108.3 MapView.AddPinWithAddress 5725
- 108.8 MapView.CreateWithControl 5735
- 108.9 MapView.CreateWithSize 5737
- 108.15 MapView.GetAutoResizingMask 5744
- 108.16 MapView.GetCenterCoordinateLatitude 5746
- 108.17 MapView.GetCenterCoordinateLongitude 5747
- 108.18 MapView.GetHeight 5748
- 108.19 MapView.GetLeft 5749
- 108.20 MapView.GetMapType 5750
- 108.25 MapView.GetPitchEnabled 5756
- 108.26 MapView.GetRegion 5757
- 108.27 MapView.GetRegionLatitude 5758
- 108.28 MapView.GetRegionLatitudeSpan 5759
- 108.29 MapView.GetRegionLongitude 5760
- 108.30 MapView.GetRegionLongitudeSpan 5761
- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.33 MapView.GetShowsBuildings 5764
- 108.34 MapView.GetShowsCompass 5765
- 108.35 MapView.GetShowsPointsOfInterest 5766
- 108.36 MapView.GetShowsScale 5767
- 108.37 MapView.GetShowsTraffic 5768
- 108.38 MapView.GetShowsUserLocation 5769
- 108.39 MapView.GetShowsZoomControls 5770
- 108.40 MapView.GetTag 5771
- 108.41 MapView.GetToolTip 5772

	779
• 108.42 MapView.GetTop	5773
• 108.43 MapView.GetVisible	5774
• 108.44 MapView.GetVisibleMapRect	5775
• 108.45 MapView.GetWidth	5776
• 108.46 MapView.GetZoomEnabled	5777
• 108.48 MapView.IsUserLocationVisible	5779
• 108.53 MapView.Release	5785
• 108.54 MapView.ReleaseAll	5786
• 108.65 MapView.SetAutoResizingMask	5798
• 108.67 MapView.SetCoordinate	5801
• 108.68 MapView.SetFrame	5802
• 108.69 MapView.SetFrameWithControl	5803
• 108.70 MapView.SetMapType	5804
• 108.75 MapView.SetPitchEnabled	5809
• 108.76 MapView.SetRegion	5810
• 108.77 MapView.SetRotateEnabled	5811
• 108.79 MapView.SetScrollEnabled	5814
• 108.80 MapView.SetShowsBuildings	5815
• 108.81 MapView.SetShowsCompass	5816
• 108.82 MapView.SetShowsPointsOfInterest	5817
• 108.83 MapView.SetShowsScale	5818
• 108.84 MapView.SetShowsTraffic	5819
• 108.85 MapView.SetShowsUserLocation	5820
• 108.86 MapView.SetShowsZoomControls	5822
• 108.87 MapView.SetTag	5823
• 108.88 MapView.SetToolTip	5824
• 108.89 MapView.SetVisible	5825
• 108.90 MapView.SetVisibleMapRect	5826
• 108.91 MapView.SetZoomEnabled	5827

- 108.93 MapView.ShowAddress 5829
- 108.95 MapView.Snapshot 5832
- 124.6 Path.LongPath 6254
- 124.9 Path.ShortPath 6259
- 127.28 Plugin.JasperVersion 6401
- 127.44 Plugin.TiffVersion 6422
- 145.11 ScriptWorkspace.ScriptText 6973
- 145.13 ScriptWorkspace.ScrollToLine 6975
- 145.14 ScriptWorkspace.ScrollToSelection 6976
- 145.16 ScriptWorkspace.SelectLines 6978
- 157.19 Socket.IsClosed 7325
- 157.20 Socket.IsListening 7326
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728

91 functions.



# Chapter 26

## New in Version 9.1

- 42.8 AVRecorder.EncoderCount 1134
- 42.9 AVRecorder.EncoderInfo 1135
- 42.12 AVRecorder.GetEncoder 1138
- 42.24 AVRecorder.SetEncoder 1152
- 42.29 AVRecorder.ShowPropertyDialog 1158
- 59.3 CoreLocation.RegionMonitoringAvailable 1707
- 59.4 CoreLocation.RegionMonitoringEnabled 1708
- 59.10 CoreLocation.authorizationStatus 1715
- 59.14 CoreLocation.dismissHeadingCalibrationDisplay 1719
- 59.24 CoreLocation.requestAlwaysAuthorization 1729
- 59.25 CoreLocation.requestLocation 1730
- 59.26 CoreLocation.requestWhenInUseAuthorization 1731
- 59.33 CoreLocation.startUpdatingHeading 1738
- 59.36 CoreLocation.stopUpdatingHeading 1741
- 78.1 DocumentPicker.Dismiss 3763
- 78.2 DocumentPicker.Export 3764
- 78.3 DocumentPicker.File 3765
- 78.4 DocumentPicker.FileCount 3766
- 78.5 DocumentPicker.Files 3767

- 78.6 DocumentPicker.Import 3768
- 78.7 DocumentPicker.IsVisible 3769
- 78.8 DocumentPicker.Move 3770
- 78.9 DocumentPicker.Open 3771
- 78.10 DocumentPicker.SetTrigger 3772
- 70.9 DragDrop.GetAutoResizingMask 2536
- 70.38 DragDrop.SetAutoResizingMask 2573
- 71.213 DynaPDF.GetOCG 2906
- 71.214 DynaPDF.GetOCGContUsage 2909
- 71.215 DynaPDF.GetOCGCount 2911
- 71.216 DynaPDF.GetOCGUsageUserName 2912
- 71.410 DynaPDF.SetOCGState 3243
- 71.479 DynaPDF.Table.SetCellAction 3350
- 80.60 FM.SQL.Avg 4051
- 80.70 FM.SQL.Max 4073
- 80.71 FM.SQL.Min 4075
- 80.74 FM.SQL.Sum 4081
- 93.80 ImageCapture.PDF 5080
- 108.56 MapView.RemoveAnnotations 5788
- 108.58 MapView.RemoveOverlays 5790
- 108.94 MapView.ShowAllAnnotations 5831
- 49.9 PKCS7.ReadFromContainer 1390
- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392
- 49.12 PKCS7.SignedDataCert 1393
- 49.13 PKCS7.SignedDataCertCount 1394
- 49.14 PKCS7.SignedDataContent 1395
- 169.4 Time.TimeZoneOffset 8062
- 127.61 Trace.WriteLine 6445

	783
• 184.11 WIA.Images	8646
• 189.17 WinSendMail.SendAsync	8900
• 192.1 WordFile.AddMediaFile	8951
• 49.34 X509.Write	1415

52 functions.



# Chapter 27

## New in Version 9.2

• 37.8 Archive.Verify	965
• 48.34 Calendar.Initialize	1300
• 94.1 ContinuityCamera.Clear	5101
• 94.2 ContinuityCamera.Import	5102
• 94.3 ContinuityCamera.PopupMenu	5103
• 94.4 ContinuityCamera.Result	5105
• 94.5 ContinuityCamera.SetScriptTrigger	5106
• 70.4 DragDrop.CreateOnPopoverWithControl	2525
• 70.5 DragDrop.CreateOnPopoverWithSize	2527
• 70.17 DragDrop.GetHTML	2545
• 70.25 DragDrop.GetRTF	2557
• 71.46 DynaPDF.ConvertColors	2662
• 71.261 DynaPDF.GetViewerPreferences	2965
• 71.444 DynaPDF.SetViewerPreferences	3300
• 80.56 FM.RunSaveAsXML	4044
• 87.92 GMImage.GetAttributeNames	4530
• 87.93 GMImage.GetAttributesJSON	4531
• 88.3 Hash.DigestFile	4855
• 106.4 ListDialog.ClearColumnHeaders	5651

• 106.6 ListDialog.ColumnCount	5653
• 106.10 ListDialog.GetColumnHeader	5657
• 106.29 ListDialog.SetColumnCount	5676
• 106.30 ListDialog.SetColumnHeader	5677
• 108.10 MapView.FormatDistance	5739
• 108.51 MapView.ParseDistance	5782
• 108.52 MapView.PlanRoute	5783
• 110.18 Math.PolylineDecode	5859
• 110.19 Math.PolylineEncode	5860
• 111.2 Matrix.AddColumn	5868
• 111.3 Matrix.AddColumns	5869
• 111.4 Matrix.AddRow	5870
• 111.5 Matrix.AddRows	5871
• 111.6 Matrix.Avg	5872
• 111.7 Matrix.CSV	5873
• 111.8 Matrix.Clear	5875
• 111.9 Matrix.ClearValues	5876
• 111.10 Matrix.Clone	5877
• 111.13 Matrix.DataType	5880
• 111.15 Matrix.Free	5883
• 111.16 Matrix.GetColumn	5884
• 111.19 Matrix.GetRow	5887
• 111.22 Matrix.GetText	5890
• 111.23 Matrix.GetValue	5891
• 111.24 Matrix.Height	5893
• 111.25 Matrix.InsertRecords	5894
• 111.26 Matrix.InsertRecordsToSQL	5896
• 111.27 Matrix.JSONRecord	5898
• 111.28 Matrix.JSONRecords	5899

	787
• 111.29 Matrix.Max	5900
• 111.30 Matrix.Min	5901
• 111.31 Matrix.New	5902
• 111.32 Matrix.NewWithSQL	5904
• 111.33 Matrix.RemoveColumn	5905
• 111.34 Matrix.RemoveRow	5906
• 111.35 Matrix.Resize	5907
• 111.36 Matrix.SetColumn	5908
• 111.38 Matrix.SetRow	5912
• 111.40 Matrix.SetValue	5916
• 111.41 Matrix.Sum	5918
• 111.42 Matrix.Text	5920
• 111.43 Matrix.Width	5922
• 125.24 PDFKit.GetPrintLastSettings	6300
• 125.25 PDFKit.GetPrintOption	6301
• 125.43 PDFKit.SetPrintOption	6332
• 49.8 PKCS12.ShowDialog	1389
• 130.1 PageSetupDialog.ClearOption	6493
• 130.2 PageSetupDialog.ClearOptions	6494
• 130.3 PageSetupDialog.Disable	6495
• 130.4 PageSetupDialog.Enable	6496
• 130.5 PageSetupDialog.GetLastSettings	6498
• 130.6 PageSetupDialog.GetNoDialog	6499
• 130.7 PageSetupDialog.GetOption	6500
• 130.8 PageSetupDialog.GetPaperName	6501
• 130.9 PageSetupDialog.GetPaperOrientation	6502
• 130.10 PageSetupDialog.GetPrinterName	6503
• 130.11 PageSetupDialog.GetScalingFactor	6504
• 130.12 PageSetupDialog.Install	6505

- 130.13 PageSetupDialog.SetNoDialog 6507
- 130.14 PageSetupDialog.SetOption 6508
- 130.15 PageSetupDialog.SetPaperName 6509
- 130.16 PageSetupDialog.SetPaperOrientation 6510
- 130.17 PageSetupDialog.SetPrinterName 6511
- 130.18 PageSetupDialog.SetScalingFactor 6512
- 131.1 Printer.CurrentNumberOfCopies 6559
- 133.5 ProgressDialog.GetImageHeight 6609
- 133.6 ProgressDialog.GetImageWidth 6610
- 133.21 ProgressDialog.SetImageHeight 6631
- 133.22 ProgressDialog.SetImageWidth 6632
- 144.6 Screen.Scale 6956
- 157.24 Socket.List 7330
- 167.22 Text.DecodeIMAPFolderName 7935
- 168.1 TextView.CanUndo 8005
- 168.2 TextView.Copy 8006
- 168.3 TextView.CreateOnPopoverWithControl 8007
- 168.4 TextView.CreateOnPopoverWithSize 8009
- 168.5 TextView.CreateWithControl 8010
- 168.6 TextView.CreateWithSize 8012
- 168.7 TextView.CreateWithWindow 8013
- 168.8 TextView.Cut 8014
- 168.9 TextView.GetAutoCorrectionEnabled 8015
- 168.10 TextView.GetAutoResizingMask 8016
- 168.11 TextView.GetHTMLText 8017
- 168.12 TextView.GetHeight 8018
- 168.13 TextView.GetLeft 8019
- 168.14 TextView.GetPlainText 8020
- 168.15 TextView.GetRTF 8021



	789
• 168.16 TextView.GetReadOnly	8022
• 168.17 TextView.GetRulerVisible	8023
• 168.18 TextView.GetSpellCheckingEnabled	8024
• 168.19 TextView.GetStyled	8025
• 168.20 TextView.GetTag	8026
• 168.21 TextView.GetTop	8027
• 168.22 TextView.GetVisible	8028
• 168.23 TextView.GetWidth	8029
• 168.24 TextView.GetWindowRef	8030
• 168.25 TextView.List	8031
• 168.26 TextView.Paste	8032
• 168.27 TextView.Release	8033
• 168.28 TextView.ReleaseAll	8034
• 168.29 TextView.SetAutoCorrectionEnabled	8035
• 168.30 TextView.SetAutoResizingMask	8036
• 168.31 TextView.SetFocus	8038
• 168.32 TextView.SetFrame	8039
• 168.33 TextView.SetFrameWithControl	8040
• 168.34 TextView.SetHTMLText	8041
• 168.35 TextView.SetPlainText	8042
• 168.36 TextView.SetRTF	8043
• 168.37 TextView.SetReadOnly	8044
• 168.38 TextView.SetRulerVisible	8045
• 168.39 TextView.SetSpellCheckingEnabled	8046
• 168.40 TextView.SetStyled	8047
• 168.41 TextView.SetTag	8048
• 168.42 TextView.SetVisible	8049
• 168.43 TextView.ShowFontPanel	8050
• 168.44 TextView.Undo	8051
• 177.44 UserNotification.removeAllScheduledNotifications	8331
• 49.31 X509.ShowDialog	1412

137 functions.



# Chapter 28

## New in Version 9.3

- 44.10 Barcode.LibVersion 1190
- 62.256 CURL.SetOptionMaxAgeConn 2170
- 77.137 Events.Reminder.GetDueTimestamp 3715
- 77.140 Events.Reminder.GetStartTimestamp 3718
- 81.3 FM.CompareTables 4127
- 87.335 GImage.WriteToContainer 4829
- 102.59 JSON.Import.ErrorCount 5399
- 102.60 JSON.Import.Errors 5400
- 102.72 JSON.Sort 5416
- 104.33 LDAP.StartTLS 5491
- 108.59 MapView.Screenshot 5791
- 108.78 MapView.SetScript 5812
- 127.19 Plugin.CallCounter 6392
- 127.26 Plugin.InstallSignalHandlers 6399
- 129.5 Preferences.GetValueType 6487
- 151.14 Shell.GetArguments 7137
- 164.1 SystemInfo.ADSystemInfo 7779
- 164.47 SystemInfo.isCatalina 7829
- 167.38 Text.FilterUTF16 7958

- 167.63 Text.Styles 7991
- 127.56 Trace.GetErrorsOnly 6440
- 127.57 Trace.GetWithTimes 6441
- 127.59 Trace.SetErrorsOnly 6443
- 127.60 Trace.SetWithTimes 6444
- 173.9 UNNotification.Deliver 8202
- 173.11 UNNotification.GetDescription 8204
- 173.33 UNNotification.SetCalendarDateTrigger 8232
- 183.51 WebView.GetAllowsLinkPreview 8476
- 183.85 WebView.HasOnlySecureContent 8520
- 183.123 WebView.SetAllowsLinkPreview 8582
- 183.142 WebView.StopLoading 8615
- 194.15 XML.Import.ErrorCount 9433
- 194.16 XML.Import.Errors 9434

33 functions.

# Chapter 29

## New in Version 9.4

- 44.5 Barcode.GenerateJSON 1183
- 46.1 BlueThermProbe.ConnectToDevice 1235
- 46.2 BlueThermProbe.ConnectedDevices 1237
- 46.3 BlueThermProbe.Device 1238
- 46.4 BlueThermProbe.DeviceSensor 1239
- 46.5 BlueThermProbe.Devices 1241
- 46.6 BlueThermProbe.DisconnectFromDevice 1242
- 46.7 BlueThermProbe.Initialize 1243
- 46.8 BlueThermProbe.IsBluetoothAvailable 1244
- 46.9 BlueThermProbe.IsInitialized 1245
- 46.10 BlueThermProbe.RemoveDevice 1246
- 46.11 BlueThermProbe.SendCommand 1247
- 46.12 BlueThermProbe.SetBatteryLevelScript 1248
- 46.13 BlueThermProbe.SetDeviceUpdatedScript 1249
- 46.14 BlueThermProbe.SetDisconnectedScript 1250
- 46.15 BlueThermProbe.SetNewDeviceScript 1251
- 46.16 BlueThermProbe.SetNotificationReceivedScript 1252
- 46.17 BlueThermProbe.SetSensorUpdatedSScript 1253
- 46.18 BlueThermProbe.StartDeviceScan 1254

- 46.19 BlueThermProbe.StopDeviceScan 1255
- 46.20 BlueThermProbe.VersionNumber 1256
- 50.1 CGImageSource.ClearProperties 1417
- 50.6 CGImageSource.Export 1424
- 50.7 CGImageSource.FileName 1426
- 50.8 CGImageSource.HasProperty 1427
- 50.14 CGImageSource.SetProperty 1439
- 50.16 CGImageSource.SupportedExportTypes 1443
- 62.323 CURL.SetOptionSASLAuthZID 2262
- 59.17 CoreLocation.hasLocation 1722
- 73.3 EmailParser.AttachedEmails 3462
- 80.5 FM.ChooseDictionary 3942
- 80.27 FM.GetDictionary 3988
- 80.28 FM.GetDictionaryList 3989
- 79.4 Files.AudioTags 3829
- 79.53 Files.SetAudioTags 3914
- 87.172 GImage.Hash 4617
- 108.1 MapView.AddCircle 5721
- 108.4 MapView.AddPoint 5727
- 108.5 MapView.AddPolygon 5730
- 108.6 MapView.AddPolyline 5732
- 108.7 MapView.Annotations 5734
- 108.11 MapView.GetAnnotationCoordinate 5740
- 108.50 MapView.Overlays 5781
- 108.55 MapView.RemoveAnnotation 5787
- 108.57 MapView.RemoveOverlay 5789
- 108.61 MapView.SetAnnotationCoordinate 5794
- 108.66 MapView.SetColor 5800
- 158.7 SpeechRecognition.AuthorizationStatus 7398

	795
• 158.8 <code>SpeechRecognition.Initialize</code>	7399
• 158.9 <code>SpeechRecognition.IsInitialized</code>	7400
• 158.10 <code>SpeechRecognition.Recognize</code>	7401
• 158.11 <code>SpeechRecognition.RequestAuthorization</code>	7403
• 158.12 <code>SpeechRecognition.SupportedLocales</code>	7404
• 158.13 <code>SpeechRecognition.SupportsOnDeviceRecognition</code>	7406
• 164.15 <code>SystemInfo.MacBoardID</code>	7794
• 164.21 <code>SystemInfo.MacROMBootVersion</code>	7800
• 167.7 <code>Text.ConvertFromTextEncoding</code>	7905
• 167.8 <code>Text.ConvertToTextEncoding</code>	7911
• 173.38 <code>UNNotification.SetNFCScript</code>	8239
• 182.1 <code>Vision.ClassifyImage</code>	8401
• 182.2 <code>Vision.DetectBarcode</code>	8403
• 182.3 <code>Vision.KnownClassifications</code>	8405
• 182.4 <code>Vision.RecognizeText</code>	8406
• 182.5 <code>Vision.SupportedRecognitionLanguages</code>	8408
• 182.6 <code>Vision.SupportedSymbologies</code>	8409
• 183.127 <code>WebView.SetFocus</code>	8588

66 functions.





# Chapter 30

## New in Version 9.5

- 71.68 DynaPDF.CreateXFASStream 2711
- 71.258 DynaPDF.GetUserRights 2961
- 71.448 DynaPDF.SetXFASStream 3304
- 181.2 FM.VariableAppend 8389
- 106.12 ListDialog.GetOtherButtonEvaluate 5659
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.32 ListDialog.SetOtherButtonEvaluate 5679
- 106.33 ListDialog.SetOtherButtonLabel 5680
- 108.12 MapView.GetAnnotationDragImage 5741
- 108.13 MapView.GetAnnotationImage 5742
- 108.14 MapView.GetAnnotationSelectedImage 5743
- 108.21 MapView.GetOverlayFillColor 5751
- 108.22 MapView.GetOverlayLineWidth 5752
- 108.23 MapView.GetOverlayPoints 5753
- 108.24 MapView.GetOverlayStrokeColor 5755
- 108.47 MapView.GetZoomLevel 5778
- 108.49 MapView.MouseCoordinate 5780
- 108.60 MapView.SelectedAnnotations 5793
- 108.62 MapView.SetAnnotationDragImage 5795

- 108.63 `MapView.SetAnnotationImage` 5796
- 108.64 `MapView.SetAnnotationSelectedImage` 5797
- 108.71 `MapView.SetOverlayFillColor` 5805
- 108.72 `MapView.SetOverlayLineWidth` 5806
- 108.73 `MapView.SetOverlayPoints` 5807
- 108.74 `MapView.SetOverlayStrokeColor` 5808
- 108.92 `MapView.SetZoomLevel` 5828
- 127.43 `Plugin.StartTimeStamp` 6421
- 162.1 `SyntaxColoring.AddContextMenuCommand` 7679
- 162.12 `SyntaxColoring.ClearContextMenuCommands` 7702
- 162.49 `SyntaxColoring.RemoveContextMenuCommand` 7741
- 162.76 `SyntaxColoring.ShowTextPositions.GetEnabled` 7771
- 162.77 `SyntaxColoring.ShowTextPositions.SetEnabled` 7772
- 164.14 `SystemInfo.MacAppDarkMode` 7793
- 164.23 `SystemInfo.MacSystemDarkMode` 7802
- 183.26 `WebView.AddUserScript` 8440
- 183.77 `WebView.GetPrivateBrowsing` 8512
- 183.107 `WebView.RemoveAllUserScripts` 8551
- 183.139 `WebView.SetPrivateBrowsing` 8612
- 183.143 `WebView.UserScripts` 8616
- 185.106 `Window.ShowKeyboard` 8802

40 functions.

# Chapter 31

## New in Version 10.0

- 62.69 `CURL.GetMultiOptionMaxConcurrentStreams` 1899
- 62.118 `CURL.GetResultAsMime` 1957
- 62.169 `CURL.SetMultiOptionMaxConcurrentStreams` 2048
- 60.18 `CoreML.Update` 1769
- 69.1 `DocumentCameraScan.Clear` 2505
- 69.2 `DocumentCameraScan.Close` 2507
- 69.3 `DocumentCameraScan.ErrorMessage` 2508
- 69.4 `DocumentCameraScan.Initialize` 2509
- 69.5 `DocumentCameraScan.IsInitialized` 2511
- 69.6 `DocumentCameraScan.PageCount` 2512
- 69.7 `DocumentCameraScan.PageImage` 2513
- 69.8 `DocumentCameraScan.Scan` 2515
- 69.9 `DocumentCameraScan.SetScript` 2516
- 69.10 `DocumentCameraScan.Supported` 2518
- 69.11 `DocumentCameraScan.Title` 2519
- 69.12 `DocumentCameraScan.Visible` 2520
- 71.53 `DynaPDF.CreateGoToAction` 2677
- 71.54 `DynaPDF.CreateGoToActionEx` 2679
- 71.55 `DynaPDF.CreateGoToRAction` 2681

- 71.56 DynaPDF.CreateGoToRActionEx 2683
- 71.114 DynaPDF.FlattenAnnotOrField 2779
- 72.1 EIDSDK.Address 3423
- 72.2 EIDSDK.BeginTransaction 3424
- 72.3 EIDSDK.CardDeliveryMunicipality 3425
- 72.4 EIDSDK.CardNumber 3426
- 72.5 EIDSDK.CardValidFrom 3427
- 72.6 EIDSDK.CardValidTo 3428
- 72.7 EIDSDK.ChipNumber 3429
- 72.8 EIDSDK.Close 3430
- 72.9 EIDSDK.DateOfBirth 3431
- 72.10 EIDSDK.DocTypeInt 3432
- 72.11 EIDSDK.Duplicate 3433
- 72.12 EIDSDK.EndTransaction 3434
- 72.13 EIDSDK.FirstName 3435
- 72.14 EIDSDK.Initialize 3436
- 72.15 EIDSDK.LastName 3437
- 72.16 EIDSDK.MemberOfFamily 3438
- 72.17 EIDSDK.Municipality 3439
- 72.18 EIDSDK.NatNumber 3440
- 72.19 EIDSDK.Nationality 3441
- 72.20 EIDSDK.NobleCondition 3442
- 72.21 EIDSDK.Open 3443
- 72.22 EIDSDK.PhotoDigest 3444
- 72.23 EIDSDK.Picture 3445
- 72.24 EIDSDK.PlaceOfBirth 3446
- 72.25 EIDSDK.PostalCode 3447
- 72.26 EIDSDK.SDKReleaseDate 3448
- 72.27 EIDSDK.SDKVersion 3449

	801
• 72.28 EIDSDK.SetTrigger	3450
• 72.29 EIDSDK.Sex	3451
• 72.30 EIDSDK.SpecialOrganisation	3452
• 72.31 EIDSDK.SpecialStatus	3453
• 72.32 EIDSDK.StartScan	3454
• 72.33 EIDSDK.StopScan	3455
• 72.34 EIDSDK.SupportsPinPad	3456
• 72.35 EIDSDK.ThirdName	3457
• 72.36 EIDSDK.Version	3458
• 79.7 Files.CopyFiles	3834
• 100.1 JS.AddFileMakerEvaluateFunction	5253
• 100.2 JS.AddFileMakerRunScriptFunction	5255
• 100.3 JS.AddFileMakerSQLFunction	5257
• 100.4 JS.AddFunction	5258
• 100.5 JS.CallFunction	5260
• 100.6 JS.Evaluate	5262
• 100.7 JS.EvaluateToString	5266
• 100.8 JS.Free	5268
• 100.9 JS.GetGlobalProperty	5270
• 100.10 JS.GetGlobalPropertyValue	5272
• 100.11 JS.New	5273
• 100.14 JS.SetGlobalProperty	5277
• 100.15 JS.SetGlobalPropertyValue	5279
• 102.36 JSON.EqualContent	5361
• 105.5 List.AndColumn	5499
• 105.23 List.NotColumn	5523
• 105.25 List.OrColumn	5526
• 105.42 List.XOrColumn	5553
• 106.25 ListDialog.Reset	5672

- 127.21 Plugin.CompileDate 6394
- 127.27 Plugin.IsPrerelease 6400
- 105.51 QuickList.AndColumn 5570
- 105.76 QuickList.NotColumn 5608
- 105.78 QuickList.OrColumn 5612
- 105.101 QuickList.XOrColumn 5644
- 141.1 RichText.AppendFormattedText 6827
- 141.2 RichText.AppendText 6828
- 145.5 ScriptWorkspace.GetScriptListSearch 6967
- 145.6 ScriptWorkspace.IsActive 6968
- 145.18 ScriptWorkspace.SelectedLines 6980
- 145.19 ScriptWorkspace.SetScriptListSearch 6981
- 151.19 Shell.GetDataAvailableEvaluate 7142
- 151.20 Shell.GetDataAvailableScriptFileName 7143
- 151.21 Shell.GetDataAvailableScriptName 7144
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 151.41 Shell.SetDataAvailableScript 7165
- 162.26 SyntaxColoring.GetFormulasWithLinks 7717
- 162.46 SyntaxColoring.ListContextMenuCommand 7738
- 162.63 SyntaxColoring.SetFormulasWithLinks 7757
- 164.26 SystemInfo.NetworkStats 7805
- 190.1 WMFP.Create 8905
- 190.2 WMFP.FrameStep 8908
- 190.3 WMFP.GetBalance 8909
- 190.4 WMFP.GetDuration 8910
- 190.5 WMFP.GetIdealVideoSize 8911
- 190.7 WMFP.GetMute 8913
- 190.8 WMFP.GetNativeVideoSize 8914
- 190.9 WMFP.GetPosition 8915

	803
• 190.10 WMFP.GetRate	8916
• 190.11 WMFP.GetState	8917
• 190.12 WMFP.GetTag	8918
• 190.13 WMFP.GetVisible	8919
• 190.14 WMFP.GetVolume	8920
• 190.15 WMFP.Pause	8921
• 190.16 WMFP.Play	8922
• 190.17 WMFP.Release	8923
• 190.19 WMFP.SetBalance	8925
• 190.20 WMFP.SetBorder	8926
• 190.21 WMFP.SetFrame	8927
• 190.23 WMFP.SetMute	8929
• 190.24 WMFP.SetPlaybackEndedScriptTrigger	8930
• 190.25 WMFP.SetPosition	8931
• 190.26 WMFP.SetRate	8932
• 190.27 WMFP.SetTag	8933
• 190.28 WMFP.SetVisible	8934
• 190.29 WMFP.SetVolume	8935
• 190.30 WMFP.Stop	8936
• 190.31 WMFP.UpdateVideo	8937
• 183.29 WebView.CallFunction	8445
• 183.44 WebView.Evaluate	8463
• 185.59 Window.PositionNextDialog	8738
• 193.28 XL.Book.ReleaseAll	9024

130 functions.





# Chapter 32

## New in Version 10.1

• 51.9 CLGeocoder.JSON	1460
• 55.11 CNContact.DeleteValue	1576
• 55.18 CNContact.Show	1586
• 55.22 CNContactPicker.Close	1593
• 55.23 CNContactPicker.Current	1594
• 55.24 CNContactPicker.SetTrigger	1595
• 55.25 CNContactPicker.Show	1596
• 62.18 CURL.Features	1827
• 52.1 Clipboard.DetectFileMakerDataType	1469
• 71.331 DynaPDF.SaveAndSignFileWinCrypt	3121
• 71.332 DynaPDF.SaveAndSignFileWinCryptDialog	3123
• 71.504 DynaPDF.Uninitialize	3398
• 80.29 FM.GetDisableContextualMenus	3990
• 80.79 FM.SetDisableContextualMenus	4089
• 87.65 GMImage.ExifThumbnail	4492
• 87.77 GMImage.FontMap	4511
• 100.12 JS.Now	5275
• 100.13 JS.ObjectCount	5276
• 100.16 JS.StringCount	5281

• 100.17 JS.TimeToDateComponents	5282
• 100.18 JS.TimeToUTCDate	5284
• 100.19 JS.UTCDateToTime	5285
• 114.20 Menu.List	5980
• 114.78 MenuItem.List	6046
• 134.1 Proj.BatchTransform	6657
• 134.2 Proj.Initialize	6659
• 134.3 Proj.IsInitialized	6660
• 134.4 Proj.Transform	6661
• 145.2 ScriptWorkspace.CopyScriptText	6964
• 145.21 ScriptWorkspace.StyledScriptText	6983
• 150.1 SharedMemory.Exists	7111
• 150.2 SharedMemory.GetValue	7112
• 150.3 SharedMemory.SetValue	7113
• 162.24 SyntaxColoring.GetFontName	7715
• 162.25 SyntaxColoring.GetFontSize	7716
• 162.61 SyntaxColoring.SetFontName	7755
• 162.62 SyntaxColoring.SetFontSize	7756
• 190.6 WMFP.GetLoop	8912
• 190.18 WMFP.Screenshot	8924
• 190.22 WMFP.SetLoop	8928
• 183.100 WebView.PostURL	8541
• 193.303 XL.Uninitialize	9405
• 96.4 iOSApp.GetIdleTimerDisabled	5186
• 96.14 iOSApp.SetIdleTimerDisabled	5197

44 functions.

# Chapter 33

## New in Version 10.2

- 39.23 AVAsset.ReleaseAll 1028
- 41.1 AVPlayer.AddView 1071
- 41.2 AVPlayer.CloseView 1074
- 41.5 AVPlayer.GetAutoResizingMask 1077
- 41.6 AVPlayer.GetControlsStyle 1078
- 41.15 AVPlayer.GetShowsFrameSteppingButtons 1087
- 41.16 AVPlayer.GetShowsFullScreenToggleButton 1088
- 41.17 AVPlayer.GetTag 1089
- 41.19 AVPlayer.GetVisible 1091
- 41.21 AVPlayer.GetWindowRef 1093
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 41.30 AVPlayer.SetControlsStyle 1106
- 41.33 AVPlayer.SetFocus 1109
- 41.34 AVPlayer.SetFrameWithControl 1110
- 41.39 AVPlayer.SetShowsFrameSteppingButtons 1116
- 41.40 AVPlayer.SetShowsFullScreenToggleButton 1117
- 41.41 AVPlayer.SetTag 1118
- 41.43 AVPlayer.SetVisible 1120
- 62.58 CURL.GetHeaderAsJSON 1885

- 62.139 CURL.LoadLibrary 1984
- 62.150 CURL.ReleaseAll 2013
- 53.5 ColorPanel.GetVisible 1500
- 53.10 ColorPanel.SetVisible 1506
- 60.1 CoreML.Add2DArrayParameter 1745
- 71.5 DynaPDF.AddButtonImage 2599
- 71.17 DynaPDF.ApplyShading 2621
- 71.48 DynaPDF.CreateAxialShading 2665
- 71.61 DynaPDF.CreateRadialShading 2695
- 71.304 DynaPDF.PlaceSigFieldValidateIcon 3064
- 152.2 ECKey.CanSign 7177
- 152.13 ECKey.Valid 7189
- 80.7 FM.CurrentLayoutID 3947
- 80.8 FM.CurrentLayoutName 3948
- 80.43 FM.LayoutIDForLayoutName 4024
- 80.44 FM.LayoutNameForLayoutID 4025
- 80.45 FM.LayoutNames 4026
- 86.1 GMImage.ReadFromContainer 4395
- 90.9 HotKey.GetPermanent 4903
- 90.12 HotKey.GetScriptWorkspaceOnly 4906
- 90.22 HotKey.SetPermanent 4921
- 90.24 HotKey.SetScriptWorkspaceOnly 4924
- 94.30 ImagePicker.MediaMetadata 5132
- 102.4 JSON.AddArrayToArray 5310
- 102.73 JSON.SortWithEvaluate 5417
- 105.9 List.CountValuesMatching 5505
- 105.18 List.IndexOfFirstValueMatching 5518
- 105.37 List.SortWithEvaluate 5546
- 111.1 Matrix.Add 5865

	809
• 111.11 Matrix.CopyColumn	5878
• 111.12 Matrix.CopyRow	5879
• 111.14 Matrix.Evaluate	5881
• 111.17 Matrix.GetColumnName	5885
• 111.18 Matrix.GetColumnNames	5886
• 111.20 Matrix.GetRowName	5888
• 111.21 Matrix.GetRowNames	5889
• 111.37 Matrix.SetColumnName	5910
• 111.39 Matrix.SetRowName	5914
• 119.1 Mutex.Create	6189
• 119.2 Mutex.Free	6191
• 119.3 Mutex.List	6192
• 119.4 Mutex.Lock	6193
• 119.5 Mutex.Name	6194
• 119.6 Mutex.TryLock	6195
• 119.7 Mutex.Unlock	6196
• 133.28 ProgressDialog.SetTitleIcon	6641
• 105.57 QuickList.CountValuesMatching	5578
• 105.68 QuickList.IndexOfFirstValueMatching	5595
• 105.96 QuickList.SortWithEvaluate	5638
• 159.46 SQL.GetFieldsAsJSON	7480
• 159.68 SQL.GetParamsAsJSON	7510
• 159.69 SQL.GetRecordsAsJSON	7512
• 159.124 SQL.SetParamsWithJSON	7596
• 160.33 SSH.Tunnel.GetKeepAlive	7644
• 160.37 SSH.Tunnel.SetKeepAlive	7649
• 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits	7696
• 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits	7700
• 183.70 WebView.GetInternetExplorerHiDPI	8503

- 183.88 WebView.InstallUserMediaAccess 8524
- 183.135 WebView.SetInternetExplorerHiDPI 8603
- 193.14 XL.Book.GetCalcMode 9009
- 193.32 XL.Book.SetCalcMode 9030
- 193.144 XL.Sheet.CellIsStyledText 9187
- 193.156 XL.Sheet.CellReadStyledText 9207
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.193 XL.Sheet.GetColWidthPixel 9272
- 193.228 XL.Sheet.GetRowHeightPixel 9310
- 193.251 XL.Sheet.RemovePicture 9335
- 193.252 XL.Sheet.RemovePictureByIndex 9336
- 194.6 XML.Compact 9417

89 functions.

# Chapter 34

## Addressbook

Functions for the Mac OS X addressbook.

You can use this to sync contacts from FileMaker database to system addressbook. As your addressbook can be synchronized via iCloud to iPhones or via Google/Exchange to any other devices, you only need one Mac to sync contacts to devices.

On Server you can only use addressbook functions if you got a addressbook for the user account where the server runs. Normally the server user account has no addressbook. For 32-bit and 64-bit Mac application.

See contacts functions for newer API which works better with multiple accounts.

### 34.1 Addressbook.Account.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Account.Name"; Account )

#### Parameters

##### Account

The account identifier for this account.

\$account

**Result** Returns text or error.

#### Description

#### Examples

Query name of local account:

MBS( "Addressbook.Account.Name"; "\_local" )

**See also**

- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836
- 34.56 Addressbook.persistentAccounts 880
- 34.18 Addressbook.Record.Account 830

Created 17th March 2016, last changed 17th March 2016.



## 34.2 Addressbook.Account.Type

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Account.Type"; Account )

### Parameters

#### Account

The account identifier for this account.

\$account

**Result** Returns text or error.

### Description

#### See also

- [34.1 Addressbook.Account.Name](#) 811
- [34.3 Addressbook.Account.URL](#) 814
- [34.20 Addressbook.allAccounts](#) 834
- [34.21 Addressbook.defaultAccount](#) 835
- [34.22 Addressbook.enabledAccounts](#) 836
- [34.56 Addressbook.persistentAccounts](#) 880

Created 17th March 2016, last changed 17th March 2016.

### 34.3 Addressbook.Account.URL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Account.URL"; Account )

#### Parameters

##### Account

The account identifier for this account.

\$account

**Result** Returns URL or error.

#### Description

#### See also

- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836
- 34.56 Addressbook.persistentAccounts 880

Created 17th March 2016, last changed 17th March 2016.

## 34.4 Addressbook.Account.isMainAccount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Account.isMainAccount"; Account )

### Parameters

#### Account

The account identifier for this account.

\$account

**Result** Returns 1, 0 or error.

### Description

Returns 1 if main or 0 if not.

### See also

- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836
- 34.56 Addressbook.persistentAccounts 880

Created 17th March 2016, last changed 17th March 2016.

## 34.5 Addressbook.LocalizedPropertyOrLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.LocalizedPropertyOrLabel"; key )

### Parameters

#### key

The identifier for label or property.

"Creation"

**Result** Returns localized name.

### Description

### Examples

Query localized name of PhoneProperty

MBS( "Addressbook.LocalizedPropertyOrLabel"; "PhoneProperty" )

Example result: "Telefon" in Germany

Created 18th August 2014, last changed 11st December 2016.

## 34.6 Addressbook.NewGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.NewGroup" )

**Result** Returns ID for new group.

### Description

This group has no ID assigned until you save it to the addressbook. So the plugin returns a special ID where the plugin knows that when you change the group, you refer to the new group.

Address book item reference numbers are starting at 26000 and counting up for each new item.

### Examples

Create group and save changes:

```
$groupID = MBS( "Addressbook.NewGroup" )
$r = MBS( "Addressbook.record.SetValueForProperty"; $groupID; "GroupNameProperty"; "Friends" )
$r = MBS( "Addressbook.addRecord"; $groupID )
$r = MBS( "Addressbook.save" )
```

### See also

- 34.19 Addressbook.addRecord 831
- 34.31 Addressbook.groups 845
- 34.7 Addressbook.NewPerson 818
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.76 Addressbook.save 908

Created 18th August 2014, last changed 5th April 2016.

## 34.7 Addressbook.NewPerson

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.NewPerson" )

**Result** Returns ID for new person.

### Description

This person has no ID assigned until you save it to the addressbook. So the plugin returns a special ID where the plugin knows that when you change the person, you refer to the new person.

Address book item reference numbers are starting at 26000 and counting up for each new item.

### Examples

Create person and save changes:

```
$personID = MBS( "Addressbook.NewPerson" )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
$r = MBS( "Addressbook.addRecord"; $personID )
$r = MBS( "Addressbook.save" )
```

Add a new person to addressbook.

```
# Fields to variables
#
Set Variable [ $vn; Value:Adressen::Extra ]
Set Variable [ $nn; Value:Adressen::Nachname ]
Set Variable [ $org; Value:Adressen::Name ]
Set Variable [ $str; Value:Adressen::Straße ]
Set Variable [ $land; Value:Adressen::Land ]
Set Variable [ $plz; Value:Adressen::PLZ ]
Set Variable [ $ort; Value:Adressen::Stadt ]
Set Variable [ $email; Value:Adressen::EMail ]
Set Variable [ $tel; Value:Adressen::Tel ]
Set Variable [ $mob; Value:Adressen::Mobil ]
#
# Create new person
#
Set Variable [ $personID; Value:MBS ( "Addressbook.NewPerson" ) ]
# Add first name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "FirstName-
Property"; $vn ) ]
# Add last name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "LastName-
Property"; $nn ) ]
# Organization
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "Organization-
```

```

Property"; $org ) ]
# Add one address
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.New"; 1 )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalued.addAddress"; $str; $plz; $ort; $land; ""; "" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "AddressProperty"; "multivalued" ) ]
# add an email
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.New" )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalued.addValue"; $email; "EmailWorkLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalued" ) ]
# Add phone numbers
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.New" ]
Set Variable [ $tel_id; Value:MBS ( "Addressbook.multivalued.addValue"; $tel; "PhoneWorkLabel" ) ]
Set Variable [ $mob_id; Value:MBS ( "Addressbook.multivalued.addValue"; $mob; "PhoneMobileLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.setPrimaryIdentifier"; $mob_id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "PhoneProperty"; "multivalued" ) ]
#
# Save record
Set Variable [ $result; Value:MBS ( "Addressbook.addRecord"; $personID ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.save" ) ]

```

**See also**

- 34.19 Addressbook.addRecord 831
- 34.35 Addressbook.multivalued.addAddress 851
- 34.36 Addressbook.multivalued.addValue 853
- 34.34 Addressbook.multivalued.New 849
- 34.50 Addressbook.multivalued.setPrimaryIdentifier 872
- 34.6 Addressbook.NewGroup 817
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.69 Addressbook.record.UniqueID 896
- 34.76 Addressbook.save 908

**Example Databases**

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 18th October 2016.

## 34.8 Addressbook.Notification.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.Clear" )

**Result** Returns OK.

### Description

### Examples

Clears script:

MBS( "Addressbook.Notification.Clear" )

### See also

- 34.9 Addressbook.Notification.Evaluate 821
- 34.17 Addressbook.Notification.Set 829

Created 18th August 2014, last changed 18th August 2014.



## 34.9 Addressbook.Notification.Evaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Notification.Evaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

This expression is evaluated whenever something in the addressbook database changed.

#### See also

- [34.8 Addressbook.Notification.Clear](#) 820
- [34.17 Addressbook.Notification.Set](#) 829

### 34.9.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

## 34.10 Addressbook.Notification.GetChangedExternally

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetChangedExternally" )

**Result** Returns 1 or 0.

### Description

If this function returns zero, the change was made by your own FileMaker solution.

This property is not always set by the OS for all changes, especially with some sync services.

### See also

- 48.80 Calendar.Notification.GetChangedExternally 1355

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 12nd January 2015.

## 34.11 Addressbook.Notification.GetDeletedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetDeletedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

Please note that the plugin may not be able to provide information for deleted record contents.

### See also

- [34.12 Addressbook.Notification.GetInsertedRecords](#) 824
- [34.15 Addressbook.Notification.GetUpdatedRecords](#) 827
- [48.81 Calendar.Notification.GetDeletedRecords](#) 1356

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.12 Addressbook.Notification.GetInsertedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetInsertedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

### See also

- 34.11 Addressbook.Notification.GetDeletedRecords 823
- 34.15 Addressbook.Notification.GetUpdatedRecords 827
- 48.82 Calendar.Notification.GetInsertedRecords 1357

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.13 Addressbook.Notification.GetProcessID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetProcessID" )

**Result** Returns proces identifier.

### Description

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

### See also

- [34.14 Addressbook.Notification.GetProcessName](#) 826
- [34.16 Addressbook.Notification.GetUserUID](#) 828
- [48.83 Calendar.Notification.GetProcessID](#) 1358

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.14 Addressbook.Notification.GetProcessName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetProcessName" )

**Result** Returns process name.

### Description

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

### See also

- [34.13 Addressbook.Notification.GetProcessID](#) 825
- [34.16 Addressbook.Notification.GetUserUID](#) 828
- [48.84 Calendar.Notification.GetProcessName](#) 1359

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.15 Addressbook.Notification.GetUpdatedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetUpdatedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

### See also

- [34.11 Addressbook.Notification.GetDeletedRecords](#) 823
- [34.12 Addressbook.Notification.GetInsertedRecords](#) 824
- [48.85 Calendar.Notification.GetUpdatedRecords](#) 1360

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.16 Addressbook.Notification.GetUserUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.GetUserUID" )

**Result** Returns user ID as number.

### Description

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

### See also

- [34.13 Addressbook.Notification.GetProcessID](#) 825
- [34.14 Addressbook.Notification.GetProcessName](#) 826
- [34.17 Addressbook.Notification.Set](#) 829

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th August 2014.



## 34.17 Addressbook.Notification.Set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.Notification.Set"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK on success.

### Description

This script is called whenever something in the addressbook database changed.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Installs notification script:

MBS( "Addressbook.Notification.Set"; "test.fp7"; "MyScript" )

### See also

- [34.8 Addressbook.Notification.Clear](#) 820
- [34.9 Addressbook.Notification.Evaluate](#) 821
- [34.16 Addressbook.Notification.GetUserUID](#) 828

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 24th October 2018.

## 34.18 Addressbook.Record.Account

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.Record.Account"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns account identifier or error.

### Description

### Examples

Query account for me:

```
MBS( "Addressbook.Record.Account"; MBS( "Addressbook.me" ) )
```

Query account name for me:

```
MBS( "Addressbook.Account.name"; MBS( "Addressbook.Record.Account"; MBS( "Addressbook.me" ) ) )
```

### See also

- 34.1 Addressbook.Account.Name 811
- 34.21 Addressbook.defaultAccount 835
- 34.33 Addressbook.me 847

Created 17th March 2016, last changed 17th March 2016.

## 34.19 Addressbook.addRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.addRecord"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns OK or error message.

### Description

You may want to call Addressbook.save later to saves changes permanently.

### Examples

Create person and save changes:

```
$personID = MBS( "Addressbook.NewPerson" )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
$r = MBS( "Addressbook.addRecord"; $personID )
$r = MBS( "Addressbook.save" )
```

Add a new person to addressbook.

```
# Fields to variables
#
Set Variable [ $vn; Value:Adressen::Extra ]
Set Variable [ $nn; Value:Adressen::Nachname ]
Set Variable [ $org; Value:Adressen::Name ]
Set Variable [ $str; Value:Adressen::Straße ]
Set Variable [ $land; Value:Adressen::Land ]
Set Variable [ $plz; Value:Adressen::PLZ ]
Set Variable [ $ort; Value:Adressen::Stadt ]
Set Variable [ $email; Value:Adressen::EMail ]
Set Variable [ $tel; Value:Adressen::Tel ]
Set Variable [ $mob; Value:Adressen::Mobil ]
#
# Create new person
#
Set Variable [ $personID; Value:MBS ( "Addressbook.NewPerson" ) ]
# Add first name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "FirstName-Property"; $vn ) ]
# Add last name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "LastName-
```

```

Property"; $mn ) ]
# Organization
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "Organization-
Property"; $org ) ]
# Add one address
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New"; 1 )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addAddress"; $str; $plz; $ort; $land; ""; "" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "AddressProp-
erty"; "multivalue" ) ]
# add an email
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addValue"; $email; "EmailWorkLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "EmailProp-
erty"; "multivalue" ) ]
# Add phone numbers
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" ]
Set Variable [ $tel_id; Value:MBS ( "Addressbook.multivalue.addValue"; $tel; "PhoneWorkLabel" ) ]
Set Variable [ $mob_id; Value:MBS ( "Addressbook.multivalue.addValue"; $mob; "PhoneMobileLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $mob_id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "PhoneProp-
erty"; "multivalue" ) ]
#
# Save record
Set Variable [ $result; Value:MBS ( "Addressbook.addRecord"; $personID ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.save" ) ]

```

### See also

- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853
- 34.34 Addressbook.multivalue.New 849
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.6 Addressbook.NewGroup 817
- 34.7 Addressbook.NewPerson 818
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.69 Addressbook.record.UniqueID 896
- 34.75 Addressbook.removeRecord 907
- 34.76 Addressbook.save 908

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 24th September 2019.

## 34.20 Addressbook.allAccounts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.allAccounts" )

**Result** Returns list or error.

### Description

### Examples

Show all accounts:

```
Set Variable [ $accounts; Value:MBS( "Addressbook.allAccounts" ) ]
Set Variable [ $count; Value:ValueCount($accounts) ]
Set Variable [ $index; Value:1 ]
Loop
Set Variable [ $account; Value:GetValue($accounts; $index) ]
Show Custom Dialog [ "Identifier: " & $account & $&
"Name: " & MBS( "Addressbook.Account.Name"; $account) & $&
"Type: " & MBS( "Addressbook.Account.Type"; $account) & $&
"Main: " & MBS( "Addressbook.Account.isMainAccount"; $account) & $&
"URL: " & MBS( "Addressbook.Account.URL"; $account) ]
Set Variable [ $index; Value:$index +1 ]
Exit Loop If [ $index >$count ]
End Loop
```

### See also

- 34.4 Addressbook.Account.isMainAccount 815
- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.21 Addressbook.defaultAccount 835
- 34.22 Addressbook.enabledAccounts 836

Created 17th March 2016, last changed 17th March 2016.

## 34.21 Addressbook.defaultAccount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.defaultAccount" )

**Result** Returns identifier or error.

### Description

### Examples

Show all accounts:

```
Set Variable [ $account; Value:MBS( "Addressbook.defaultAccount" ) ]
Show Custom Dialog [ "Identifier: " & $account & §&
"Name: " & MBS( "Addressbook.Account.Name"; $account ) & §&
"Type: " & MBS( "Addressbook.Account.Type"; $account ) & §&
"Main: " & MBS( "Addressbook.Account.isMainAccount"; $account ) & §&
"URL: " & MBS( "Addressbook.Account.URL"; $account ) ]
```

### See also

- 34.4 Addressbook.Account.isMainAccount 815
- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.20 Addressbook.allAccounts 834
- 34.22 Addressbook.enabledAccounts 836
- 34.18 Addressbook.Record.Account 830

Created 17th March 2016, last changed 17th March 2016.

## 34.22 Addressbook.enabledAccounts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.enabledAccounts" )

**Result** Returns list or error.

### Description

### Examples

Show enabled accounts:

```
Set Variable [ $accounts; Value:MBS( "Addressbook.enabledAccounts" ) ]
Set Variable [ $count; Value:ValueCount($accounts) ]
Set Variable [ $index; Value:1 ]
Loop
Set Variable [ $account; Value:GetValue($accounts; $index) ]
Show Custom Dialog [ "Identifier: " & $account & $&
"Name: " & MBS( "Addressbook.Account.Name"; $account) & $&
"Type: " & MBS( "Addressbook.Account.Type"; $account) & $&
"Main: " & MBS( "Addressbook.Account.isMainAccount"; $account) & $&
"URL: " & MBS( "Addressbook.Account.URL"; $account) ]
Set Variable [ $index; Value:$index +1 ]
Exit Loop If [ $index >$count ]
End Loop
```

### See also

- 34.4 Addressbook.Account.isMainAccount 815
- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.20 Addressbook.allAccounts 834
- 34.21 Addressbook.defaultAccount 835
- 34.56 Addressbook.persistentAccounts 880

Created 17th March 2016, last changed 17th March 2016.



## 34.23 Addressbook.formattedAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.formattedAddress"; address )

### Parameters

#### address

The dictionary containing a street address. Same format as Addressbook.record.valueForProperty returns.  
\$address

**Result** Returns formatted address text or error.

### Description

The address is usually defined by plugin to have keys like Street, City, State, Country or Zip followed by an equal sign and the actual value.

### See also

- 34.73 Addressbook.record.valueForProperty 901

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 21st August 2014.

## 34.24 Addressbook.group.addMember

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.group.addMember"; GroupID; PersonID )

### Parameters

#### GroupID

The unique ID for the target group.

\$groupID

#### PersonID

The unique ID for the person to be added to the group.

\$personID

**Result** Returns 1 for success or 0 for failure on Mac. Returns OK on success and error on failure on iOS.

### Description

If the person argument is already part of the group, this method does nothing and returns OK.

Prior to OS X v10.6, if the person record is already in the group, this method does nothing and returns failure.

### Examples

Add person to group:

```
# add to group
Set Variable [ $r ; Value: MBS( "Addressbook.group.addMember"; "Best Friends"; $PersonID ) ]
# save changes
Set Variable [ $r ; Value: MBS( "Addressbook.save"; $personID ) ]
```

### See also

- 34.25 Addressbook.group.addSubgroup 839
- 34.26 Addressbook.group.members 840
- 34.28 Addressbook.group.removeMember 842
- 34.76 Addressbook.save 908

Created 18th August 2014, last changed 6th November 2017.

## 34.25 Addressbook.group.addSubgroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.group.addSubgroup"; GroupID; SubGroupID )

### Parameters

#### GroupID

The unique ID for the target group.

\$groupID

#### SubGroupID

The unique ID for the subgroup.

\$subgroupID

**Result** Returns 1 for success or 0 for failure on Mac. Returns OK on success and error on failure on iOS.

### Description

If the group argument is already part of the group, this method does nothing and returns Failure. If adding the group would create a recursion, this method also does nothing and returns Failure. (For example, if the group Animal Lovers is in Dog Lovers, and you add Dog Lovers to Animal Lovers, that would create a recursion, which this method won't allow.)

### See also

- 34.24 Addressbook.group.addMember 838
- 34.27 Addressbook.group.parentGroups 841
- 34.29 Addressbook.group.removeSubgroup 843
- 34.30 Addressbook.group.subgroups 844

Created 18th August 2014, last changed 6th November 2017.

## 34.26 Addressbook.group.members

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.group.members"; GroupID )

### Parameters

#### GroupID

The unique ID for the target group.

\$groupID

**Result** Returns list of person IDs.

### Description

If this group doesn't contain any people, this method returns an empty array.

Since version 5.3 you can pass group names for GroupID and plugin lookups ID for you.

### Examples

Query group members:

MBS( "Addressbook.group.members" ; "Family")

### See also

- 34.24 Addressbook.group.addMember 838
- 34.28 Addressbook.group.removeMember 842
- 34.30 Addressbook.group.subgroups 844

Created 18th August 2014, last changed 21st September 2015.

**34.27 Addressbook.group.parentGroups**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.group.parentGroups"; GroupID )

**Parameters****GroupID**

The unique ID for the target group.

\$groupID

**Result** Returns list of parent group IDs.

**Description**

If this group doesn't belong to any groups, this method returns an empty array.

**See also**

- 34.25 Addressbook.group.addSubgroup 839
- 34.30 Addressbook.group.subgroups 844
- 34.64 Addressbook.person.parentGroups 888

Created 18th August 2014, last changed 18th August 2014.

## 34.28 Addressbook.group.removeMember

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.group.removeMember"; GroupID; PersonID )

### Parameters

#### GroupID

The unique ID for the target group.

\$groupID

#### PersonID

The unique ID for the target person.

\$personID

**Result** Returns 1 for success or 0 for failure on Mac. Returns OK on success and error on failure on iOS.

### Description

If the person argument is not in the group, this method does nothing and returns Failure.

### See also

- 34.24 Addressbook.group.addMember 838
- 34.26 Addressbook.group.members 840
- 34.29 Addressbook.group.removeSubgroup 843

Created 18th August 2014, last changed 6th November 2017.

**34.29 Addressbook.group.removeSubgroup**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.group.removeSubgroup"; GroupID; SubGroupID )

**Parameters****GroupID**

The unique ID for the target group.

\$groupID

**SubGroupID**

The unique ID for the subgroup to remove.

\$subgroupID

**Result** Returns 1 for success or 0 for failure on Mac. Returns OK on success and error on failure on iOS.

**Description**

If the group argument is not a subgroup, this method does nothing and returns Failure.

**See also**

- 34.25 Addressbook.group.addSubgroup 839
- 34.28 Addressbook.group.removeMember 842
- 34.30 Addressbook.group.subgroups 844

Created 18th August 2014, last changed 6th November 2017.

### 34.30 Addressbook.group.subgroups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.group.subgroups"; GroupID )

#### Parameters

##### GroupID

The unique ID for the target group.

\$groupID

**Result** Returns list of group IDs.

#### Description

If this group doesn't contain any groups, this method returns an empty array.

#### See also

- 34.25 Addressbook.group.addSubgroup 839
- 34.26 Addressbook.group.members 840
- 34.27 Addressbook.group.parentGroups 841
- 34.29 Addressbook.group.removeSubgroup 843

Created 18th August 2014, last changed 18th August 2014.



## 34.31 Addressbook.groups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

```
MBS( "Addressbook.groups" { ; Account } )
```

### Parameters

#### Account

Optional

The account identifier to limit search for.

`_local`

**Result** Returns list of group IDs.

### Description

If the database doesn't contain any groups, this method returns an empty array.

You can use `Addressbook.record.displayname` to find the display name of a group. Or you query the group name property with `Addressbook.record.valueForProperty`.

### Examples

Query list of group IDs:

```
MBS( "Addressbook.groups" )
```

Query display name of first group:

```
MBS( "Addressbook.record.displayname"; ElementLeft ( MBS( "Addressbook.groups" ) ; 1 ) )
```

### See also

- 34.6 `Addressbook.NewGroup` 817
- 34.55 `Addressbook.people` 879
- 34.70 `Addressbook.record.displayname` 897
- 34.73 `Addressbook.record.valueForProperty` 901

Created 18th August 2014, last changed 24th May 2016.

## 34.32 Addressbook.hasUnsavedChanges

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.hasUnsavedChanges" )

**Result** Returns 1 if there are unsaved changes; otherwise, 0.

### Description

The unsaved changes flag is set automatically whenever changes are made.  
Created 18th August 2014, last changed 18th August 2014.

## 34.33 Addressbook.me

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.me" )

**Result** Returns ID of person.

### Description

If the user never specified such a record, this method returns empty string.

### Examples

Query ID of the owner's record:

```
MBS( "Addressbook.me" )
```

Example result: "B895CE29-B747-4D28-8981-690C358F8A3D:ABPerson"

Show me in addressbook:

```
$id = MBS("Addressbook.me")
$r = MBS( "Addressbook.person.ShowInAddressbook"; $id)
```

### See also

- 34.49 Addressbook.multivalue.replaceValueAtIndex 870
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.57 Addressbook.person.EditInAddressbook 881
- 34.63 Addressbook.person.linkedPeople 887
- 34.62 Addressbook.person.ShowInAddressbook 886
- 34.18 Addressbook.Record.Account 830
- 34.70 Addressbook.record.displayName 897
- 34.71 Addressbook.record.isReadOnly 899
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.85 Addressbook.setMe 920

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

### 34.33.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 11st December 2016.

## 34.34 Addressbook.multivalued.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalued.New" { ; Addresses } )

### Parameters

#### Addresses

Optional

Whether you want to store address information. Pass 1 if you plan to use this multivalued with AddressProperty.

1

**Result** Returns OK on success and error on failure.

### Description

You create such a MultiValue object, add values to it and then use Addressbook.record.SetValueForProperty to assign it to a record.

### Examples

Add a new URL to a contact:

```
Set Variable [ $r; MBS( "Addressbook.multivalued.New" ) ]
Set Variable [ $ID; MBS( "Addressbook.multivalued.addValue"; "http://www.mbsplugins.de"; "WorkLabel" ) ]
Set Variable [ $r; MBS( "Addressbook.multivalued.setPrimaryIdentifier"; $ID ) ]
Set Variable [ $r; MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty"; "multivalued" ) ]
```

Add work and home emails:

```
$r = MBS( "Addressbook.multivalued.New" )
$WorkEmailID = MBS( "Addressbook.multivalued.addValue"; Addressbook::WorkEmail; "EmailWorkLabel" )
$HomeEmailID = MBS( "Addressbook.multivalued.addValue"; Addressbook::HomeEmail; "EmailHomeLabel" )
$r = MBS( "Addressbook.multivalued.setPrimaryIdentifier"; $WorkEmailID )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalued" )
```

Add an address:

```
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.New"; 1 ) ]
Set Variable [ $id; Value:MBS ( "Addressbook.multivalued.addAddress"; $str; $plz; $ort; $land; "" ; "" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalued.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "AddressProperty"; "multivalued" ) ]
```

Add an email:

```
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addValue"; $email; "EmailWorkLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalue" ) ]
```

Add phone numbers:

```
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" ) ]
Set Variable [ $tel_id; Value:MBS ( "Addressbook.multivalue.addValue"; $tel; "PhoneWorkLabel" ) ]
Set Variable [ $mob_id; Value:MBS ( "Addressbook.multivalue.addValue"; $mob; "PhoneMobileLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $mob_id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "PhoneProperty"; "multivalue" ) ]
```

### See also

- 34.19 Addressbook.addRecord 831
- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853
- 34.37 Addressbook.multivalue.count 856
- 34.45 Addressbook.multivalue.labels 866
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.54 Addressbook.multivalue.values 878
- 34.7 Addressbook.NewPerson 818
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.76 Addressbook.save 908

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 18th October 2016.

**34.35 Addressbook.multivalue.addAddress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	5.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.addAddress"; label; street; zip; city; country; countrycode; state )

**Parameters****label**

The label to associate with the value.

"Work"

**street**

The street for the address. Can be empty if unknown.

"Main Street 123"

**zip**

The zip code for the address. Can be empty if unknown.

"12345"

**city**

The city for the address. Can be empty if unknown.

"Springfield"

**country**

The country for the address. Can be empty if unknown.

"Germany"

**countrycode**

The country code for the address. Can be empty if unknown.

"US"

**state**

The state for the address. Can be empty if unknown.

"CA"

**Result** Returns identifier or error.

**Description**

Only useful for addresses.

Returns the new identifier if value is added successfully; otherwise, nil.

Values which are empty text are not added to the address.

**Examples**

Creates a new address:

```
MBS( "Addressbook.multivalue.addAddress"; "AddressHomeLabel"; "Main Street 123"; "12345"; "Springfield"; "USA" )
```

Adds address without zip code:

MBS( "Addressbook.multivalue.addAddress"; "Work"; "Hlíðarbyggð"; ""; "Garðabær"; "Island"; ""; "IS" )

**See also**

- 34.19 Addressbook.addRecord 831
- 34.36 Addressbook.multivalue.addValue 853
- 34.39 Addressbook.multivalue.identifiers 859
- 34.45 Addressbook.multivalue.labels 866
- 34.34 Addressbook.multivalue.New 849
- 34.54 Addressbook.multivalue.values 878
- 34.7 Addressbook.NewPerson 818
- 34.76 Addressbook.save 908

Created 7th March 2015, last changed 7th March 2015.



## 34.36 Addressbook.multivalued.addValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalued.addValue"; value; label )

### Parameters

#### value

The value to add.

"test@test.test"

#### label

The label to associate with the value.

"Work"

**Result** Returns identifier or error.

### Description

Returns the new identifier if value is added successfully; otherwise, nil.

Possible labels are:

kABHomePageLabel, kABEmailWorkLabel, kABEmailHomeLabel, kABAddressHomeLabel, kABAddressWorkLabel, kABAnniversaryLabel, kABFatherLabel, kABMotherLabel, kABParentLabel, kABBrotherLabel, kABSisterLabel, kABChildLabel, kABFriendLabel, kABSpouseLabel, kABPartnerLabel, kABAssistantLabel, kABManagerLabel, kABPhoneWorkLabel, kABPhoneHomeLabel, kABPhoneiPhoneLabel, kABPhoneMobileLabel, kABPhoneMainLabel, kABPhoneHomeFAXLabel, kABPhoneWorkFAXLabel, kABPhonePagerLabel, kABAIMWorkLabel, kABAIMHomeLabel, kABJabberWorkLabel, kABJabberHomeLabel, kABMSNWorkLabel, kABMSNHomeLabel, kABYahooWorkLabel, kABYahooHomeLabel, kABICQWorkLabel, kABICQHomeLabel, kABWorkLabel, kABHomeLabel, kABOtherLabel or kABMobileMeLabel.

### Examples

Add a new URL to a contact:

```
Set Variable [ $r; MBS( "Addressbook.multivalued.New" ) ]
Set Variable [ $ID; MBS( "Addressbook.multivalued.addValue"; "http://www.mbsplugins.de"; "WorkLabel" ) ]
Set Variable [ $r; MBS( "Addressbook.multivalued.setPrimaryIdentifier"; $ID ) ]
Set Variable [ $r; MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty"; "multivalued" ) ]
```

Add work and home emails:

```
$r = MBS( "Addressbook.multivalued.New" )
$WorkEmailID = MBS( "Addressbook.multivalued.addValue"; Addressbook::WorkEmail; "EmailWorkLabel" )
$HomeEmailID = MBS( "Addressbook.multivalued.addValue"; Addressbook::HomeEmail; "EmailHomeLabel" )
```

```
$r = MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $WorkEmailID )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalue" )
```

Add an address:

```
# Add one address
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New"; 1 )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addAddress"; $str; $plz; $ort; $land; ""; "" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "AddressProperty"; "multivalue" ) ]
```

Add an email:

```
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addValue"; $email; "EmailWorkLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalue" ) ]
```

Add phone numbers:

```
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" ) ]
Set Variable [ $tel_id; Value:MBS ( "Addressbook.multivalue.addValue"; $tel; "PhoneWorkLabel" ) ]
Set Variable [ $mob_id; Value:MBS ( "Addressbook.multivalue.addValue"; $mob; "PhoneMobileLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $mob_id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "PhoneProperty"; "multivalue" ) ]
```

Add homepage URLs:

```
# add homepages
Set Variable [ $r ; Value: MBS( "Addressbook.multivalue.New" ) ]
Set Variable [ $Blog_URL_ID ; Value: MBS( "Addressbook.multivalue.addValue"; "http://www.mbs-plugins.com/"; "Blog" ) ]
Set Variable [ $Homepage_URL_ID ; Value: MBS( "Addressbook.multivalue.addValue"; "http://www.monkeybreadsoftware.de/"; "HomePageLabel" ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $Homepage_URL_ID ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty"; "multivalue" ) ]
```

**See also**

- 34.19 Addressbook.addRecord 831
- 34.35 Addressbook.multivalue.addAddress 851

<i>34.36. ADDRESSBOOK.MULTIVALUE.ADDVALUE</i>	855
• 34.37 Addressbook.multivalued.count	856
• 34.39 Addressbook.multivalued.identifiers	859
• 34.42 Addressbook.multivalued.insertValue	862
• 34.45 Addressbook.multivalued.labels	866
• 34.34 Addressbook.multivalued.New	849
• 34.50 Addressbook.multivalued.setPrimaryIdentifier	872
• 34.54 Addressbook.multivalued.values	878
• 34.76 Addressbook.save	908

### **Example Databases**

- [Mac and iOS/Addressbook/Addressbook](#)

#### **34.36.1 Blog Entries**

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 9th March 2018.

## 34.37 Addressbook.multivalue.count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.count" )

**Result** Returns count.

### Description

### Examples

Query number of emails:

```
$personID = MBS( "Addressbook.me" )
$r = MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" )
$count = MBS( "Addressbook.multivalue.count")
```

Query all my URLs:

```
Set Variable [ $personID; Value:MBS( "Addressbook.me" ) ]
Set Variable [ $URLs; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "URLsProperty" ) ]
Set Variable [ $count; Value:MBS( "Addressbook.multivalue.count" ) ]
If [ $count >0 ]
# for loop
Set Variable [ $index; Value:0 ]
Loop
Set Variable [ $value; Value:MBS( "Addressbook.multivalue.valueAtIndex"; $index ) ]
Show Custom Dialog [ "URL"; $value ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If
```

### See also

- 34.33 Addressbook.me 847
- 34.36 Addressbook.multivalue.addValue 853
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.41 Addressbook.multivalue.indexForLabel 861
- 34.45 Addressbook.multivalue.labels 866
- 34.34 Addressbook.multivalue.New 849
- 34.51 Addressbook.multivalue.valueAtIndex 874

<i>34.37. ADDRESSBOOK.MULTIVALUE.COUNT</i>	857
• 34.54 Addressbook.multivalue.values	878
• 34.73 Addressbook.record.valueForProperty	901

### **Example Databases**

- [Mac and iOS/Addressbook/Addressbook](#)

### **34.37.1 Blog Entries**

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 26th February 2016.

## 34.38 Addressbook.multiple.identifierAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multiple.identifierAtIndex"; index )

### Parameters

#### index

The index of the identifier to be returned.

\$index

**Result** Returns the identifier or error.

### Description

If the index argument is out of bounds, this method returns an error.

### See also

- 34.39 Addressbook.multiple.identifiers 859
- 34.43 Addressbook.multiple.labelAtIndex 863
- 34.48 Addressbook.multiple.replaceLabelAtIndex 869
- 34.50 Addressbook.multiple.setPrimaryIdentifier 872
- 34.51 Addressbook.multiple.valueAtIndex 874

Created 18th August 2014, last changed 18th August 2014.

## 34.39 Addressbook.multivalue.identifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.identifiers" )

**Result** Returns list or error.

### Description

### Examples

Show identifiers for my emails:

```
Set Variable [ $personID; Value:"637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" ]
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
Set Variable [ $r; Value:MBS( "Addressbook.multivalue.identifiers" ) ]
Show Custom Dialog [ "Identifiers"; $r ]
```

### See also

- 34.36 Addressbook.multivalue.addValue 853
- 34.38 Addressbook.multivalue.identifierAtIndex 858
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.41 Addressbook.multivalue.indexForLabel 861
- 34.42 Addressbook.multivalue.insertValue 862
- 34.43 Addressbook.multivalue.labelAtIndex 863
- 34.44 Addressbook.multivalue.labelForIdentifier 865
- 34.46 Addressbook.multivalue.primaryIdentifier 867
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.73 Addressbook.record.valueForProperty 901

### 34.39.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 26th February 2016, last changed 26th February 2016.

## 34.40 Addressbook.multivalue.indexForIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.indexForIdentifier"; identifier )

### Parameters

#### identifier

The identifier whose index will be returned.

\$identifier

**Result** Returns index or error.

### Description

If the identifier is not found, returns MaxInt, a value >count from Addressbook.multivalue.count.

### See also

- 34.37 Addressbook.multivalue.count 856
- 34.39 Addressbook.multivalue.identifiers 859
- 34.41 Addressbook.multivalue.indexForLabel 861
- 34.44 Addressbook.multivalue.labelForIdentifier 865
- 34.46 Addressbook.multivalue.primaryIdentifier 867
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.52 Addressbook.multivalue.valueForIdentifier 876

Created 18th August 2014, last changed 8th May 2018.



## 34.41 Addressbook.multivalue.indexForLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	8.2	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.indexForLabel"; label )

### Parameters

#### label

The label to search.

"HomeLabel"

**Result** Returns index or error.

### Description

If the identifier is not found, returns MaxInt, a value >count from Addressbook.multivalue.count.

### See also

- 34.37 Addressbook.multivalue.count 856
- 34.39 Addressbook.multivalue.identifiers 859
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.42 Addressbook.multivalue.insertValue 862
- 34.53 Addressbook.multivalue.valueForLabel 877

### 34.41.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr7](#)

Created 8th May 2018, last changed 8th May 2018.

## 34.42 Addressbook.multivalue.insertValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.insertValue"; value; label; index )

### Parameters

#### value

The value to add.

\$value

#### label

The label to associate with the value.

\$label

#### index

The index where the value will be inserted.

\$index

**Result** Returns identifier or error.

### Description

Returns the identifier of the inserted value and label if they are added successfully; otherwise, empty result. If either the value or the label is empty or if the index is out of bounds, this method returns an error.

Possible labels are:

kABHomePageLabel, kABEmailWorkLabel, kABEmailHomeLabel, kABAddressHomeLabel, kABAddressWorkLabel, kABAnniversaryLabel, kABFatherLabel, kABMotherLabel, kABParentLabel, kABBrotherLabel, kABSisterLabel, kABChildLabel, kABFriendLabel, kABSpouseLabel, kABPartnerLabel, kABAssistantLabel, kABManagerLabel, kABPhoneWorkLabel, kABPhoneHomeLabel, kABPhoneiPhoneLabel, kABPhoneMobileLabel, kABPhoneMainLabel, kABPhoneHomeFAXLabel, kABPhoneWorkFAXLabel, kABPhonePagerLabel, kABAIMWorkLabel, kABAIMHomeLabel, kABJabberWorkLabel, kABJabberHomeLabel, kABMSNWorkLabel, kABMSNHomeLabel, kABYahooWorkLabel, kABYahooHomeLabel, kABICQWorkLabel, kABICQHomeLabel, kABWorkLabel, kABHomeLabel, kABOtherLabel or kABMobileMeLabel.

### See also

- 34.36 Addressbook.multivalue.addValue 853
- 34.39 Addressbook.multivalue.identifiers 859
- 34.41 Addressbook.multivalue.indexForLabel 861
- 34.43 Addressbook.multivalue.labelAtIndex 863
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.54 Addressbook.multivalue.values 878

Created 18th August 2014, last changed 18th August 2014.

**34.43 Addressbook.multivalue.labelAtIndex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.labelAtIndex"; index )

**Parameters****index**

The index for the label to be returned.

\$index

**Result** Returns label text or error.

**Description**

If the index argument is out of bounds, this method returns an error.

Possible labels are:

kABHomePageLabel, kABEmailWorkLabel, kABEmailHomeLabel, kABAddressHomeLabel, kABAddressWorkLabel, kABAnniversaryLabel, kABFatherLabel, kABMotherLabel, kABParentLabel, kABBrotherLabel, kABSisterLabel, kABChildLabel, kABFriendLabel, kABSpouseLabel, kABPartnerLabel, kABAssistantLabel, kABManagerLabel, kABPhoneWorkLabel, kABPhoneHomeLabel, kABPhoneiPhoneLabel, kABPhoneMobileLabel, kABPhoneMainLabel, kABPhoneHomeFAXLabel, kABPhoneWorkFAXLabel, kABPhonePagerLabel, kABAIMWorkLabel, kABAIMHomeLabel, kABJabberWorkLabel, kABJabberHomeLabel, kABMSNWorkLabel, kABMSNHomeLabel, kABYahooWorkLabel, kABYahooHomeLabel, kABICQWorkLabel, kABICQHomeLabel, kABWorkLabel, kABHomeLabel, kABOtherLabel or kABMobileMeLabel.

**See also**

- 34.38 Addressbook.multivalue.identifierAtIndex 858
- 34.39 Addressbook.multivalue.identifiers 859
- 34.42 Addressbook.multivalue.insertValue 862
- 34.44 Addressbook.multivalue.labelForIdentifier 865
- 34.45 Addressbook.multivalue.labels 866
- 34.48 Addressbook.multivalue.replaceLabelAtIndex 869
- 34.49 Addressbook.multivalue.replaceValueAtIndex 870
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.53 Addressbook.multivalue.valueForLabel 877

### 34.43.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 18th August 2014.

**34.44 Addressbook.multivalue.labelForIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.labelForIdentifier"; identifier )

**Parameters****identifier**

The identifier for the label to be returned.

\$identifier

**Result** Returns label or error.

**Description**

If the identifier is not found, this method returns "".

Available in OS X v10.5 and later.

Possible labels are:

kABHomePageLabel, kABEmailWorkLabel, kABEmailHomeLabel, kABAddressHomeLabel, kABAddressWorkLabel, kABAnniversaryLabel, kABFatherLabel, kABMotherLabel, kABParentLabel, kABBrotherLabel, kABSisterLabel, kABChildLabel, kABFriendLabel, kABSpouseLabel, kABPartnerLabel, kABAssistantLabel, kABManagerLabel, kABPhoneWorkLabel, kABPhoneHomeLabel, kABPhoneiPhoneLabel, kABPhoneMobileLabel, kABPhoneMainLabel, kABPhoneHomeFAXLabel, kABPhoneWorkFAXLabel, kABPhonePagerLabel, kABAIMWorkLabel, kABAIMHomeLabel, kABJabberWorkLabel, kABJabberHomeLabel, kABMSNWorkLabel, kABMSNHomeLabel, kABYahooWorkLabel, kABYahooHomeLabel, kABICQWorkLabel, kABICQHomeLabel, kABWorkLabel, kABHomeLabel, kABOtherLabel or kABMobileMeLabel.

**See also**

- 34.39 Addressbook.multivalue.identifiers 859
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.43 Addressbook.multivalue.labelAtIndex 863
- 34.46 Addressbook.multivalue.primaryIdentifier 867
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.52 Addressbook.multivalue.valueForIdentifier 876

Created 18th August 2014, last changed 18th August 2014.

## 34.45 Addressbook.multivalue.labels

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.labels" )

**Result** Returns list or error.

### Description

### Examples

Show email labels:

```
Set Variable [ $personID; Value:"637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" ]
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
Set Variable [ $r; Value:MBS( "Addressbook.multivalue.labels" ) ]
Show Custom Dialog [ "Labels"; $r ]
```

### See also

- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853
- 34.37 Addressbook.multivalue.count 856
- 34.43 Addressbook.multivalue.labelAtIndex 863
- 34.34 Addressbook.multivalue.New 849
- 34.54 Addressbook.multivalue.values 878
- 34.73 Addressbook.record.valueForProperty 901

### 34.45.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 26th February 2016, last changed 26th February 2016.

**34.46 Addressbook.multivalue.primaryIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.primaryIdentifier" )

**Result** Returns identifier or error.

**Description****See also**

- 34.39 Addressbook.multivalue.identifiers 859
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.44 Addressbook.multivalue.labelForIdentifier 865
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.52 Addressbook.multivalue.valueForIdentifier 876

Created 18th August 2014, last changed 18th August 2014.

## 34.47 Addressbook.multivalue.removeValueAndLabelAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.removeValueAndLabelAtIndex"; index )

### Parameters

#### index

The index of the value-label pair that will be removed.

\$index

**Result** Returns OK on success or error on failure.

### Description

If the index is out of bounds, this method returns an error.

### See also

- 34.48 Addressbook.multivalue.replaceLabelAtIndex 869
- 34.49 Addressbook.multivalue.replaceValueAtIndex 870

Created 18th August 2014, last changed 18th August 2014.



## 34.48 Addressbook.multivalue.replaceLabelAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.replaceLabelAtIndex"; index; label )

### Parameters

#### index

The index of the label that will be replaced.

\$index

#### label

The new label.

\$label

**Result** Returns OK on success and error on failure.

### Description

If the label is empty or if the index is out of bounds, this method returns an error.

### See also

- 34.38 Addressbook.multivalue.identifierAtIndex 858
- 34.43 Addressbook.multivalue.labelAtIndex 863
- 34.47 Addressbook.multivalue.removeValueAndLabelAtIndex 868
- 34.49 Addressbook.multivalue.replaceValueAtIndex 870
- 34.51 Addressbook.multivalue.valueAtIndex 874

Created 18th August 2014, last changed 18th August 2014.

## 34.49 Addressbook.multivalue.replaceValueAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.replaceValueAtIndex"; index; value )

### Parameters

#### index

The index of the value that will be replaced.

\$index

#### value

The new value.

\$value

**Result** Returns OK on success and error on failure.

### Description

### Examples

Replace an email:

```
# find my ID
Set Variable [ $personID; Value:MBS( "Addressbook.me" ) ]
# get email list
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
# show first email in list
Set Variable [ $firstValue; Value:MBS( "Addressbook.multivalue.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "First Email"; $firstValue ]
# replace first email with new email
Set Variable [ $r; Value:MBS( "Addressbook.multivalue.replaceValueAtIndex"; 0; "test@test.test" ) ]
# show changed email
Set Variable [ $firstValue; Value:MBS( "Addressbook.multivalue.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "First Email"; $firstValue ]
# set back the email list
Set Variable [ $r; Value:MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "" ) ]
# save it
Set Variable [ $r; Value:MBS( "Addressbook.save" ) ]
Show Custom Dialog [ "Saved"; $r ]
```

Replace an address:

```
# Find someone...
Set Variable [ $personID ; Value: MBS( "Addressbook.searchPeopleWithName"; "Jon"; "Test" ) ]
If [ Length($personID) >0 ]
# set Address
```

```

Set Variable [ $r ; Value: MBS( "Addressbook.record.valueForProperty"; $personID; "AddressProperty" ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.multivalued.replaceValueAtIndex"; 0; "Street=5th avenue$Zip=12345$Country=USA$City=New York" ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.record.SetValueForProperty"; $personID; "AddressProperty"; "multivalued" ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.save" ) ]
# get Address and show
Set Variable [ $r ; Value: MBS( "Addressbook.record.valueForProperty"; $personID; "AddressProperty" ) ]
Set Variable [ $Address ; Value: MBS( "Addressbook.multivalued.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "Address" ; $Address ]
End If

```

**See also**

- 34.33 Addressbook.me 847
- 34.43 Addressbook.multivalued.labelAtIndex 863
- 34.47 Addressbook.multivalued.removeValueAndLabelAtIndex 868
- 34.48 Addressbook.multivalued.replaceLabelAtIndex 869
- 34.51 Addressbook.multivalued.valueAtIndex 874
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.73 Addressbook.record.valueForProperty 901
- 34.76 Addressbook.save 908
- 34.83 Addressbook.searchPeopleWithName 918

**34.49.1 Blog Entries**

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 9th December 2019.

## 34.50 Addressbook.multivalue.setPrimaryIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.multivalue.setPrimaryIdentifier"; identifier )

### Parameters

#### identifier

The identifier whose value will be used as the primary value for a multivalue property.

\$identifier

**Result** Returns OK on success and error on failure.

### Description

If the identifier is empty, this method returns an error. Use the Addressbook.multivalue.identifierAtIndex method to get the identifier given the index.

### Examples

Add a new URL to a contact:

```
Set Variable [ $r; MBS( "Addressbook.multivalue.New" ) ]
Set Variable [ $ID; MBS( "Addressbook.multivalue.addValue"; "http://www.mbsplugins.de"; "WorkLabel" ) ]
Set Variable [ $r; MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $ID ) ]
Set Variable [ $r; MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty"; "multivalue" ) ]
```

Add work and home emails:

```
$r = MBS( "Addressbook.multivalue.New" )
$WorkEmailID = MBS( "Addressbook.multivalue.addValue"; Addressbook::WorkEmail; "EmailWorkLabel" )
$HomeEmailID = MBS( "Addressbook.multivalue.addValue"; Addressbook::HomeEmail; "EmailHomeLabel" )
$r = MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $WorkEmailID )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalue" )
```

### See also

- 34.19 Addressbook.addRecord 831
- 34.36 Addressbook.multivalue.addValue 853
- 34.38 Addressbook.multivalue.identifierAtIndex 858
- 34.40 Addressbook.multivalue.indexForIdentifier 860
- 34.44 Addressbook.multivalue.labelForIdentifier 865

<i>34.50. ADDRESSBOOK.MULTIVALUE.SETPRIMARYIDENTIFIER</i>	873
• 34.34 Addressbook.multivalue.New	849
• 34.52 Addressbook.multivalue.valueForIdentifier	876
• 34.7 Addressbook.NewPerson	818
• 34.68 Addressbook.record.SetValueForProperty	892
• 34.76 Addressbook.save	908

### **Example Databases**

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.51 Addressbook.multivalue.valueAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

```
MBS( "Addressbook.multivalue.valueAtIndex"; index )
```

### Parameters

#### index

The index for the value to be returned.

**Result** Returns value or error.

### Description

If the index argument is out of bounds, this method returns an error.

### Examples

Queries first email of me:

```
$personID = MBS( "Addressbook.me" )
$r = MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" )
$count = MBS( "Addressbook.multivalue.count" )
$email = MBS( "Addressbook.multivalue.valueAtIndex"; 0)
```

Query all my URLs:

```
Set Variable [ $personID; Value:MBS( "Addressbook.me" ) ]
Set Variable [ $URLs; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "URLsProperty" ) ]
Set Variable [ $count; Value:MBS( "Addressbook.multivalue.count" ) ]
If [ $count >0 ]
# for loop
Set Variable [ $index; Value:0 ]
Loop
Set Variable [ $value; Value:MBS( "Addressbook.multivalue.valueAtIndex"; $index ) ]
Show Custom Dialog [ "URL"; $value ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If
```

### See also

- 34.33 Addressbook.me 847
- 34.38 Addressbook.multivalue.identifierAtIndex 858
- 34.39 Addressbook.multivalue.identifiers 859

<i>34.51. ADDRESSBOOK.MULTIVALUE.VALUEATINDEX</i>	875
• 34.43 Addressbook.multivalued.labelAtIndex	863
• 34.48 Addressbook.multivalued.replaceLabelAtIndex	869
• 34.49 Addressbook.multivalued.replaceValueAtIndex	870
• 34.53 Addressbook.multivalued.valueForLabel	877
• 34.54 Addressbook.multivalued.values	878
• 34.68 Addressbook.record.SetValueForProperty	892
• 34.73 Addressbook.record.valueForProperty	901

### **Example Databases**

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 26th February 2016.

## 34.52 Addressbook.multiple.valueForIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.multiple.valueForIdentifier"; identifier )

### Parameters

#### identifier

The identifier you want to lookup the value for.

\$identifier

**Result** Returns value or error.

### Description

If the identifier is not found, returns empty result.

Available in OS X v10.5 and later.

### See also

- 34.39 Addressbook.multiple.identifiers 859
- 34.40 Addressbook.multiple.indexForIdentifier 860
- 34.44 Addressbook.multiple.labelForIdentifier 865
- 34.46 Addressbook.multiple.primaryIdentifier 867
- 34.50 Addressbook.multiple.setPrimaryIdentifier 872
- 34.51 Addressbook.multiple.valueAtIndex 874
- 34.53 Addressbook.multiple.valueForLabel 877

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 18th August 2014.



## 34.53 Addressbook.multivalue.valueForLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.valueForLabel"; label )

### Parameters

#### label

The label to query.

\$label

**Result** Returns value or error.

### Description

### Examples

Shows different emails:

```
Set Variable [ $personID; Value:"637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" ]
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
Set Variable [ $w; Value:MBS( "Addressbook.multivalue.valueForLabel"; "EmailWorkLabel" ) ]
Set Variable [ $h; Value:MBS( "Addressbook.multivalue.valueForLabel"; "EmailHomeLabel" ) ]
Set Variable [ $o; Value:MBS( "Addressbook.multivalue.valueForLabel"; "OtherLabel" ) ]
Show Custom Dialog [ "Emails"; "Work email: " & $w & §& "Home email: " & $h & §& "Other email: "
& $o ]
# there may be more than 3 labels!
```

### See also

- [34.41 Addressbook.multivalue.indexForLabel](#) 861
- [34.43 Addressbook.multivalue.labelAtIndex](#) 863
- [34.51 Addressbook.multivalue.valueAtIndex](#) 874
- [34.52 Addressbook.multivalue.valueForIdentifier](#) 876
- [34.54 Addressbook.multivalue.values](#) 878
- [34.73 Addressbook.record.valueForProperty](#) 901

### 34.53.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 26th February 2016, last changed 26th February 2016.

## 34.54 Addressbook.multivalue.values

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	Yes

MBS( "Addressbook.multivalue.values" )

**Result** Returns list or error.

### Description

### Examples

Shows emails for a record:

```
Set Variable [ $personID; Value:"637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" ]
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
Set Variable [ $r; Value:MBS( "Addressbook.multivalue.values" ) ]
Show Custom Dialog [ "Emails"; $r ]
```

### See also

- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853
- 34.37 Addressbook.multivalue.count 856
- 34.42 Addressbook.multivalue.insertValue 862
- 34.45 Addressbook.multivalue.labels 866
- 34.34 Addressbook.multivalue.New 849
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.53 Addressbook.multivalue.valueForLabel 877
- 34.73 Addressbook.record.valueForProperty 901

### 34.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 26th February 2016, last changed 26th February 2016.

## 34.55 Addressbook.people

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.people" { ; Account } )

### Parameters

#### Account

Optional

The account identifier to limit search for.

\_local

**Result** Returns list of all person IDs.

### Description

If the database doesn't contain any people, this method returns an empty array.

### Examples

Get list of people IDs and show name of first person:

```
Set Variable [ $people; Value:MBS( "Addressbook.people" ) ]
```

```
Set Variable [ $firstPerson; Value:GetValue($people; 1) ]
```

```
Show Custom Dialog [ "Name of first person"; MBS( "Addressbook.record.displayname"; $firstPerson ) ]
```

### See also

- [34.31 Addressbook.groups](#) 845
- [34.70 Addressbook.record.displayname](#) 897
- [34.85 Addressbook.setMe](#) 920
- [55.32 CNContactStore.Contacts](#) 1606

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 17th March 2016.

## 34.56 Addressbook.persistentAccounts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.2	Yes	No	No	No	No

MBS( "Addressbook.persistentAccounts" )

**Result** Returns list or error.

### Description

### Examples

Show persistent accounts:

```
Set Variable [ $accounts; Value:MBS( "Addressbook.persistentAccounts" ) ]
Set Variable [ $count; Value:ValueCount($accounts) ]
Set Variable [ $index; Value:1 ]
Loop
Set Variable [ $account; Value:GetValue($accounts; $index) ]
Show Custom Dialog [ "Identifier: " & $account & $&
"Name: " & MBS( "Addressbook.Account.Name"; $account) & $&
"Type: " & MBS( "Addressbook.Account.Type"; $account) & $&
"Main: " & MBS( "Addressbook.Account.isMainAccount"; $account) & $&
"URL: " & MBS( "Addressbook.Account.URL"; $account) ]
Set Variable [ $index; Value:$index +1 ]
Exit Loop If [ $index >$count ]
End Loop
```

### See also

- 34.4 Addressbook.Account.isMainAccount 815
- 34.1 Addressbook.Account.Name 811
- 34.2 Addressbook.Account.Type 813
- 34.3 Addressbook.Account.URL 814
- 34.22 Addressbook.enabledAccounts 836

Created 17th March 2016, last changed 8th June 2017.

**34.57 Addressbook.person.EditInAddressbook**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.person.EditInAddressbook"; PersonID )

**Parameters****PersonID**

The unique ID for the target person.

\$personID

**Result** Returns OK on success or error on failure.

**Description****Examples**

Show owner in addressbook:

MBS( "Addressbook.person.ShowInAddressbook"; MBS( "Addressbook.me" ) )

Edit owner in addressbook:

MBS( "Addressbook.person.EditInAddressbook"; MBS( "Addressbook.me" ) )

**See also**

- 34.33 Addressbook.me 847
- 34.62 Addressbook.person.ShowInAddressbook 886

Created 18th August 2014, last changed 3th August 2018.

## 34.58 Addressbook.person.ExternalUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	Yes

MBS( "Addressbook.person.ExternalUID"; PersonID )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

**Result** Returns text or error.

### Description

As given by CardDAV server for example.

### Examples

Find external UID:

MBS( "Addressbook.person.ExternalUID"; "637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" )

### 34.58.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 18th February 2016, last changed 18th February 2016.

## 34.59 Addressbook.person.GetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.person.GetImage"; PersonID { ; ImageType; Filename } )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns an image as container value or error.

### Description

### Examples

Get my image into container field:

```
Set Variable [ $myID; Value:MBS( "Addressbook.me" ) ]
Set Variable [ $image; Value:MBS( "Addressbook.person.GetImage"; $myID) ]
Set Field [ Test::Image; $image ]
```

### See also

- 34.33 Addressbook.me 847
- 34.61 Addressbook.person.SetImage 885

Created 18th August 2014, last changed 16th December 2015.

## 34.60 Addressbook.person.SetBirthdayComponents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	5.4	Yes	No	No	No	Yes

MBS( "Addressbook.person.SetBirthdayComponents"; PersonID; Year; Month; Day )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

#### Year

The year. Can be empty for no year.

1981

#### Month

The month. Can be empty for no month.

12

#### Day

The day. Can be empty for no day.

1

**Result** Returns OK or error.

### Description

This allows to set a birthday without knowing the year.

Require OS X 10.7 or newer.

### Examples

Set birthday to 6th May:

```
MBS( "Addressbook.person.SetBirthdayComponents"; $personID; ""; 5; 6)
```

### 34.60.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 23th October 2015, last changed 23th October 2015.



**34.61 Addressbook.person.SetImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.person.SetImage"; PersonID; Image )

**Parameters****PersonID**

The unique ID for the target person.

\$personID

**Image**

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK on success.

**Description****See also**

- 34.59 Addressbook.person.GetImage

883

Created 18th August 2014, last changed 18th August 2014.

## 34.62 Addressbook.person.ShowInAddressbook

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.person.ShowInAddressbook"; PersonID )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

**Result** Returns OK or error.

### Description

#### Examples

Show owner in addressbook:

```
MBS( "Addressbook.person.ShowInAddressbook"; MBS( "Addressbook.me" ) )
```

Edit owner in addressbook:

```
MBS( "Addressbook.person.EditInAddressbook"; MBS( "Addressbook.me" ) )
```

### See also

- [34.33 Addressbook.me](#) 847
- [34.57 Addressbook.person.EditInAddressbook](#) 881

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

#### 34.62.1 Blog Entries

- [MBS FileMaker Plugin 3.2 for OS X/Windows](#)

Created 18th August 2014, last changed 3th August 2018.

**34.63 Addressbook.person.linkedPeople**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.person.linkedPeople"; PersonID )

**Parameters****PersonID**

The unique ID for the target person.

\$personID

**Result** Returns list of person IDs.

**Description**

Available in OS X v10.8 and later.

**Examples**

Show related people to me:

```
Set Variable [ $myID; Value:MBS( "Addressbook.me" ) ]
```

```
Show Custom Dialog [ MBS( "Addressbook.person.linkedPeople"; $myID ) ]
```

**See also**

- 34.33 Addressbook.me

## 34.64 Addressbook.person.parentGroups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.person.parentGroups"; PersonID )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

**Result** Returns list of unique IDs for the parent groups.

### Description

If the person doesn't belong to any groups, this method returns an empty array.

### See also

- 34.27 Addressbook.group.parentGroups

841

Created 18th August 2014, last changed 18th August 2014.

## 34.65 Addressbook.person.vCardRepresentation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.person.vCardRepresentation"; PersonID { ; Filename; asText } )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

#### Filename

Optional

The file name for the container value with the vcard. Default is "person.vcf".

\$name & ".vcf"

#### asText

Optional

Pass 1 to get back result as text instead of container.

1

**Result** Returns vcard file data.

### Description

You can store this in a container and export to a file or email.

#### See also

- [34.66 Addressbook.personFromVCardRepresentation](#) 890
- [34.67 Addressbook.personFromVCardTextRepresentation](#) 891

### 34.65.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 18th August 2014, last changed 18th February 2016.

## 34.66 Addressbook.personFromVCardRepresentation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.personFromVCardRepresentation"; vcard )

### Parameters

#### vcard

The vcard file to use for the person. Can be a container value with vcard file.

\$vcard

**Result** Returns OK or error.

### Description

Version 2.1 and 3.0 of the vCard format are supported.

You still need to add this person to the database and save changes.

Please use Addressbook.personFromVCardTextRepresentation if you have vcard as text.

### See also

- 34.65 Addressbook.person.vCardRepresentation 889
- 34.67 Addressbook.personFromVCardTextRepresentation 891

Created 18th August 2014, last changed 18th August 2014.

**34.67 Addressbook.personFromVCardTextRepresentation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	Yes

MBS( "Addressbook.personFromVCardTextRepresentation"; vcard )

**Parameters****vcard**

The vcard as text.

\$vcard

**Result** Returns OK or error.

**Description**

Version 2.1 and 3.0 of the vCard format are supported.

You still need to add this person to the database and save changes.

Please use Addressbook.personFromVCardRepresentation if you have vcard as file in container.

**See also**

- 34.65 Addressbook.person.vCardRepresentation 889
- 34.66 Addressbook.personFromVCardRepresentation 890

Created 18th August 2014, last changed 18th August 2014.

## 34.68 Addressbook.record.SetValueForProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.SetValueForProperty"; RecordID; PropertyName; Value )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

#### PropertyName

The name of the property.

"EmailProperty"

#### Value

The value as text, date or number.

\$value

**Result** Returns OK on success and error on failure.

### Description

For multivalue items, please use an empty string as value and the plugin will put in the current multivalue. Possible property names are UIDProperty, CreationDateProperty, ModificationDateProperty, FirstNameProperty, LastNameProperty, FirstNamePhoneticProperty, LastNamePhoneticProperty, NicknameProperty, MaidenNameProperty, BirthdayProperty, BirthdayComponentsProperty, OrganizationProperty, JobTitleProperty, HomePageProperty, URLsProperty, CalendarURIsProperty, EmailProperty, AddressProperty, OtherDatesProperty, OtherDateComponentsProperty, RelatedNamesProperty, DepartmentProperty, PhoneProperty, AIMInstantProperty, JabberInstantProperty, MSNInstantProperty, YahooInstantProperty, ICQInstantProperty, InstantMessageProperty, SocialProfileProperty, NoteProperty, MiddleNameProperty, MiddleNamePhoneticProperty, TitleProperty, SuffixProperty and GroupNameProperty.

### Examples

Set first name on a person:

```
MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; Addressbook::FirstName )
```

Add a new URL to a contact:

```
Set Variable [ $r; MBS( "Addressbook.multivalue.New" ) ]
Set Variable [ $ID; MBS( "Addressbook.multivalue.addValue"; "http://www.mbsplugins.de"; "WorkLabel" ) ]
Set Variable [ $r; MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $ID ) ]
Set Variable [ $r; MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty"; "multivalue" ) ]
```



Add work and home emails:

```
$r = MBS( "Addressbook.multivalue.New" )
$WorkEmailID = MBS( "Addressbook.multivalue.addValue"; Addressbook::WorkEmail; "EmailWorkLabel"
)
$HomeEmailID = MBS( "Addressbook.multivalue.addValue"; Addressbook::HomeEmail; "EmailHomeLabel"
)
$r = MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $WorkEmailID )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; "multivalue" )
```

Set flags, so entry shows as company:

```
MBS( "Addressbook.record.SetValueForProperty"; $personID; "PersonFlags"; 1 )
```

Edit existing person:

```
# get an UUID for a person record
$personID = "637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson"
# set a new name
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
# save it
$r = MBS( "Addressbook.save" )
```

Replace an email:

```
# find my ID
Set Variable [ $personID; Value:MBS( "Addressbook.me" ) ]
# get email list
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
# show first email in list
Set Variable [ $firstValue; Value:MBS( "Addressbook.multivalue.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "First Email"; $firstValue ]
# replace first email with new email
Set Variable [ $r; Value:MBS( "Addressbook.multivalue.replaceValueAtIndex"; 0; "test@test.test" ) ]
# show changed email
Set Variable [ $firstValue; Value:MBS( "Addressbook.multivalue.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "First Email"; $firstValue ]
# set back the email list
Set Variable [ $r; Value:MBS( "Addressbook.record.SetValueForProperty"; $personID; "EmailProperty"; ""
) ]
# save it
Set Variable [ $r; Value:MBS( "Addressbook.save" ) ]
Show Custom Dialog [ "Saved"; $r ]
```

Add first and last name:

```
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "FirstName-
```

```
Property"; $vn ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "LastName-
Property"; $nn ) ]
```

Set organization:

```
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "Organization-
Property"; $org ) ]
```

Add homepage URLs:

```
# add homepages
Set Variable [ $r ; Value: MBS( "Addressbook.multivalue.New" ) ]
Set Variable [ $Blog_URL_ID ; Value: MBS( "Addressbook.multivalue.addValue"; "http://www.mbs-
plugins.com/"; "Blog" ) ]
Set Variable [ $Homepage_URL_ID ; Value: MBS( "Addressbook.multivalue.addValue"; "http://www.mon-
keybreadsoftware.de/"; "HomePageLabel" ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.multivalue.setPrimaryIdentifier"; $Homepage_URL_ID ) ]
Set Variable [ $r ; Value: MBS( "Addressbook.record.SetValueForProperty"; $personID; "URLsProperty";
"multivalue" ) ]
```

### See also

- 34.19 Addressbook.addRecord 831
- 34.33 Addressbook.me 847
- 34.36 Addressbook.multivalue.addValue 853
- 34.34 Addressbook.multivalue.New 849
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.6 Addressbook.NewGroup 817
- 34.7 Addressbook.NewPerson 818
- 34.69 Addressbook.record.UniqueID 896
- 34.73 Addressbook.record.valueForProperty 901

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

### 34.68.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)
- [MBS FileMaker Plugin, version 8.2pr6](#)

Created 18th August 2014, last changed 9th March 2018.

## 34.69 Addressbook.record.UniqueID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.UniqueID"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns the unique ID for a record.

### Description

Use this method to query the record ID for a new person or group after you saved it.

### Examples

Create person and save changes:

```
$personID = MBS( "Addressbook.NewPerson" )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
$r = MBS( "Addressbook.addRecord"; $personID )
$r = MBS( "Addressbook.save" )
# Learn real ID for new record
$personID = MBS( "Addressbook.record.UniqueID"; $personID )
```

### See also

- 34.19 Addressbook.addRecord 831
- 34.7 Addressbook.NewPerson 818
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.76 Addressbook.save 908

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

Created 18th August 2014, last changed 18th August 2014.

## 34.70 Addressbook.record.displayname

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.displayname"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns name or error.

### Description

Returns firstname & lastname for persons, organization name for organizations and group name for groups.

### Examples

Query display name of first group:

```
MBS( "Addressbook.record.displayname"; ElementLeft ( MBS( "Addressbook.groups" ) ; 1 ) )
```

Query display name of addressbook's owner:

```
MBS( "Addressbook.record.displayname"; MBS( "Addressbook.me" ) )
```

Query display name based on a ID:

```
MBS( "Addressbook.record.displayname"; "CFD73A44-24DD-480F-A1DE-A31926BC4AC7:ABPerson" )
```

### See also

- [34.31 Addressbook.groups](#) 845
- [34.33 Addressbook.me](#) 847
- [34.55 Addressbook.people](#) 879
- [34.71 Addressbook.record.isReadOnly](#) 899
- [34.74 Addressbook.recordsMatchingSearchElement](#) 905
- [34.77 Addressbook.searchElementForConjunction](#) 911
- [34.78 Addressbook.searchElementForProperty](#) 912

### Example Databases

- [Mac and iOS/Addressbook/Addressbook Changes](#)

Created 18th August 2014, last changed 18th February 2016.

## 34.71 Addressbook.record.isReadOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.isReadOnly"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns 1 if the record is read-only; otherwise, 0.

### Description

### Examples

Check me:

```
$ID = MBS("Addressbook.me")
```

```
$readonly = MBS( "Addressbook.record.isReadOnly"; $ID )
```

### See also

- [34.33 Addressbook.me](#) 847
- [34.70 Addressbook.record.displayname](#) 897

Created 18th August 2014, last changed 18th August 2014.

## 34.72 Addressbook.record.removeValueForProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.removeValueForProperty"; RecordID; PropertyName )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

#### PropertyName

The name of the property to remove.

"EmailProperty"

**Result** Returns OK or error.

### Description

Possible property names are UIDProperty, CreationDateProperty, ModificationDateProperty, FirstNameProperty, LastNameProperty, FirstNamePhoneticProperty, LastNamePhoneticProperty, NicknameProperty, MaidenNameProperty, BirthdayProperty, BirthdayComponentsProperty, OrganizationProperty, JobTitleProperty, HomePageProperty, URLsProperty, CalendarURIsProperty, EmailProperty, AddressProperty, OtherDatesProperty, OtherDateComponentsProperty, RelatedNamesProperty, DepartmentProperty, PhoneProperty, AIMInstantProperty, JabberInstantProperty, MSNInstantProperty, YahooInstantProperty, ICQInstantProperty, InstantMessageProperty, SocialProfileProperty, NoteProperty, MiddleNameProperty, MiddleNamePhoneticProperty, TitleProperty, SuffixProperty and GroupNameProperty.

### See also

- 34.68 Addressbook.record.SetValueForProperty 892
- 34.73 Addressbook.record.valueForProperty 901

Created 18th August 2014, last changed 18th August 2014.



## 34.73 Addressbook.record.valueForProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.record.valueForProperty"; RecordID; PropertyName )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

#### PropertyName

The name of the property to query.

"EmailProperty"

**Result** Returns the value of a given property for a record.

### Description

Possible property names are UIDProperty, CreationDateProperty, ModificationDateProperty, FirstNameProperty, LastNameProperty, FirstNamePhoneticProperty, LastNamePhoneticProperty, NicknameProperty, MaidenNameProperty, BirthdayProperty, BirthdayComponentsProperty, OrganizationProperty, JobTitleProperty, HomePageProperty, URLsProperty, CalendarURIsProperty, EmailProperty, AddressProperty, OtherDatesProperty, OtherDateComponentsProperty, RelatedNamesProperty, DepartmentProperty, PhoneProperty, AIMInstantProperty, JabberInstantProperty, MSNInstantProperty, YahooInstantProperty, ICQInstantProperty, InstantMessageProperty, SocialProfileProperty, NoteProperty, MiddleNameProperty, MiddleNamePhoneticProperty, TitleProperty, SuffixProperty and GroupNameProperty.

### Examples

Query first name of a person:

```
MBS( "Addressbook.record.valueForProperty"; $personID; "FirstNameProperty" )
```

Query group name of a group:

```
MBS( "Addressbook.record.valueForProperty"; "57956420-03A4-4C09-8219-6874B897D25F:ABGroup"; "GroupName" )
```

Query my ID:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "UIDProperty" )
```

Query creation date of my record:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "CreationDateProperty" )
```

Query birthday of my record:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "BirthdayProperty" )
```

Query birthday components for my record:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "BirthdayComponentsProperty" )
```

Query my company name:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "OrganizationProperty" )
```

Query my job title:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "JobTitleProperty" )
```

Query my department:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "DepartmentProperty" )
```

Query my note:

```
MBS( "Addressbook.record.valueForProperty"; MBS( "Addressbook.me" ); "NoteProperty" )
```

Query all my URLs:

```
Set Variable [ $personID; Value:MBS( "Addressbook.me" ) ]
Set Variable [ $Urls; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "URLsProperty" ) ]
Set Variable [ $count; Value:MBS( "Addressbook.multivalue.count" ) ]
If [ $count >0 ]
# for loop
Set Variable [ $index; Value:0 ]
Loop
Set Variable [ $value; Value:MBS( "Addressbook.multivalue.valueAtIndex"; $index ) ]
Show Custom Dialog [ "URL"; $value ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If
```

Shows different emails:

```
Set Variable [ $personID; Value:"637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson" ]
Set Variable [ $r; Value:MBS( "Addressbook.record.valueForProperty"; $personID; "EmailProperty" ) ]
Set Variable [ $w; Value:MBS( "Addressbook.multivalue.valueForLabel"; "EmailWorkLabel" ) ]
Set Variable [ $h; Value:MBS( "Addressbook.multivalue.valueForLabel"; "EmailHomeLabel" ) ]
```

```
Set Variable [ $o; Value:MBS( "Addressbook.multivalue.valueForLabel"; "OtherLabel" ) ]
Show Custom Dialog [ "Emails"; "Work email: " & $w & $& "Home email: " & $h & $& "Other email: "
& $o ]
# there may be more than 3 labels!
```

Show note of an user:

```
MBS( "Addressbook.record.valueForProperty"; "637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson";
"NoteProperty" )
```

Query an address:

```
# Find someone...
Set Variable [ $personID ; Value: MBS( "Addressbook.searchPeopleWithName"; "Jon"; "Test" ) ]
If [ Length($personID) >0 ]
# get Address
Set Variable [ $r ; Value: MBS( "Addressbook.record.valueForProperty"; $personID; "AddressProperty" ) ]
Set Variable [ $Address ; Value: MBS( "Addressbook.multivalue.valueAtIndex"; 0 ) ]
Show Custom Dialog [ "Address" ; $Address ]
End If
```

```
Example result: Street=Some street. 123
Zip=12345
Country=Deutschland
City=Test
```

#### See also

- 34.23 Addressbook.formattedAddress 837
- 34.37 Addressbook.multivalue.count 856
- 34.39 Addressbook.multivalue.identifiers 859
- 34.45 Addressbook.multivalue.labels 866
- 34.51 Addressbook.multivalue.valueAtIndex 874
- 34.53 Addressbook.multivalue.valueForLabel 877
- 34.54 Addressbook.multivalue.values 878
- 34.72 Addressbook.record.removeValueForProperty 900
- 34.68 Addressbook.record.SetValueForProperty 892
- 34.83 Addressbook.searchPeopleWithName 918

#### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

### 34.73.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 9th December 2019.

## 34.74 Addressbook.recordsMatchingSearchElement

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	5.4	Yes	No	No	No	No

MBS( "Addressbook.recordsMatchingSearchElement"; SearchElement )

### Parameters

#### SearchElement

The ID for the search element.

\$SearchElement

**Result** Returns list or error.

### Description

Returns a list of records that match the given search element, or returns an empty array if no records match the search element.

### Examples

Find a person with first name being Christian:

```
Set Variable [ $e1; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "FirstNameProperty";
""; ""; "Christian"; "Equal" ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e1 ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

Search people with related name being John:

```
Set Variable [ $e1; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "RelatedNamesProp-
erty"; ""; ""; "John"; "ContainsSubStringCaseInsensitive" ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e1 ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

### See also

- 34.70 Addressbook.record.displayname 897
- 34.77 Addressbook.searchElementForConjunction 911
- 34.78 Addressbook.searchElementForProperty 912

### 34.74.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)



## 34.75 Addressbook.removeRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.removeRecord"; RecordID )

### Parameters

#### RecordID

The unique ID for the target person or group.

\$personID

**Result** Returns OK on success and error on failure.

### Description

You may want to call Addressbook.save later to saves changes permanently.

### See also

- 34.19 Addressbook.addRecord 831
- 34.76 Addressbook.save 908

Created 18th August 2014, last changed 24th September 2019.

## 34.76 Addressbook.save

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

```
MBS( "Addressbook.save" )
```

**Result** Returns OK on success and error on failure.

### Description

### Examples

Create person and save changes:

```
$personID = MBS( "Addressbook.NewPerson" )
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
$r = MBS( "Addressbook.addRecord"; $personID )
$r = MBS( "Addressbook.save" )
```

Edit existing person:

```
# get an UUID for a person record
$personID = "637FA922-7A2B-4F9A-BFA3-023253D4A3D5:ABPerson"
# set a new name
$r = MBS( "Addressbook.record.SetValueForProperty"; $personID; "FirstNameProperty"; "John" )
# save it
$r = MBS( "Addressbook.save" )
```

Add a new person to addressbook.

```
# Fields to variables
#
Set Variable [ $vn; Value:Adressen::Extra ]
Set Variable [ $nn; Value:Adressen::Nachname ]
Set Variable [ $org; Value:Adressen::Name ]
Set Variable [ $str; Value:Adressen::Straße ]
Set Variable [ $land; Value:Adressen::Land ]
Set Variable [ $plz; Value:Adressen::PLZ ]
Set Variable [ $ort; Value:Adressen::Stadt ]
Set Variable [ $email; Value:Adressen::EMail ]
Set Variable [ $tel; Value:Adressen::Tel ]
Set Variable [ $mob; Value:Adressen::Mobil ]
#
# Create new person
#
Set Variable [ $personID; Value:MBS ( "Addressbook.NewPerson" ) ]
# Add first name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "FirstName-
```



```

Property"; $vn ) ]
# Add last name
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "LastName-
Property"; $nn ) ]
# Organization
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "Organization-
Property"; $org ) ]
# Add one address
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New"; 1 )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addAddress"; $str; $plz; $ort; $land; "" ; "" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "AddressProp-
erty"; "multivalue" ) ]
# add an email
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" )
Set Variable [ $id; Value:MBS ( "Addressbook.multivalue.addValue"; $email; "EmailWorkLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "EmailProp-
erty"; "multivalue" ) ]
# Add phone numbers
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.New" ]
Set Variable [ $tel_id; Value:MBS ( "Addressbook.multivalue.addValue"; $tel; "PhoneWorkLabel" ) ]
Set Variable [ $mob_id; Value:MBS ( "Addressbook.multivalue.addValue"; $mob; "PhoneMobileLabel" ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.multivalue.setPrimaryIdentifier"; $mob_id ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.record.SetValueForProperty"; $personID; "PhoneProp-
erty"; "multivalue" ) ]
#
# Save record
Set Variable [ $result; Value:MBS ( "Addressbook.addRecord"; $personID ) ]
Set Variable [ $result; Value:MBS ( "Addressbook.save" ) ]

```

**See also**

- 34.19 Addressbook.addRecord 831
- 34.24 Addressbook.group.addMember 838
- 34.33 Addressbook.me 847
- 34.35 Addressbook.multivalue.addAddress 851
- 34.36 Addressbook.multivalue.addValue 853
- 34.34 Addressbook.multivalue.New 849
- 34.49 Addressbook.multivalue.replaceValueAtIndex 870
- 34.50 Addressbook.multivalue.setPrimaryIdentifier 872
- 34.68 Addressbook.record.SetValueForProperty 892

- 34.75 Addressbook.removeRecord

### Example Databases

- [Mac and iOS/Addressbook/Addressbook](#)

#### 34.76.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)

Created 18th August 2014, last changed 18th October 2016.

## 34.77 Addressbook.searchElementForConjunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	5.4	Yes	No	No	No	No

MBS( "Addressbook.searchElementForConjunction"; conjunction; SearchElements )

### Parameters

#### conjunction

The logical operator with which to combine the search elements. Can be "AND" or "OR".  
"AND"

#### SearchElements

List of search element IDs.

**Result** Returns ID or error.

### Description

Returns a compound search element, created by combining the search elements in an array with the given conjunction.

### Examples

Find people with last name and email matching:

```
Set Variable [ $e1; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "LastNameProperty";
""; ""; "Schmitz"; "ContainsSubStringCaseInsensitive" ) ]
Set Variable [ $e2; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "EmailProperty"; "";
""; "monkeybread"; "ContainsSubStringCaseInsensitive" ) ]
Set Variable [ $e; Value:MBS( "Addressbook.searchElementForConjunction"; "and"; $e1 & $e2 ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

### See also

- 34.70 Addressbook.record.displayname 897
- 34.74 Addressbook.recordsMatchingSearchElement 905
- 34.78 Addressbook.searchElementForProperty 912

### 34.77.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 26th October 2015, last changed 26th October 2015.

## 34.78 Addressbook.searchElementForProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	5.4	Yes	No	No	No	No

MBS( "Addressbook.searchElementForProperty"; Type; Property; Label; Key; Value; Comparison )

### Parameters

#### Type

Whether to make search element for group or person. Can be "Group" or "Person".  
"Person"

#### Property

The name of the property to search on, such as ABAddressProperty or ABLastNameProperty.  
"LastNameProperty"

#### Label

The label name for a multivalue list, such as kABAddressHomeLabel, kABPhoneWorkLabel, or a user-specified label, such as Summer Home. If the specified property does not have multiple values, pass "". If the specified property does have multiple values, pass "" to search all the values.

#### Key

The key name for a dictionary, such as kABAddressCityKey or kABAddressStreetKey. If the specified property is not a dictionary, pass "". If the specified property is a dictionary, pass "" to search all keys.

#### Value

What you're searching for. If empty, then the only supported value for comparison is ABEqual or ABNotEqual.

#### Comparison

The comparison operator. Can be Equal, NotEqual, LessThan, LessThanOrEqual, GreaterThan, GreaterThanOrEqual, EqualCaseInsensitive, ContainsSubString, ContainsSubStringCaseInsensitive, PrefixMatch, PrefixMatchCaseInsensitive, BitsInBitFieldMatch, DoesNotContainSubString, DoesNotContainSubStringCaseInsensitive, NotEqualCaseInsensitive, SuffixMatch, SuffixMatchCaseInsensitive, WithinIntervalAroundToday, WithinIntervalAroundTodayYearless, NotWithinIntervalAroundToday, NotWithinIntervalAroundTodayYearless, WithinIntervalFromToday, WithinIntervalFromTodayYearless, NotWithinIntervalFromToday or NotWithinIntervalFromTodayYearless.

"Equal"

**Result** Returns ID or error.

#### Description

Returns a search element object that specifies a query for records of this type.

Possible property names are UIDProperty, CreationDateProperty, ModificationDateProperty, FirstNameProperty, LastNameProperty, FirstNamePhoneticProperty, LastNamePhoneticProperty, NicknameProperty, MaidenNameProperty, BirthdayProperty, BirthdayComponentsProperty, OrganizationProperty, JobTitleProperty, HomePageProperty, URLsProperty, CalendarURIsProperty, EmailProperty, AddressProperty, OtherDatesProperty, OtherDateComponentsProperty, RelatedNamesProperty, DepartmentProperty, PhoneProp-

erty, AIMInstantProperty, JabberInstantProperty, MSNInstantProperty, YahooInstantProperty, ICQInstantProperty, InstantMessageProperty, SocialProfileProperty, NoteProperty, MiddleNameProperty, MiddleNamePhoneticProperty, TitleProperty, SuffixProperty and GroupNameProperty.

### Examples

Find a person with first name being Christian:

```
Set Variable [ $e1; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "FirstNameProperty";
""; ""; "Christian"; "Equal" ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e1 ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

Search people with related name being John:

```
Set Variable [ $e1; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "RelatedNamesProp-
erty"; ""; ""; "John"; "ContainsSubStringCaseInsensitive" ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e1 ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

Find all companies:

```
# Companies have PersonFlags = 1 while normal people have 0.
Set Variable [ $e; Value:MBS( "Addressbook.searchElementForProperty"; "person"; "PersonFlags"; ""; "";
1; "Equal" ) ]
Set Variable [ $records; Value:MBS( "Addressbook.recordsMatchingSearchElement"; $e ) ]
Set Variable [ $record; Value:GetValue($records; 1) ]
Set Variable [ $name; Value:MBS( "Addressbook.record.displayname"; $record ) ]
Show Custom Dialog [ $name ]
```

### See also

- 34.70 Addressbook.record.displayname 897
- 34.74 Addressbook.recordsMatchingSearchElement 905
- 34.77 Addressbook.searchElementForConjunction 911

### 34.78.1 Blog Entries

- [Store your ID in URLs in Mac address book](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 26th October 2015, last changed 26th October 2015.

## 34.79 Addressbook.searchGroupsWithName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.3	Yes	No	No	No	No

MBS( "Addressbook.searchGroupsWithName"; GroupName )

### Parameters

#### GroupName

The group name or search for.  
"Friends"

**Result** Returns list of all group IDs.

### Description

This search is case insensitive.

### Examples

Search for group named Friends:

MBS( "Addressbook.searchGroupsWithName"; "Friends" )

### See also

- 34.81 Addressbook.searchPeopleWithEmail 916
- 34.83 Addressbook.searchPeopleWithName 918

### 34.79.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr4](#)
- [MBS Filemaker Plugin, version 3.3pr3](#)

Created 18th August 2014, last changed 8th September 2015.

**34.80 Addressbook.searchPeopleWithCreationDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.searchPeopleWithCreationDate"; StartDate { ; EndDate } )

**Parameters****StartDate**

The start date for the search range.

Date(10; 1; 2013)

**EndDate**

Optional

The end date for the search range.

Date(11; 1; 2013)

**Result** Returns list of all person IDs.

**Description****Examples**

Searches all people created between 1st of September and 1st of December 2013:

MBS("Addressbook.searchPeopleWithCreationDate"; Date ( 9 ; 1 ; 2013 ); Date ( 10 ; 1 ; 2013 ))

Searches all people created after 1st of September:

MBS("Addressbook.searchPeopleWithModificationDate"; Date ( 9 ; 1 ; 2013 ))

**See also**

- 34.82 Addressbook.searchPeopleWithModificationDate

## 34.81 Addressbook.searchPeopleWithEmail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.searchPeopleWithEmail"; Email )

### Parameters

#### Email

The email address to search for.

"test@test.test"

**Result** Returns list of all person IDs.

### Description

This search is case insensitive.

### Examples

Search for test email:

MBS( "Addressbook.searchPeopleWithEmail"; "test@test.test" )

### See also

- 34.79 Addressbook.searchGroupsWithName 914
- 34.83 Addressbook.searchPeopleWithName 918

Created 18th August 2014, last changed 18th August 2014.



## 34.82 Addressbook.searchPeopleWithModificationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.5	Yes	No	No	No	No

MBS( "Addressbook.searchPeopleWithModificationDate"; StartDate { ; EndDate } )

### Parameters

#### StartDate

The start date for the search range.

Date(10; 1; 2013)

#### EndDate

Optional

The end date for the search range.

Date(11; 1; 2013)

**Result** Returns list of all person IDs.

### Description

#### Examples

Searches all people modified between 1st of September and 1st of December 2013:

MBS("Addressbook.searchPeopleWithModificationDate"; Date ( 9 ; 1 ; 2013 ); Date ( 10 ; 1 ; 2013 ))

Searches all people modified after 1st of September:

MBS("Addressbook.searchPeopleWithModificationDate"; Date ( 9 ; 1 ; 2013 ))

### See also

- 34.80 Addressbook.searchPeopleWithCreationDate

915

Created 18th August 2014, last changed 25th September 2018.

## 34.83 Addressbook.searchPeopleWithName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	No

MBS( "Addressbook.searchPeopleWithName"; FirstName; LastName )

### Parameters

#### FirstName

The first name or search for. Can be empty to search only for last name.  
"Christian"

#### LastName

The last name or search for. Can be empty to search only for first name.  
"Schmitz"

**Result** Returns list of all person IDs.

### Description

This search is case insensitive.

### Examples

Search for Peter Miller:

MBS( "Addressbook.searchPeopleWithName"; "Peter"; "Miller" )

Search for Peter only:

MBS( "Addressbook.searchPeopleWithName"; "Peter"; "" )

### See also

- 34.49 Addressbook.multivalue.replaceValueAtIndex 870
- 34.73 Addressbook.record.valueForProperty 901
- 34.79 Addressbook.searchGroupsWithName 914
- 34.81 Addressbook.searchPeopleWithEmail 916

Created 18th August 2014, last changed 18th August 2014.

## 34.84 Addressbook.searchPersonWithExternalUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	6.1	Yes	No	No	No	No

MBS( "Addressbook.searchPersonWithExternalUID"; UID )

### Parameters

#### UID

The external UID. Not the unique ID we use elsewhere for person.  
"cfd73a44-24dd-480f-a1de-a31926bc4ac1"

**Result** Returns person ID or error.

### Description

The plugin has to look into each person, find the external ID and compare it.  
So this call can take a while.

### Examples

Find unique ID for record based on external ID:

MBS( "Addressbook.searchPersonWithExternalUID"; "637fa922-7a2b-4f9a-bfa3-023253d4a3d5" )

### 34.84.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 18th February 2016, last changed 18th February 2016.

## 34.85 Addressbook.setMe

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
34 Addressbook	3.1	Yes	No	No	No	Yes

MBS( "Addressbook.setMe"; PersonID )

### Parameters

#### PersonID

The unique ID for the target person.

\$personID

**Result** Returns OK on success and error on failure.

### Description

If you don't want a record to represent the logged-in user, then pass empty string as the person argument. Note that this will not delete the existing record, if one is set.

### See also

- 34.33 Addressbook.me 847
- 34.55 Addressbook.people 879
- 34.76 Addressbook.save 908

Created 18th August 2014, last changed 18th August 2014.

# Chapter 35

## App

Functions to modify the current application.

### 35.1 App.CancelUserAttentionRequest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	6.1	Yes	No	No	No	No

MBS( "App.CancelUserAttentionRequest"; ID )

#### Parameters

##### ID

The number for the user attention request.

**Result** Returns OK or error.

#### Description

A request is also canceled automatically by user activation of the app.

#### See also

- 35.12 App.RequestUserAttention

932

#### 35.1.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 2nd March 2016.

## 35.2 App.ClearTouchBar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App 171 TouchBar	8.4	Yes	No	No	No	No

MBS( "App.ClearTouchBar" )

**Result** Returns OK or error.

### Description

You assign the TouchBar with TouchBar.AssignToApp function.

### See also

- 171.3 TouchBar.AssignToApp 8091

### 35.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr2](#)

Created 8th August 2018, last changed 8th August 2018.

## 35.3 App.CompactMemory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	8.5	No	Yes	Yes, Windows only	No	No

MBS( "App.CompactMemory" )

**Result** Returns OK or error.

### Description

Passed back memory which is no longer needed, but kept for reuse.  
Reducing physical memory used may lead to storing data in swap file on disk.

See also App.MemoryUsed to learn how much memory is used.

### See also

- 35.9 App.MemoryUsed

929

### 35.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr9](#)

Created 23th November 2018, last changed 23th November 2018.

## 35.4 App.EffectiveUserID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	8.0	Yes	No	Yes	Yes	Yes

MBS( "App.EffectiveUserID" )

**Result** Returns number or error.

**Description**

### 35.4.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 10th December 2017, last changed 10th December 2017.



## 35.5 App.GetDockBadgeLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	2.6	Yes	No	No	No	Yes

MBS( "App.GetDockBadgeLabel" )

(old name: AppDockTile.getBadgeLabel)

**Result** Returns text or error.

### Description

Available in Mac OS X v10.5 and later.

iOS added in 7.2, but the badge is a number.

### Examples

Set and query dock badge:

```
Set Variable [ $r; Value:MBS( "App.SetDockBadgeLabel"; "123" ) ]
```

```
Show Custom Dialog [ MBS( "App.GetDockBadgeLabel" ) ]
```

### See also

- [35.13 App.SetDockBadgeLabel](#)

933

### 35.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)

Created 18th August 2014, last changed 15th April 2017.

## 35.6 App.GetDockIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	3.2	Yes	No	Yes, macOS only	No	No

MBS( "App.GetDockIcon" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

Only queries a dock item image you set before with App.SetDockIcon

Returns nothing if no image was set.

### See also

- 35.14 App.SetDockIcon

934

### 35.6.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 5th July 2015.

## 35.7 App.GetProcessName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "App.GetProcessName" )

**Result** Returns name or error.

### Description

This value does not change by App.SetProcessName as it queries the true name. For FileMaker Pro, this is "FileMaker Pro", even if you have Advanced version.

### See also

- [35.8 App.GetProcessPath](#) 928
- [35.15 App.SetProcessName](#) 935

### Example Databases

- [Mac only/Dock Tile](#)

### 35.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 15th October 2017.

## 35.8 App.GetProcessPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "App.GetProcessPath" )

**Result** Returns path or error.

### Description

This value does not change by App.SetProcessName as it queries the file path.

### Examples

Get app folder path:

```
MBS( "Path.RemoveLastPathComponent"; MBS( "App.GetProcessPath" ) )
```

### See also

- [35.7 App.GetProcessName](#) 927
- [35.15 App.SetProcessName](#) 935
- [79.35 Files.Launch](#) 3877
- [124.8 Path.RemoveLastPathComponent](#) 6257
- [175.3 URLScheme.SetDefaultHandler](#) 8272

### 35.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [Restart FileMaker with same database](#)
- [MBS Filemaker Plugin, version 3.5pr6](#)

Created 18th August 2014, last changed 16th October 2017.

## 35.9 App.MemoryUsed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	6.5	Yes	Yes	Yes	No	No

MBS( "App.MemoryUsed" )

**Result** Returns number or error.

### Description

This is to query the memory used in bytes for the current application.

On Server this would query the scripting process.

The value returned is not exactly the same as in Task Manager or Activity Monitor as this includes some shared memory for your process, which those don't count per app.

See also App.CompactMemory for Windows to reduce memory.

### Examples

Query memory used

```
Round(MBS("App.MemoryUsed") / 1024 / 1024; 0) & " MB"
```

### See also

- 35.3 App.CompactMemory 923
- 164.2 SystemInfo.AvailableRAM 7781

### 35.9.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 23th November 2018.

## 35.10 App.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	7.4	Yes	No	No	No	No

MBS( "App.OpenFile"; path )

### Parameters

#### path

The native file path to the file to open.

"/Users/cs/Desktop/test.fmp12"

**Result** Returns OK or error.

### Description

This happens asynchronously, so we have no idea if it works or not.

FileMaker may show error dialogs.

This call must be last in a script as you can't open a file while a script is running, the file should open when the script is done. You can use FM.RunScriptLater to run a script in a few seconds to follow up. There you can check with window functions and see if there is a new window in front.

See also Files.Launch and Files.LaunchFile.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Open a database:

```
Set Variable [ $r ; Value: MBS("App.OpenFile"; "/Users/cs/Desktop/test.fmp12") ]
```

### See also

- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 80.57 FM.RunScript 4045
- 80.59 FM.RunScriptLater 4049
- 124.2 Path.FileMakerPathToNativePath 6247

### 35.10.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 21st August 2017, last changed 20th September 2017.

## 35.11 App.ProcessID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "App.ProcessID" )

**Result** Returns process ID or error.

### Description

If it changes while your server runs, that means the scripting process crashed in-between.

### 35.11.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 10th December 2017, last changed 10th December 2017.

## 35.12 App.RequestUserAttention

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	6.1	Yes	No	No	No	No

MBS( "App.RequestUserAttention" { ; Critical } )

### Parameters

#### Critical

Optional

Pass 1 if critical or 0 if informative.

0

**Result** Returns number or error.

### Description

Returns the identifier for the request. You can use this value to cancel the request later using the App.CancelUserAttentionRequest method.

Activating the app cancels the user attention request. A spoken notification will occur if spoken notifications are enabled. Sending App.RequestUserAttention to an app that is already active has no effect.

If the inactive app presents a modal panel, this method will be invoked with critical = 1 automatically. The modal panel is not brought to the front for an inactive app.

This method is a way to have the dock icon jumping.

### Examples

Request attention:

```
Set Variable [ $r; Value:MBS( "App.RequestUserAttention"; 1 ) ]
```

### See also

- [35.1 App.CancelUserAttentionRequest](#)

921

### Example Databases

- [Window/Flash Window and Jump Dock](#)

### 35.12.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 2nd March 2016.



## 35.13 App.SetDockBadgeLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	2.6	Yes	No	No	No	Yes

MBS( "App.SetDockBadgeLabel"; text )

(old name: AppDockTile.setBadgeLabel)

### Parameters

#### text

The localized string to display. This string can contain a count value or other badging information. To clear the badge string, specify an empty string "".

"123"

**Result** Returns OK on success.

### Description

The appearance of the badge area is system defined.

Available in Mac OS X v10.5 and later.

iOS added in 7.2, but the badge is a number.

### Examples

Set and query dock badge:

```
Set Variable [ $r; Value:MBS( "App.SetDockBadgeLabel"; "123" ) ]
```

```
Show Custom Dialog [ MBS( "App.GetDockBadgeLabel" ) ]
```

### See also

- [35.5 App.GetDockBadgeLabel](#)

925

### 35.13.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)
- [More customization of FileMaker solutions](#)

Created 18th August 2014, last changed 15th April 2017.

## 35.14 App.SetDockIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	3.2	Yes	No	Yes, macOS only	No	No

MBS( "App.SetDockIcon"; Image )

### Parameters

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.  
\$image

**Result** Returns OK or error.

### Description

Works with FileMaker Pro and runtimes.

### See also

- [35.6 App.GetDockIcon](#)

926

### Example Databases

- [Mac only/Dock Tile](#)

### 35.14.1 Blog Entries

- [More customization of FileMaker solutions](#)
- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 28th April 2016.

## 35.15 App.SetProcessName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	3.2	Yes	No	Yes, macOS only	No	No

MBS( "App.SetProcessName"; name )

### Parameters

#### name

The new name to display.

"MyApp"

**Result** Returns OK or error.

### Description

So for a runtime or FileMaker itself, this changes the name in the menubar.

### See also

- [35.7 App.GetProcessName](#) 927
- [35.8 App.GetProcessPath](#) 928

### Example Databases

- [Mac only/Dock Tile](#)

#### 35.15.1 Blog Entries

- [More customization of FileMaker solutions](#)
- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 28th April 2016.

## 35.16 App.UserID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App	8.0	Yes	No	Yes	Yes	Yes

MBS( "App.UserID" )

**Result** Returns number or error.

### Description

Returns e.g. 1001 on FileMaker Cloud.

### 35.16.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 10th December 2017, last changed 10th December 2017.

# Chapter 36

## AppleScript

Run Apple Scripts.

The script source can be calculated. Precompile a script to run it several times with better performance. Between runs you can use properties in AppleScript to exchange values.

### 36.1 AppleScript.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.Close"; Script ID )

#### Parameters

##### Script ID

The ID returned by the "Applescript.Compile" function.

1

**Result** Returns "OK" or an error message.

#### Description

Not really necessary since scripts don't take much space.

#### Examples

Remove A compiled Script from memory

MBS( "Applescript.Close" ; \$scriptID )

#### See also

- 36.2 AppleScript.Compile

939

- 36.4 AppleScript.GetPropertyNames 941
- 36.8 AppleScript.PropertyCount 946
- 36.9 AppleScript.Run 947

Created 18th August 2014, last changed 31st October 2016.

## 36.2 AppleScript.Compile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.Compile"; Script Text )

### Parameters

#### Script Text

This is the text of the script to compile  
"3 + 4"

**Result** Returns ScriptID or error.

### Description

You can use the Script ID to run the script using the Applescript.Execute function. The compiled script is stored in memory. This is useful if you have large script that needs to be run over and over again.

### Examples

Compile a script

MBS( "Applescript.Compile" ; \$Applescript )

### See also

- 36.1 AppleScript.Close 937
- 36.3 AppleScript.Execute 940
- 36.4 AppleScript.GetPropertyname 941
- 36.5 AppleScript.GetPropertyvalue 943
- 36.8 AppleScript.PropertyCount 946
- 36.9 AppleScript.Run 947
- 36.10 AppleScript.SetPropertyvalue 952

Created 18th August 2014, last changed 31st October 2016.

### 36.3 AppleScript.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.Execute"; Script ID )

#### Parameters

##### Script ID

The Id of the script you want to execute. This ID returned by the Applescript.Compile function.

1

#### Description

AppleScripts can return a result to the object that called them. This is similar to the Script Results that were introduced in FileMaker 8.0.

Older plugin versions used to put quotes around result. 6.4 and newer don't include quotes.

#### Examples

Execute a stored Applescript

```
MBS( "Applescript.Execute" ; $ScriptID)
```

#### See also

- 36.2 AppleScript.Compile 939
- 36.9 AppleScript.Run 947

Created 18th August 2014, last changed 31st October 2016.



## 36.4 AppleScript.GetPropertyNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	4.2	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.GetPropertyNames"; Script ID; Index )

### Parameters

#### Script ID

The ID of the script you want to execute. This ID returned by the Applescript.Compile function.

1

#### Index

The index of the property from 0 to Applescript.PropertyCount-1.

0

**Result** Returns name or error.

### Description

Lasterror is set.

### Examples

List properties by name:

```
Set Variable [ $scriptId; Value:MBS( "Applescript.Compile"; AppleScript Properties::AppleScriptCode ) ]
If [ MBS("isError") ]
Show Custom Dialog [ Message: MBS("AppleScript.LastErrorMessage"); Buttons: "OK", "Cancel" ]
Exit Script [ ]
End If
Set Variable [ $count; Value:MBS( "Applescript.PropertyCount"; $scriptId) ]
Set Variable [ $list; Value:"" ]
Set Variable [ $i; Value:0 ]
If [ GetAsNumber($count) >0 ]
Loop
Set Variable [ $n; Value:MBS( "Applescript.GetPropertyNames"; $scriptId; $i ) ]
Set Variable [ $list; Value:$list & $n & $]
Set Variable [ $i; Value:$i+1 ]
Exit Loop If [ $count = $i ]
End Loop
Show Custom Dialog [ Title: $count & " Properties"; Message: $list; Buttons: "OK", "Cancel" ]
End If
Set Variable [ $r; Value:MBS( "Applescript.Close"; $scriptId) ]
```

### See also

- 36.1 AppleScript.Close 937
- 36.2 AppleScript.Compile 939

• 36.5 AppleScript.GetPropertyValue	943
• 36.6 AppleScript.LastError	944
• 36.7 AppleScript.LastErrorMessage	945
• 36.8 AppleScript.PropertyCount	946
• 36.10 AppleScript.SetPropertyValue	952
• 127.6 IsError	6374

Created 18th August 2014, last changed 31st October 2016.

## 36.5 AppleScript.GetPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	4.2	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.GetPropertyValue"; Script ID; Name )

### Parameters

#### Script ID

The Id of the script you want to execute. This ID returned by the Applescript.Compile function.

1

#### Name

The name of the property.

"MyValue"

**Result** Returns value or error.

### Description

Lasterror is set.

### Examples

Query a property:

```
Show Custom Dialog [ MBS("Applescript.GetPropertyValue"; $scriptID; "MySubject") ]
```

### See also

- [36.2 AppleScript.Compile](#) 939
- [36.4 AppleScript.GetPropertyName](#) 941
- [36.10 AppleScript.SetPropertyValue](#) 952

Created 18th August 2014, last changed 31st October 2016.

## 36.6 AppleScript.LastError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.LastError" )

### Description

Any AppleScript Errors that are not trapped using "try" blocks, will abort the AppleScript. Also returns AppleScript compile errors. This function is useful for error trapping your scripts.

### Examples

Get Last Error

MBS( "Applescript.LastError" )

### See also

- 36.4 AppleScript.GetPropertyNames 941
- 36.7 AppleScript.LastErrorMessage 945

Created 18th August 2014, last changed 31st October 2016.

## 36.7 AppleScript.LastErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.LastErrorMessage" )

### Description

Any AppleScript Errors that are not trapped using "try" blocks, will abort the AppleScript. AppleScript Compile errors are also reported here. This function is useful for error trapping your scripts.

### Examples

Get the Last Applescript Error as text

MBS( "Applescript.LastErrorMessage" )

### See also

- [36.4 AppleScript.GetPropertyNames](#) 941
- [36.6 AppleScript.LastError](#) 944

### Example Databases

- [OS Scripting/AppleScript Print with Preview](#)
- [OS Scripting/AppleScript Properties](#)
- [OS Scripting/Email Text from Apple Mail](#)

Created 18th August 2014, last changed 31st October 2016.

## 36.8 AppleScript.PropertyCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	4.2	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.PropertyCount"; Script ID )

### Parameters

#### Script ID

The Id of the script you want to execute. This ID returned by the Applescript.Compile function.

1

**Result** Returns number or error.

### Description

Lasterror is set.

### Examples

Compiles code and query property count:

```
Set Variable [ $scriptID; Value:MBS( "Applescript.Compile"; AppleScript Properties::AppleScriptCode ) ]
Set Variable [ $count; Value:MBS( "Applescript.PropertyCount"; $scriptID) ]
Set Variable [ $r; Value:MBS( "Applescript.Close"; $scriptID) ]
```

### See also

- 36.1 AppleScript.Close 937
- 36.2 AppleScript.Compile 939
- 36.4 AppleScript.GetPropertyNames 941

Created 18th August 2014, last changed 31st October 2016.

## 36.9 AppleScript.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	1.0	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.Run"; Script Text )

### Parameters

#### Script Text

This is the text of the script to run

"3 + 4"

#### Description

Any Result returned by the AppleScript is returned as the result of the calculation. This is similar to the Script Results that were introduced in FileMaker 8.0. This is much easier then using Applescript.Compile, Applescript.Execute and Applescript.Close

Older plugin versions used to put quotes around result. 6.4 and newer don't include quotes.

### Examples

Trigger a FileMaker Script Using OS Scripting

```
Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ———

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &
```

```

"END FUNCTION";

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

];
Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)

)
)

Create A Folder

Let(
[
/*-----PARAMETERS-----*/
folderName = "My New Folder";

scriptText =
"set folder_name to " & Quote(folderName) & "§" &
"tell application " & Quote("Finder") & "§" &
" set f to make new folder at desktop" & "§" &
" set the name of f to folder_name" & "§" &
"end tell"

];
/*-----FUNCTION-----*/
MBS(
"Applescript.Run";
scriptText
)
)

/*-----/

```



Creates a folder called "My New Folder on the users desktop  
/

Get Names From Address Book

```
Let(
[
/*-----PARAMETERS-----*/
scriptText =
"tell application \"Address Book\" & \"§\" &
" set the_list to \"\" & \"§\" &
" set person_list to the name of every person\" & \"§\" &
" repeat with this_name in person_list\" & \"§\" &
" set the_list to the_list & this_name & return\" & \"§\" &
" end repeat\" & \"§\" &
"end tell"

];
/*-----FUNCTION-----*/
MBS(
"Applescript.Run";
scriptText
)
)
```

```
/*-----/
Creates a folder called "My New Folder on the users desktop
/
```

Trigger A FileMaker Script (Custom Function)

```
MBS_TriggerScript ( "Triggered Script" ; Get ( FileName ) )
```

Custom Function Definition

```
/*#####
#####
#####
```

```
MBS_TriggerScript
created 10/26/06, by Todd Geist, todd@geistinteractive.com
```

Parameters: theScriptName, theFileName

Dependencies: MBS FileMaker Plug-in.

Notes: Uses VBScript and Applescript to run a script



Speak using AppleScript:

```
Set Variable [ $text ; Value: "Hello \"Test\"" ]
Set Variable [ $voice ; Value: "Daniel" ]
Set Variable [ $rate ; Value: 100 ]
Set Variable [ $pitch ; Value: 60 ]
```

```
Set Variable [ $text ; Value: Substitute($text; "\"" ; "\\\"") ]
Set Variable [ $r ; Value: MBS( "AppleScript.Run"; "say \" & $text & \"" using \" & $voice & \""
speaking rate \" & $rate & \" pitch \" & $pitch ) ]
```

Show dialog:

```
Set Variable [ $r ; Value: MBS("AppleScript.Run"; "display dialog \"Did I start yet?\"") ]
```

### See also

- 36.1 AppleScript.Close 937
- 36.2 AppleScript.Compile 939
- 36.3 AppleScript.Execute 940
- 186.1 WindowsScript.AddCode 8813
- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822
- 186.12 WindowsScript.ExecuteFunction 8834
- 186.19 WindowsScript.SetLanguage 8844

### 36.9.1 Blog Entries

- [4000 functions in 10 years](#)

Created 18th August 2014, last changed 9th February 2019.

## 36.10 AppleScript.SetPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
36 AppleScript	4.2	Yes	No	Yes, macOS only	No	No

MBS( "AppleScript.SetPropertyValue"; Script ID; Name; Value )

### Parameters

#### Script ID

The Id of the script you want to execute. This ID returned by the Applescript.Compile function.

1

#### Name

The name of the property.

"MyValue"

#### Value

The value of the property.

"Hello"

**Result** Returns OK or error.

### Description

Lasterror is set.

### Examples

Sets a property:

```
Set Variable [ $r; Value:MBS( "Applescript.SetPropertyValue"; $scriptID; "MySubject"; AppleScript Properties::Subject) ]
```

### See also

- 36.2 AppleScript.Compile 939
- 36.4 AppleScript.GetPropertyNames 941
- 36.5 AppleScript.GetPropertyValues 943

Created 18th August 2014, last changed 31st October 2016.

## 36.11 Applescript.DeterminePermissionToAutomateTarget

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Applescript	9.0	Yes	No	No	No	No

```
MBS( "Applescript.DeterminePermissionToAutomateTarget"; BundleID; AEEEventClass; AEEEventID { ;
askUserIfNeeded } )
```

### Parameters

#### BundleID

The bundle ID of the application to control.

The target address descriptor must refer to a running application. If the target application is on another machine, then Remote AppleEvents must be enabled on that machine for the user.

"com.apple.Safari"

#### AEEEventClass

The event class of the Apple event to determine permission for. \*\*\*\* for wildcard to use all.

\*\*\*\*\*

#### AEEEventID

The event ID of the Apple event to determine permission for. \*\*\*\* for wildcard to use all.

\*\*\*\*\*

#### askUserIfNeeded

Optional

Whether dialog can show to ask user if needed. Pass 1 to allow dialog or 0 to disallow.

If 1, and if this application does not yet have permission to send events to the target application, then prompt the user to obtain permission. If 0, do not prompt the user. Default is 0.

1

**Result** Returns OK, ApplicationNotRunning, NotPermitted, WouldRequireUserConsent, or error.

### Description

Determines whether the current application is able to send an AppleEvent with the given eventClass and eventID to the application described as target via bundle ID.

Mac OS 10.14 and later impose additional requirements on applications when they send AppleEvents to other applications in order to insure that users are aware of and consent to allowing such control or information exchange. Generally this involves the user being prompted in a secure fashion the first time an application attempts to send an AppleEvent to another application. If the user consents then this application can send events to the target. If the user does not consent then any future attempts to send AppleEvents will result in a failure with errAEEEventNotPermitted being returned.

Certain AppleEvents are allowed to be sent without prompting the user. Pass typeWildcard (\*\*\*\*) for the eventClass and eventID to determine if every event is allowed to be sent from this application to the target.

Applications can determine, without sending an `AppleEvent` to a target application, whether they are allowed to send `AppleEvents` to the target with this function. If `askUserIfNeeded` is true, and this application does not yet have permission to send `AppleEvents` to the target, then the user will be asked if permission can be granted; if `askUserIfNeeded` is 0 and permission has not been granted, then `WouldRequireUserConsent` will be returned.

The target bundle ID must refer to an already running application.

If the current application is permitted to send the given `AppleEvent` to the target, then `OK` will be returned. If the current application is not permitted to send the event, `NotPermitted` will be returned. If the target application is not running, then `ApplicationNotRunning` will be returned. If `askUserIfNeeded` is false, and this application is not yet permitted to send `AppleEvents` to the target, then `WouldRequireUserConsent` will be returned.

Requires MacOS 10.14 or newer.

May not work in FileMaker 18 due to missing entitlements for the FileMaker app. You can try FileMaker 17 instead, where it works. Or run FileMaker 18 from Terminal, where it also works.

### Examples

Ask for permissions for Safari:

```
MBS( "Applescript.DeterminePermissionToAutomateTarget"; "com.apple.Safari"; "*****"; "*****"; 1 )
```

Ask for permissions for Finder:

```
MBS( "Applescript.DeterminePermissionToAutomateTarget"; "com.apple.Finder"; "*****"; "*****"; 1 )
```

Ask for permissions for Mail:

```
MBS( "Applescript.DeterminePermissionToAutomateTarget"; "com.apple.Mail"; "*****"; "*****"; 1 )
```

### 36.11.1 Blog Entries

- [New MBS FileMaker Plugin 9.0](#)
- [Neues MBS FileMaker Plugin 9.0](#)
- [MBS FileMaker Plugin, version 8.6pr4](#)
- [Ask for permissions to control applications with AppleScript in FileMaker](#)

Created 13th December 2018, last changed 28th November 2019.

# Chapter 37

## Archive

Functions to work with archives including zip, tar and bz2.

See also Compression functions.

### 37.1 Archive.Compress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.Compress"; Format; Filter; Destination; BasePath; List { ; Options; Password } )

#### Parameters

##### Format

The format to use. Formats: 7zip, ar, arbsd, argnu, arsvr4, bsdtar, cd9660, cpio, gnutar, iso, iso9660, mtree, mtree-classic, newc, odc, oldtar, pax, paxr, posix, raw, rpax, shar, shardump, ustar, v7tar, v7, warc, xar, zip.

"zip"

##### Filter

The filter to use. For zip format can be store or deflate. Filters: b64encode, bzip2, compress, grzip, gzip, lrzip, lz4, lzip, lzma, lzop, uuencode, xz, zstd.

Not all filters can be combined with all formats.

"deflate"

##### Destination

The native file path to the destination archive. Or file name for container.

"C:\test.zip"

##### BasePath

The bath path to the folder where to look for files.

```
"C:\test"
```

### List

the list of files and folders to add to archive.

```
"test.txt"
```

### Options

Optional

The options to pass to writer. This is a comma-separated list of options. Option names can be prefixed with module name.

Sample options: `compression=9 zip:encryption=zipcrypt zip:encryption=aes128 zip:encryption=aes256 zip64 gzip:compression-level=9 hdrcharset=UTF-8`

```
"zip:encryption=zipcrypt"
```

### Password

Optional

The passphrase to use for password protection.

```
"secret"
```

**Result** Returns OK or error.

### Description

Supports various compression algorithms and encryption.

The archive usually should not contain the absolute paths of the files, so we need a base path and relative to that base path the list of files and folders to zip.

### Examples

Compression examples:

```
# list of files in the folder to archive
```

```
Set Variable [ $list ; Value: "minitar.c\simplebar.rbp" ]
```

```
# write zip file with password
```

```
Set Variable [ $r ; Value: MBS( "Archive.Compress"; "zip"; "deflate"; "/Users/cs/Desktop/minitar.zip";  
"/Users/cs/Desktop/"; $list; "zip:encryption=zipcrypt"; "secret password" ) ]
```

```
# Write bzip2 compress tar file:
```

```
Set Variable [ $r ; Value: MBS( "Archive.Compress"; "ustar"; "bzip2"; "/Users/cs/Desktop/minitar.tar";  
"/Users/cs/Desktop/") ]
```

```
# and write zip with aes encryption to container file:
```

```
Set Variable [ $r ; Value: MBS( "Archive.Compress"; "zip"; "deflate"; "minitar.zip"; "/Users/cs/Desktop/";  
$list; "zip:encryption=aes128"; "secret password" ) ]
```

```
Set Field [ Archive Read::Container ; $r ]
```

Compress with UTF-8 file names:

```
MBS( "Archive.Compress"; "zip"; "deflate"; "C:\Users\Christian\Desktop\test.zip"; "C:\Users\Christian\Desktop";  
"Bücher"; "hdrcharset=UTF-8" )
```



**See also**

- 54.23 UnZipFile.OpenContainer 1534
- 54.24 UnZipFile.OpenFile 1535
- 54.35 ZipFile.CompressFiles 1547
- 54.36 ZipFile.CreateFile 1549
- 54.37 ZipFile.Open 1551

**37.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 17th December 2018, last changed 9th December 2019.

## 37.2 Archive.Content

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.Content"; Archive { ; Passphrase } )

### Parameters

#### Archive

Either container with archive or native file path.

"C:\test\test.zip"

#### Passphrase

Optional

Password to use.

**Result** Returns JSON or error.

### Description

JSON has an entry count for the file count, an entry format for the format type and an entry for files array.

### Examples

Check archive content:

```
Set Variable [ $list ; Value: MBS("Archive.Content"; If(IsEmpty($Path); $Container; $Path)) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to read container" ; $list ]
Else
Set Field [ $Content ; MBS("JSON.Colorize"; $list) ]
End If
```

Get content of encrypted archive:

```
MBS( "Archive.Content";
"/Users/cs/Desktop/invoices-2019-02-12_1924.zip"; /* path to archive (or container) */
"98234kjh245234" /* password */)

```

### See also

- 37.4 Archive.FileList 961
- 127.6 IsError 6374
- 102.16 JSON.Colorize 5334

### 37.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 8th December 2018, last changed 12nd February 2019.

### 37.3 Archive.Extract

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.Extract"; Archive; FileList; DestinationFolder { ; Passphrase } )

#### Parameters

##### Archive

Either container with archive or native file path.

"C:\test\test.zip"

##### FileList

Optional list of files to extract. Pass empty text when you need all files.

""

##### DestinationFolder

The native path to the destination folder.

"/Users/cs/Desktop"

##### Passphrase

Optional

Password to use.

**Result** Returns OK or error.

#### Description

Restores file permissions, times, Mac metadata and file flags.

#### Examples

Expand an archive:

```
MBS( "Archive.Extract";
"/Users/cs/Desktop/invoices-2019-02-12_1924.zip"; /* path to archive (or container) */
"" /* all files */;
"/Users/cs/Desktop/"; /* dest */
"98234kjh245234" /* password */)

```

#### See also

- 37.4 Archive.FileList 961
- 37.8 Archive.Verify 965

Created 11st December 2018, last changed 12nd February 2019.

## 37.4 Archive.FileList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.FileList"; Archive { ; Passphrase } )

### Parameters

#### Archive

Either container with archive or native file path.

"C:\test\test.zip"

#### Passphrase

Optional

Password to use.

**Result** Returns list or error.

### Description

Please use Archive.Content if you need more details.

This provides file list, which you can filter and then pass to Archive.Extract.

### Examples

Get file list:

```
Set Variable [ $list ; Value: MBS("Archive.FileList"; If(IsEmpty($Path); $Container; $Path)) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to read container" ; $list ]
Else
Set Field [ $Content ; MBS("JSON.Colorize"; $list) ]
End If
```

### See also

- [37.2 Archive.Content](#) 958
- [37.3 Archive.Extract](#) 960
- [127.6 IsError](#) 6374
- [102.16 JSON.Colorize](#) 5334

### 37.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)

Created 8th December 2018, last changed 17th December 2018.

## 37.5 Archive.LibVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.LibVersion" )

**Result** Returns text or error.

### Description

### Examples

Shows version of libarchive:

```
Show Custom Dialog [ "Archive" ; MBS( "Archive.LibVersion" ) ]
```

### See also

- [37.6 Archive.LibVersionDetails](#) 963
- [44.10 Barcode.LibVersion](#) 1190

Created 8th December 2018, last changed 11st December 2018.

## 37.6 Archive.LibVersionDetails

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.LibVersionDetails" )

**Result** Returns text or error.

### Description

### Examples

Shows detailed version of libarchive:

Show Custom Dialog [ "Archive" ; MBS( "Archive.LibVersionDetails" ) ]

### See also

- 37.5 Archive.LibVersion

## 37.7 Archive.SupportedFormats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.SupportedFormats" )

**Result** Returns list or error.

### Description

Currently, the list is ar, cpio, lha, mtree, tar, xar, warc, 7zip, cab, rar, iso9660, zip.

Read about supported formats on libArchive website:

<https://github.com/libarchive/libarchive/wiki/LibarchiveFormats>

### Examples

Query formats:

```
Show Custom Dialog [ "Archive" ; MBS( "Archive.SupportedFormats" ) ]
```

Created 11st December 2018, last changed 17th December 2018.



## 37.8 Archive.Verify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
37 Archive	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Archive.Verify"; Archive { ; Passphrase } )

### Parameters

#### Archive

Either container with archive or native file path.

"C:\test\test.zip"

#### Passphrase

Optional

Password to use.

**Result** Returns OK or error.

### Description

Same as Archive.Extract, but doesn't actually write anything.

### Examples

Check an archive:

MBS( "Archive.Verify"; "/Users/cs/Desktop/Archiv.zip")

Example result: "[ MBS ] ZIP decompression failed (-5)"

### See also

- 37.3 Archive.Extract

### 37.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 20th March 2019, last changed 20th March 2019.



# Chapter 38

## Audit

Log all changes to your database.

For FileMaker Pro. We define fields in each table which trigger our Audit function, so with any change in a record, the plugin can keep track of changes.

### 38.1 Audit.Backup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Backup"; timestamp; TableName { ; FieldsToIgnore } )

#### Parameters

##### timestamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

##### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

##### FieldsToIgnore

Optional

A list of field names to ignore. Global fields and those set with Audit.SetIgnoredFieldNames are always ignored.

"myField"

**Result** Returns OK or error.

#### Description

Same as `Audit.Changed`, but uses `Backup` for the action field.

You can call this function before loading a record to make sure all data from the record are logged. Then you are sure to have old values for an undo.

**See also**

- 38.2 `Audit.Backup2` 969
- 38.3 `Audit.Changed` 970
- 38.21 `Audit.SetIgnoredFieldNames` 993

### 38.1.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 27th October 2018, last changed 2nd April 2020.

## 38.2 Audit.Backup2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Backup2"; timestamp; TableName; FieldsToCheck )

### Parameters

#### timestamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

#### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

#### FieldsToCheck

A list of field names to check.

"myField"

**Result** Returns OK or error.

### Description

Same as Audit.Changed2, but uses Backup for the action field.

You can call this function before loading a record to make sure all data from the record are logged. Than you are sure to have old values for an undo.

### See also

- [38.1 Audit.Backup](#) 967
- [38.3 Audit.Changed](#) 970
- [38.4 Audit.Changed2](#) 974

### 38.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 27th October 2018, last changed 2nd April 2020.

### 38.3 Audit.Changed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Changed"; timestamp; TableName { ; FieldsToIgnore } )

#### Parameters

##### timestamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

##### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

##### FieldsToIgnore

Optional

A list of field names to ignore. Global fields and those set with Audit.SetIgnoredFieldNames are always ignored.

"myField"

**Result** Returns 1.

#### Description

In order to setup this for a table, please add two fields to the table. First a field called AuditTimeStamp which is of type timestamp. In the options enable in the Auto-Enter tab the option to set a new timestamp on modification. Next create a new field AuditState and make it a calculated value with the calculation MBS( "Audit.Changed"; AuditTimeStamp; TableName ). The Field "AuditTimeStamp" can be renamed to something like "sAuditTS" but has to be correctly referred to and should be included in the "Audit.SetIgnoredFieldNames" call if changed. By passing here an auto entered modification timestamp you make sure the plugin is informed about all changes to this table. Please uncheck the checkbox for "Do not replace existing value of field (if any)".

For logging you need a table named AuditLog with a few fields. Required are fields named FieldName, FieldHash, TableName, RecordID. Optionally you can add more fields: FieldValue, FieldOldValue, FieldType, UserName, IP, CurrentTimestamp, TimeStamp, CurrentTime, CurrentDate, Action, CurrentHostTimeStamp, PrivilegeSetName, AccountName, LayoutNumber, ApplicationVersion, FileName, HostApplicationVersion, HostName, HostIPAddress, LayoutName, PageNumber, LayoutTableName, TableID, FieldID, CurrentTimeUTCMilliseconds, ScriptName and WindowName.

The plugin will fill those fields with values evaluated from Get() function. FieldOldValue is only filled if we find an older log entry for the field based on the hash. With 4.2 plugin you can also use field Platform to know if plugin was executed on server or client.

You can get access of a record logged if you use a script trigger to set the AuditTimeStamp field with a new timestamp whenever a record is loaded.

This functions work even with separated files where data and layouts are in separated database files. The AuditLog table can be in a separated file as long as the plugin can find a table occurrence named "AuditLog", referencing to the original table which may be located in another FileMaker file and a layout based on this table occurrence, named "AuditLog", to write into the log.

The two fields AuditTimeStamp and AuditState can have different names. In that case we recommend to call Audit.SetIgnoredFieldNames in order to have the plugin ignore those fields. Or pass the field names to this function.

To get all your existing records introduced to this Audit Function, move over all records in a loop in a script and call Audit.Changed to log the current one. This helps to fill the FieldOldValue field. And finally if you like, you can even built yourself an undo mechanism by restoring changes.

On FileMaker 10 the Audit functions only work if tables and base tables have same name. Also we can't record FieldID or TableID on FileMaker 10. For FileMaker 11 and 12 everything works nice.

In the fields to ignore parameters you can pass extra values "FieldName | Value" to assign special values automatically to your fields. As this parameter can be build with a calculation, you can query variables or other tables for information you want to log. With plugin version 7.2 and newer this works for number fields in addition to text fields.

Table names are case sensitive. If you change case of a table name, the fields may be logged again. With plugin version 4.4 you can use \* on the end of the name to match all names starting with same text.

Indexes in the AuditLog table help to speedup the queries internally made by plugin. Especially indexes for the fields FieldHash, FieldName, RecordID and TableName.

Version 8.5 can use either FieldName or FieldID in AuditLog table to identify the field. For the value we prefer to use FieldHash, but if you have no such field, we use FieldValue. AuditLog field list is now queried via SQL instead of using a layout. So with version 8.5 the AuditLog layout is optional.

If there is a failure in the generated SQL, you may see it with FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastSQL functions.

### **Examples**

Log record on changes:

```
MBS( "Audit.Changed"; MyTable::AuditTimeStamp; "MyTable" )
```

Log record on changes except fields fullname and zipCity:

```
MBS( "Audit.Changed"; MyTable::AuditTimeStamp; "MyTable"; "fullname"; "zipCity" )
```

Log change and pass value for custom log field "InsideScript" with value of variable:

```
MBS("Audit.Changed"; AuditTimeStamp; "Audit"; "InsideScript | " & $$InsideScript)
```

Log changes and pass custom GUID field while also checking a global variable to disable auditing for batch imports:

```
If ($$AuditDisabled; 0;
MBS("Audit.Changed"; AuditTimeStamp; "Audit"; "GUID | " & GUID)
)
```

Run Audit.Changed with list of fields in a global field in the table:

```
Evaluate("MBS(\\"Audit.Changed\\"; GetAsTimeStamp(\\" & Events::AuditTimeStamp & \"); \\"Events\\";
\\" & Substitute(Events::AuditFields; "\$"; "\"; \") & \")")
```

Run Audit with GetFieldName with v8.3 or newer:

```
MBS("Audit.Changed2"; // call with positive list
AuditTimeStamp; // the timestamp field to trigger this
"Audit"; // the name of table
GetFieldName ( SomeText); // the fields to check
GetFieldName ( SomeNumber);
GetFieldName ( SomeTime);
GetFieldName ( SomeTimeStamp);
GetFieldName ( SomeContainer);
"InsideScript | " & $$InsideScript) // and we pass an extra field with global variable
```

### See also

- 38.1 Audit.Backup 967
- 38.2 Audit.Backup2 969
- 38.4 Audit.Changed2 974
- 38.17 Audit.SetEnabled 989
- 38.21 Audit.SetIgnoredFieldNames 993
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.11 FM.ExecuteSQL.LastSQL 4157

### Example Databases



- [Audit/Audit](#)

### **38.3.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr2](#)
- [MBS FileMaker Plugin, version 10.1pr4](#)
- [MBS FileMaker Plugin, version 8.5pr5](#)
- [Audit with MBS FileMaker Plugin](#)
- [Audit with MBS Plugin and FileMaker Server, works with FileMaker go!](#)
- [Audit Tip for Importing](#)
- [Introducing Audit Plugin Functions for Filemaker](#)

### **38.3.2 FileMaker Magazin**

- [Ausgabe 4/2017, Seite 40](#)

Created 18th August 2014, last changed 2nd April 2020.

## 38.4 Audit.Changed2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Changed2"; timestamp; TableName; FieldsToCheck )

### Parameters

#### timestamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

#### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

#### FieldsToCheck

A list of field names to check.

"myField"

**Result** Returns 1.

### Description

With plugin version 4.4 you can use \* on the end of the name to match all names starting with same text.

The Audit.Changed2 function with passing field list is quicker than the Audit.Changed function as we skip querying the field list from FileMaker.

### Examples

Log record on changes:

```
MBS( "Audit.Changed2"; MyTable::AuditTimeStamp; "MyTable"; "firstName"; "lastName"; "age" )
```

Run Audit.Changed2 with list of fields in a global field in the table:

```
Evaluate("MBS(\Audit.Changed2\"; GetAsTimeStamp(\\" & Events::AuditTimeStamp & "\"); \Events\";  
\\" & Substitute(Events::AuditFields; "$"; "\"; \") & "\")")
```

Run Audit with GetFieldName with v8.3 or newer:

```
MBS("Audit.Changed2"; // call with positive list  
AuditTimeStamp; // the timestamp field to trigger this  
"Audit"; // the name of table  
GetFieldName ( SomeText); // the fields to check  
GetFieldName ( SomeNumber);  
GetFieldName ( SomeTime);  
GetFieldName ( SomeTimeStamp);
```

38.4. *AUDIT.CHANGED2* 975

```
GetFieldName ( SomeContainer);  
"InsideScript | " & $$InsideScript) // and we pass an extra field with global variable
```

#### See also

- 38.2 Audit.Backup2 969
- 38.3 Audit.Changed 970
- 38.17 Audit.SetEnabled 989

#### Example Databases

- [Audit/Event Management with Audit/Event Management with Audit](#)

#### 38.4.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)
- [Audit with MBS FileMaker Plugin](#)

#### 38.4.2 FileMaker Magazin

- Ausgabe 4/2017, Seite 41
- Ausgabe 4/2017, Seite 40

Created 18th August 2014, last changed 2nd April 2020.

## 38.5 Audit.ClearCaches

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.ClearCaches" )

**Result** Returns OK on success.

### Description

The plugin caches information about which fields belong to which tables and what type a field has for up to a minute.

### 38.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr6](#)
- [MBS Filemaker Plugin, version 3.1pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 38.6 Audit.Delete

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Delete"; TimeStamp; TableName { ; FieldsToIgnore } )

### Parameters

#### TimeStamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

#### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

#### FieldsToIgnore

Optional

A list of field names to ignore. Global fields and those set with Audit.SetIgnoredFieldNames are always ignored.

"myField"

**Result** Returns 1.

### Description

In order to log record deletion, please go to "Manage Accounts & Privileges" dialog in FileMaker. Check the Privileges Sets tab and create a new custom privilege set. You can duplicate one of the existing ones like the "Data Entry Only" set. Edit the new privilege set and select for Records the custom privileges option in the popup menu. For the custom record privileges, you choose for delete the limited option in the popup menu. Now in the specify calculation dialog, you enter the function: MBS( "Audit.Delete" ). Done for this table. Repeat for other tables and for other privilege sets you need.

The plugin will analyse the record on deletion now and write down values to AuditLog table with Create/Changed entries if the record was not yet analyzed or not completely analyzed so far. Finally for a delete operation, it logs a delete entry.

In the fields to ignore parameters you can pass also "FieldName | Value" to assign special values automatically. As this parameter can be build with a calculation, you can query variables or other tables for information you want to log.

You can call Audit.SetIgnoredFieldNames in order to have the plugin ignore some fields. Or pass the field names to this function.

Be aware that even if you call this function from the calculation in privileges the deletion may be cancelled later and you have deleted logged, but not executed. You can work around by implementing your own dialog for user to cancel.

**Examples**

Log record on delete:

```
MBS( "Audit.Delete"; MyTable::AuditTimeStamp; "MyTable" )
```

**See also**

- [38.7 Audit.Delete2](#) 979
- [38.17 Audit.SetEnabled](#) 989
- [38.21 Audit.SetIgnoredFieldNames](#) 993

**38.6.1 Blog Entries**

- [Audit with MBS FileMaker Plugin](#)
- [Introducing Audit Plugin Functions for Filemaker](#)

**38.6.2 FileMaker Magazin**

- [Ausgabe 4/2017, Seite 41](#)

Created 18th August 2014, last changed 20th April 2020.

## 38.7 Audit.Delete2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.Delete2"; timestamp; TableName; FieldsToCheck )

### Parameters

#### timestamp

Pass here the timestamp field you added for auditing to the table.

AuditTimeStamp

#### TableName

The name of the table. With 10.2 optionally as second value the name of the audit log table unless you take the default AuditLog.

"Firma\$MyAuditLog"

#### FieldsToCheck

A list of field names to check.

"myField"

**Result** Returns 1.

### Description

### Examples

Log record on delete:

MBS( "Audit.Delete2"; MyTable::AuditTimeStamp; "MyTable"; "firstName"; "lastName"; "age" )

### See also

- [38.6 Audit.Delete](#) 977
- [38.17 Audit.SetEnabled](#) 989

### 38.7.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr6](#)

Created 18th August 2014, last changed 2nd April 2020.

## 38.8 Audit.FieldIDForName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.FieldIDForName"; TableName; FieldName )

### Parameters

#### TableName

The table name or ID. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"MyTable"

#### FieldName

The field name to lookup.

"123"

**Result** Returns text or error.

### Description

Returns empty result if not found.

### Examples

Queries field named for third field in a table by ID:

```
MBS( "Audit.FieldNameForID"; "1065089"; 3 )
```

Example result: "First"

Queries field name for 4th field:

```
MBS( "Audit.FieldNameForID"; "Contacts"; 4 )
```

Example result: "Last"

### See also

- [38.9 Audit.FieldNameForID](#) 981
- [38.24 Audit.TableIDForName](#) 997

### 38.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr4](#)

Created 20th April 2018, last changed 17th January 2020.



## 38.9 Audit.FieldNameForID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.FieldNameForID"; TableName; FieldID )

### Parameters

#### TableName

The table name or ID. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"MyTable"

#### FieldID

The field ID to lookup.

1

**Result** Returns field name or error.

### Description

Returns empty result if not found.

Version 8.2 allows you to pass table reference by ID.

### Examples

Query first field name in Kontakte:

MBS( "Audit.FieldNameForID"; "Kontakte"; 1 )

Example result: "KONTAKT\_ID ABGLEICHSFELD"

### See also

- 38.8 Audit.FieldIDForName 980
- 38.25 Audit.TableNameForID 998

### 38.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr4](#)

Created 20th January 2018, last changed 17th January 2020.

## 38.10 Audit.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetEnabled" )

**Result** Returns 1 or 0.

### Description

Returns 1 if enabled (default) or 0 if disabled.

### See also

- 38.17 Audit.SetEnabled

989

### 38.10.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 24th January 2017, last changed 24th January 2017.

## 38.11 Audit.GetIgnoreCalculations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetIgnoreCalculations" )

**Result** Returns 0 or 1.

**Description**

**See also**

- 38.18 Audit.SetIgnoreCalculations

990

### 38.11.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 25th September 2014, last changed 8th November 2015.

## 38.12 Audit.GetIgnoreSummaryFields

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetIgnoreSummaryFields" )

**Result** Returns 0 or 1.

**Description**

**See also**

- 38.19 Audit.SetIgnoreSummaryFields

991

### 38.12.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 8th November 2015, last changed 8th November 2015.

## 38.13 Audit.GetIgnoreUnderscoreFieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetIgnoreUnderscoreFieldNames" )

**Result** Returns 0 or 1.

### Description

Returns 1 if the audit function ignores field names starting with underscore character.

### See also

- 38.20 Audit.SetIgnoreUnderscoreFieldNames

992

Created 3th September 2015, last changed 3th September 2015.

## 38.14 Audit.GetIgnoredFieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetIgnoredFieldNames" )

**Result** Returns list.

**Description**

**See also**

- 38.21 Audit.SetIgnoredFieldNames

993

Created 15th May 2017, last changed 15th May 2017.

## 38.15 Audit.GetLogAccess

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetLogAccess" )

**Result** Returns 0 or 1.

### Description

See also [Audit.SetLogAccess](#).

### See also

- [38.22 Audit.SetLogAccess](#)

995

### 38.15.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 38.16 Audit.GetUUIDField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.GetUUIDField" )

**Result** Returns OK or error.

**Description**

**See also**

- 38.23 Audit.SetUUIDField

996

Created 15th May 2017, last changed 15th May 2017.



## 38.17 Audit.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetEnabled"; State )

### Parameters

#### State

The new state. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Default is enabled.

You can turn off for batch imports.

The Audit.Changed, Audit.Changed2, Audit.Delete and Audit.Delete2 functions return 1 if disabled, so any boolean operation using the result still works.

### Examples

Enable audit globally:

```
MBS( "Audit.SetEnabled"; 1 )
```

Disable audit globally:

```
MBS( "Audit.SetEnabled"; 0 )
```

### See also

- 38.3 Audit.Changed 970
- 38.4 Audit.Changed2 974
- 38.6 Audit.Delete 977
- 38.7 Audit.Delete2 979
- 38.10 Audit.GetEnabled 982

### 38.17.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 24th January 2017, last changed 25th January 2017.

## 38.18 Audit.SetIgnoreCalculations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetIgnoreCalculations"; Value )

### Parameters

#### Value

The new setting. 1 to ignore and 0 to audit.

1

**Result** Returns OK or error.

### Description

Unstored calculations are always ignored. This setting allows you to disable auditing of stored calculations. Due to field type caching, setting this property does not take effect immediately.

### See also

- 38.11 Audit.GetIgnoreCalculations

983

### 38.18.1 Blog Entries

- [Audit with MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)

### 38.18.2 FileMaker Magazin

- Ausgabe 4/2017, Seite 41

Created 25th September 2014, last changed 16th March 2017.

## 38.19 Audit.SetIgnoreSummaryFields

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetIgnoreSummaryFields"; Value )

### Parameters

#### Value

The new setting. 1 to ignore and 0 to audit.

1

**Result** Returns OK or error.

### Description

Unstored calculations are always ignored. This setting allows you to disable auditing of summary fields. Due to field type caching, setting this property does not take effect immediately.

### Examples

Disable summary field auditing:

```
MBS("Audit.SetIgnoreSummaryFields"; 1)
```

### See also

- [38.12 Audit.GetIgnoreSummaryFields](#)

984

### 38.19.1 Blog Entries

- [Audit with MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 8th November 2015, last changed 8th November 2015.

## 38.20 Audit.SetIgnoreUnderscoreFieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetIgnoreUnderscoreFieldNames"; Value )

### Parameters

#### Value

The new setting. Can be 0 or 1.

1

**Result** Returns OK or error.

### Description

If you have internal fields in a table like creation date and you store it in a field starting with `_` in the name, we can automatically ignore those fields.

### Examples

Enable ignoring of underscore field names:

MBS( "Audit.SetIgnoreUnderscoreFieldNames"; 1 )

### See also

- [38.13 Audit.GetIgnoreUnderscoreFieldNames](#) 985

### 38.20.1 Blog Entries

- [Audit with MBS FileMaker Plugin](#)

Created 3th September 2015, last changed 3th September 2015.

## 38.21 Audit.SetIgnoredFieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetIgnoredFieldNames"; fields )

### Parameters

#### fields

The field name to ignore. Pass one parameter per field. Version 7.3 or newer accepts a list of names here. "MyField"

**Result** Returns OK on success.

### Description

Default is "AuditState" and "AuditTimeStamp".

Best you call it once at startup of your solution.

With plugin version 4.4 you can use \* on the end of the name to match all names starting with same text.

This list is not limited. You can make a list as long as stuff fit in memory.

With plugin version 7.3 this can be a list of field names in each fields parameter.

### Examples

Set ignored field names:

```
MBS( "Audit.SetIgnoredFieldNames"; "sAuditState"; "sAuditTimeStamp" )
```

Set ignored field names with a list of names:

```
MBS( "Audit.SetIgnoredFieldNames"; "sAuditState$sAuditTimeStamp" )
```

### See also

- [38.1 Audit.Backup](#) 967
- [38.3 Audit.Changed](#) 970
- [38.6 Audit.Delete](#) 977
- [38.14 Audit.GetIgnoredFieldNames](#) 986

### 38.21.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [Audit with MBS FileMaker Plugin](#)
- [Introducing Audit Plugin Functions for Filemaker](#)

- [MBS Filemaker Plugin, version 2.8pr9](#)

Created 18th August 2014, last changed 2nd June 2017.

## 38.22 Audit.SetLogAccess

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetLogAccess"; value )

### Parameters

#### value

The new setting. Can be 0 or 1.

0

**Result** Returns OK or error.

### Description

If a record is modified which the plugin does not log as fields are disabled for logging, the plugin will write an entry with access action. If you set this to zero, the access log entry is not written.

See also [Audit.GetLogAccess](#).

### Examples

Disable access logging:

MBS( "Audit.SetLogAccess"; 0 )

### See also

- [38.15 Audit.GetLogAccess](#)

987

### 38.22.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr3](#)

Created 18th August 2014, last changed 13th February 2015.

## 38.23 Audit.SetUUIDField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.SetUUIDField"; FieldName )

### Parameters

#### FieldName

The field name.

"UUID"

**Result** Returns OK or error.

### Description

If set, we use UUIDs for Record IDs. The name given here should be used in all tables for the unique ID field.

If no field with that name is in a table, we fall back to the normal RecordID.

Please add a field named UUID to the AuditLog table (and layout), so the plugin can fill and query this field.

### Examples

Defines UUID to be the field where we store unique record IDs:

MBS( "Audit.SetUUIDField"; "UUID" )

### See also

- 38.16 Audit.GetUUIDField

988

### 38.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 15th May 2017, last changed 15th May 2017.



## 38.24 Audit.TableIDForName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.TableIDForName"; TableName )

### Parameters

#### TableName

The table name to lookup.  
"Contacts"

**Result** Returns text or error.

### Description

Returns empty result if not found.

### Examples

Queries ID for name:

MBS( "Audit.TableIDForName"; "Contacts" )

Example result: 1065089

### See also

- 38.8 Audit.FieldIDForName

980

### 38.24.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr4](#)

Created 20th April 2018, last changed 20th April 2018.

## 38.25 Audit.TableNameForID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
38 Audit	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "Audit.TableNameForID"; TableID )

### Parameters

#### TableID

The table ID to lookup.

1

**Result** Returns name or error.

### Description

Returns empty result if not found.

### Examples

Query table name:

MBS( "Audit.TableNameForID"; 1065089 )

Example result: "Kontakte"

### See also

- 38.9 Audit.FieldNameForID

981

Created 20th January 2018, last changed 20th January 2018.

# Chapter 39

## AVAsset

Modern functions on OS X to query metadata from movie files.

Extract video frames, query lyrics and other metadata from video files. Use AVExport functions to convert videos or extract snippet to new video file.

### 39.1 AVAsset.AvailableMetadataFormats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.AvailableMetadataFormats"; Asset )

#### Parameters

##### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns list or error.

#### Description

Metadata formats may include ID3, iTunes metadata, and so on.

#### Examples

Queries available metadata formats:

MBS( "AVAsset.AvailableMetadataFormats"; \$asset )

**See also**

- 39.14 AVAsset.MetadataKeys 1014
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

### Example Databases

- [Mac only/Movies/AVAsset Test](#)

Created 19th June 2015, last changed 19th June 2015.

## 39.2 AVAsset.Duration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Duration"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns value or error.

### Description

### Examples

Query duration of a video:

MBS( "AVAsset.Duration"; \$asset)

### See also

- [39.17 AVAsset.OpenContainer](#) 1018
- [39.18 AVAsset.OpenFile](#) 1020
- [39.19 AVAsset.OpenURL](#) 1022

### Example Databases

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Test](#)

Created 19th June 2015, last changed 7th October 2015.

### 39.3 AVAsset.Framerate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Framerate"; Asset )

#### Parameters

##### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns number or error.

#### Description

Actual frame rate may be variable.

#### Examples

Queries framerate for file:

```
Set Variable [ $Asset; Value:MBS( "AVAsset.OpenFile"; "/Users/cs/Desktop/test.mp4" ) ]
```

```
Set Variable [ $Framerate; Value:MBS( "AVAsset.Framerate"; $Asset ) ]
```

```
Set Variable [ $r; Value:MBS( "AVAsset.Release"; $Asset ) ]
```

```
Show Custom Dialog [ "Framerate"; $Framerate ]
```

#### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.22 AVAsset.Release 1026

Created 1st August 2015, last changed 24th February 2016.

## 39.4 AVAsset.HasProtectedContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.HasProtectedContent"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks protection status:

MBS( "AVAsset.HasProtectedContent"; \$status)

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 29th July 2017.

## 39.5 AVAsset.Image

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Image"; Asset; Time { ; ImageType; Filename; Width; Height } )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

#### Time

The position in the video in seconds.

5.2

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

#### Width

Optional

The maximum width to use.

500

#### Height

Optional

The maximum height to use.

500

**Result** Returns container value with image or error.

### Description

The time may not exactly be possible, so a nearby frame may be picked.

You can call AVAsset.RequestImageTimePrecision before to request exact timings for images. Query AVAsset.ImageActualTime function to see which time the image was created from.

### Examples

Queries image at 5 seconds:

```
MBS( "AVAsset.Image"; $asset; 5; "jpeg"; "preview.jpg")
```

### See also



39.5. AVASSET.IMAGE	1005
• 39.6 AVAsset.ImageActualTime	1006
• 39.17 AVAsset.OpenContainer	1018
• 39.18 AVAsset.OpenFile	1020
• 39.19 AVAsset.OpenURL	1022
• 39.24 AVAsset.RequestImageTimePrecision	1029
• 136.4 QTMovie.FrameImageAtTime	6695

### Example Databases

- [iOS/Movie Container iOS and Mac](#)
- [Mac only/Movies/AVAsset Test](#)

Created 19th June 2015, last changed 21st February 2018.

## 39.6 AVAsset.ImageActualTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	6.5	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.ImageActualTime"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns number or error.

### Description

After a call to AVAsset.Image, this returns the time of the picture you got.  
Returns number of seconds.

### Examples

Query image and time:

```
Set Variable [ $a ; Value: MBS( "AVAsset.OpenFile"; "/Users/cs/Desktop/Trampolin.mov" ) ]
```

```
Set Field [ test::Image ; MBS( "AVAsset.Image"; $a; 5; "JPEG"; "frame.jpg" ) ]
```

```
Show Custom Dialog [ "Image requested at 5 seconds and got image from:" ; MBS( "AVAsset.ImageActualTime"; $a ) ]
```

```
Set Variable [ $r ; Value: MBS( "AVAsset.Release"; $a ) ]
```

### See also

- 39.5 AVAsset.Image 1004
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.22 AVAsset.Release 1026

### 39.6.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr4](#)

Created 20th October 2016, last changed 25th November 2017.

## 39.7 AVAsset.IsComposable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.IsComposable"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks composable status:

MBS( "AVAsset.IsComposable"; \$asset)

### See also

- 39.8 AVAsset.IsExportable 1008
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.

## 39.8 AVAsset.IsExportable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.IsExportable"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks export status:

MBS( "AVAsset.IsExportable"; \$asset)

### See also

- 39.7 AVAsset.IsComposable 1007
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.

## 39.9 AVAsset.IsPlayable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.IsPlayable"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks play status:

MBS( "AVAsset.IsPlayable"; \$asset)

### See also

- 39.10 AVAsset.IsReadable 1010
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 9th June 2018.

## 39.10 AVAsset.IsReadable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.IsReadable"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use `AVAsset.OpenContainer`, `AVAsset.OpenFile` or `AVAsset.OpenURL` function to get asset reference.

\$asset

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks play status:

MBS( "AVAsset.IsReadable"; \$asset)

### See also

- 39.9 AVAsset.IsPlayable 1009
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.

## 39.11 AVAsset.Loaded

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Loaded"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns status or error.

### Description

Returns status like Loading, Loaded, Cancelled, Failed or Unknown.  
If status starts with "Failed: ", it is followed by a reason.

### Examples

Load and check status:

```
Set Variable [ $Asset; Value:MBS( "AVAsset.OpenFile"; "/Users/cs/Desktop/test.mp4" ) ]
Set Variable [ $Loaded1; Value:MBS( "AVAsset.Loaded"; $Asset ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $Loaded2; Value:MBS( "AVAsset.Loaded"; $Asset ) ]
Set Variable [ $r; Value:MBS( "AVAsset.Release"; $Asset ) ]
Show Custom Dialog [ "Loaded"; $Loaded1 & $& $Loaded2 ]
```

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.22 AVAsset.Release 1026
- 39.29 AVAsset.WaitForLoaded 1038

Created 19th June 2015, last changed 24th February 2016.

## 39.12 AVAsset.Lyrics

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Lyrics"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns text or error.

### Description

Can be empty.

### Examples

Queries lyrics:

MBS( "AVAsset.Lyrics"; \$asset)

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.



## 39.13 AVAsset.Metadata

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Metadata"; Asset; Key )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

#### Key

The metadata key to query.

**Result** Returns OK or error.

### Description

### Examples

Queries title:

MBS( "AVAsset.Metadata"; "40001"; "uiso/titl" )

### See also

- [39.14 AVAsset.MetadataKeys](#) 1014
- [39.17 AVAsset.OpenContainer](#) 1018
- [39.18 AVAsset.OpenFile](#) 1020
- [39.19 AVAsset.OpenURL](#) 1022

### Example Databases

- [Mac only/Movies/AVAsset Test](#)

Created 19th June 2015, last changed 19th June 2015.

## 39.14 AVAsset.MetadataKeys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.MetadataKeys"; Asset { ; Format } )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

#### Format

Optional

The metadata format to use.

"com.apple.quicktime.udta"

**Result** Returns list or error.

### Description

You can pass empty format to query all keys.

Or you use AVAsset.AvailableMetadataFormats to query the list of formats and limit query to only the given format.

### Examples

Queries metadata keys:

MBS( "AVAsset.MetadataKeys"; "40001" )

### See also

- 39.1 AVAsset.AvailableMetadataFormats 999
- 39.13 AVAsset.Metadata 1013
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

### Example Databases

- [Mac only/Movies/AVAsset Test](#)

#### 39.14.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 19th June 2015, last changed 5th July 2015.

## 39.15 AVAsset.NaturalHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.NaturalHeight"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns value or error.

### Description

### Examples

Query size of video:

MBS( "AVAsset.NaturalWidth"; \$asset) & "x" & MBS( "AVAsset.NaturalHeight"; \$asset)

### See also

- 39.16 AVAsset.NaturalWidth 1017
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.

## 39.16 AVAsset.NaturalWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.NaturalWidth"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns value or error.

### Description

### Examples

Query size of video:

MBS( "AVAsset.NaturalWidth"; \$asset) & "x" & MBS( "AVAsset.NaturalHeight"; \$asset)

### See also

- 39.15 AVAsset.NaturalHeight 1016
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 19th June 2015.

## 39.17 AVAsset.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.OpenContainer"; Container )

### Parameters

#### Container

The container with the movie file.

MyTable::MovieContainer

**Result** Returns asset reference number or error.

### Description

Should work for external and internal containers.

Please allow a second to load video in background asynchronously.

Available in OS X v10.7 and later.

Please call AVAsset.Release later to free object from memory.

### Examples

Open movie from container:

```
MBS( "AVAsset.OpenContainer"; MyTable::MyContainer )
```

Close it later

```
MBS( "AVAsset.Release"; $asset )
```

### See also

- 39.12 AVAsset.Lyrics 1012
- 39.13 AVAsset.Metadata 1013
- 39.14 AVAsset.MetadataKeys 1014
- 39.16 AVAsset.NaturalWidth 1017
- 39.20 AVAsset.PreferredRate 1024
- 39.21 AVAsset.PreferredVolume 1025
- 39.22 AVAsset.Release 1026
- 39.25 AVAsset.TimeCodes 1031
- 39.28 AVAsset.URL 1037

39.17. AVASSET.OPENCONTAINER	1019
• 40.8 AVExport.ExportSessionMerge	1052

### Example Databases

- [Mac and iOS/AVAsset Tracks](#)
- [Mac only/Movies/AVAsset Test](#)

#### 39.17.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 19th June 2015, last changed 30th May 2017.

## 39.18 AVAsset.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.OpenFile"; Path )

### Parameters

#### Path

The native file path to the movie file.

"/Test.mov"

**Result** Returns asset reference number or error.

### Description

Please allow a second to load video in background asynchronously.  
Available in OS X v10.7 and later.

Please call AVAsset.Release later to free object from memory.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Opens a movie file:

```
MBS( "AVAsset.OpenFile"; "/Users/cs/Desktop/test.mp4" )
```

Close it later

```
MBS( "AVAsset.Release"; $asset )
```

### See also

- 39.6 AVAsset.ImageActualTime 1006
- 39.11 AVAsset.Loaded 1011
- 39.13 AVAsset.Metadata 1013
- 39.14 AVAsset.MetadataKeys 1014
- 39.22 AVAsset.Release 1026
- 39.24 AVAsset.RequestImageTimePrecision 1029
- 39.26 AVAsset.TrackCount 1032



<i>39.18. AVASSET.OPENFILE</i>	1021
• 39.28 AVAsset.URL	1037
• 39.29 AVAsset.WaitForLoaded	1038
• 40.7 AVExport.ExportSession	1049

### **Example Databases**

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 19th June 2015, last changed 30th May 2017.

## 39.19 AVAsset.OpenURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.OpenURL"; URL )

### Parameters

#### URL

The URL of the movie to open.

"http://example.test/mysound.mp3"

**Result** Returns asset reference number or error.

### Description

Please allow a second to load video in background asynchronously.  
Available in OS X v10.7 and later.

Please call AVAsset.Release later to free object from memory.

### Examples

Opens movie file with URL:

MBS( "AVAsset.OpenURL"; "file:/Users/cs/Desktop/test.mp4" )

Close it later

MBS( "AVAsset.Release"; \$asset )

### See also

- 39.9 AVAsset.IsPlayable 1009
- 39.11 AVAsset.Loaded 1011
- 39.14 AVAsset.MetadataKeys 1014
- 39.16 AVAsset.NaturalWidth 1017
- 39.18 AVAsset.OpenFile 1020
- 39.25 AVAsset.TimeCodes 1031
- 39.26 AVAsset.TrackCount 1032
- 39.29 AVAsset.WaitForLoaded 1038
- 40.7 AVExport.ExportSession 1049
- 40.8 AVExport.ExportSessionMerge 1052

Created 19th June 2015, last changed 30th May 2017.

## 39.20 AVAsset.PreferredRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.PreferredRate"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns value or error.

### Description

This value is often, but not always, 1.0.

### Examples

Query preferred rate:

MBS( "AVAsset.PreferredRate"; \$asset)

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.21 AVAsset.PreferredVolume 1025

Created 19th June 2015, last changed 19th June 2015.

## 39.21 AVAsset.PreferredVolume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.PreferredVolume"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns value or error.

### Description

Range from 0 to 1. This value is often, but not always, 1.0.

### Examples

Query preferred volume:

MBS( "AVAsset.PreferredVolume"; \$asset)

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.20 AVAsset.PreferredRate 1024

Created 19th June 2015, last changed 19th June 2015.

## 39.22 AVAsset.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.Release"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use `AVAsset.OpenContainer`, `AVAsset.OpenFile` or `AVAsset.OpenURL` function to get asset reference.

\$asset

**Result** Returns OK or error.

### Description

Please call this when you are done with an asset.

### Examples

Release a video:

MBS( "AVAsset.Release"; \$asset)

### See also

- [39.3 AVAsset.Framerate](#) 1002
- [39.6 AVAsset.ImageActualTime](#) 1006
- [39.11 AVAsset.Loaded](#) 1011
- [39.18 AVAsset.OpenFile](#) 1020
- [39.19 AVAsset.OpenURL](#) 1022
- [39.23 AVAsset.ReleaseAll](#) 1028
- [39.25 AVAsset.TimeCodes](#) 1031
- [39.29 AVAsset.WaitForLoaded](#) 1038
- [40.7 AVExport.ExportSession](#) 1049
- [41.4 AVPlayer.GetAsset](#) 1076

### Example Databases

- [iOS/Movie Container iOS and Mac](#)
- [Mac and iOS/AVAsset Tracks](#)

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)
- [Mac only/Movies/AVAsset Test](#)

Created 19th June 2015, last changed 9th January 2018.

## 39.23 AVAsset.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	10.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.ReleaseAll" )

**Result** Returns OK or error.

### Description

You should better use AVAsset.Release with the reference numbers you got earlier as this function releases all objects and that may include objects from other scripts.

### See also

- [39.22 AVAsset.Release](#) 1026
- [41.28 AVPlayer.ReleaseAll](#) 1103

### 39.23.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 17th April 2020, last changed 17th April 2020.



## 39.24 AVAsset.RequestImageTimePrecision

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	6.5	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.RequestImageTimePrecision"; Asset; toleranceBefore; toleranceAfter )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

#### toleranceBefore

Time tolerance in seconds before requested time.

0

#### toleranceAfter

Time tolerance in seconds after requested time.

0

**Result** Returns OK or error.

### Description

The actual time of the generated images will be within the range [ requestedTime-toleranceBefore, requestedTime+toleranceAfter ] and may differ from the requested time for efficiency.

Pass 0 for both toleranceBefore and toleranceAfter to request frame-accurate image generation; this may incur additional decoding delay. Default is infinity.

### Examples

Request exact timing:

```
MBS("AVAsset.RequestImageTimePrecision"; $asset; 0; 0)
```

Request  $\pm$  0.5 seconds

```
MBS("AVAsset.RequestImageTimePrecision"; $asset; 0.5; 0.5)
```

### See also

- 39.5 AVAsset.Image 1004
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

### 39.24.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr4](#)

Created 20th October 2016, last changed 20th October 2016.

## 39.25 AVAsset.TimeCodes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.TimeCodes"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns text or error.

### Description

Returns list of timecodes in format HH:MM:SS:FF.

### Examples

Read time codes from a mov file:

```
Set Variable [ $asset; Value:MBS("AVAsset.OpenFile"; "/Users/cs/Downloads/test.MOV") ]
```

```
Set Variable [ $timecode; Value:MBS("AVAsset.TimeCodes"; $asset) ]
```

```
Set Variable [ $r; Value:MBS("AVAsset.Release"; $asset) ]
```

```
Set Field [ test::timecodes; $timecode ]
```

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.22 AVAsset.Release 1026

### 39.25.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 7th October 2015, last changed 7th October 2015.

## 39.26 AVAsset.TrackCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.TrackCount"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns track count or error.

### Description

### Examples

Query track count:

MBS( "AVAsset.TrackCount"; \$asset)

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.27 AVAsset.TrackInfo 1033

### Example Databases

- [Mac and iOS/AVAsset Tracks](#)

Created 19th June 2015, last changed 19th June 2015.

## 39.27 AVAsset.TrackInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.TrackInfo"; Asset; TrackIndex; Selector )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

#### TrackIndex

The track index from 0 to AVAsset.TrackCount-1.

0

#### Selector

Which value to get.

"MediaType"

**Result** Returns OK or error.

### Description

Allows you to query values for track.

### Examples

Query media subtype:

MBS( "AVAsset.TrackInfo"; \$Asset; 0; "MediaSubType" )

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.26 AVAsset.TrackCount 1032

### Example Databases

- [Mac and iOS/AVAsset Tracks](#)

### 39.27.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr1](#)



Selector	Description
trackID	Indicates the persistent unique identifier for this track of the asset
mediaType	Indicates the media type for this track as 4 letter code. e.g. "vide" for video or "soun" for sound.
playable	Indicates whether the receiver is playable in the current environment.
enabled	Indicates whether the track is enabled according to state stored in its container or construct.
selfContained	Indicates whether the track references sample data only within its storage container.
totalSampleDataLength	Indicates the total number of bytes of sample data required by the track.
estimatedDataRate	Indicates the estimated data rate of the media data referenced by the track, in units of bits per second.
naturalTimeScale	Indicates a timescale in which time values for the track can be operated upon without extraneous numerical conversion.
languageCode	Indicates the language associated with the track, as an ISO 639-2/T language code; may be "" if no language is indicated.
extendedLanguageTag	Indicates the language tag associated with the track, as an IETF BCP 47 (RFC 4646) language identifier; may be "" if no language tag is indicated.
naturalWidth	Indicates the natural dimensions of the media data referenced by the track.
naturalHeight	Indicates the natural dimensions of the media data referenced by the track.
preferredVolume	Indicates the volume specified in the track's storage container as the preferred volume of the audible media data.
nominalFrameRate	For tracks that carry a full frame per media sample, indicates the frame rate of the track in units of frames per second.
minFrameDuration	Indicates the minimum duration of the track's frames; the value will be kCM-TimeInvalid if the minimum frame duration is not known or cannot be calculated.
timeRangeStart	Indicates the time range of the track within the overall timeline of the asset
timeRangeDuration	Indicates the time range of the track within the overall timeline of the asset
preferredTransform	Indicates the transform specified in the track's storage container as the preferred transformation of the visual media data for display purposes; its value is often but not always identity
MediaSubType	The media subtype (codec).

Code	Name	Description
2vuy	422YpCbCr8	Component Y'CbCr 8-bit 4:2:2 ordered Cb Y'0 Cr Y'1
rle	Animation	Apple Animation format
cvid	Cinepak	Cinepak format
jpeg	JPEG	Joint Photographic Experts Group (JPEG) format
dmb1	JPEG_OpenDML	JPEG format with Open-DML extensions
SVQ1	SorensonVideo	Sorenson video format
SVQ3	SorensonVideo3	Sorenson 3 video format
h263	H263	ITU-T H.263 format
avc1	H264	ITU-T H.264 format (AKA ISO/IEC 14496-10 - MPEG-4 Part 10, Advanced Video Coding format)
hvc1	HEVC	ITU-T HEVC format
mp4v	MPEG4Video	ISO/IEC Moving Picture Experts Group (MPEG) MPEG-4 Part 2 video format
mp2v	MPEG2Video	MPEG-2 video format
mp1v	MPEG1Video	MPEG-1 video format
dvc	DVCNTSC	DV NTSC format
dvcv	DVCPAL	DV PAL format
dvpp	DVCProPAL	Panasonic DVCPro PAL format
dv5n	DVCPro50NTSC	Panasonic DVCPro-50 NTSC format
dv5p	DVCPro50PAL	Panasonic DVCPro-50 PAL format
dvhp	DVCProHD720p60	Panasonic DVCPro-HD 720p60 format
dvhq	DVCProHD720p50	Panasonic DVCPro-HD 720p50 format
dvh6	DVCProHD1080i60	Panasonic DVCPro-HD 1080i60 format
dvh5	DVCProHD1080i50	Panasonic DVCPro-HD 1080i50 format
dvh3	DVCProHD1080p30	Panasonic DVCPro-HD 1080p30 format
dvh2	DVCProHD1080p25	Panasonic DVCPro-HD 1080p25 format
ap4h	AppleProRes4444	Apple ProRes 4444 format
apch	AppleProRes422HQ	Apple ProRes 422 HQ format
apcn	AppleProRes422	Apple ProRes 422 format
apcs	AppleProRes422LT	Apple ProRes 422 LT format
apco	AppleProRes422Proxy	Apple ProRes 422 Proxy format



**39.28 AVAsset.URL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.URL"; Asset )

**Parameters****Asset**

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns URL as text or error.

**Description**

Empty if no URL is available.

**Examples**

Queries URL used to open movie:

MBS( "AVAsset.URL"; \$asset)

**See also**

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

Created 19th June 2015, last changed 30th May 2017.

## 39.29 AVAsset.WaitForLoaded

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
39 AVAsset	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "AVAsset.WaitForLoaded"; Asset )

### Parameters

#### Asset

The reference number of the asset. Please use AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL function to get asset reference.

\$asset

**Result** Returns status or error.

### Description

Returns status like Loading, Loaded, Cancelled, Failed or Unknown.

If status starts with "Failed: ", it is followed by a reason.

While AVAsset.Loaded returns directly and may return "Loading", this function can be called after AVAsset.OpenFile, AVAsset.OpenURL or AVAsset.OpenContainer to have the script wait for assets to load.

### Examples

Load asset:

```
Set Variable [ $path ; Value: "/Users/cs/Movies/video.mov" ]
Set Variable [ $asset ; Value: MBS("AVAsset.OpenFile"; $path) ]
# now wait a few milliseconds to load
Set Variable [ $r1 ; Value: MBS( "AVAsset.WaitForLoaded"; $asset ) ]
# check status
Set Variable [ $r2 ; Value: MBS( "AVAsset.Loaded"; $asset ) ]
Show Custom Dialog [ "Loaded" ; $r1 & $r2 ]
Set Variable [ $r3 ; Value: MBS( "AVAsset.Release"; $asset ) ]
```

### See also

- 39.11 AVAsset.Loaded 1011
- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 39.22 AVAsset.Release 1026

### Example Databases

- [Mac and iOS/AVExport](#)

### 39.29.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 9th January 2018, last changed 9th January 2018.



# Chapter 40

## AVExport

Modern functions on OS X to transcode video in different format.

Can be used to compress videos as MPEG 4 video file or extract a part of the video to a new file.

### 40.1 AVExport.AllExportPresets

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.AllExportPresets" )

**Result** Returns list or error.

#### Description

Apple may add new export presets, so you can use this function to determinate which presets are available for the given OS X installation.

#### Examples

Query all presets:

MBS("AVExport.AllExportPresets")

#### See also

- 40.7 AVExport.ExportSession 1049
- 40.8 AVExport.ExportSessionMerge 1052

#### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)



## 40.2 AVExport.CancelExport

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.CancelExport"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns OK or error.

### Description

Cancel can be invoked when the export is running.

### Examples

Cancel export:

```
Set Variable [ $r; Value:MBS( "AVExport.CancelExport"; $$AVExport ) ]
```

### Example Databases

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.3 AVExport.Duration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.Duration"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns number or error.

### Description

Returns duration in seconds.

### Examples

Query duration:

```
Set Field [ AVAsset Export Session::Duration; MBS( "AVExport.Duration"; $$AVExport ) ]
```

### See also

- [40.7 AVExport.ExportSession](#) 1049
- [135.2 QTExport.Duration](#) 6665

### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.



## 40.4 AVExport.Error

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.Error"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

### See also

- 40.23 AVExport.Status

1069

### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 29th February 2016.

## 40.5 AVExport.EstimatedOutputFileLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.EstimatedOutputFileLength"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns number or error.

### Description

Returns zero when export preset is Passthrough or AppleProRes422LPCM. This property will also return zero if a numeric value (ie. not invalid, indefinite, or infinite) for the timeRange property has not been set.

### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 29th February 2016.

## 40.6 AVExport.ExportAsynchronously

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.ExportAsynchronously"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns OK or error.

### Description

Starts the asynchronous execution of an export session.

If internal preparation for export fails, the export fails directly.

You must set output path or URL before starting export.

Please check AVExport.Status and AVExport.Progress regularly for updates.

### Examples

Start export:

```
Set Variable [ $r; Value:MBS( "AVExport.ExportAsynchronously"; $$AVExport ) ]
```

```
If [ MBS("ISError") ]
```

```
Show Custom Dialog [ "Failed to start export session"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
```

```
Exit Script [ ]
```

```
End If
```

```
Install OnTimer Script [ "Update Status"; Interval: .5 ]
```

### See also

- [40.16 AVExport.Progress](#) 1061
- [40.18 AVExport.SetOutputFileType](#) 1063
- [40.23 AVExport.Status](#) 1069
- [127.6 IsError](#) 6374
- [167.57 Text.RemovePrefix](#) 7982

### Example Databases

- [Mac and iOS/AVExport](#)

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.7 AVExport.ExportSession

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.ExportSession"; Asset; Preset )

### Parameters

#### Asset

The reference number of the asset. Please use `AVAsset.OpenContainer`, `AVAsset.OpenFile` or `AVAsset.OpenURL` function to get asset reference.

\$asset

#### Preset

The preset name to use. Can be one of the presets returned by `AVExport.AllExportPresets` or one of the predefined ones:

"640x480"

**Result** Returns reference number or error.

### Description

Returns a reference number for the new `AVAsset` export session for the specified source asset and preset.

Presets:

These export options can be used to produce movie files with video size appropriate to the device. The export will not scale the video up from a smaller size. The video will be compressed using H.264 and the audio will be compressed using AAC.

LowQuality	Low Quality	OS X 10.11 and newer
MediumQuality	Medium Quality	OS X 10.11 and newer
HighestQuality	High Quality	OS X 10.11 and newer

These export options can be used to produce movie files with the specified video size.

The export will not scale the video up from a smaller size. The video will be compressed using H.264 and the audio will be compressed using AAC. Some devices cannot support some sizes.

640x480	VGA Resolution, 640 x 480 Pixel	OS X 10.7 and newer
960x540	Half HD Resolution, 960 x 540 Pixel	OS X 10.7 and newer
1280x720	720p Resolution, 1280 x 720 Pixel	OS X 10.7 and newer
1920x1080	Full HD Resolution, 1920 x 1080 Pixel,	OS X 10.7 and newer
3840x2160	4K Resolution, 3840 x 2160	OS X 10.10 and newer

These export options are used to produce files that can be played on the specified Apple devices. These presets are available for Desktop export only. The files should have .m4v extensions (or .m4a for exports

with audio only sources).

AppleM4VCellular	Cellular	OS X 10.7 and newer
AppleM4ViPod	iPod	OS X 10.7 and newer
AppleM4V480pSD	480p SD	OS X 10.7 and newer
AppleM4VAppleTV	AppleTV	OS X 10.7 and newer
AppleM4VWiFi	Wifi	OS X 10.7 and newer
AppleM4V720pHD	720p HD	OS X 10.7 and newer
AppleM4V1080pHD	1080p HD	OS X 10.8 and newer

Passthrough export option will cause the media of all tracks to be passed through to the output exactly as stored in the source asset, except for tracks for which passthrough is not possible, usually because of constraints of the container format as indicated by the specified `outputFileType`. This option is not included in the arrays returned by `AVExport.AllExportPresets`.

Passthrough	Pass through data if possible.	OS X 10.7 and newer
AppleM4A	Audio-only .m4a file with appropriate iTunes gapless playback data	OS X 10.7 and newer
AppleProRes422LPCM	QuickTime movie with Apple ProRes 422 video and LPCM audio.	OS X 10.7 and newer

## Examples

Create export session:

```

If [ not IsEmpty($$AVExport) ]
Show Custom Dialog [ "We have a session already!?" ]
Exit Script [ ]
End If
Set Variable [ $Asset; Value:MBS( "AVAsset.OpenFile"; AVAsset Export Session::Input File Path ) ]
Set Variable [ $$AVExport; Value:MBS( "AVExport.ExportSession"; $Asset; AVAsset Export Session::Pre-
setName ) ]
If [ MBS("IsError") ]
Set Variable [ $r; Value:MBS( "AVAsset.Release"; $Asset) ]
Show Custom Dialog [ "Failed to create export sessio..."; MBS("Text.RemovePrefix"; $$AVExport; " [ MBS
] ") ]
Exit Script [ ]
End If
Set Variable [ $r; Value:MBS( "AVAsset.Release"; $Asset) ]
Set Field [ AVAsset Export Session::Duration; MBS( "AVExport.Duration"; $$AVExport ) ]
Set Field [ AVAsset Export Session::SupportedFileTypes; MBS( "AVExport.SupportedFileTypes"; $$AVEx-
port ) ]

```

## See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022

40.7. <i>AVEXPORT.EXPORTSESSION</i>	1051
• 39.22 AVAsset.Release	1026
• 40.1 AVExport.AllExportPresets	1041
• 40.3 AVExport.Duration	1044
• 40.8 AVExport.ExportSessionMerge	1052
• 40.24 AVExport.SupportedFileTypes	1070
• 127.6 IsError	6374
• 167.57 Text.RemovePrefix	7982

### **Example Databases**

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.8 AVExport.ExportSessionMerge

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.2	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.ExportSessionMerge"; AssetList; Preset )

### Parameters

#### AssetList

A list of assets. Can contain reference numbers for assets obtained from AVAsset.OpenContainer, AVAsset.OpenFile or AVAsset.OpenURL. Or file paths to assets. (or a combination of both types)

"54001§54002§54003"

#### Preset

The preset name to use. Can be one of the presets returned by AVExport.AllExportPresets or one of the predefined ones:

"640x480"

**Result** Returns reference number or error.

### Description

Returns a reference number for the new AVAsset export session for the specified source assets and preset. The given assets are joined and exported together as one movie. They should match in size/type.

Same as AVExport.ExportSession, but takes a list of AVAssets.

### Examples

Export three videos:

```
MBS( "AVExport.ExportSessionMerge"; "/Users/cs/Movies/test1.m4v§/Users/cs/Movies/test2.m4v§/Users/cs/Movies/test3.m4v"; AVAsset Export Session::PresetName )
```

### See also

- 39.17 AVAsset.OpenContainer 1018
- 39.18 AVAsset.OpenFile 1020
- 39.19 AVAsset.OpenURL 1022
- 40.1 AVExport.AllExportPresets 1041
- 40.7 AVExport.ExportSession 1049

### Example Databases

- [Mac and iOS/AVExport](#)



### 40.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr7](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)

Created 31st March 2016, last changed 14th June 2016.

## 40.9 AVExport.GetOutputFileType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.GetOutputFileType"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

Indicates the type of file to be written by the session.

### See also

- 40.18 AVExport.SetOutputFileType

1063

Created 29th February 2016, last changed 29th February 2016.

## 40.10 AVExport.GetOutputPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.GetOutputPath"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

#### See also

- 40.11 AVExport.GetOutputURL 1056
- 40.19 AVExport.SetOutputPath 1064
- 40.20 AVExport.SetOutputURL 1066

Created 29th February 2016, last changed 29th February 2016.

## 40.11 AVExport.GetOutputURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.GetOutputURL"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

#### See also

- 40.10 AVExport.GetOutputPath 1055
- 40.19 AVExport.SetOutputPath 1064
- 40.20 AVExport.SetOutputURL 1066

Created 29th February 2016, last changed 29th February 2016.

**40.12 AVExport.GetShouldOptimizeForNetworkUse**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.GetShouldOptimizeForNetworkUse"; AVExportSession )

**Parameters****AVExportSession**

The session reference number.

\$AVExport

**Result** Returns 1, 0 or error.

**Description**

Indicates that the output file should be optimized for network use, e.g. that a QuickTime movie file should support "fast start".

Returns 1 when optimization is enabled.

**See also**

- 40.21 AVExport.SetShouldOptimizeForNetworkUse

1067

Created 29th February 2016, last changed 29th February 2016.

## 40.13 AVExport.GetTimeRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.GetTimeRange"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns value or error.

### Description

Result is returned a start time, §and duration, e.g. "60§180" for start after one minute and duration of 3 minutes.

### See also

- 40.22 AVExport.SetTimeRange

1068

Created 29th February 2016, last changed 29th February 2016.

## 40.14 AVExport.OutputFileExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.OutputFileExtension"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

Please set file type first via AVExport.SetOutputFileType.

### Examples

Export to desktop folder:

```
Set Field [ AVAsset Export Session::Output File Path; MBS("Path.AddPathComponent"; MBS("Folders.UserDesktop"); "test." & AVAsset Export Session::OutputFileExtension) ]
```

```
Set Variable [ $r; Value:MBS( "AVExport.SetOutputPath"; $$AVExport; AVAsset Export Session::Output File Path) ]
```

Set output file type and query default file extension:

```
Set Variable [ $r; Value:MBS( "AVExport.SetOutputFileType"; $$AVExport; AVAsset Export Session::OutputFileType ) ]
```

```
Set Field [ AVAsset Export Session::OutputFileExtension; MBS( "AVExport.OutputFileExtension"; $$AVExport ) ]
```

### See also

- [40.18 AVExport.SetOutputFileType](#) 1063
- [40.19 AVExport.SetOutputPath](#) 1064
- [40.20 AVExport.SetOutputURL](#) 1066
- [82.8 Folders.UserDesktop](#) 4235
- [124.1 Path.AddPathComponent](#) 6243

### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.15 AVExport.PresetName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.PresetName"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

Indicates the name of the preset with which the AVExportSession was initialized.

Created 29th February 2016, last changed 29th February 2016.



## 40.16 AVExport.Progress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.Progress"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns value or error.

### Description

The progress of the export on a scale from 0 to 1.0.

A value of 0 means the export has not yet begun, A value of 1.0 means the export is complete.

### See also

- [40.6 AVExport.ExportAsynchronously](#) 1047
- [40.23 AVExport.Status](#) 1069

### Example Databases

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 29th February 2016.

## 40.17 AVExport.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.Release"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns OK or error.

### Description

All memory is released.

Please call this when you are done with the export.

### Examples

Release export session:

```
Set Variable [ $r; Value:MBS("AVExport.Release"; $$AVExport) ]
```

```
Set Variable [ $$AVExport; Value:"" ]
```

### See also

- [135.13 QTExport.OpenExporter](#) 6677
- [135.15 QTExport.Release](#) 6680

### Example Databases

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

**40.18 AVExport.SetOutputFileType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SetOutputFileType"; AVExportSession; FileType )

**Parameters****AVExportSession**

The session reference number.

\$AVExport

**FileType**

The new file type.

"com.apple.quicktime-movie"

**Result** Returns OK or error.

**Description**

Indicates the type of file to be written by the session.

The value of this property must be set before you invoke `AVExport.ExportAsynchronously`; otherwise `AVExport.ExportAsynchronously` will return an error.

Setting the value of this property to a file type that's not among the session's supported file types will result in an error. See `AVExport.SupportedFileTypes`.

**Examples**

Set output file type and query default file extension:

```
Set Variable [ $r; Value:MBS( "AVExport.SetOutputFileType"; $$AVExport; AVAsset Export Session::OutputFileType ) ]
```

```
Set Field [ AVAsset Export Session::OutputFileExtension; MBS( "AVExport.OutputFileExtension"; $$AVExport ) ]
```

**See also**

- [40.6 AVExport.ExportAsynchronously](#) 1047
- [40.9 AVExport.GetOutputFileType](#) 1054
- [40.14 AVExport.OutputFileExtension](#) 1059
- [40.24 AVExport.SupportedFileTypes](#) 1070

**Example Databases**

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.19 AVExport.SetOutputPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SetOutputPath"; AVExportSession; Path )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

#### Path

The new native file path.

"/Users/cs/Desktop/test.mov"

**Result** Returns OK or error.

### Description

Indicates the native file path of the export session's output. You may use AVExport.OutputFileExtension to obtain an appropriate path extension for the outputFileType you have specified.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Export to desktop folder:

```
Set Field [ AVAsset Export Session::Output File Path; MBS("Path.AddPathComponent"; MBS("Folders.UserDesktop"); "test." & AVAsset Export Session::OutputFileExtension) ]
```

```
Set Variable [ $r; Value:MBS( "AVExport.SetOutputPath"; $$AVExport; AVAsset Export Session::Output File Path) ]
```

### See also

- 40.10 AVExport.GetOutputPath 1055
- 40.11 AVExport.GetOutputURL 1056
- 40.14 AVExport.OutputFileExtension 1059
- 40.20 AVExport.SetOutputURL 1066
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247

**Example Databases**

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.20 AVExport.SetOutputURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SetOutputURL"; AVExportSession; URL )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

#### URL

The new output URL.

**Result** Returns text or error.

### Description

Indicates the URL of the export session's output. You may use AVExport.OutputFileExtension to obtain an appropriate path extension for the outputFileType you have specified.

#### See also

- 40.10 AVExport.GetOutputPath 1055
- 40.11 AVExport.GetOutputURL 1056
- 40.14 AVExport.OutputFileExtension 1059
- 40.19 AVExport.SetOutputPath 1064

Created 29th February 2016, last changed 1st March 2016.

**40.21 AVExport.SetShouldOptimizeForNetworkUse**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SetShouldOptimizeForNetworkUse"; AVExportSession; Setting )

**Parameters****AVExportSession**

The session reference number.

\$AVExport

**Setting**

Pass 1 to enable optimization or 0 to disable.

1

**Result** Returns OK or error.

**Description**

Indicates that the output file should be optimized for network use, e.g. that a QuickTime movie file should support "fast start".

**See also**

- 40.12 AVExport.GetShouldOptimizeForNetworkUse

1057

Created 29th February 2016, last changed 29th February 2016.

## 40.22 AVExport.SetTimeRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SetTimeRange"; AVExportSession; StartTime; Duration )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

#### StartTime

Start time in seconds from beginning.

0

#### Duration

The duration of the video section to export in seconds.

5\*60

**Result** Returns OK or error.

### Description

The default timeRange of an export session is all, meaning that the full duration of the asset will be exported.

**See also**

- 40.13 AVExport.GetTimeRange

1058

Created 29th February 2016, last changed 29th February 2016.



## 40.23 AVExport.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.Status"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns text or error.

### Description

Can be Unknown, Waiting, Exporting, Completed, Failed or Cancelled.

### Examples

Check Status:

```

If [ IsEmpty($$AVExport) ]
Set Field [ AVAsset Export Session::Progress; "" ]
Set Field [ AVAsset Export Session::Error; "" ]
Set Field [ AVAsset Export Session::Status; "" ]
Else
Set Field [ AVAsset Export Session::Progress; MBS( "AVExport.Progress"; $$AVExport ) ]
Set Field [ AVAsset Export Session::Error; MBS( "AVExport.Error"; $$AVExport ) ]
Set Field [ AVAsset Export Session::Status; MBS( "AVExport.Status"; $$AVExport ) ]
End If
If [ AVAsset Export Session::Status = "Completed" or AVAsset Export Session::Status = "Failed" ]
Install OnTimer Script [ ]
End If

```

### See also

- [40.4 AVExport.Error](#) 1045
- [40.6 AVExport.ExportAsynchronously](#) 1047
- [40.16 AVExport.Progress](#) 1061

### Example Databases

- [Mac and iOS/AVExport](#)
- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

## 40.24 AVExport.SupportedFileTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
40 AVExport	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "AVExport.SupportedFileTypes"; AVExportSession )

### Parameters

#### AVExportSession

The session reference number.

\$AVExport

**Result** Returns list or error.

### Description

Indicates the types of files the target can write, according to the preset the target was initialized with.

Does not perform an inspection of the AVAsset to determine whether its contents are compatible with the supported file types.

### Examples

Query supported file types:

```
Set Field [ AVAsset Export Session::SupportedFileTypes; MBS( "AVExport.SupportedFileTypes"; $$AVExport ) ]
```

### See also

- [40.7 AVExport.ExportSession](#) 1049
- [40.18 AVExport.SetOutputFileType](#) 1063

### Example Databases

- [Mac only/Movies/AVAsset Export Session](#)

Created 29th February 2016, last changed 1st March 2016.

# Chapter 41

## AVPlayer

Play audio on Mac and iOS.

Play audio in background while doing work in FileMaker.

See also WMFP functions for Windows.

### 41.1 AVPlayer.AddView

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

```
MBS( "AVPlayer.AddView"; AVPlayer; WindowRef; ControlName { ; DX; DY } )
```

#### Parameters

##### AVPlayer

The reference number of the player.

\$Player

##### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

##### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

##### DX

Optional

A delta to move view more to left or right.

0

**DY**

Optional

A delta to move view more to top or bottom.

0

**Result** Returns OK or error.**Description**

We create a new player view and use it for the current player to display video data.

Use AVPlayer.Release later to destroy the player and the view.

If you use a register (tab controls) on the window, be aware that the text view actually is in front of the register (tab controls). You may hide the text view if another register is visible.

When creating on a card window, please pass reference to parent window or just 0 for front window. On MacOS you may need to pass delta y value to adjust position.

If you create a control on a new window, you may do window update command in your script first to have FileMaker actually build the window with controls and display it. A short script pause or using FM.RunScriptLater with 0.1 delay can help having all controls draw themselves. Then you can use this command to put our control on top. We use GetControl() to query left, top, width and height and this gives empty value if control is not yet here.

Mac 64-bit only.

**Examples**

Add view to show player:

```
Set Variable [ $r ; Value: MBS( "AVPlayer.AddView"; $$Player; Get(WindowName); "placeholder" ) ]
Set Variable [ $r ; Value: MBS( "AVPlayer.SetControlsStyle"; $$Player; "Inline" ) ]
Set Variable [ $r ; Value: MBS( "AVPlayer.SetAutoResizingMask"; $$Player; 4+8 ) ]
```

**See also**

- 41.27 AVPlayer.Release 1102
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 41.30 AVPlayer.SetControlsStyle 1106
- 80.57 FM.RunScript 4045
- 80.59 FM.RunScriptLater 4049
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

**Example Databases**

- [Mac and iOS/AVPlayer](#)

### 41.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.2 AVPlayer.CloseView

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.CloseView"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

Created 16th March 2020, last changed 16th March 2020.

## 41.3 AVPlayer.FindPlayers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.3	Yes	No	No	No	Yes

MBS( "AVPlayer.FindPlayers" )

**Result** Returns list of identifiers or error.

### Description

Looks for interactive containers using AVPlayer for playback and returns new identifiers for them. We added this function to query time of a playing interactive container on iOS. Seems to work on Mac for FileMaker 16, too. Looks on the current window with focus.

### Examples

Query time of container playing container on iOS:

```
# find players
Set Variable [ $list; MBS( "AVPlayer.FindPlayers" ) ]
# pick first one
Set Variable [ $player; GetValue($list; 1) ]
# query time
Set Variable [ $time; MBS( "AVPlayer.GetTime"; AVPlayer ) ]
```

### See also

- [41.18 AVPlayer.GetTime](#)

1090

### Example Databases

- [iOS/Movie Container iOS and Mac](#)

#### 41.3.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [Control AVPlayer on Mac and iOS](#)

Created 30th May 2017, last changed 28th November 2017.

## 41.4 AVPlayer.GetAsset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.3	Yes	No	No	No	Yes

MBS( "AVPlayer.GetAsset"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns asset reference number or error.

### Description

This function allows you to query the file currently playing.

Please call AVAsset.Release later to free object from memory.

### See also

- [39.22 AVAsset.Release](#) 1026
- [41.11 AVPlayer.GetMuted](#) 1083
- [41.14 AVPlayer.GetRate](#) 1086
- [41.18 AVPlayer.GetTime](#) 1090
- [41.35 AVPlayer.SetMuted](#) 1111

### Example Databases

- [iOS/Movie Container iOS and Mac](#)

#### 41.4.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [Control AVPlayer on Mac and iOS](#)

Created 30th May 2017, last changed 6th June 2017.



## 41.5 AVPlayer.GetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetAutoResizingMask"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns number or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.29 AVPlayer.SetAutoResizingMask 1104
- 70.9 DragDrop.GetAutoResizingMask 2536
- 108.15 MapView.GetAutoResizingMask 5744
- 108.65 MapView.SetAutoResizingMask 5798
- 168.10 TextView.GetAutoResizingMask 8016
- 168.30 TextView.SetAutoResizingMask 8036
- 183.52 WebView.GetAutoResizingMask 8477
- 183.124 WebView.SetAutoResizingMask 8583

Created 12nd March 2020, last changed 12nd March 2020.

## 41.6 AVPlayer.GetControlsStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetControlsStyle"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

Value is None, Inline, Floating or Minimal.

### See also

- 41.30 AVPlayer.SetControlsStyle

1106

Created 12nd March 2020, last changed 12nd March 2020.

## 41.7 AVPlayer.GetDuration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.GetDuration"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns number or error.

### Description

#### See also

- [41.22 AVPlayer.OpenContainer](#) 1094
- [41.23 AVPlayer.OpenFile](#) 1096

### Example Databases

- [iOS/Movie Container iOS and Mac](#)
- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.8 AVPlayer.GetFinishedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.GetFinishedEvaluate"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns text or error.

### Description

#### See also

- [41.9 AVPlayer.GetFinishedFileName](#) 1081
- [41.10 AVPlayer.GetFinishedScriptName](#) 1082
- [41.12 AVPlayer.GetProgressEvaluate](#) 1084
- [41.31 AVPlayer.SetFinishedEvaluate](#) 1107

### 41.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 6th September 2017.

## 41.9 AVPlayer.GetFinishedFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.GetFinishedFileName"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns file name or error.

### Description

#### See also

- [41.8 AVPlayer.GetFinishedEvaluate](#) 1080
- [41.10 AVPlayer.GetFinishedScriptName](#) 1082
- [41.31 AVPlayer.SetFinishedEvaluate](#) 1107

### 41.9.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 6th September 2017.

## 41.10 AVPlayer.GetFinishedScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.GetFinishedScriptName"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns script name or error.

### Description

#### See also

- [41.8 AVPlayer.GetFinishedEvaluate](#) 1080
- [41.9 AVPlayer.GetFinishedFileName](#) 1081
- [41.32 AVPlayer.SetFinishedScript](#) 1108

### 41.10.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 6th September 2017.

## 41.11 AVPlayer.GetMuted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.GetMuted"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns 1, 0 or error.

### Description

Returns 1 if muted or 0 if not.

### See also

- 41.4 AVPlayer.GetAsset 1076
- 41.14 AVPlayer.GetRate 1086
- 41.18 AVPlayer.GetTime 1090
- 41.20 AVPlayer.GetVolume 1092
- 41.35 AVPlayer.SetMuted 1111
- 41.38 AVPlayer.SetRate 1115

Created 3th February 2017, last changed 3th February 2017.

## 41.12 AVPlayer.GetProgressEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.GetProgressEvaluate"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

#### See also

- [41.8 AVPlayer.GetFinishedEvaluate](#) 1080
- [41.13 AVPlayer.GetProgressInterval](#) 1085
- [41.36 AVPlayer.SetProgressEvaluate](#) 1112

### 41.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 7th September 2017, last changed 7th September 2017.



## 41.13 AVPlayer.GetProgressInterval

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.GetProgressInterval"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns number or error.

### Description

#### See also

- [41.12 AVPlayer.GetProgressEvaluate](#) 1084
- [41.37 AVPlayer.SetProgressInterval](#) 1114

### 41.13.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 8th September 2017, last changed 8th September 2017.

## 41.14 AVPlayer.GetRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.GetRate"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns value or error.

### Description

Rate is 1.0 by default.

You for example can use 0.5 to play half speed or 2.0 for double speed.

### See also

- 41.4 AVPlayer.GetAsset 1076
- 41.11 AVPlayer.GetMuted 1083
- 41.18 AVPlayer.GetTime 1090
- 41.22 AVPlayer.OpenContainer 1094
- 41.23 AVPlayer.OpenFile 1096
- 41.27 AVPlayer.Release 1102
- 41.35 AVPlayer.SetMuted 1111
- 41.38 AVPlayer.SetRate 1115
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.15 AVPlayer.GetShowsFrameSteppingButtons

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetShowsFrameSteppingButtons"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns 1, 0 or error.

### Description

Replace scanning controls in the playback UI with frame stepping buttons. Default is off.

### See also

- 41.39 AVPlayer.SetShowsFrameSteppingButtons

1116

Created 12nd March 2020, last changed 12nd March 2020.

## 41.16 AVPlayer.GetShowsFullScreenToggleButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetShowsFullScreenToggleButton"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns 1, 0 or error.

### Description

#### See also

- 41.40 AVPlayer.SetShowsFullScreenToggleButton

1117

Created 12nd March 2020, last changed 12nd March 2020.

## 41.17 AVPlayer.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	Yes

MBS( "AVPlayer.GetTag"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns text or error.

### Description

With the tag, we allow you to associate a text with the player, for example a record ID.

### See also

- 41.14 AVPlayer.GetRate 1086
- 41.18 AVPlayer.GetTime 1090
- 41.38 AVPlayer.SetRate 1115
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119

### 41.17.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.18 AVPlayer.GetTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.GetTime"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns value or error.

### Description

### Examples

Query time of container playing container on iOS:

```
# find players
Set Variable [ $list; MBS( "AVPlayer.FindPlayers" ) ]
# pick first one
Set Variable [ $player; GetValue($list; 1) ]
# query time
Set Variable [ $time; MBS( "AVPlayer.GetTime"; AVPlayer ) ]
```

### See also

- 41.3 AVPlayer.FindPlayers 1075
- 41.4 AVPlayer.GetAsset 1076
- 41.11 AVPlayer.GetMuted 1083
- 41.14 AVPlayer.GetRate 1086
- 41.17 AVPlayer.GetTag 1089
- 41.20 AVPlayer.GetVolume 1092
- 41.38 AVPlayer.SetRate 1115
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119

### Example Databases

- [iOS/Movie Container iOS and Mac](#)

Created 3th February 2017, last changed 30th May 2017.

## 41.19 AVPlayer.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetVisible"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### Examples

Query visible state:

Set Variable [ \$visible ; Value: MBS( "AVPlayer.GetVisible"; \$AVPlayer ) ]

### See also

- 41.20 AVPlayer.GetVolume 1092
- 41.43 AVPlayer.SetVisible 1120

Created 12nd March 2020, last changed 19th April 2020.

## 41.20 AVPlayer.GetVolume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.GetVolume"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns number or error.

### Description

#### See also

- 41.11 AVPlayer.GetMuted 1083
- 41.18 AVPlayer.GetTime 1090
- 41.19 AVPlayer.GetVisible 1091
- 41.22 AVPlayer.OpenContainer 1094
- 41.23 AVPlayer.OpenFile 1096
- 41.33 AVPlayer.SetFocus 1109
- 41.44 AVPlayer.SetVolume 1121

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.



## 41.21 AVPlayer.GetWindowRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.GetWindowRef"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns window reference number or error.

### Description

Created 12nd March 2020, last changed 12nd March 2020.

## 41.22 AVPlayer.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.OpenContainer"; Container )

### Parameters

#### Container

The container with the audio file.

MyTable::MovieContainer

**Result** Returns player reference number or error.

### Description

Returns the movie reference which must be released with AVPlayer.Release function. See also AVPlayer.OpenFile or AVPlayer.OpenURL.

Works with normal container, compressed container and referenced container file.

### Examples

Open from container:

```
Set Variable [ $player; Value:MBS("AVPlayer.OpenContainer"; AVPlayer::Container) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error loading audio file."; $player ]
Exit Script [ ]
End If
Set Field [ AVPlayer::Duration; MBS("AVPlayer.GetDuration"; $player) ]
Set Field [ AVPlayer::Rate; MBS("AVPlayer.GetRate"; $$Player) ]
Set Field [ AVPlayer::Volume; MBS("AVPlayer.GetVolume"; $$Player) ]
Set Variable [ $$player; Value:$player ]
```

### See also

- 39.17 AVAsset.OpenContainer 1018
- 41.7 AVPlayer.GetDuration 1079
- 41.14 AVPlayer.GetRate 1086
- 41.20 AVPlayer.GetVolume 1092
- 41.23 AVPlayer.OpenFile 1096
- 41.24 AVPlayer.OpenURL 1098
- 41.27 AVPlayer.Release 1102

41.22. AVPLAYER.OPENCONTAINER

1095

- 127.6 IsError

6374

### Example Databases

- [Mac and iOS/AVPlayer](#)

#### 41.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr6](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.23 AVPlayer.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.OpenFile"; Path )

### Parameters

#### Path

The native file path to the movie file.

"/Test.mov"

**Result** Returns player reference number or error.

### Description

Returns the reference number which must be released with AVPlayer.Release function.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Open file:

```
Set Variable [ $player; Value:MBS("AVPlayer.OpenFile"; AVPlayer::FilePath) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error loading audio file."; $player ]
Exit Script [ ]
End If
Set Field [ AVPlayer::Duration; MBS("AVPlayer.GetDuration"; $player) ]
Set Field [ AVPlayer::Rate; MBS("AVPlayer.GetRate"; $$Player) ]
Set Field [ AVPlayer::Volume; MBS("AVPlayer.GetVolume"; $$Player) ]
Set Variable [ $$player; Value:$player ]
```

### See also

- 41.7 AVPlayer.GetDuration 1079
- 41.14 AVPlayer.GetRate 1086
- 41.20 AVPlayer.GetVolume 1092
- 41.22 AVPlayer.OpenContainer 1094
- 41.24 AVPlayer.OpenURL 1098
- 41.27 AVPlayer.Release 1102
- 127.6 IsError 6374

41.23. *AVPLAYER.OPENFILE*

1097

- 124.2 Path.FileMakerPathToNativePath

6247

### **Example Databases**

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.24 AVPlayer.OpenURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.OpenURL"; URL )

### Parameters

#### URL

The URL of the audio file to open.  
"http://example.test/mysound.mp3"

**Result** Returns player reference number or error.

### Description

Returns the player reference number which must be released with AVPlayer.Release function.

### See also

- 41.22 AVPlayer.OpenContainer 1094
- 41.23 AVPlayer.OpenFile 1096
- 41.27 AVPlayer.Release 1102

Created 3th February 2017, last changed 3th February 2017.

## 41.25 AVPlayer.Pause

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.Pause"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

#### Examples

Pause player:

```
If [ Length($$Player)>0 ]
Set Variable [ $r; Value:MBS("AVPlayer.Pause"; $$Player) ]
Else
Show Custom Dialog [ "Please open Movie first!" ]
End If
```

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.26 AVPlayer.Play

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.Play"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

#### Examples

Play audio:

```
If [ $$Player "" ]
Set Variable [ $r; Value:MBS("AVPlayer.Play"; $$Player) ]
Else
Show Custom Dialog [ "Please open Movie first!" ]
End If
```

Play with progress:

```
If [ $$Player "" ]
# set progress callback
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressEvaluate"; $$Player; "MBS(\ "FM.ExecuteFileSQL\ ";
\ "AVPlayer.fmp12\ "; \ "UPDATE \\\ "AVPlayer\\\ " SET \\\ "Position\\\ "=?\ "; 9; 13; $$Time$$ / 1000)" )
]
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressInterval"; $$Player; 1) ]
# now plays
Set Variable [ $r ; Value: MBS("AVPlayer.Play"; $$Player) ]
# commit. SQL can't update if record is edited.
Commit Records/Requests [ With dialog: Off ]
# Trigger script when sound is done.
Set Variable [ $r ; Value: MBS("AVPlayer.SetFinishedScript"; $$Player; Get(FileName); "Played") ]
Else
Show Custom Dialog [ "Please open Movie first!" ]
End If
```

### See also

- 41.32 AVPlayer.SetFinishedScript 1108
- 41.36 AVPlayer.SetProgressEvaluate 1112



<i>41.26. AVPLAYER.PLAY</i>	1101
• 41.37 AVPlayer.SetProgressInterval	1114
• 81.6 FM.ExecuteFileSQL	4137

### **Example Databases**

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 8th September 2017.

## 41.27 AVPlayer.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.Release"; AVPlayer )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

**Result** Returns OK or error.

### Description

If you forget to release a player, the audio object stays in memory and if memory is low, FileMaker will crash.

To avoid this the plugin will only open up to 50 files simultaneously.

### Examples

Release player:

```
# Close last movie if it was open.
If [ Length($$Player)>0 ]
Set Variable [ $r; Value:MBS("AVPlayer.Release"; $$Player) ]
Set Variable [ $$Player; Value:"" ]
End If
```

### See also

- 41.1 AVPlayer.AddView 1071
- 41.14 AVPlayer.GetRate 1086
- 41.22 AVPlayer.OpenContainer 1094
- 41.23 AVPlayer.OpenFile 1096
- 41.24 AVPlayer.OpenURL 1098
- 41.28 AVPlayer.ReleaseAll 1103
- 41.38 AVPlayer.SetRate 1115

### Example Databases

- [iOS/Movie Container iOS and Mac](#)
- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.28 AVPlayer.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.ReleaseAll" )

**Result** Returns OK or error.

### Description

### See also

- 39.23 AVAsset.ReleaseAll 1028
- 41.27 AVPlayer.Release 1102

### Example Databases

- [iOS/Movie Container iOS and Mac](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.29 AVPlayer.SetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetAutoResizingMask"; AVPlayer; Value )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Value

The new setting.

4+8

**Result** Returns OK or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### Examples

Set autoresize, so the control stays where it is:

```
Set Variable [ $r ; Value: MBS( "AVPlayer.SetAutoResizingMask"; $$Player; 4+8 ) ]
```

### See also

- 41.1 AVPlayer.AddView 1071
- 41.5 AVPlayer.GetAutoResizingMask 1077
- 70.38 DragDrop.SetAutoResizingMask 2573
- 108.15 MapView.GetAutoResizingMask 5744

<i>41.29. AVPLAYER.SETAUTORESIZINGMASK</i>	1105
• 108.65 MapView.SetAutoResizingMask	5798
• 168.10 TextView.GetAutoResizingMask	8016
• 168.30 TextView.SetAutoResizingMask	8036
• 183.52 WebView.GetAutoResizingMask	8477
• 183.124 WebView.SetAutoResizingMask	8583

### **Example Databases**

- [Mac and iOS/AVPlayer](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.30 AVPlayer.SetControlsStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetControlsStyle"; AVPlayer; Style )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Style

The new style. Can be None, Inline, Floating, Minimal or Default. Default is inline.

"None"

**Result** Returns OK or error.

### Description

### Examples

Set inline controls:

```
Set Variable [ $r ; Value: MBS( "AVPlayer.SetControlsStyle"; $$Player; "Inline" ) ]
```

### See also

- [41.1 AVPlayer.AddView](#) 1071
- [41.6 AVPlayer.GetControlsStyle](#) 1078

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.31 AVPlayer.SetFinishedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.SetFinishedEvaluate"; AVPlayer; Expression )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the curl reference, so you can pass it to other functions if needed.

### Examples

Sets evaluate for when player finished to show dialog:

```
Set Variable [ $r ; Value: MBS("AVPlayer.SetFinishedEvaluate"; $Player; "MBS( \"Msgbox\"; \"Player done.\")" ) ]
```

### See also

- 41.8 AVPlayer.GetFinishedEvaluate 1080
- 41.9 AVPlayer.GetFinishedFileName 1081
- 41.32 AVPlayer.SetFinishedScript 1108
- 41.36 AVPlayer.SetProgressEvaluate 1112

### 41.31.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 24th January 2019.

## 41.32 AVPlayer.SetFinishedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.SetFinishedScript"; AVPlayer; Filename; ScriptName )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Set finished script:

```
Set Variable [ $r ; Value: MBS("AVPlayer.SetFinishedScript"; $$Player; Get(Filename); "Played") ]
```

### See also

- [41.10 AVPlayer.GetFinishedScriptName](#) 1082
- [41.26 AVPlayer.Play](#) 1100
- [41.31 AVPlayer.SetFinishedEvaluate](#) 1107

### 41.32.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 6th September 2017.



**41.33 AVPlayer.SetFocus**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetFocus"; AVPlayer )

**Parameters****AVPlayer**

The reference number of the player.

\$Player

**Result** Returns OK or error.

**Description****See also**

- 41.20 AVPlayer.GetVolume 1092
- 41.35 AVPlayer.SetMuted 1111
- 41.44 AVPlayer.SetVolume 1121

Created 12nd March 2020, last changed 12nd March 2020.

## 41.34 AVPlayer.SetFrameWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetFrameWithControl"; AVPlayer; ControlName { ; DX; DY } )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move text view more to left or right.

0

#### DY

Optional

A delta to move text view more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the text view back to the new position.

Also useful to switch between different locations on the layout.

### See also

- 70.44 DragDrop.SetFrameWithControl 2584
- 95.15 ImageView.SetFrameWithControl 5177
- 108.69 MapView.SetFrameWithControl 5803
- 168.33 TextView.SetFrameWithControl 8040

Created 12nd March 2020, last changed 12nd March 2020.

## 41.35 AVPlayer.SetMuted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.SetMuted"; AVPlayer; State )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### State

The new mute state.

1

**Result** Returns OK or error.

### Description

Pass 1 to mute or 0 to unmute.

#### See also

- 41.4 AVPlayer.GetAsset 1076
- 41.11 AVPlayer.GetMuted 1083
- 41.14 AVPlayer.GetRate 1086
- 41.33 AVPlayer.SetFocus 1109
- 41.38 AVPlayer.SetRate 1115
- 41.42 AVPlayer.SetTime 1119
- 41.44 AVPlayer.SetVolume 1121

Created 3th February 2017, last changed 3th February 2017.

## 41.36 AVPlayer.SetProgressEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.SetProgressEvaluate"; AVPlayer; Expression )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

### Description

Evaluated once as second to update progress in GUI.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the curl reference, so you can pass it to other functions if needed. \$\$Time\$\$ is replaced with current time in milliseconds.

### Examples

Play and define progress expression:

```
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressEvaluate"; $$Player; "MBS(\ "FM.ExecuteFileSQL\"; \ "AVPlayer.fmp12\"; \ "UPDATE \\\ "AVPlayer\\\ " SET \\\ "Position\\\ "=?\"; 9; 13; $$Time$$ / 1000)") ]
```

```
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressInterval"; $$Player; 1) ]
```

```
Set Variable [ $r ; Value: MBS("AVPlayer.Play"; $$Player) ]
```

### See also

- 41.12 AVPlayer.GetProgressEvaluate 1084
- 41.26 AVPlayer.Play 1100
- 41.31 AVPlayer.SetFinishedEvaluate 1107
- 41.37 AVPlayer.SetProgressInterval 1114
- 81.6 FM.ExecuteFileSQL 4137

### 41.36.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

*41.36. AVPLAYER.SETPROGRESSEVALUATE*

1113

Created 7th September 2017, last changed 4th April 2018.

## 41.37 AVPlayer.SetProgressInterval

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.4	Yes	No	No	No	Yes

MBS( "AVPlayer.SetProgressInterval"; AVPlayer; Time )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Time

The time interval to use.

5

**Result** Returns OK or error.

### Description

Using interval <1.0 can be a problem because FileMaker would evaluate only and not do anything else.

### Examples

Play and define progress expression:

```
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressEvaluate"; $$Player; "MBS(\ "FM.ExecuteFileSQL\ ";
\ "AVPlayer.fmp12\ "; \ "UPDATE \\\ "AVPlayer\\\ " SET \\\ "Position\\\ "=?\ "; 9; 13; $$Time$$ / 1000)" )
]
Set Variable [ $r ; Value: MBS("AVPlayer.SetProgressInterval"; $$Player; 1) ]
Set Variable [ $r ; Value: MBS("AVPlayer.Play"; $$Player) ]
```

### See also

- 41.13 AVPlayer.GetProgressInterval 1085
- 41.26 AVPlayer.Play 1100
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 81.6 FM.ExecuteFileSQL 4137

### 41.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 8th September 2017, last changed 8th September 2017.

## 41.38 AVPlayer.SetRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.SetRate"; AVPlayer; Rate )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Rate

The new rate.

1.0

**Result** Returns OK or error.

### Description

Default is 1.0.

You can for example set to 0.5 for half speed or 2.0 for double speed.

### Examples

Sets rate:

```
Set Variable [ $r; Value:MBS("AVPlayer.SetRate"; $$Player; AVPlayer::Rate) ]
```

```
Set Field [ AVPlayer::Rate; MBS("AVPlayer.GetRate"; $$Player) ]
```

### See also

- 41.11 AVPlayer.GetMuted 1083
- 41.14 AVPlayer.GetRate 1086
- 41.17 AVPlayer.GetTag 1089
- 41.18 AVPlayer.GetTime 1090
- 41.27 AVPlayer.Release 1102
- 41.35 AVPlayer.SetMuted 1111
- 41.41 AVPlayer.SetTag 1118
- 41.42 AVPlayer.SetTime 1119

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.

## 41.39 AVPlayer.SetShowsFrameSteppingButtons

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetShowsFrameSteppingButtons"; AVPlayer; Value )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Value

The new setting. Pass 1 to show frame stepping controls.

1

**Result** Returns OK or error.

### Description

Replace scanning controls in the playback UI with frame stepping buttons. Default is off.

### See also

- 41.15 AVPlayer.GetShowsFrameSteppingButtons

1087

Created 12nd March 2020, last changed 12nd March 2020.



## 41.40 AVPlayer.SetShowsFullScreenToggleButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetShowsFullScreenToggleButton"; AVPlayer; Value )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Value

The new setting. Pass 1 to show or 0 to hide.

1

**Result** Returns OK or error.

### Description

#### See also

- 41.16 AVPlayer.GetShowsFullScreenToggleButton

1088

Created 12nd March 2020, last changed 12nd March 2020.

## 41.41 AVPlayer.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	Yes

MBS( "AVPlayer.SetTag"; AVPlayer; value )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### value

The new tag value.

Get(RecordID)

**Result** Returns OK or error.

### Description

With the tag, we allow you to associate a text with the player, for example a record ID.

#### See also

- 41.14 AVPlayer.GetRate 1086
- 41.17 AVPlayer.GetTag 1089
- 41.18 AVPlayer.GetTime 1090
- 41.38 AVPlayer.SetRate 1115
- 41.42 AVPlayer.SetTime 1119

### 41.41.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.42 AVPlayer.SetTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.SetTime"; AVPlayer; Time )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Time

The new playback time in seconds.

10.0

**Result** Returns OK or error.

### Description

#### See also

- 41.14 AVPlayer.GetRate 1086
- 41.17 AVPlayer.GetTag 1089
- 41.18 AVPlayer.GetTime 1090
- 41.35 AVPlayer.SetMuted 1111
- 41.38 AVPlayer.SetRate 1115
- 41.41 AVPlayer.SetTag 1118
- 41.44 AVPlayer.SetVolume 1121

Created 3th February 2017, last changed 3th February 2017.

## 41.43 AVPlayer.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	10.2	Yes	No	No	No	No

MBS( "AVPlayer.SetVisible"; AVPlayer; Visible )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Visible

The new visible state. Pass 0 to hide or 1 to show.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### Examples

Show the control:

Set Variable [ \$r ; Value: MBS( "AVPlayer.SetVisible"; \$\$Player; 1 ) ]

### See also

- 41.19 AVPlayer.GetVisible 1091
- 41.44 AVPlayer.SetVolume 1121

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 12nd March 2020, last changed 12nd March 2020.

## 41.44 AVPlayer.SetVolume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
41 AVPlayer	7.1	Yes	No	No	No	Yes

MBS( "AVPlayer.SetVolume"; AVPlayer; Volume )

### Parameters

#### AVPlayer

The reference number of the player.

\$Player

#### Volume

The new volume. Zero is no volume like muted.

1.0

**Result** Returns OK or error.

### Description

Default is 1.0. You can for example set to 0.5 for half volume.

### Examples

Sets volume:

```
Set Variable [ $r; Value:MBS("AVPlayer.SetVolume"; $$Player; AVPlayer::Volume) ]
```

```
Set Field [ AVPlayer::Volume; MBS("AVPlayer.GetVolume"; $$Player) ]
```

### See also

- 41.20 AVPlayer.GetVolume 1092
- 41.33 AVPlayer.SetFocus 1109
- 41.35 AVPlayer.SetMuted 1111
- 41.42 AVPlayer.SetTime 1119
- 41.43 AVPlayer.SetVisible 1120

### Example Databases

- [Mac and iOS/AVPlayer](#)

Created 3th February 2017, last changed 3th February 2017.



# Chapter 42

## AVRecorder

Audio and video recording

Functions to record audio and/or video files.

### 42.1 AVRecorder.AddPreviewToWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.AddPreviewToWindow"; AVSession; WindowRef; X; Y; W; H { ; Rotation } )

#### Parameters

##### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

##### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

##### X

The x coordinate.

20

##### Y

The y coordinate

200

##### W

The width of the preview area.

320

## H

The height of the preview area.

200

## Rotation

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

Rotation of image display. Mac only. e.g. pass in 90 or -90 to rotate by 90 or -90 degree.

0

**Result** Returns OK or error.

## Description

## Examples

Start preview:

```
Set Variable [ $r; Value:MBS("AVRecorder.AddPreviewToWindow"; $Session; Get(WindowName); 50; 200; 320; 240) ]
```

```
Set Variable [ $r; Value:MBS("AVRecorder.StartPreview"; $Session) ]
```

## See also

- [42.17 AVRecorder.Init](#) 1143
- [42.30 AVRecorder.StartPreview](#) 1160
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

## Example Databases

- [AVRecorder/AVRecorder](#)

Created 18th February 2016, last changed 9th February 2018.



## 42.2 AVRecorder.AudioDeviceCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.AudioDeviceCount"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns number or error.

### Description

#### See also

- [42.3 AVRecorder.AudioDeviceInfo](#) 1126
- [42.17 AVRecorder.Init](#) 1143
- [42.35 AVRecorder.VideoDeviceCount](#) 1166

### Example Databases

- [AVRecorder/AVRecorder Devices](#)

Created 18th February 2016, last changed 19th February 2016.

## 42.3 AVRecorder.AudioDeviceInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.AudioDeviceInfo"; AVSession; Index; Selector )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Index

The index of the device from 0 to AVRecorder.AudioDeviceCount-1 or the name or ID of the device.

0

#### Selector

Which value to return. Can be ID, Name, Description, Index. On Mac can also be manufacturer, modelID, transportType, connected, inUseByAnotherApplication or suspended.

"Name"

**Result** Returns value or error.

### Description

### Examples

Enumerate audio devices:

```
# list audio devices
Set Variable [ $count; Value:MBS("AVRecorder.AudioDeviceCount"; $recorder) ]
If [ $count >0 ]
Set Variable [ $index; Value:0 ]
Loop
# next
New Record/Request
Set Field [ AVRecorder Devices::Index; $index ]
Set Field [ AVRecorder Devices::ID; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "ID") ]
Set Field [ AVRecorder Devices::Name; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "Name") ]
Set Field [ AVRecorder Devices::Description; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "Description") ]
If [ MBS("SystemInfo.isMacOSX") ]
Set Field [ AVRecorder Devices::Manufacturer; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "manufacturer") ]
Set Field [ AVRecorder Devices::ModelID; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "modelID") ]
Set Field [ AVRecorder Devices::TransportType; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "transportType") ]
Set Field [ AVRecorder Devices::Connected; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "connected") ]
```

```

Set Field [ AVRecorder Devices::inUseByAnotherApplication; MBS("AVRecorder.AudioDeviceInfo"; $recorder;
$index; "inUseByAnotherApplication") ]
Set Field [ AVRecorder Devices::suspended; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "sus-
sended") ]
End If
Set Field [ AVRecorder Devices::Type; "Audio" ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop
End If

```

**See also**

- 42.2 AVRecorder.AudioDeviceCount 1125
- 42.10 AVRecorder.GetAudioDevice 1136
- 42.17 AVRecorder.Init 1143
- 42.22 AVRecorder.SetAudioDevice 1150
- 42.36 AVRecorder.VideoDeviceInfo 1167
- 164.52 SystemInfo.isMacOSX 7834

**Example Databases**

- [AVRecorder/AVRecorder Devices](#)

Created 18th February 2016, last changed 19th February 2016.

## 42.4 AVRecorder.AuthorizationStatusForMediaType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.AuthorizationStatusForMediaType"; MediaType )

### Parameters

#### MediaType

The media type, can be video or audio.  
"video"

**Result** Returns status or error.

### Description

Returns the client's authorization status for accessing the underlying hardware that supports a given media type.

The possible values are:

NotDetermined	Indicates that the user has not yet made a choice regarding whether the client can access the hardware.
Restricted	The client is not authorized to access the hardware for the media type. The user cannot change the client's status, possibly due to active restrictions such as parental controls being in place.
Denied	The user explicitly denied access to the hardware supporting a media type for the client.
Authorized	The client is authorized to access the hardware supporting a media type.

The application (FileMaker or runtime) may need to have Microphone and Camera usage strings in info.plist as well as entitlements used for code signing for those. FileMaker Pro 18.0.3 or newer does have those, but for a runtime or iOS SDK based app you may need to add that yourself.

### See also

- 42.21 AVRecorder.RequestAccessForMediaType 1149
- 183.88 WebView.InstallUserMediaAccess 8524

### Example Databases

- [AVRecorder/AVRecorder](#)

### 42.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr7](#)

Created 2nd September 2018, last changed 6th May 2020.

## 42.5 AVRecorder.CaptureStillPhoto

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.2	Yes	Yes	No	No	Yes

```
MBS( "AVRecorder.CaptureStillPhoto"; AVSession { ; FileName } )
```

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

#### FileName

Optional

The file name for the jpeg image.  
"still.jpg"

**Result** Returns image or error.

### Description

The image is returned a JPEG image as container value on Mac and BMP on Windows.  
Added Windows support with plugin version 6.5.  
May require running the preview as we capture only current preview frame on Windows.

If you need content detection, you can always get current frame with AVRecorder.CaptureStillPhoto and pass it to OCR.SetImage for text recognition or Barcode.Detect to find different barcodes.

### Examples

Init and Capture photo:

```
# Start session
Set Variable [ $capture; Value:MBS( "AVRecorder.Init" ) ]
# Pick first video device
Set Variable [ $r; Value:MBS( "AVRecorder.SetVideoDevice"; $capture; 0 ) ]
# Start preview
Set Variable [ $r; Value:MBS("AVRecorder.StartPreview"; $capture) ]
# Wait a bit to have camera get up and running
Pause/Resume Script [ Duration (seconds): .5 ]
# Take a picture
Set Variable [ $r; Value:MBS( "AVRecorder.CaptureStillPhoto"; $capture ) ]
# Put in container
Set Field [ test::Test; $r ]
# Cleanup
Set Variable [ $r; Value:MBS( "AVRecorder.Release"; $capture ) ]
```

### See also

42.5. AVRECORDER.CAPTURESTILLPHOTO	1131
• 42.17 AVRecorder.Init	1143
• 42.20 AVRecorder.Release	1148
• 42.27 AVRecorder.SetVideoDevice	1156
• 42.30 AVRecorder.StartPreview	1160
• 42.31 AVRecorder.StartQRCodeDetection	1161
• 44.1 Barcode.Detect	1171
• 123.14 OCR.SetImage	6233

### Example Databases

- [AVRecorder/AVRecorder](#)

#### 42.5.1 Blog Entries

- [Live barcode reading for FileMaker on MacOS and iOS](#)
- [MBS FileMaker Plugin, version 6.5pr10](#)
- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 2nd May 2016, last changed 30th August 2018.

## 42.6 AVRecorder.ClosePreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.ClosePreview"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

### Examples

Close preview:

MBS( "AVRecorder.ClosePreview"; \$AVSession )

### See also

- 42.17 AVRecorder.Init 1143
- 42.30 AVRecorder.StartPreview 1160

Created 18th February 2016, last changed 18th October 2016.



## 42.7 AVRecorder.CurrentQRCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.CurrentQRCode"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns text or error.

### Description

If you query this, a flag is cleared, which will start again the trigger to call script if new code is detected.

Returns empty if no QRCode is detected.

### Examples

Update field with current code:

```
Set Field [ AVRecorder::Barcode ; MBS("AVRecorder.CurrentQRCode"; AVRecorder::Session) ]
```

### See also

- [42.17 AVRecorder.Init](#)

1143

### 42.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 29th August 2018, last changed 30th August 2018.

## 42.8 AVRecorder.EncoderCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	9.1	No	Yes	No	No	No

MBS( "AVRecorder.EncoderCount"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns count or error.

### Description

#### See also

- [42.9 AVRecorder.EncoderInfo](#) 1135
- [42.17 AVRecorder.Init](#) 1143

### 42.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 24th February 2019, last changed 24th February 2019.

## 42.9 AVRecorder.EncoderInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	9.1	No	Yes	No	No	No

MBS( "AVRecorder.EncoderInfo"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

Windows 10 includes usually the following encoders for video: WMVideo8 Encoder DMO, WMVideo9 Encoder DMO, MSScreen 9 encoder DMO, DV Video Encoder, MJPEG Compressor.

#### See also

- [42.8 AVRecorder.EncoderCount](#) 1134
- [42.17 AVRecorder.Init](#) 1143

### 42.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 24th February 2019, last changed 24th February 2019.

## 42.10 AVRecorder.GetAudioDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.GetAudioDevice"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns text or error.

### Description

### Examples

Query audio device:

```
Show Custom Dialog [ "Audio Device"; MBS("AVRecorder.GetAudioDevice"; AVRecorder::Session) ]
```

### See also

- [42.3 AVRecorder.AudioDeviceInfo](#) 1126
- [42.14 AVRecorder.GetVideoDevice](#) 1140
- [42.17 AVRecorder.Init](#) 1143
- [42.22 AVRecorder.SetAudioDevice](#) 1150
- [42.27 AVRecorder.SetVideoDevice](#) 1156

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.

## 42.11 AVRecorder.GetAutomaticallyAdjustsVideoMirroring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	7.4	Yes	No	No	No	Yes

MBS( "AVRecorder.GetAutomaticallyAdjustsVideoMirroring"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns 1, 0 or error.

### Description

For some session configurations, video data flowing through the connection will be mirrored by default. When the value of this property is 1, the value of videoMirrored may change depending on the configuration of the session, for example after switching to a different device input. The default value is 1.

#### See also

- [42.17 AVRecorder.Init](#) 1143
- [42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring](#) 1151

### 42.11.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 15th August 2017, last changed 15th August 2017.

## 42.12 AVRecorder.GetEncoder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	9.1	No	Yes	No	No	No

MBS( "AVRecorder.GetEncoder"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns name or error.

### Description

### Examples

Query encoder:

```
MBS( "AVRecorder.GetEncoder"; 53001)
```

### See also

- [42.17 AVRecorder.Init](#) 1143
- [42.24 AVRecorder.SetEncoder](#) 1152

### 42.12.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 24th February 2019, last changed 24th February 2019.

## 42.13 AVRecorder.GetFilePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.GetFilePath"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns OK or error.

### Description

#### See also

- [42.17 AVRecorder.Init](#) 1143
- [42.25 AVRecorder.SetFilePath](#) 1153

Created 9th February 2016, last changed 19th February 2016.

## 42.14 AVRecorder.GetVideoDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.GetVideoDevice"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns text or error.

### Description

### Examples

Query video device:

```
Show Custom Dialog [ "Video Device"; MBS("AVRecorder.GetVideoDevice"; AVRecorder::Session) ]
```

### See also

- [42.10 AVRecorder.GetAudioDevice](#) 1136
- [42.15 AVRecorder.GetVideoMirrored](#) 1141
- [42.17 AVRecorder.Init](#) 1143
- [42.22 AVRecorder.SetAudioDevice](#) 1150
- [42.27 AVRecorder.SetVideoDevice](#) 1156
- [42.36 AVRecorder.VideoDeviceInfo](#) 1167

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.



## 42.15 AVRecorder.GetVideoMirrored

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	7.4	Yes	No	No	No	Yes

MBS( "AVRecorder.GetVideoMirrored"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns 1, 0 or error.

### Description

Returns 1 if mirror is on.

### See also

- [42.14 AVRecorder.GetVideoDevice](#) 1140
- [42.17 AVRecorder.Init](#) 1143
- [42.28 AVRecorder.SetVideoMirrored](#) 1157

### 42.15.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 15th August 2017, last changed 15th August 2017.

## 42.16 AVRecorder.HasQRCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.HasQRCode"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns 1, 0 or error.

### Description

Returns 1 if there is a QRCode detected.

### See also

- [42.17 AVRecorder.Init](#)

1143

### 42.16.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 29th August 2018, last changed 30th August 2018.

## 42.17 AVRecorder.Init

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.Init" )

**Result** Returns OK or error.

### Description

You need to call init to get a new session ID which is needed for all other AVRecorder calls. Please call AVRecorder.Release when you are done with recording.

### Examples

Enumerate audio and video devices:

```
# init
Set Variable [ $recorder; Value:MBS("AVRecorder.Init") ]
Delete All Records [ No dialog ]
# audio
Set Variable [ $count; Value:MBS("AVRecorder.AudioDeviceCount"; $recorder) ]
If [ $count >0 ]
Set Variable [ $index; Value:0 ]
Loop
# next
New Record/Request
Set Field [ AVRecorder Devices::Index; $index ]
Set Field [ AVRecorder Devices::ID; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "ID") ]
Set Field [ AVRecorder Devices::Name; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "Name") ]
Set Field [ AVRecorder Devices::Description; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "Description") ]
If [ MBS("SystemInfo.isMacOSX") ]
Set Field [ AVRecorder Devices::Manufacturer; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "manufacturer") ]
Set Field [ AVRecorder Devices::ModelID; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "modelID") ]
Set Field [ AVRecorder Devices::TransportType; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "transportType") ]
Set Field [ AVRecorder Devices::Connected; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "connected") ]
Set Field [ AVRecorder Devices::inUseByAnotherApplication; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "inUseByAnotherApplication") ]
Set Field [ AVRecorder Devices::suspended; MBS("AVRecorder.AudioDeviceInfo"; $recorder; $index; "suspended") ]
End If
Set Field [ AVRecorder Devices::Type; "Audio" ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
```

```

Exit Loop If [ $count = $index ]
End Loop
End If
# video
Set Variable [ $count; Value:MBS("AVRecorder.VideoDeviceCount"; $recorder) ]
If [ $count >0 ]
Set Variable [ $index; Value:0 ]
Loop
# next
New Record/Request
Set Field [ AVRecorder Devices::Index; $index ]
Set Field [ AVRecorder Devices::ID; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "ID") ]
Set Field [ AVRecorder Devices::Name; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "Name") ]
Set Field [ AVRecorder Devices::Description; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "Description") ]
If [ MBS("SystemInfo.isMacOSX") ]
Set Field [ AVRecorder Devices::Manufacturer; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "manufacturer") ]
Set Field [ AVRecorder Devices::ModelID; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "modelID") ]
Set Field [ AVRecorder Devices::TransportType; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "transportType") ]
Set Field [ AVRecorder Devices::Connected; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "connected") ]
Set Field [ AVRecorder Devices::inUseByAnotherApplication; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "inUseByAnotherApplication") ]
Set Field [ AVRecorder Devices::suspended; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "suspended") ]
End If
Set Field [ AVRecorder Devices::Type; "Video" ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop
End If
# cleanup
Set Variable [ $r; Value:MBS("AVRecorder.Release"; $recorder) ]

```

**See also**

- 42.18 AVRecorder.IsRecording 1146
- 42.20 AVRecorder.Release 1148
- 42.22 AVRecorder.SetAudioDevice 1150
- 42.24 AVRecorder.SetEncoder 1152
- 42.25 AVRecorder.SetFilePath 1153

<i>42.17. AVRECORDER.INIT</i>	1145
• 42.26 AVRecorder.SetScreenInput	1154
• 42.27 AVRecorder.SetVideoDevice	1156
• 42.31 AVRecorder.StartQRCodeDetection	1161
• 42.32 AVRecorder.StartRecording	1163
• 42.33 AVRecorder.StopQRCodeDetection	1164

### **Example Databases**

- [AVRecorder/AVRecorder Devices](#)
- [AVRecorder/AVRecorder](#)

#### **42.17.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr3](#)
- [Audio and Video Recording for FileMaker](#)

Created 9th February 2016, last changed 19th February 2016.

## 42.18 AVRecorder.IsRecording

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.IsRecording"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns state or error.

### Description

Returns 1 if recording or 0 if not.

### See also

- 42.17 AVRecorder.Init 1143
- 42.32 AVRecorder.StartRecording 1163
- 42.34 AVRecorder.StopRecording 1165

Created 9th February 2016, last changed 19th February 2016.

## 42.19 AVRecorder.IsVideoMirroringSupported

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	7.4	Yes	No	No	No	Yes

MBS( "AVRecorder.IsVideoMirroringSupported"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns 1, 0 or error.

### Description

Returns 1 if mirror is possible.

### See also

- [42.17 AVRecorder.Init](#)

1143

### 42.19.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 15th August 2017, last changed 15th August 2017.

## 42.20 AVRecorder.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.Release"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns OK or error.

### Description

#### Examples

Cleanup session

```
# cleanup
Set Variable [ $r; Value:MBS("AVRecorder.Release"; $recorder) ]
```

### See also

- [42.5 AVRecorder.CaptureStillPhoto](#) 1130
- [42.17 AVRecorder.Init](#) 1143

### Example Databases

- [AVRecorder/AVRecorder Devices](#)
- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.



## 42.21 AVRecorder.RequestAccessForMediaType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.RequestAccessForMediaType"; MediaType )

### Parameters

#### MediaType

The media type, can be video or audio.

"video"

**Result** Returns OK or error.

### Description

Requests access to the underlying hardware for the media type, showing a dialog to the user if necessary.

May show a dialog to user, so call early when the features are needed.

Check with AVRecorder.AuthorizationStatusForMediaType, whether you are allowed.

The application (FileMaker or runtime) may need to have Microphone and Camera usage strings in info.plist as well as entitlements used for code signing for those. FileMaker Pro 18.0.3 or newer does have those, but for a runtime or iOS SDK based app you may need to add that yourself.

### See also

- [42.4 AVRecorder.AuthorizationStatusForMediaType](#)

1128

### Example Databases

- [AVRecorder/AVRecorder](#)

#### 42.21.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr7](#)

Created 2nd September 2018, last changed 6th May 2020.

## 42.22 AVRecorder.SetAudioDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.SetAudioDevice"; AVSession; Device )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Device

The device name, ID or index.

0

**Result** Returns OK or error.

### Description

#### Examples

Sets first audio device:

```
Set Variable [ $r; Value:MBS("AVRecorder.SetAudioDevice"; AVRecorder::Session; 0) ]
```

Use audio device with name "Built-in Microphone":

```
Set Variable [ $r; Value:MBS("AVRecorder.SetAudioDevice"; AVRecorder::Session; "Built-in Microphone") ]
```

### See also

- [42.3 AVRecorder.AudioDeviceInfo](#) 1126
- [42.10 AVRecorder.GetAudioDevice](#) 1136
- [42.14 AVRecorder.GetVideoDevice](#) 1140
- [42.17 AVRecorder.Init](#) 1143
- [42.27 AVRecorder.SetVideoDevice](#) 1156

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 22nd February 2016.

## 42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	7.4	Yes	No	No	No	Yes

MBS( "AVRecorder.SetAutomaticallyAdjustsVideoMirroring"; AVSession; Mode )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Mode

The new mode. Pass 1 to allow automatic mirroring or 0 to not mirror.

0

**Result** Returns OK or error.

### Description

### Examples

Turn on mirroring:

```
# disable auto mirror
```

```
Set Variable [ $r ; Value: MBS( "AVRecorder.SetAutomaticallyAdjustsVideoMirroring"; $AVSession; 0 ) ]
```

```
# enable mirror manually
```

```
Set Variable [ $r ; Value: MBS( "AVRecorder.SetVideoMirrored"; $AVSession; 1 ) ]
```

### See also

- 42.11 AVRecorder.GetAutomaticallyAdjustsVideoMirroring 1137
- 42.17 AVRecorder.Init 1143
- 42.28 AVRecorder.SetVideoMirrored 1157

### 42.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 15th August 2017, last changed 28th November 2019.

## 42.24 AVRecorder.SetEncoder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	9.1	No	Yes	No	No	No

MBS( "AVRecorder.SetEncoder"; AVSession; Encoder )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Encoder

The encoder name, ID or index.

0

**Result** Returns OK or error.

### Description

Not all combinations of video source, encoder and destination file will work. AVRecorder.StartRecording may fail later.

On Mac and iOS we use standard encoder by default (H264 usually).

### Examples

Set encoder:

```
MBS( "AVRecorder.SetEncoder"; $AVSession; "WMVideo9 Encoder DMO" )
```

Set DV encoder:

```
MBS("AVRecorder.SetEncoder"; AVRecorder::Session; "DV Video Encoder")
```

### See also

- [42.12 AVRecorder.GetEncoder](#) 1138
- [42.17 AVRecorder.Init](#) 1143
- [42.32 AVRecorder.StartRecording](#) 1163

### 42.24.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 24th February 2019, last changed 24th February 2019.

## 42.25 AVRecorder.SetFilePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.SetFilePath"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

Please use a native path with .avi (Windows) or .m4v (Mac) for recording.

For Mac with audio only you can also use .m4a as extension.

### Examples

Sets a file path:

```
If [ MBS("SystemInfo.isMacOSX") ]
Set Field [ AVRecorder::FilePath; MBS( "Folders.UserDesktop" ) & "/test.m4v" ]
Else
Set Field [ AVRecorder::FilePath; MBS( "Folders.UserDesktop" ) & "\test.avi" ]
End If
Set Variable [ $r; Value:MBS("AVRecorder.SetFilePath"; AVRecorder::Session; AVRecorder::FilePath) ]
```

### See also

- [42.13 AVRecorder.GetFilePath](#) 1139
- [42.17 AVRecorder.Init](#) 1143
- [42.32 AVRecorder.StartRecording](#) 1163
- [82.8 Folders.UserDesktop](#) 4235
- [164.52 SystemInfo.isMacOSX](#) 7834

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 21st February 2016.

## 42.26 AVRecorder.SetScreenInput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	No

MBS( "AVRecorder.SetScreenInput"; AVSession { ; DisplayIndex; capturesCursor; capturesMouseClicks; cropRectLeft; cropRectBottom; cropRectWidth; cropRectHeight } )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### DisplayIndex

Optional

The index of the screen. Derfault is zero for main screen.

0

#### capturesCursor

Optional

Whether the cursor should be rendered to the captured output. By default, screen input draws the cursor in its captured output. If this parameter is zero, the captured output contains only the windows on the screen. Cursor is omitted. Note that cursor position and mouse button state at the time of capture is preserved in CMSampleBuffers emitted from screen input.

1

#### capturesMouseClicks

Optional

Whether mouse clicks should be highlighted in the captured output. By default, screen input does not highlight mouse clicks in its captured output. If this parameter is 1, mouse clicks are highlighted (a circle is drawn around the mouse for the duration of the click) in the captured output.

1

#### cropRectLeft

Optional

#### cropRectBottom

Optional

#### cropRectWidth

Optional

#### cropRectHeight

Optional

**Result** Returns OK or error.

**Description**

cropRectLeft, cropRectBottom, cropRectWidth, cropRectHeight indicate the bounding rectangle of the screen area to be captured in pixels.

Screen input captures the entire area of the display with which it is associated. To limit the capture rectangle to a subsection of the screen, set the cropRect property, which defines a smaller section of the screen in the screen's coordinate system. The origin (0,0) is the bottom-left corner of the screen.

This function is not available for iOS as AVFoundation framework on iOS has no screen input class.

**See also**

- 42.17 AVRecorder.Init 1143

**42.26.1 Blog Entries**

- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 17th July 2018, last changed 8th January 2019.

## 42.27 AVRecorder.SetVideoDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.SetVideoDevice"; AVSession; Device )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Device

The device name, ID or index.

0

**Result** Returns OK or error.

### Description

### Examples

Sets to use first video device:

```
Set Variable [ $r; Value:MBS("AVRecorder.SetVideoDevice"; AVRecorder::Session; 0) ]
```

Use video device with name "FaceTime HD Camera":

```
Set Variable [ $r; Value:MBS("AVRecorder.SetVideoDevice"; AVRecorder::Session; "FaceTime HD Camera") ]
```

### See also

- [42.5 AVRecorder.CaptureStillPhoto](#) 1130
- [42.10 AVRecorder.GetAudioDevice](#) 1136
- [42.14 AVRecorder.GetVideoDevice](#) 1140
- [42.17 AVRecorder.Init](#) 1143
- [42.22 AVRecorder.SetAudioDevice](#) 1150
- [42.28 AVRecorder.SetVideoMirrored](#) 1157
- [42.36 AVRecorder.VideoDeviceInfo](#) 1167

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.



## 42.28 AVRecorder.SetVideoMirrored

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	7.4	Yes	No	No	No	Yes

MBS( "AVRecorder.SetVideoMirrored"; AVSession; Mode )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Mode

The new mode. Pass 1 to mirror or 0 to not mirror.

0

**Result** Returns OK or error.

### Description

### Examples

Turn on mirroring:

```
# disable auto mirror
```

```
Set Variable [ $r ; Value: MBS( "AVRecorder.SetAutomaticallyAdjustsVideoMirroring"; $AVSession; 0 ) ]
```

```
# enable mirror manually
```

```
Set Variable [ $r ; Value: MBS( "AVRecorder.SetVideoMirrored"; $AVSession; 1 ) ]
```

### See also

- 42.15 AVRecorder.GetVideoMirrored 1141
- 42.17 AVRecorder.Init 1143
- 42.23 AVRecorder.SetAutomaticallyAdjustsVideoMirroring 1151
- 42.27 AVRecorder.SetVideoDevice 1156

### 42.28.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 15th August 2017, last changed 21st August 2017.

## 42.29 AVRecorder.ShowPropertyDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	9.1	No	Yes	No	No	No

MBS( "AVRecorder.ShowPropertyDialog"; AVSession; Object { ; WindowRef; X; Y } )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Object

Which object to ask for the dialog. Can be audioDevice, videodevice, encoder, VideoStreamConfig, AudioStreamConfig.

"audioDevice"

#### WindowRef

Optional

Parent window for dialog. Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### X

Optional

X position relative to parent window.

#### Y

Optional

Y position relative to parent window.

**Result** Returns OK or error.

### Description

You can use this function to show standard dialog for video device, audio device, encoder, stream configuration and others. Not all dialogs are supported.

### Examples

Show audio properties dialog:

```
MBS( "AVRecorder.ShowPropertyDialog"; AVRecorder::Session; "audioDevice" )
```

Show video properties dialog:

```
MBS( "AVRecorder.ShowPropertyDialog"; AVRecorder::Session; "videoDevice" )
```

Show video stream property dialog:

```
MBS( "AVRecorder.ShowPropertyDialog"; AVRecorder::Session; "VideoStreamConfig")
```

Show encoder options:

```
MBS( "AVRecorder.ShowPropertyDialog"; AVRecorder::Session; "Encoder")
```

**See also**

- 42.17 AVRecorder.Init 1143
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

**42.29.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 24th February 2019, last changed 24th February 2019.

## 42.30 AVRecorder.StartPreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.StartPreview"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

### Examples

Start preview:

```
Set Variable [ $r; Value:MBS("AVRecorder.AddPreviewToWindow"; $Session; Get(WindowName); 50; 200; 320; 240) ]
```

```
Set Variable [ $r; Value:MBS("AVRecorder.StartPreview"; $Session) ]
```

### See also

- [42.1 AVRecorder.AddPreviewToWindow](#) 1123
- [42.5 AVRecorder.CaptureStillPhoto](#) 1130
- [42.6 AVRecorder.ClosePreview](#) 1132
- [42.17 AVRecorder.Init](#) 1143

### Example Databases

- [AVRecorder/AVRecorder](#)

### 42.30.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr7](#)

Created 18th February 2016, last changed 19th February 2016.

## 42.31 AVRecorder.StartQRCodeDetection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.StartQRCodeDetection"; AVSession { ; Filename; ScriptName } )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Filename

Optional

The database file name where the script is located.

"test.fmp12"

#### ScriptName

Optional

The script to trigger if a barcode was detected.

"MyScript"

**Result** Returns OK or error.

### Description

Optionally, we can trigger script when a new barcode is detected.

Parameter to the script is the session ID for the recording.

If you need different detection, you can always get current frame with AVRecorder.CaptureStillPhoto and pass it to OCR.SetImage for text recognition or Barcode.Detect to find different barcodes.

### Examples

Start QRCode recognition:

```
Set Variable [ $r ; Value: MBS("AVRecorder.StartQRCodeDetection"; AVRecorder::Session; Get(Filename); "GotBarcode") ]
```

### See also

- 42.5 AVRecorder.CaptureStillPhoto 1130
- 42.17 AVRecorder.Init 1143
- 42.33 AVRecorder.StopQRCodeDetection 1164
- 44.1 Barcode.Detect 1171
- 123.14 OCR.SetImage 6233

### 42.31.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 29th August 2018, last changed 30th August 2018.

## 42.32 AVRecorder.StartRecording

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.StartRecording"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

Please call AVRecorder.SetFilePath before to define where to put file.

### Examples

Start Recording:

```
Set Variable [ $r; Value:MBS("AVRecorder.SetFilePath"; AVRecorder::Session; AVRecorder::FilePath) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Exit Script [ ]
End If
Set Variable [ $r; Value:MBS("AVRecorder.StartRecording"; AVRecorder::Session) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Exit Script [ ]
End If
```

### See also

- 42.17 AVRecorder.Init 1143
- 42.18 AVRecorder.IsRecording 1146
- 42.24 AVRecorder.SetEncoder 1152
- 42.25 AVRecorder.SetFilePath 1153
- 42.34 AVRecorder.StopRecording 1165
- 127.6 IsError 6374

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.

## 42.33 AVRecorder.StopQRCodeDetection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	8.4	Yes	No	No	No	Yes

MBS( "AVRecorder.StopQRCodeDetection"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.  
\$AVSession

**Result** Returns OK or error.

### Description

#### See also

- [42.17 AVRecorder.Init](#) 1143
- [42.31 AVRecorder.StartQRCodeDetection](#) 1161

### 42.33.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 29th August 2018, last changed 30th August 2018.



## 42.34 AVRecorder.StopRecording

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.StopRecording"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns OK or error.

### Description

Currently on Mac the preview will continue (if enabled) and you can record again.

On Windows it looks like you can only tear down session.

### Examples

Stops recording:

```
Set Variable [ $r; Value:MBS("AVRecorder.StopRecording"; $Session) ]
```

### See also

- [42.17 AVRecorder.Init](#) 1143
- [42.18 AVRecorder.IsRecording](#) 1146
- [42.32 AVRecorder.StartRecording](#) 1163

### Example Databases

- [AVRecorder/AVRecorder](#)

Created 9th February 2016, last changed 19th February 2016.

## 42.35 AVRecorder.VideoDeviceCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.VideoDeviceCount"; AVSession )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

**Result** Returns number or error.

### Description

#### See also

- [42.2 AVRecorder.AudioDeviceCount](#) 1125
- [42.17 AVRecorder.Init](#) 1143
- [42.36 AVRecorder.VideoDeviceInfo](#) 1167

### Example Databases

- [AVRecorder/AVRecorder Devices](#)

Created 18th February 2016, last changed 19th February 2016.

## 42.36 AVRecorder.VideoDeviceInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
42 AVRecorder	6.1	Yes	Yes	No	No	Yes

MBS( "AVRecorder.VideoDeviceInfo"; AVSession; Index; Selector )

### Parameters

#### AVSession

The ID for the AVRecorder session as returned by AVRecorder.Init.

\$AVSession

#### Index

The index of the device from 0 to AVRecorder.VideoDeviceCount-1 or the name or ID of the device.

0

#### Selector

Which value to return. Can be ID, Name, Description, Index. On Mac can also be manufacturer, modelID, transportType, connected, inUseByAnotherApplication or suspended.

"Name"

**Result** Returns value or error.

### Description

### Examples

Enumerate video devices:

```
# list video devices
Set Variable [ $count; Value:MBS("AVRecorder.VideoDeviceCount"; $recorder) ]
If [ $count >0 ]
Set Variable [ $index; Value:0 ]
Loop
# next
New Record/Request
Set Field [ AVRecorder Devices::Index; $index ]
Set Field [ AVRecorder Devices::ID; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "ID") ]
Set Field [ AVRecorder Devices::Name; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "Name") ]
Set Field [ AVRecorder Devices::Description; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "Description") ]
If [ MBS("SystemInfo.isMacOSX") ]
Set Field [ AVRecorder Devices::Manufacturer; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "manufacturer") ]
Set Field [ AVRecorder Devices::ModelID; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "modelID") ]
Set Field [ AVRecorder Devices::TransportType; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "transportType") ]
Set Field [ AVRecorder Devices::Connected; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "connected") ]
```

```

Set Field [ AVRecorder Devices::inUseByAnotherApplication; MBS("AVRecorder.VideoDeviceInfo"; $recorder;
$index; "inUseByAnotherApplication") ]
Set Field [ AVRecorder Devices::suspended; MBS("AVRecorder.VideoDeviceInfo"; $recorder; $index; "sus-
suspended") ]
End If
Set Field [ AVRecorder Devices::Type; "Video" ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop
End If

```

**See also**

- 42.3 AVRecorder.AudioDeviceInfo 1126
- 42.14 AVRecorder.GetVideoDevice 1140
- 42.17 AVRecorder.Init 1143
- 42.27 AVRecorder.SetVideoDevice 1156
- 42.35 AVRecorder.VideoDeviceCount 1166
- 164.52 SystemInfo.isMacOSX 7834

**Example Databases**

- [AVRecorder/AVRecorder Devices](#)

Created 18th February 2016, last changed 19th February 2016.

# Chapter 43

## Backdrop

Show a backdrop behind FileMaker window.

### 43.1 Backdrop.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
43 Backdrop	2.1	Yes	No	No	No	No

MBS( "Backdrop.Close" )

#### Description

#### Examples

Close backdrop:

```
MBS("Backdrop.Close")
```

#### Example Databases

- [Mac only/Kiosk functions/Backdrop Window](#)

Created 18th August 2014, last changed 18th August 2014.

## 43.2 Backdrop.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
43 Backdrop	2.1	Yes	No	No	No	No

```
MBS( "Backdrop.Install"; Color { ; HideDesktop } )
```

### Parameters

#### Color

The color in RGB separated by comma. Range of color components is from 0 (no color) to 255 (maximum color).

255,0,0

#### HideDesktop

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

Whether to move window to hide all icons on desktop. Default 0.

0

### Description

With 8.2 plugin, you can pass 1 for HideDesktop parameter to move the window just above the desktop icons, so all windows of all apps can be in front of that shield window.

### Examples

Install backdrop:

```
MBS("Backdrop.Install"; "255,127,127")
```

### Example Databases

- [Mac only/Kiosk functions/Backdrop Window](#)

### 43.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 18th August 2014, last changed 9th March 2018.

# Chapter 44

## Barcode

Functions for generating and scanning barcodes.

Generate bar code as image, image file or write on PDF page.

### 44.1 Barcode.Detect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.Detect"; Image; type { ; ReturnType; TryRotation; Encoding } )

#### Parameters

##### Image

The image to scan for a barcode. Can be container with image or an Image reference number from our GraphicsMagick image functions.

\$image

##### type

Which scanner to use. Supported types: Aztec, Codabar, Code39, Code93, Code128, DataMatrix, EAN8, EAN13, ITF, PDF417, QRCode, UPCA and UPCE. Pass All to scan for all types.

"QRCode"

##### ReturnType

Optional

A boolean to return the type as prefix. Pass 1 if you need prefix. Default is 0 for no prefix.

1

##### TryRotation

Optional

A boolean value. If 1, the plugin will rotate the image 90° to find vertical barcode. Default is 0.

0

**Encoding**

Optional

The text encoding for text parameter. Default is native.

UTF8

**Result** Returns barcode content text or error.

**Description**

We use zxing library internally and can only detect what this library handles.

Internally all images are converted to grayscale. For you getting image, it's very important to get a sharp image.

You may need to rotate or crop the image before sending into this method.

Leave some white space around as some decoders don't want to start with black frame on the edge. The barcodes generated with Barcode.Generate often don't read as they have too little resolution (e.g. scale up by 3x) and no white border around (e.g. add 5 pixels).

If special characters or umlauts are not recognized correct, you may have a wrong encoding. Most modern apps use UTF8 for encoding.

For MacOS and iOS, you can also detect barcodes with CoreImage.Detect function.

**Examples**

Query a QRCode:

```
MBS( "Barcode.Detect"; Images::Image; "QRCode" )
```

**See also**

- 42.5 AVRecorder.CaptureStillPhoto 1130
- 42.31 AVRecorder.StartQRCodeDetection 1161
- 44.4 Barcode.Generate 1177
- 58.1 CoreImage.Detect 1703
- 182.2 Vision.DetectBarcode 8403

**Example Databases**

- [Barcode/Barcode Detection](#)

**44.1.1 Blog Entries**

- [Live barcode reading for FileMaker on MacOS and iOS](#)



- [MBS FileMaker Plugin, version 8.2pr9](#)
- [MBS FileMaker Plugin, version 8.0pr8](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)
- [MBS Filemaker Plugin, version 3.5pr6](#)

#### **44.1.2 FileMaker Magazin**

- [Ausgabe 3/2019, Seite 37](#)
- [Ausgabe 5/2018, Seite 29](#)

Created 18th August 2014, last changed 25th July 2018.

## 44.2 Barcode.DrawBarcode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.DrawBarcode"; PDF; symbology; Text; x; y { ; width; height; Encoding } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### symbology

The symbology to use.

"EANX"

#### Text

The text to encode in the barcode.

"12345"

#### x

The x coordinate.

100

#### y

The y coordinate.

100

#### width

Optional

The desired width of the barcode in points. Zero gives the auto size.

0

#### height

Optional

The desired height of the barcode in points. Zero gives the auto size.

0

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

UTF8

**Result** Returns OK or error.

### Description

The plugin uses zint library internally, so we include the zint manual in documentation.

Possible symbologies: CODE11, C25MATRIX, C25INTER, C25IATA, C25LOGIC, C25IND, CODE39, EX-CODE39, EANX, EAN128, CODABAR, CODE128, DPLEIT, DPIDENT, CODE16K, CODE49, CODE93,

FLAT, RSS14, RSSLTD, RSSEXP, TELEPEN, UPCA, UPCE, POSTNET, MSIPLESSEY, FIM, LOGMARS, PHARMA, PZN, PHARMA\_TWO, PDF417, PDF417TRUNC, MAXICODE, QRCODE, CODE128B, AUSPOST, AUSREPLY, AUSROUTE, AUSREDIRECT, ISBNX, RM4SCC, DATAMATRIX, EAN14, CODABLOCKF, NVE18, JAPANPOST, KOREAPOST, RSS14STACK, RSS14STACKOMNI, RSSEXPSTACK, PLANET, MICROPDF417, ONECODE, PLESSEY, TELEPEN\_NUM, ITF14, KIX, AZTEC, DAFT, MICROQR, HIBC128, HIBC39, HIBCDM, HIBCQR, HIBCPDF, HIBCMICPDF, HIBCLOCKF, HIBCAZTEC, AZRUNE, CODE32, EANXCC, EAN128CC, RSS14CC, RSSLTDCC, RSSEXPCC, UPCACC, UPCECC, RSS14STACKCC, RSS14OMNICC, RSSEXPSTACKCC, CHANNEL, CODEONE, GRIDMATRIX, EANXCHK, UPCACHK, UPCECHK, DOTCODE, HANXIN, VIN, MAILMARK, UPNQR and ULTRA..

For the size, be aware that some types like UPC codes have fixed size depending on content. Please use `DynaPDF.SetPageCoords` to set the coordinate system to `TopDown` before drawing barcodes.

See also `Barcode.SetOptions` for further options.

**See also**

- 44.12 `Barcode.SetOption` 1193
- 44.13 `Barcode.SetOptions` 1195
- 71.294 `DynaPDF.New` 3032
- 71.416 `DynaPDF.SetPageCoords` 3254

**Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [Barcode/QRCode PDF](#)

**44.2.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.5pr9](#)

**44.2.2 FileMaker Magazin**

- Ausgabe 5/2018, Seite 28

Created 18th August 2014, last changed 30th August 2019.

## 44.3 Barcode.EANChecksum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.EANChecksum"; Text )

### Parameters

#### Text

The text with the numbers for the barcode. Do use text and not number, where starting zeros would be skipped.

"12345"

**Result** The checksum as text.

### Description

For EAN 8, please use Barcode.UPCChecksum function.

### Examples

Calculates check for EAN:

```
// returns 3 for 12 digit EAN:
MBS( "Barcode.EANChecksum"; "425098421626" )
```

Example result: 3

Calculates EAN checksum for ISBN 978-3-16-148410-0:

```
MBS( "Barcode.EANChecksum"; "978-3-16-148410")
```

Example result: "0"

### See also

- [44.9 Barcode.ISBNChecksum](#) 1188
- [44.15 Barcode.UPCChecksum](#) 1200

### 44.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)
- [MBS FileMaker Plugin, version 5.0pr9](#)

Created 26th January 2015, last changed 5th September 2019.

## 44.4 Barcode.Generate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.Generate"; symbology; Text { ; width; height; rotation; scale; Transparent; ShowText; Encoding } )

### Parameters

#### symbology

The symbology to use. e.g. EANX for EAN-13. Another possibility is to lookup the symbology code in the zint manual and pass the number here. EANX is 13 for example.

"EANX"

#### Text

The text to encode in the barcode.

"12345"

#### width

Optional

The desired width of the barcode in pixels. Zero gives the auto size.

0

#### height

Optional

The desired height of the barcode in pixels. Zero gives the auto size.

0

#### rotation

Optional

The rotation. Can be 0, 90, 180 or 270.

0

#### scale

Optional

The scale of the target image. Please use at least 4 for printing the barcode.

1.0

#### Transparent

Optional

0: black on white 1: black on transparent background 2: white on black (new in 7.2) 3: white on transparent background (new in 7.2)

1

#### ShowText

Optional

Whether to show text. Use 0 to hide text or 1 to show text.

1

#### Encoding

**Optional**

The text encoding for text parameter. Default is UTF-8.  
UTF8

**Result** Returns GImage reference or error.

**Description**

The plugin uses zint library internally, so we include the zint manual in documentation.

Possible symbologies: CODE11, C25MATRIX, C25INTER, C25IATA, C25LOGIC, C25IND, CODE39, EX-CODE39, EAN8, EANX, EAN128, CODABAR, CODE128, DPLEIT, DPIDENT, CODE16K, CODE49, CODE93, FLAT, RSS14, RSSLTD, RSSEXP, TELEPEN, UPCA, UPCE, POSTNET, MSIPLESSEY, FIM, LOGMARS, PHARMA, PZN, PHARMA\_TWO, PDF417, PDF417TRUNC, MAXICODE, QRCODE, CODE128B, AUSPOST, AUSREPLY, AUSROUTE, AUSREDIRECT, ISBNX, RM4SCC, DATAMATRIX, EAN14, CODABLOCKF, NVE18, JAPANPOST, KOREAPOST, RSS14STACK, RSS14STACKOMNI, RSSEXPSTACK, PLANET, MICROPDF417, ONECODE, PLESSEY, TELEPEN\_NUM, ITF14, KIX, AZTEC, DAFT, MICRQR, HIBC128, HIBC39, HIBCDM, HIBCQR, HIBCPDF, HIBCMICPDF, HIBCLOCKF, HIBCAZTEC, AZRUNE, CODE32, EANXCC, EAN128CC, RSS14CC, RSSLTDCC, RSSEXPCC, UPCACC, UPCECC, RSS14STACKCC, RSS14OMNICC, RSSEXPSTACKCC, CHANNEL, CODEONE, GRIDMATRIX, EANXCHK, UPCACHK, UPCECHK, DOTCODE, HANXIN, VIN, MAILMARK, UPNQR and ULTRA..

Please use EANX for EAN-2, EAN-5, EAN-8 and EAN-13. You may need to leave away the check digit for some barcodes. EAN-13 can be created with 12 or 13 digits, but for EAN-8, only pas 7 digits.

This function returns an image reference for our GImage functions. There you can either work on the image or simply store it in a container. On the end please free the image with GImage.Release function. For the size, be aware that some types like UPC codes have fixed size depending on content.

See also Barcode.SetOptions for further options.

For MicroQR barcodes, you can use ECC Level 1 to 3, where 1 is default. Length is limited to only 35 characters minus space for ECC.

**Examples**

Creates UPCA barcode:

```
MBS( "Barcode.Generate"; "UPCA"; "72527270270")
```

Create ISDN 9780271016368 barcode with EAN:

```
MBS( "Barcode.Generate"; "EANX"; "978027101636")
```

Make a barcode and store it as PNG in a container:

```
Set Variable [ $image; Value:MBS( "Barcode.Generate"; "UPCA"; "72527270270") ]
```

```
If [ MBS("Iserror") = 0 ]
```

```
Set Field [ MyTable::BarCodeContainer; MBS( "GImage.WriteToPNGContainer"; $image; "barcode.png"
```

```

) ]
Set Variable [ $r; Value:MBS("GImage.Release"; $image) ]
Else
Set Field [ MyTable::BarCodeContainer; "" ]
End If

```

Generate EAN 128

```
MBS( "Barcode.Generate"; "EAN128"; " [ 00 ] 993262210000005384")
```

Generate UPCA barcode:

```

Set Variable [ $Barcode ; Value: MBS( "Barcode.Generate"; "UPCA"; "76837100000"; 0; 0; 0; 1; 1; 1;
"UTF8" ) ]
If [ MBS( "IsError" ) = 0 ]
Set Field [ test::Barcode ; MBS("GImage.WriteToPNGContainer"; $Barcode; "768371000004.png") ]
Set Variable [ $r ; Value: MBS("GImage.Release"; $Barcode) ]
Else
Set Field [ test::Barcode ; "" ]
End If

```

Create a barcode and change color to red:

```

Set Field [ Barcode Generation::Image; "" ]
Set Variable [ $img; Value:MBS("Barcode.Generate"; Barcode Generation::Symbology; Barcode Genera-
tion::Text) ]
If [ GetAsNumber($img) >0 ]
Set Variable [ $r; Value:MBS("GImage.SetType"; $img; 7) ]
Set Variable [ $r; Value:MBS( "GImage.ReplaceColor"; $img; "black"; "red"; 3) ]
Set Field [ Barcode Generation::Image; MBS( "GImage.WriteToPNGContainer"; $img; "barcode.png") ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
End If

```

Create a data matrix barcode with size 10 and return as container:

```

Let ( [
// set options for Size 10 (32x32) square for data matrix
r = MBS("Barcode.SetOptions"; 0; 10; 100);
// create a data matrix barcode
p = MBS("Barcode.Generate"; "DATAMATRIX"; "12818670,3,1" ; 0; 0; 0; 4);
// success?
e1 = MBS("IsError");
// save as PNG
image = MBS( "GImage.WriteToPNGContainer"; p; "barcode.png" );
// success?
e2 = MBS("IsError");
// free image from memory

```

```
r = MBS("GMImage.Release"; p)
// return container if no error
]; If(e1 = 0 and e2 = 0; image; "") )
```

Generate Maxicode with mode=4:

```
Set Field [ Barcode Generation::Image; "" ]
Set Variable [ $img; Value:MBS("Barcode.SetOptions"; 4) ]
Set Variable [ $img; Value:MBS("Barcode.Generate"; "MAXICODE"; "A MaxiCode Message in Mode 4") ]
If [ MBS("IsError") = 0 ]
Set Field [ Barcode Generation::Image; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png") ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]
End If
```

Example for Maxicode creation, e.g. for UPS:

```
Set Variable [ $p ; Value: "LS97TF 826004" // primary text ]
Set Variable [ $t ; Value: " [ ]>{ RS } 01 { GS } 961Z42015596 { GS } UPSN { GS } 123W45 { GS } 339
{ GS } { GS } 1/1 { GS } 1 { GS } N { GS } { GS } LEEDS { GS } { RS } { EOT } " ]
Set Variable [ $t ; Value: Substitute($t; " { EOT } "; Char(4)) ]
Set Variable [ $t ; Value: Substitute($t; " { RS } "; Char(30)) ]
Set Variable [ $t ; Value: Substitute($t; " { GS } "; Char(29)) ]
Set Variable [ $r ; Value: MBS("Barcode.SetOptions"; 3) ]
// Set Variable [ $r ; Value: MBS( "Barcode.SetInputMode"; "data" ) ]
Set Variable [ $r ; Value: MBS( "Barcode.SetInputMode"; "unicode" ) ]
Set Variable [ $r ; Value: MBS("Barcode.SetPrimary"; $p) ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "maxicode"; $t) ]
Set Field [ Barcode Generation::Image ; MBS( "GMImage.WriteToPNGContainer"; $img ) ]
Set Variable [ $r ; Value: MBS("GMImage.Release"; $img) ]
```

Create barcode and crop it:

```
Set Field [ Barcode Generation::Image ; "" ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; Barcode Generation::Symbology; Barcode Genera-
tion::Text) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $ImageHeight ; Value: MBS("GMImage.GetHeight"; $img) ]
Set Variable [ $ImageWidth ; Value: MBS("GMImage.GetWidth"; $img) ]
# calculate the crop rectangle
Set Variable [ $w ; Value: $ImageWidth ]
Set Variable [ $h ; Value: $ImageHeight ]
Set Variable [ $x ; Value: 0 ]
Set Variable [ $y ; Value: $ImageHeight - 50 ]
# crop
Set Variable [ $r ; Value: MBS("GMImage.Crop"; $img; $w & "x" & $h & "+" & $x & "+" & $y) ]
Set Field [ Barcode Generation::Image ; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png") ]
Set Variable [ $r ; Value: MBS( "GMImage.Destroy"; $img ) ]
```



End If

Create barcode and cut away top half to get wider EAN codes:

```
Set Field [ Barcode Generation::Image ; "" ]
Set Variable [ $img ; Value: MBS( "Barcode.Generate"; /* Generates a barcode. */ Barcode Generation::Symbology; /* The symbology to use. e.g. EANX for EAN-13. Another possibility is to lookup the symbology code in the zint manual and pass the number here. EANX is 13 for example.e.g.... ]
If [ MBS("IsError") = 0 ]
# crop to top half
Set Variable [ $h ; Value: MBS("GMIImage.GetHeight"; $img) ]
Set Variable [ $w ; Value: MBS("GMIImage.GetWidth"; $img) ]
Set Variable [ $r ; Value: MBS("GMIImage.Crop"; $img; $w & "x" & ($h/2) & "+0+" & ($h/2)) ]
Set Field [ Barcode Generation::Image ; MBS( "GMIImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
Set Variable [ $r ; Value: MBS( "GMIImage.Destroy"; $img ) ]
End If
```

Create Code39 barcode in Let statement:

```
Let ( [
// create a Code39 barcode
p = MBS("Barcode.Generate"; "CODE39"; $Stock ; 160 ; 25 ; 0 ; 2 ; 1 ; 0);
// success?
e1 = MBS("IsError");
// save as PNG
image = MBS( "GMIImage.WriteToPNGContainer"; p; "barcode.png" );
// success?
e2 = MBS("IsError");
// free image from memory
r = MBS("GMIImage.Release"; p)
// return container if no error
]; If(e1 = 0 and e2 = 0; image; "" )
```

#### See also

- 44.1 Barcode.Detect 1171
- 44.11 Barcode.SetInputMode 1191
- 44.12 Barcode.SetOption 1193
- 44.14 Barcode.SetPrimary 1198
- 87.123 GMIImage.GetHeight 4563
- 87.169 GMIImage.GetWidth 4612
- 87.214 GMIImage.Release 4674
- 87.217 GMIImage.ReplaceColor 4678

- 87.296 GImage.SetType 4780
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [Barcode/Barcode Generation](#)
- [Barcode/Swiss QR-Code for invoices ISO 20022](#)

#### 44.4.1 Blog Entries

- [QR Codes for Invoices in Switzerland](#)
- [MBS FileMaker Plugin, version 7.4pr1](#)
- [MBS FileMaker Plugin, version 7.2pr5](#)
- [MBS FileMaker Plugin 3.5 for OS X/Windows - More than 2100 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 3.5pr7](#)
- [MBS Filemaker Plugin, version 3.5pr5](#)

#### 44.4.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2018, Seite 27](#)
- [Ausgabe 5/2018, Seite 26](#)

Created 18th August 2014, last changed 8th February 2020.

## 44.5 Barcode.GenerateJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.GenerateJSON"; JSON )

### Parameters

#### JSON

The JSON block with all options.

```
{ "symbology": "QRCode", "Text": "Hello World", "Scale": 4 }
```

**Result** Returns GImage reference or error.

### Description

All parameters come as values in JSON block and most are optional.

Key	Value	Example
Symbology	Symbol to use. Can be number or text name.	QRCode
Text	Human readable text, which usually consists of input data plus one more check digit.	"Hello World"
Transparent	Transparency mode: 0: black on white, 1: black on transparent background, 2: white on black, 3: white on transparent background	0
Rotation	Rotation angle to use. Multiply of 90°.	0
ShowText	Whether to show text. Pass 0 to hide text.	1
WhitespaceWidth	Whitespace width.	5
BorderWidth	Border width.	5
OutputOptions	Set various output file options as number.	0
Scale	Scale factor for adjusting size of image. Usually 4 or bigger for printing in high resolution.	4
Option1	Symbol specific options.	0
Option2	Symbol specific options.	0
Option3	Symbol specific options.	0
InputMode	Set encoding of input data. Pass 0 for data, 1 for unicode.	1
ECI	Extended Channel Interpretation mode.	3
DotSize	Size of dots used in dotted mode.	1.25
Primary	Primary message data for more complex symbols. ""	
ForegroundColor	Foreground (ink) colour as RGB hexadecimal string. Must be 6 characters.	"ff0000"
BackgroundColor	Background (paper) colour as RGB hexadecimal string. Must be 6 characters.	"0000ff"
OutputFile	Contains the name of the file to output a resulting barcode symbol to. Must end in .png, .gif, .eps, .pcx, .svg or .txt.	"C:\test.png"

Possible symbologies: CODE11, C25MATRIX, C25INTER, C25IATA, C25LOGIC, C25IND, CODE39, EX-CODE39, EAN8, EANX, EAN128, CODABAR, CODE128, DPLEIT, DPIDENT, CODE16K, CODE49, CODE93, FLAT, RSS14, RSSLTD, RSSEXP, TELEPEN, UPCA, UPCE, POSTNET, MSIPLESSEY, FIM, LOGMARS, PHARMA, PZN, PHARMA\_TWO, PDF417, PDF417TRUNC, MAXICODE, QRCODE, CODE128B, AUSPOST, AUSREPLY, AUSROUTE, AUSREDIRECT, ISBNX, RM4SCC, DATAMATRIX, EAN14, CODABLOCKF, NVE18, JAPANPOST, KOREAPOST, RSS14STACK, RSS14STACKOMNI, RSSEXPSTACK, PLANET, MICROPDF417, ONECODE, PLESSEY, TELEPEN\_NUM, ITF14, KIX, AZTEC, DAFT, MICROQR, HIBC128, HIBC39, HIBCDM, HIBCQR, HIBCPDF, HIBCMICPDF, HIBCLOCKF, HIBCAZTEC, AZRUNE, CODE32, EANXCC, EAN128CC, RSS14CC, RSSLTDCC, RSSEXPCC, UPCACC, UPCECC, RSS14STACKCC, RSS14OMNICC, RSSEXPSTACKCC, CHANNEL, CODEONE, GRIDMATRIX, EANXCHK, UPCACHK, UPCECHK, DOTCODE, HANXIN, VIN, MAILMARK, UPNQR and ULTRA..

Please use EANX for EAN-2, EAN-5, EAN-8 and EAN-13. You may need to leave away the check digit for some barcodes. EAN-13 can be created with 12 or 13 digits, but for EAN-8, only pas 7 digits.

This function returns an image reference for our GImage functions. There you can either work on the image or simply store it in a container. On the end please free the image with GImage.Release function. For the size, be aware that some types like UPC codes have fixed size depending on content.

For MicroQR barcodes, you can use ECC Level 1 to 3, where 1 is default. Length is limited to only 35 characters minus space for ECC.

### Examples

Create barcode based on JSON:

```
Set Field [ Barcode Generation JSON::Image ; "" ]
Set Variable [ $img ; Value: MBS("Barcode.GenerateJSON"; Barcode Generation JSON::JSON) ]
If [ MBS("IsError") = 0 ]
Set Field [ Barcode Generation JSON::Image ; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Destroy"; $img ) ]
Else
Show Custom Dialog [ "Failed to create barcode" ; $img ]
End If
```

### See also

- [44.4 Barcode.Generate](#) 1177
- [87.214 GMImage.Release](#) 4674
- [87.340 GMImage.WriteToPNGContainer](#) 4840
- [127.6 IsError](#) 6374

### Example Databases

- [Barcode/Barcode Generation JSON](#)

#### 44.5.1 Blog Entries

- [Create Barcodes on Server from FileMaker Go](#)
- [Neue Funktionen des MBS FileMaker Plugin 9.4](#)
- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 5th September 2019, last changed 27th December 2019.

## 44.6 Barcode.GetInputMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.GetInputMode" )

**Result** Returns current mode or error.

### Description

Value can be data, unicode, GS1, Kanji and SJIS. Empty value for default.

### See also

- 44.11 Barcode.SetInputMode

1191

### 44.6.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr5](#)

Created 23th February 2018, last changed 23th February 2018.

## 44.7 Barcode.GetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.GetOption"; Index )

### Parameters

#### Index

The index of the option. Can be 1, 2 or 3.

2

**Result** Returns value or error.

### Description

#### See also

- [44.12 Barcode.SetOption](#) 1193
- [44.13 Barcode.SetOptions](#) 1195

### 44.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr5](#)

Created 23th February 2018, last changed 23th February 2018.

## 44.8 Barcode.GetPrimary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.GetPrimary" )

**Result** Returns text or error.

**Description**

**See also**

- [44.14 Barcode.SetPrimary](#)

1198

### 44.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 1st March 2017, last changed 1st March 2017.

## 44.9 Barcode.ISBNChecksum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.ISBNChecksum"; Text )

### Parameters

#### Text

The text with the numbers for the barcode. Do use text and not number, where starting zeros would be skipped.

"12345"

**Result** The checksum as text.

### Description

We have a ISBN 10 and ISBN 13 algorithm depending on how many digits you pass. Please make sure input has always 10 or 13 digits!

### Examples

Calculates checksum for ISBN:

```
// returns 6 for 9 digit ISBN:
MBS( "Barcode.ISBNChecksum"; "074755100" )
```

Example result: 6

Calculates checksum for an ISBN 10:

```
MBS( "Barcode.ISBNChecksum"; "0-306-40615-0" )
# pass any value for the checksum, if you don't know it.
```

Example result: "2"

Calculate checksum for a ISBN 13:

```
MBS( "Barcode.ISBNChecksum"; "978-0-306-40615-7" )
```

Example result: "7"

### See also

- 44.3 Barcode.EANChecksum 1176
- 44.15 Barcode.UPCChecksum 1200

### 44.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)



- [MBS FileMaker Plugin, version 5.0pr9](#)

Created 26th January 2015, last changed 5th September 2019.

## 44.10 Barcode.LibVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.LibVersion" )

**Result** Returns text or error.

### Description

Returns e.g. 2.6.3

### See also

- 37.5 Archive.LibVersion

962

### 44.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)

Created 6th June 2019, last changed 6th June 2019.

## 44.11 Barcode.SetInputMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	8.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "Barcode.SetInputMode"; Mode )
```

### Parameters

#### Mode

The new input mode.

"GS1"

**Result** Returns OK or error.

### Description

Mode can be empty for default.

Values include data, unicode, GS1, Kanji or SJIS.

### Examples

Set input mode for ASCII or data:

```
// Uses full ASCII range interpreted as Latin-1 or binary data.
```

```
MBS( "Barcode.SetInputMode"; "Data" )
```

Set input mode for Unicode:

```
// Uses pre-formatted UTF-8 input.
```

```
MBS( "Barcode.SetInputMode"; "Unicode" )
```

Set input mode for GS1:

```
// Encodes GS1 data using FNC1 characters.
```

```
MBS( "Barcode.SetInputMode"; "GS1" )
```

Encode Data Matrix with GS1:

```
Set Field [ Barcode Generation::Image ; "" ]
```

```
Set Variable [ $r ; Value: MBS( "Barcode.SetInputMode"; "GS1" ) ]
```

```
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "DataMatrix"; " [ 01 ] 98898765432106 [ 3202 ] 012345 [ 15 ] 991231" ) ]
```

```
If [ MBS("IsError") = 0 ]
```

```
Set Field [ Barcode Generation::Image ; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
```

```
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $img ) ]
```

```
End If
```

**See also**

- 44.4 Barcode.Generate 1177
- 44.6 Barcode.GetInputMode 1185
- 44.14 Barcode.SetPrimary 1198
- 87.214 GImage.Release 4674
- 87.340 GImage.WriteToPNGContainer 4840
- 127.6 IsError 6374

**44.11.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.1pr5](#)

Created 23th February 2018, last changed 21st December 2018.

## 44.12 Barcode.SetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.SetOption"; Index; Value )

### Parameters

#### Index

The index of the option. Can be 1, 2 or 3.

2

#### Value

The new value.

1

**Result** Returns OK or error.

### Description

Index can be 1, 2 or 3.

See Barcode.SetOptions for details.

### Examples

Set better ECC level for QRCode:

```
MBS( "Barcode.SetOption"; 1; 3)
```

Set square option for data matrix:

```
MBS( "Barcode.SetOption"; 3; 100 )
```

### See also

- 44.2 Barcode.DrawBarcode 1174
- 44.4 Barcode.Generate 1177
- 44.7 Barcode.GetOption 1186
- 44.13 Barcode.SetOptions 1195
- 44.14 Barcode.SetPrimary 1198
- 44.16 Barcode.WriteFile 1201

### 44.12.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr5](#)

### 44.12.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 27

Created 23th February 2018, last changed 22nd February 2020.

## 44.13 Barcode.SetOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.SetOptions" { ; Option1; Option2; Option3 } )

### Parameters

#### Option1

Optional

The first option.

1

#### Option2

Optional

The second option.

1

#### Option3

Optional

The third option.

1

**Result** Returns OK.

### Description

Creating a barcode will reset those options to zero for next barcode.

For QRCode:

Option1 is the ECC Level with values from 1 = low, 2 = middle, 3 = better, 4 high. Default is low.

Option2 is version code from 1 to 40. Default is 0 to auto select.

For MicroQR you can use ECC Level 1 to 3 as 4 is not supported.

For Data Matrix:

Option2 size from 1 to 30. 0 is auto. See table in zint manual pdf.

Option3 can be 100 to force square size.

For Code 39:

You can set Option2 to 1 to add module 43 checksum.

For MaxiCode:

Option 1 is the mode.

For PDF 417:

Option 1 is a number between 0 and 8 where the number of codewords used for check information is deter-

mined by  $2^{(\text{value} + 1)}$ .

Option 2 is the number of columns between 1 and 30.

See also Barcode.DrawBarcode, Barcode.WriteFile and Barcode.Generate.

### Examples

Set better ECC level for QRCode:

```
MBS( "Barcode.SetOptions"; 3)
```

Set square option for data matrix:

```
MBS( "Barcode.SetOptions"; 0; 0; 100 )
```

Create QRCode with UTF-8 and size 10:

```
Set Field [ Barcode Generation::Image; "" ]
# Better error correction and size 10
Set Variable [ $r; Value:MBS( "Barcode.SetOptions"; 3; 10 ) ]
# Generate QRCode with UTF-8
Set Variable [ $img; Value:MBS("Barcode.Generate"; "QRCode"; Barcode Generation::Text; 0; 0; 0; 1; 0; 1;
"UTF-8" ) ]
If [ GetAsNumber($img) >0 ]
Set Field [ Barcode Generation::Image; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]
End If
```

Create a data matrix barcode with size 10 and return as container:

```
Let ( [
// set options for Size 10 (32x32) square for data matrix
r = MBS("Barcode.SetOptions"; 0; 10; 100);
// create a data matrix barcode
p = MBS("Barcode.Generate"; "DATAMATRIX"; "12818670,3,1" ; 0; 0; 0; 4);
// success?
e1 = MBS("IsError");
// save as PNG
image = MBS( "GMImage.WriteToPNGContainer"; p; "barcode.png" );
// success?
e2 = MBS("IsError");
// free image from memory
r = MBS("GMImage.Release"; p)
// return container if no error
]; If(e1 = 0 and e2 = 0; image; "" )
```

Create Maxicode with mode 3:



#### 44.13. *BARCODE.SETOPTIONS*

1197

```
Set Variable [ $p ; Value: "196LS97TF826004" // primary text ]
Set Variable [ $t ; Value: "1Z42015596UPSN123W123456/11NLEEDS" // second text ]
Set Variable [ $r ; Value: MBS("Barcode.SetOptions"; 3) ]
Set Variable [ $r ; Value: MBS("Barcode.SetPrimary"; $p) ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "maxicode"; $t) ]
```

#### See also

- 44.2 Barcode.DrawBarcode 1174
- 44.4 Barcode.Generate 1177
- 44.7 Barcode.GetOption 1186
- 44.12 Barcode.SetOption 1193
- 44.14 Barcode.SetPrimary 1198
- 44.16 Barcode.WriteFile 1201
- 87.214 GImage.Release 4674
- 87.340 GImage.WriteToPNGContainer 4840
- 127.6 IsError 6374

#### Example Databases

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)

#### 44.13.1 Blog Entries

- [QR Codes for Invoices in Switzerland](#)
- [MBS Filemaker Plugin, version 4.3pr4](#)

#### 44.13.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 29
- Ausgabe 5/2018, Seite 27

Created 18th August 2014, last changed 22nd February 2020.

## 44.14 Barcode.SetPrimary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.SetPrimary"; Text; Encoding )

### Parameters

#### Text

The text to use.

"Hello World"

#### Encoding

The text encoding for text parameter. Default is UTF-8.

"UTF-8"

**Result** Returns OK or error.

### Description

Needed for some barcodes like MaxiCode.

For Maxicode, length must be 15 characters. Last 3 characters must be service number as 3 digits. And next three characters before that are the country ID with 3 digits.

### Examples

Create Maxicode with Primary text:

```
Set Field [ Barcode Generation::Image; "" ]
Set Variable [ $r; Value:MBS("Barcode.SetOptions"; 4) ]
Set Variable [ $r; Value:MBS("Barcode.SetPrimary"; "999999999840012") ]
Set Variable [ $img; Value:MBS("Barcode.Generate"; "MAXICODE"; "Secondary Message Here") ]
Set Variable [ $r; Value:MBS("Barcode.SetPrimary"; "" ) ]
If [ MBS("IsError") = 0 ]
Set Field [ Barcode Generation::Image; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]
End If
```

Create maxicode:

```
Set Field [ Barcode Generation::Image ; "" ]
Set Variable [ $img ; Value: MBS("Barcode.SetOptions"; 2) ]
Set Variable [ $img ; Value: MBS("Barcode.SetPrimary"; "999999999840012"; "utf8") ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "Maxicode"; "Secondary Message Here") ]
If [ MBS("IsError") = 0 ]
Set Field [ Barcode Generation::Image ; MBS( "GMImage.WriteToPNGContainer"; $img; "barcode.png" ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $img ) ]
End If
```

Create Maxicode with mode 3:

```
Set Variable [ $p ; Value: "196LS97TF826004" // primary text ]
Set Variable [ $t ; Value: "1Z42015596UPSN123W123456/11NLEEDS" // second text ]
Set Variable [ $r ; Value: MBS("Barcode.SetOptions"; 3) ]
Set Variable [ $r ; Value: MBS("Barcode.SetPrimary"; $p) ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "maxicode"; $t) ]
```

Example for Maxicode creation, e.g. for UPS:

```
Set Variable [ $p ; Value: "LS97TF 826004" // primary text ]
Set Variable [ $t ; Value: " [ ]>{ RS } 01 { GS } 961Z42015596 { GS } UPSN { GS } 123W45 { GS } 339
{ GS } { GS } 1/1 { GS } 1 { GS } N { GS } { GS } LEEDS { GS } { RS } { EOT } " ]
Set Variable [ $t ; Value: Substitute($t; " { EOT } "; Char(4)) ]
Set Variable [ $t ; Value: Substitute($t; " { RS } "; Char(30)) ]
Set Variable [ $t ; Value: Substitute($t; " { GS } "; Char(29)) ]
Set Variable [ $r ; Value: MBS("Barcode.SetOptions"; 3) ]
// Set Variable [ $r ; Value: MBS( "Barcode.SetInputMode"; "data" ) ]
Set Variable [ $r ; Value: MBS( "Barcode.SetInputMode"; "unicode" ) ]
Set Variable [ $r ; Value: MBS("Barcode.SetPrimary"; $p) ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; "maxicode"; $t) ]
Set Field [ Barcode Generation::Image ; MBS( "GMImage.WriteToPNGContainer"; $img ) ]
Set Variable [ $r ; Value: MBS("GMImage.Release"; $img) ]
```

#### See also

- 44.4 Barcode.Generate 1177
- 44.8 Barcode.GetPrimary 1187
- 44.11 Barcode.SetInputMode 1191
- 44.12 Barcode.SetOption 1193
- 44.13 Barcode.SetOptions 1195
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840
- 127.6 IsError 6374

#### 44.14.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr4](#)
- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 1st March 2017, last changed 21st December 2018.

## 44.15 Barcode.UPCChecksum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.UPCChecksum"; Text )

### Parameters

#### Text

The text with the numbers for the barcode. Do use text and not number, where starting zeros would be skipped.

"12345"

**Result** The checksum as text.

### Description

#### Examples

Calculates a checksum:

MBS( "Barcode.UPCChecksum"; "12345" )

Calculates 7 for the EAN 5901234123457:

MBS( "Barcode.UPCChecksum"; "590123412345" )

### See also

- [44.3 Barcode.EANChecksum](#) 1176
- [44.9 Barcode.ISBNChecksum](#) 1188

### Example Databases

- [Barcode/DynaPDF Barcode](#)

#### 44.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)
- [MBS Filemaker Plugin, version 3.5pr9](#)

Created 18th August 2014, last changed 5th September 2019.

## 44.16 Barcode.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
44 Barcode	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Barcode.WriteFile"; type; path; symbology; Text { ; width; height; rotation; scale; transparent; ShowText; Encoding } )

### Parameters

#### type

Which file type to generate. Can be PNG, TIFF, JPEG, SVG or PS.

"SVG"

#### path

The file path to use. Currently limited to 255 characters for SVG and PS.

"/tmp/test.svg"

#### symbology

The symbology to use. e.g. EANX for EAN-13.

"EANX"

#### Text

The text to encode in the barcode.

"12345"

#### width

Optional

The desired width of the barcode in pixels. Zero gives the auto size.

0

#### height

Optional

The desired height of the barcode in pixels. Zero gives the auto size.

0

#### rotation

Optional

The rotation. Can be 0, 90, 180 or 270.

0

#### scale

Optional

The scale of the target image. Please use at least 4 for printing the barcode.

1.0

#### transparent

Optional

Pass 1 to have the white background being transparent.

1

#### ShowText

Optional

Whether to show text. Use 0 to hide text or 1 to show text.

1

### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

UTF8

**Result** Returns OK or error.

### Description

The plugin uses zint library internally, so we include the zint manual in documentation.

Possible symbologies: CODE11, C25MATRIX, C25INTER, C25IATA, C25LOGIC, C25IND, CODE39, EX-CODE39, EANX, EAN128, CODABAR, CODE128, DPLEIT, DPIDENT, CODE16K, CODE49, CODE93, FLAT, RSS14, RSSLTD, RSSEXP, TELEPEN, UPCA, UPCE, POSTNET, MSIPLESSEY, FIM, LOG-MARS, PHARMA, PZN, PHARMA\_TWO, PDF417, PDF417TRUNC, MAXICODE, QRCODE, CODE128B, AUSPOST, AUSREPLY, AUSROUTE, AUSREDIRECT, ISBNX, RM4SCC, DATAMATRIX, EAN14, COD-ABLOCKF, NVE18, JAPANPOST, KOREAPOST, RSS14STACK, RSS14STACKOMNI, RSSEXPSTACK, PLANET, MICROPDF417, ONECODE, PLESSEY, TELEPEN\_NUM, ITF14, KIX, AZTEC, DAFT, MI-CROQR, HIBC128, HIBC39, HIBCDM, HIBCQR, HIBCPDF, HIBCMICPDF, HIBCLOCKF, HIBCAZTEC, AZRUNE, CODE32, EANXCC, EAN128CC, RSS14CC, RSSLTDCC, RSSEXPCC, UPCACC, UPCECC, RSS14STACKCC, RSS14OMNICC, RSSEXPSTACKCC, CHANNEL, CODEONE, GRIDMATRIX, EANX-CHK, UPCACHK, UPCECHK, DOTCODE, HANXIN, VIN, MAILMARK, UPNQR and ULTRA..

Please use EANX for EAN-8 and EAN-13. You may need to leave away the check digit for some barcodes. For the size, be aware that some types like UPC codes have fixed size depending on content.

See also Barcode.SetOptions for further options.

### Examples

Creates UPCA barcode:

```
MBS( "Barcode.WriteFile"; "JPEG"; "/tmp/test.jpg"; "UPCA"; "72527270270")
```

Create ISDN 9780271016368 barcode with EAN:

```
MBS( "Barcode.WriteFile"; "SVG"; "/tmp/test.svg"; "EANX"; "978027101636")
```

Creates extended barcode with plus sign:

```
MBS( "Barcode.WriteFile"; "SVG"; "/tmp/test.svg"; "EANX"; "978027101636+90000")
```

Write JPEG file with EAN 128

```
MBS( "Barcode.WriteFile"; "jpg"; "/tmp/test.jpg"; "EAN128"; " [ 01 ] 98898765432106 [ 3202 ] 012345 [ 15
```

44.16. *BARCODE.WRITEFILE* 1203  
] 991231”)

**See also**

- 44.12 Barcode.SetOption 1193
- 44.13 Barcode.SetOptions 1195

**Example Databases**

- [Barcode/Barcode Generation](#)

**44.16.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.3pr2](#)

Created 18th August 2014, last changed 15th January 2020.





# Chapter 45

## BinaryFile

Read binary data from a file and write it to a file.

### 45.1 BinaryFile.Append

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Append"; FilePath )

#### Parameters

##### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac. `"test.txt"`

**Result** Returns reference number or error.

#### Description

See also `Text.AppendTextFile`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

#### Examples

Append text to a file:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Append"; "/Users/cs/Desktop/test.txt" ) ]  
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteText"; $fh; "Hello World" ) ]
```

Set Variable [ \$r ; Value: MBS( "BinaryFile.Close"; \$fh) ]

**See also**

- 45.2 BinaryFile.Close 1207
- 45.6 BinaryFile.Open 1212
- 45.21 BinaryFile.WriteText 1233
- 124.2 Path.FileMakerPathToNativePath 6247
- 167.2 Text.AppendTextFile 7897

Created 12nd June 2017, last changed 12nd June 2017.

## 45.2 BinaryFile.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Close"; BinaryFileRef )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

**Result** Returns OK or error.

### Description

Releases memory used for the file.

### Examples

Create a file and write Hello:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteText"; $fh; "Hello World" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- [45.3 BinaryFile.Create](#) 1208
- [45.7 BinaryFile.Position](#) 1214
- [45.9 BinaryFile.ReadContainer](#) 1216
- [45.10 BinaryFile.ReadFloat](#) 1217
- [45.11 BinaryFile.ReadHex](#) 1218
- [45.15 BinaryFile.Seek](#) 1225
- [45.16 BinaryFile.WriteByte](#) 1226
- [45.17 BinaryFile.WriteContainer](#) 1227
- [45.19 BinaryFile.WriteHex](#) 1229
- [45.20 BinaryFile.WriteInt](#) 1231

### 45.2.1 Blog Entries

- [Tip of the day: Split large files into smaller chunks](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 45.3 BinaryFile.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Create"; FilePath )

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac. `"test.txt"`

**Result** Returns reference number or error.

### Description

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Create a file and write Hello:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteText"; $fh; "Hello World" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

Split files into smaller chunks:

```
Set Variable [ $InputPath ; Value: "/Users/cs/Desktop/test.mp4" ]
Set Variable [ $ChunkSize ; Value: 10*1024*1024 ]
#
Set Variable [ $InputStream ; Value: MBS( "BinaryFile.Open"; $InputPath ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to open file." ; $InputStream & $& $InputPath ]
Exit Script [ Text Result: ]
End If
Set Variable [ $InputLength ; Value: MBS( "BinaryFile.Length"; $InputStream ) ]
Set Variable [ $InputPosition ; Value: 0 ]
Set Variable [ $Counter ; Value: 1 ]
Loop
# Read chunk
Set Variable [ $Chunk ; Value: MBS( "BinaryFile.ReadHex"; $InputStream; $ChunkSize ) ]
#
# Write Chunk
Set Variable [ $OutputPath ; Value: $InputPath & "?" & $Counter ]
Set Variable [ $OutputStream ; Value: MBS( "BinaryFile.Create"; $OutputPath ) ]
If [ MBS("IsError") ]
```

```

Show Custom Dialog [ "Failed to create file." ; $InputStream & $OutputPath ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $InputStream ) ]
Exit Script [ Text Result: ]
End If
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteHex"; $OutputStream; $Chunk ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $OutputStream ) ]
#
# next
Set Variable [ $InputPosition ; Value: $InputPosition + $ChunkSize ]
Exit Loop If [ $InputPosition >$InputLength ]
Set Variable [ $Counter ; Value: $Counter +1 ]
End Loop
#
# cleanup
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $InputStream ) ]

```

**See also**

- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.8 BinaryFile.ReadByte 1215
- 45.11 BinaryFile.ReadHex 1218
- 45.16 BinaryFile.WriteByte 1226
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233
- 127.6 IsError 6374

**45.3.1 Blog Entries**

- [Tip of the day: Split large files into smaller chunks](#)

Created 12nd June 2017, last changed 19th August 2018.

## 45.4 BinaryFile.EOF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.EOF"; BinaryFileRef )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

**Result** Returns 1, 0 or error.

### Description

Returns 1 if we are at the end or 0 if not.

### Examples

Try EOF:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
# Check End Of File usage
Set Variable [ $r ; Value: MBS( "BinaryFile.EOF"; $fh ) ]
# Read a lot of data
Set Variable [ $data ; Value: MBS( "BinaryFile.ReadText"; $fh; 10000000; "Latin1" ) ]
# Check End Of File usage
Set Variable [ $r ; Value: MBS( "BinaryFile.EOF"; $fh ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.6 BinaryFile.Open 1212
- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225

Created 12nd June 2017, last changed 12nd June 2017.

## 45.5 BinaryFile.Length

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Length"; BinaryFileRef )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

**Result** Returns number or error.

### Description

### Examples

Query length:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
```

```
Set Variable [ $len ; Value: MBS( "BinaryFile.Length"; $fh ) ]
```

```
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.6 BinaryFile.Open 1212
- 45.7 BinaryFile.Position 1214
- 45.9 BinaryFile.ReadContainer 1216
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225

### 45.5.1 Blog Entries

- [Tip of the day: Split large files into smaller chunks](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 45.6 BinaryFile.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Open"; FilePath )

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac. `"test.txt"`

**Result** Returns reference number or error.

### Description

### Examples

Open file:

```
MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" )
```

Split files into smaller chunks:

```
Set Variable [ $InputPath ; Value: "/Users/cs/Desktop/test.mp4" ]
Set Variable [ $ChunkSize ; Value: 10*1024*1024 ]
#
Set Variable [ $InputStream ; Value: MBS( "BinaryFile.Open"; $InputPath ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to open file." ; $InputStream & $InputPath ]
Exit Script [ Text Result: ]
End If
Set Variable [ $InputLength ; Value: MBS( "BinaryFile.Length"; $InputStream ) ]
Set Variable [ $InputPosition ; Value: 0 ]
Set Variable [ $Counter ; Value: 1 ]
Loop
# Read chunk
Set Variable [ $Chunk ; Value: MBS( "BinaryFile.ReadHex"; $InputStream; $ChunkSize ) ]
#
# Write Chunk
Set Variable [ $OutputPath ; Value: $InputPath & "." & $Counter ]
Set Variable [ $OutputStream ; Value: MBS( "BinaryFile.Create"; $OutputPath ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create file." ; $InputStream & $OutputPath ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $InputStream ) ]
Exit Script [ Text Result: ]
End If
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteHex"; $OutputStream; $Chunk ) ]
```



## 45.6. *BINARYFILE.OPEN*

1213

```
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $OutputStream ) ]  
#  
# next  
Set Variable [ $InputPosition ; Value: $InputPosition + $ChunkSize ]  
Exit Loop If [ $InputPosition >$InputLength ]  
Set Variable [ $Counter ; Value: $Counter +1 ]  
End Loop  
#  
# cleanup  
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $InputStream ) ]
```

### See also

- 45.1 BinaryFile.Append 1205
- 45.5 BinaryFile.Length 1211
- 45.9 BinaryFile.ReadContainer 1216
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225
- 127.6 IsError 6374

### 45.6.1 Blog Entries

- [Tip of the day: Split large files into smaller chunks](#)

Created 12nd June 2017, last changed 19th August 2018.

## 45.7 BinaryFile.Position

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Position"; BinaryFileRef )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

**Result** Returns number or error.

### Description

#### Examples

Play with position:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
# Query length
Set Variable [ $len ; Value: MBS( "BinaryFile.Length"; $fh ) ]
# move current position
Set Variable [ $r ; Value: MBS( "BinaryFile.Seek"; $fh; 6 ) ]
# query current position
Set Variable [ $pos ; Value: MBS( "BinaryFile.Position"; $fh ) ]
# read 5 bytes
Set Variable [ $text ; Value: MBS( "BinaryFile.ReadText"; $fh; 5; "UTF8" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.14 BinaryFile.ReadText 1223
- 45.15 BinaryFile.Seek 1225

Created 12nd June 2017, last changed 12nd June 2017.

## 45.8 BinaryFile.ReadByte

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadByte"; BinaryFileRef )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

**Result** Returns value or error.

### Description

Returns empty result if reading fails.

See also BinaryFile.WriteByte for writing.

### See also

- 45.3 BinaryFile.Create 1208
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.16 BinaryFile.WriteByte 1226

### 45.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 45.9 BinaryFile.ReadContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadContainer"; BinaryFileRef; ByteCount; Filename )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### ByteCount

The number of Bytes to read.

1000

#### Filename

File name to use for container value. This is used to detect type of container.

"test.pdf"

**Result** Returns value or error.

### Description

Depending on given file name, you get back a PDF, image, video or data container.

See also BinaryFile.WriteContainer for writing.

### Examples

Read a JPEG:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.jpg" ) ]
Set Variable [ $len ; Value: MBS("BinaryFile.Length"; $fh) ]
Set Variable [ $image ; Value: MBS( "BinaryFile.ReadContainer"; $fh; $len; "test.jpg" ) ]
Set Field [ test::ContainerField ; $image ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.17 BinaryFile.WriteContainer 1227

Created 12nd June 2017, last changed 12nd June 2017.

## 45.10 BinaryFile.ReadFloat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadFloat"; BinaryFileRef { ; Bits } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Bits

Optional

The bit width of the value. Pass 32 for a 32-bit floating point number (single) or 64 for a 64-bit floating point number (double). Default is 32.

32

**Result** Returns value or error.

### Description

See also BinaryFile.WriteFloat for writing.

### Examples

Read floating point values:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/output.dat" ) ]
Set Variable [ $v1 ; Value: MBS( "BinaryFile.ReadFloat"; $fh; 32) ]
Set Variable [ $v1 ; Value: MBS( "BinaryFile.ReadFloat"; $fh; 64) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.6 BinaryFile.Open 1212
- 45.8 BinaryFile.ReadByte 1215
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.18 BinaryFile.WriteFloat 1228

Created 12nd June 2017, last changed 12nd June 2017.

## 45.11 BinaryFile.ReadHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadHex"; BinaryFileRef; ByteCount )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### ByteCount

The number of Bytes to read.

1000

**Result** Returns hex text or error.

### Description

The read text may be shorter.

### Examples

Read hex encoded data:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
```

```
Set Variable [ $data ; Value: MBS( "BinaryFile.ReadHex"; $fh; 1000) ]
```

```
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.6 BinaryFile.Open 1212
- 45.8 BinaryFile.ReadByte 1215
- 45.10 BinaryFile.ReadFloat 1217
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.19 BinaryFile.WriteHex 1229

### 45.11.1 **Blog Entries**

- **Tip of the day:** [Split large files into smaller chunks](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 45.12 BinaryFile.ReadInt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadInt"; BinaryFileRef { ; Bits } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Bits

Optional

The number of bits to use. Can be 8, 16, 32 or 64 bit. Default is 32 bit.

32

**Result** Returns value or error.

### Description

See also BinaryFile.WriteInt for writing.

### Examples

Play with reading integers:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $v1 ; Value: MBS( "BinaryFile.ReadInt"; $fh; 8 ) ]
Set Variable [ $v2 ; Value: MBS( "BinaryFile.ReadInt"; $fh; 16 ) ]
Set Variable [ $v3 ; Value: MBS( "BinaryFile.ReadInt"; $fh; 32 ) ]
Set Variable [ $v4 ; Value: MBS( "BinaryFile.ReadInt"; $fh; 64 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.6 BinaryFile.Open 1212
- 45.8 BinaryFile.ReadByte 1215
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.13 BinaryFile.ReadPDF 1221
- 45.14 BinaryFile.ReadText 1223
- 45.20 BinaryFile.WriteInt 1231

Created 12nd June 2017, last changed 12nd June 2017.



## 45.13 BinaryFile.ReadPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadPDF"; BinaryFileRef; ByteCount { ; Filename } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### ByteCount

The number of Bytes to read.

1000

#### Filename

Optional

Optional file name to use for PDF in container value.

"test.pdf"

**Result** Returns PDF, empty or error.

### Description

This is a special method which actually reads the data and then looks inside the data for a PDF.

So there can be data before and after the PDF, which is ignored.

Returns nothing if no PDF is found.

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Read some PDF from file:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/Tes0059.pdf" ) ]
Set Variable [ $len ; Value: MBS( "BinaryFile.Length"; $fh ) ]
Set Variable [ $pdf ; Value: MBS( "BinaryFile.ReadPDF"; $fh; $len; "test.pdf" ) ]
Set Field [ test::ContainerField ; $pdf ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.8 BinaryFile.ReadByte 1215

- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.14 BinaryFile.ReadText 1223

### 45.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 12nd June 2017, last changed 27th October 2019.

## 45.14 BinaryFile.ReadText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.ReadText"; BinaryFileRef; ByteCount { ; Encoding } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### ByteCount

The number of Bytes to read.

1000

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns OK or error.

### Description

You have to decide which encoding to use (if not UTF8). We support a few encodings, but we can add more if you need something special. Some characters will be wrong if the encoding is not correct. The read text may be shorter than requested if you hit end of file.

When passing UTF-16 as encoding, we can detect byte order if there is a Byte Order Mark.

See also Text.ReadTextFile and Text.ReadTextFromContainer.

### Examples

Read some text:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $len ; Value: MBS("BinaryFile.Length"; $fh) ]
Set Variable [ $text ; Value: MBS( "BinaryFile.ReadText"; $fh; $len; "UTF-8" ) ]
Set Field [ test::ContainerField ; $text ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212

- 45.8 BinaryFile.ReadByte 1215
- 45.10 BinaryFile.ReadFloat 1217
- 45.11 BinaryFile.ReadHex 1218
- 45.12 BinaryFile.ReadInt 1220
- 45.13 BinaryFile.ReadPDF 1221
- 45.15 BinaryFile.Seek 1225
- 45.21 BinaryFile.WriteText 1233
- 167.49 Text.ReadTextFile 7971

Created 12nd June 2017, last changed 12nd June 2017.

## 45.15 BinaryFile.Seek

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.Seek"; BinaryFileRef; Position )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Position

The new position in the file.

123

**Result** Returns OK or error.

### Description

### Examples

Play with Seek:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Open"; "/Users/cs/Desktop/test.txt" ) ]
# Query length
Set Variable [ $len ; Value: MBS( "BinaryFile.Length"; $fh ) ]
# move current position
Set Variable [ $r ; Value: MBS( "BinaryFile.Seek"; $fh; 6 ) ]
# query current position
Set Variable [ $pos ; Value: MBS( "BinaryFile.Position"; $fh ) ]
# read 5 bytes
Set Variable [ $text ; Value: MBS( "BinaryFile.ReadText"; $fh; 5; "UTF8" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.4 BinaryFile.EOF 1210
- 45.5 BinaryFile.Length 1211
- 45.6 BinaryFile.Open 1212
- 45.7 BinaryFile.Position 1214
- 45.14 BinaryFile.ReadText 1223

Created 12nd June 2017, last changed 12nd June 2017.

## 45.16 BinaryFile.WriteByte

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteByte"; BinaryFileRef; Value )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Value

The byte value to write. Range 0 to 255.

123

**Result** Returns OK or error.

### Description

### Examples

Write byte:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteByte"; $fh; 65) // 65 is letter A for text files ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.8 BinaryFile.ReadByte 1215
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233

Created 12nd June 2017, last changed 12nd June 2017.

## 45.17 BinaryFile.WriteContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteContainer"; BinaryFileRef; Container )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Container

The container value to write.

MyTable::MyImage

**Result** Returns OK or error.

### Description

Useful if your file should contain a picture or PDF file.

### Examples

Write container to file:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/output.pdf" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteContainer"; $fh; test::ContainerField) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.9 BinaryFile.ReadContainer 1216
- 54.40 ZipFile.WriteContainer 1556

Created 12nd June 2017, last changed 12nd June 2017.

## 45.18 BinaryFile.WriteFloat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteFloat"; BinaryFileRef; Value { ; Bits } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Value

The floating point value.

123.456

#### Bits

Optional

The bit width of the value. Pass 32 for a 32-bit floating point number (single) or 64 for a 64-bit floating point number (double). Default is 32.

32

**Result** Returns OK or error.

### Description

### Examples

Write floating point values:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/output.dat" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteFloat"; $fh; 123,456; 32 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteFloat"; $fh; 123,456; 64 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.10 BinaryFile.ReadFloat 1217
- 45.16 BinaryFile.WriteByte 1226
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233

Created 12nd June 2017, last changed 12nd June 2017.



## 45.19 BinaryFile.WriteHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteHex"; BinaryFileRef; HexText )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### HexText

The hex encoded data as text.

"48656C6C6F20576F726C64"

**Result** Returns OK or error.

### Description

### Examples

Write Hello World to text:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteHex"; $fh; "48656C6C6F20576F726C64" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.6 BinaryFile.Open 1212
- 45.11 BinaryFile.ReadHex 1218
- 45.16 BinaryFile.WriteByte 1226
- 45.18 BinaryFile.WriteFloat 1228
- 45.20 BinaryFile.WriteInt 1231
- 45.21 BinaryFile.WriteText 1233

### 45.19.1 Blog Entries

- [More Text Encoding conversion for FileMaker](#)
- [Tip of the day: Split large files into smaller chunks](#)



## 45.20 BinaryFile.WriteInt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteInt"; BinaryFileRef; Value { ; Bits } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Value

The value to write.

123

#### Bits

Optional

The number of bits to use. Can be 8, 16, 32 or 64 bit. Default is 32 bit.

32

**Result** Returns OK or error.

### Description

### Examples

Write some integers:

```
Set Variable [ $fh ; Value: MBS( "BinaryFile.Create"; "/Users/cs/Desktop/test.txt" ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteInt"; $fh; 123; 8 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteInt"; $fh; 12345; 16 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteInt"; $fh; 123456789; 32 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.WriteInt"; $fh; 123456789012345; 64 ) ]
Set Variable [ $r ; Value: MBS( "BinaryFile.Close"; $fh ) ]
```

### See also

- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.12 BinaryFile.ReadInt 1220
- 45.16 BinaryFile.WriteByte 1226
- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.21 BinaryFile.WriteText 1233



## 45.21 BinaryFile.WriteText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
45 BinaryFile	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "BinaryFile.WriteText"; BinaryFileRef; Text { ; Encoding } )

### Parameters

#### BinaryFileRef

The reference number for the open file.

\$FH

#### Text

The text to write.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF-8"

**Result** Returns OK or error.

### Description

You have to decide which encoding to use (if not UTF-8). We support a few encodings, but we can add more if you need something special.

Please use Text.ReplaceNewline to define which line endings the file has.

If text encoding doesn't support given characters, they are converted to close match if possible or replaced by question marks.

You can pass UTF-16, UTF-16LE or UTF-16BE for encoding, too.

See also Text.WriteTextFile and Text.WriteToContainer.

### Examples

Write Hello:

MBS( "BinaryFile.WriteText"; \$fh; "Hello"; "UTF8"

### See also

- 45.1 BinaryFile.Append 1205
- 45.2 BinaryFile.Close 1207
- 45.3 BinaryFile.Create 1208
- 45.14 BinaryFile.ReadText 1223

- 45.18 BinaryFile.WriteFloat 1228
- 45.19 BinaryFile.WriteHex 1229
- 45.20 BinaryFile.WriteInt 1231
- 167.59 Text.ReplaceNewline 7985
- 167.69 Text.WriteToContainer 8003
- 54.43 ZipFile.WriteText 1560

Created 12nd June 2017, last changed 12nd June 2017.

# Chapter 46

## BlueThermProbe

Functions to use a BlueTherm™ Probe device from ThermoWorks with iOS.

You need to get their SDK to use with MBS FileMaker iOS SDK.

### 46.1 BlueThermProbe.ConnectToDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.ConnectToDevice"; Device )

#### Parameters

##### Device

The device identifier, name or index. Empty value is first device.

0

**Result** Returns OK or error.

#### Description

#### Examples

Connect to first device:

MBS( "BlueThermProbe.ConnectToDevice"; 0 )

#### See also

- 46.2 BlueThermProbe.ConnectedDevices 1237
- 46.6 BlueThermProbe.DisconnectFromDevice 1242

- 46.10 BlueThermProbe.RemoveDevice

Created 15th August 2019, last changed 16th August 2019.



## 46.2 BlueThermProbe.ConnectedDevices

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.ConnectedDevices" )

**Result** Returns JSON or error.

### Description

This returns a big JSON array with an object for each device including the sensors array with an object for each sensor.

### See also

- 46.1 BlueThermProbe.ConnectToDevice 1235
- 46.6 BlueThermProbe.DisconnectFromDevice 1242

Created 15th August 2019, last changed 15th August 2019.

## 46.3 BlueThermProbe.Device

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.Device"; Device )

### Parameters

#### Device

The device identifier, name or index. Empty value is first device.

0

**Result** Returns JSON or error.

### Description

Returns JSON block with details.

If you only need one sensor record, you can use BlueThermProbe.DeviceSensor function.

### See also

- 46.5 BlueThermProbe.Devices 1241
- 46.4 BlueThermProbe.DeviceSensor 1239
- 46.10 BlueThermProbe.RemoveDevice 1246

Created 15th August 2019, last changed 15th August 2019.

## 46.4 BlueThermProbe.DeviceSensor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.DeviceSensor"; Device; Sensor )

### Parameters

#### Device

The device identifier, name or index. Empty value is first device.

0

#### Sensor

The sensor name or index. Empty value is first sensor.

0

**Result** Returns JSON or error.

### Description

Returns JSON block with details for sensor.

### Examples

Query sensor details on first sensor of first device:

MBS( "BlueThermProbe.DeviceSensor"; 0; 0 )

```
Example result: {
  "readingUnitString" : "°C",
  "readingUnit" : 0,
  "readingAsDisplayed" : "",
  "fault" : false,
  "genericTypeString" : "Temperature",
  "index" : 1,
  "displayUnit" : 0,
  "typeString" : "K Thermocouple Fixed",
  "name" : "",
  "type" : 12,
  "readingCelsius" : 25.776786804199219,
  "readingTimestamp" : true,
  "trimValue" : 0,
  "lowAlarmBreached" : false,
  "genericType" : 1,
  "lowAlarm" : 0,
  "readingFahrenheit" : 78.398216247558594,
  "rangeHigh" : true,
  "enabled" : true,
  "highAlarmSignalled" : false,
  "highAlarmEnabled" : false,
  "reading" : 25.776786804199219,
```

```
"displayUnitString" : "°C",  
"highAlarmBreached" : false,  
"rangeLow" : true,  
"lowAlarmSignalled" : false,  
"highAlarm" : 0,  
"lowAlarmEnabled" : false  
}
```

**See also**

- 46.3 BlueThermProbe.Device 1238
- 46.5 BlueThermProbe.Devices 1241

**46.4.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 15th August 2019, last changed 16th August 2019.

## 46.5 BlueThermProbe.Devices

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.Devices" )

**Result** Returns JSON or error.

### Description

This returns a big JSON array with an object for each device including the sensors array with an object for each sensor.

If you only need one device, you can use BlueThermProbe.Device function.

### See also

- 46.3 BlueThermProbe.Device 1238
- 46.4 BlueThermProbe.DeviceSensor 1239

Created 15th August 2019, last changed 15th August 2019.

## 46.6 BlueThermProbe.DisconnectFromDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.DisconnectFromDevice"; Device )

### Parameters

#### Device

The device identifier, name or index. Empty value is first device.

0

**Result** Returns OK or error.

### Description

#### See also

- 46.2 BlueThermProbe.ConnectedDevices 1237
- 46.1 BlueThermProbe.ConnectToDevice 1235

Created 15th August 2019, last changed 15th August 2019.

## 46.7 BlueThermProbe.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.Initialize" )

**Result** Returns OK or error.

### Description

This function must be called once to initialize the library and setup all required things.

Rewritten in plugin version 9.4 for BlueTherm LE SDK iOS v2.0.

Please link libThermaLib.a into your FileMaker iOS SDK app by adding it as a required library. Add "Supported external accessory protocols" for Info.plist and add an item "uk.co.etilt.d.bluetherm1". For "Required background modes", please add "App communicates with an accessory".

You can call this in your start script.

### See also

- 46.9 BlueThermProbe.IsInitialized

Created 15th August 2019, last changed 15th August 2019.

## 46.8 BlueThermProbe.IsBluetoothAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.IsBluetoothAvailable" )

**Result** Returns 1, 0 or error.

### Description

Created 15th August 2019, last changed 15th August 2019.



## 46.9 BlueThermProbe.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.IsInitialized" )

**Result** Returns 1, 0 or error.

### Description

Returns 0, if you need to call BlueThermProbe.Initialized or 1 if that function was called before.

### See also

- 46.7 BlueThermProbe.Initialize

1243

Created 15th August 2019, last changed 18th August 2019.

## 46.10 BlueThermProbe.RemoveDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.RemoveDevice"; Device )

### Parameters

#### Device

The device identifier, name or index. Empty value is first device.

0

**Result** Returns OK or error.

### Description

The device will be re-added if it is rediscovered by a subsequent scan.

### See also

- 46.1 BlueThermProbe.ConnectToDevice 1235
- 46.3 BlueThermProbe.Device 1238

Created 15th August 2019, last changed 15th August 2019.

**46.11 BlueThermProbe.SendCommand**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SendCommand"; Device; Command )

**Parameters****Device**

The device identifier, name or index. Empty value is first device.

0

**Command**

Which command to run.

"Identify"

**Result** Returns OK or error.

**Description**

Command	Description
Measure	Requests the device takes a measurement immediately and transmits it.
Identify	Requests the device identifies itself, for example by flashing an LED
FactorySettings	Requests the device returns to factory settings, excluding trim values.
FactoryReset	requests the device returns to factory settings, including trim values.
refresh	Requests all values to be read from the device

**Examples**

Ask first device to identify:

MBS( "BlueThermProbe.SendCommand"; 0; "Identify" )

Created 15th August 2019, last changed 16th August 2019.

## 46.12 BlueThermProbe.SetBatteryLevelScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetBatteryLevelScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Called when device sends battery level notification.

Parameter is a JSON object with deviceName, deviceIdentifier and timestamp.

Created 15th August 2019, last changed 18th August 2019.

**46.13 BlueThermProbe.SetDeviceUpdatedScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetDeviceUpdatedScript"; Filename; ScriptName )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

Called when device is updated. This may be the result of a read request or a write request.

Parameter is a JSON object with deviceName, deviceIdentifier and timestamp.

**See also**

- 46.14 BlueThermProbe.SetDisconnectedScript 1250
- 46.17 BlueThermProbe.SetSensorUpdatedSScript 1253

Created 15th August 2019, last changed 18th August 2019.

## 46.14 BlueThermProbe.SetDisconnectedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetDisconnectedScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Called when device is disconnected. Please note that after disconnection, no information that would normally require a connection, including the serial number, will be accessible, so any information required after disconnection must be cached by the client.

Parameter is a JSON object with deviceName, deviceIdentifier, reason and timestamp.

### See also

- 46.13 BlueThermProbe.SetDeviceUpdatedScript 1249
- 46.17 BlueThermProbe.SetSensorUpdatedSScript 1253

Created 15th August 2019, last changed 18th August 2019.

**46.15 BlueThermProbe.SetNewDeviceScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetNewDeviceScript"; Filename; ScriptName )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

Called while scan for devices is running for each new device.

Parameter is a JSON object with deviceName, deviceIdentifier and timestamp.

**See also**

- 46.18 BlueThermProbe.StartDeviceScan 1254
- 46.19 BlueThermProbe.StopDeviceScan 1255

Created 15th August 2019, last changed 15th August 2019.

## 46.16 BlueThermProbe.SetNotificationReceivedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetNotificationReceivedScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Called when device is sends notification. See type field in parameter to your script.

Parameter is a JSON object with deviceName, deviceIdentifier, type and timestamp.

Name	Type Number	Description
None	0	Button pressed on the device
ButtonPressed	1	Device is about to shut down
Shutdown	2	Device received an invalid setting
InvalidSetting	3	Device received an invalid command
InvalidCommand	4	Device requests app to re-read all data
RefreshRequest	5	Communication error detected
CommunicationError	6	Remote device checkpoint event
Checkpoint	7	Checkpoint

Created 15th August 2019, last changed 20th August 2019.



**46.17 BlueThermProbe.SetSensorUpdatedSScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.SetSensorUpdatedSScript"; Filename; ScriptName )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

Called when sensor reading was updated.

Parameter is a JSON object with name, reading, deviceName, deviceIdentifier and timestamp.

For temperature, we include readingFahrenheit and readingCelsius.

**See also**

- 46.13 BlueThermProbe.SetDeviceUpdatedScript 1249
- 46.14 BlueThermProbe.SetDisconnectedScript 1250

Created 15th August 2019, last changed 15th August 2019.

## 46.18 BlueThermProbe.StartDeviceScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.StartDeviceScan" )

**Result** Returns OK or error.

**Description**

**See also**

- 46.15 BlueThermProbe.SetNewDeviceScript 1251
- 46.19 BlueThermProbe.StopDeviceScan 1255

Created 15th August 2019, last changed 15th August 2019.

## 46.19 BlueThermProbe.StopDeviceScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.StopDeviceScan" )

**Result** Returns OK or error.

### Description

### See also

- 46.15 BlueThermProbe.SetNewDeviceScript 1251
- 46.18 BlueThermProbe.StartDeviceScan 1254

Created 15th August 2019, last changed 15th August 2019.

## 46.20 BlueThermProbe.VersionNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
46 BlueThermProbe	9.4	No	No	No	No	Yes

MBS( "BlueThermProbe.VersionNumber" )

**Result** Returns text or error.

### Description

May contain arbitrary characters.

Created 15th August 2019, last changed 15th August 2019.

# Chapter 47

## Bonjour

Lookup services on local network via zero config technology.

### 47.1 Bonjour.Browse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
47 Bonjour	8.4	Yes	Yes	Yes	No	No

MBS( "Bonjour.Browse"; Type )

#### Parameters

##### Type

The type to browse for.  
"\_fmp12.\_tcp"

**Result** Returns OK or error.

#### Description

Results from last browse are cleared first.  
You need Bonjour library installed on Windows to have this work.

Use Bonjour.JSON functions to query results later. Please let a small pause for network to provide results, which get updated in background.

#### Examples

Browser for SMB shares:

```
Set Variable [ $r ; Value: MBS("Bonjour.Browse"; "_smb._tcp.") ]
```

Browser for AFP shares:

Set Variable [ \$r ; Value: MBS("Bonjour.Browse"; "\_afpovertcp.\_tcp.") ]

Browser for FileMaker server:

Set Variable [ \$r ; Value: MBS("Bonjour.Browse"; "\_fmpro-rcfmp12.\_tcp.") ]

### See also

- [47.2 Bonjour.JSON](#) 1259
- [47.3 Bonjour.Register](#) 1261

### Example Databases

- [Network/Bonjour](#)

#### 47.1.1 Blog Entries

- [Adding Bonjour functions for MBS FileMaker Plugin](#)

Created 28th July 2018, last changed 28th July 2018.

## 47.2 Bonjour.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
47 Bonjour	8.4	Yes	Yes	Yes	No	No

MBS( "Bonjour.JSON" )

**Result** Returns JSON or error.

### Description

First level in JSON is an array with services found.

For each service, we list interfaceIndex, type, domain, serviceName, IP and port.

IP and port are brought down from found host and IP.

Hosts array for each service describes the hosts for that service. That can be one or more hosts. Each host may have several IPs to connect to.

### Examples

Query results:

```
Set Variable [ $json; MBS( "Bonjour.JSON" ) ]
```

```
Example result: [ {
  "interfaceIndex": 4,
  "type": "_fmpro-rcfmp12._tcp.",
  "domain": "local.",
  "serviceName": "WIN-Test",
  "IP": "2003:e1:6bc2:c272:7029:44d3:99ae:ab87",
  "port": 5003,
  "hosts": [ {
    "interfaceIndex": 4,
    "port": 5003,
    "fullName": "WIN-Test._fmpro-rcfmp12._tcp.local.",
    "hostTarget": "WIN-Test.local.",
    "IPs": [ {
      "port": 5003,
      "interfaceIndex": 4,
      "ip": "2003:e1:6bc2:c272:7029:44d3:99ae:ab87",
      "hostName": "WIN-Test.local.",
      "protocol": "IPv6"
    }, {
      "port": 5003,
      "interfaceIndex": 4,
      "ip": "fe80::7029:44d3:99ae:ab87",
      "hostName": "WIN-Test.local.",
      "protocol": "IPv6"
    }, {
      "port": 5003,
```

```
"interfaceIndex": 4,  
"ip": "192.168.2.122",  
"hostName": "WIN-Test.local",  
"protocol": "IPv4"  
}]  
}]  
}]
```

**See also**

- [47.1 Bonjour.Browse](#)

1257

**Example Databases**

- [Network/Bonjour](#)

**47.2.1 Blog Entries**

- [Adding Bonjour functions for MBS FileMaker Plugin](#)

Created 28th July 2018, last changed 28th July 2018.



## 47.3 Bonjour.Register

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
47 Bonjour	8.4	Yes	Yes	Yes	No	Yes

MBS( "Bonjour.Register"; Name; Type; Domain; Host; Port )

### Parameters

#### Name

If non-empty, specifies the service name to be registered. Most applications will not specify a name, in which case the computer name is used. If a name is specified, it must be 1-63 bytes of UTF-8 text. If the name is longer than 63 bytes it will be automatically truncated to a legal length.

#### Type

The service type followed by the protocol, separated by a dot (e.g. "\_ftp.\_tcp"). The service type must be an underscore, followed by 1-14 characters, which may be letters, digits, or hyphens. The transport protocol must be "\_tcp" or "\_udp". New service types should be registered at <http://www.dns-sd.org/ServiceTypes.html>.

"\_test.\_tcp"

#### Domain

If non-empty, specifies the domain on which to advertise the service. Most applications will not specify a domain, instead automatically registering in the default domain(s).

#### Host

If non-empty, specifies the SRV target host name. Most applications will not specify a host, instead automatically using the machine's default host name(s).

#### Port

The port, in network byte order, on which the service accepts connections. Pass 0 for a "placeholder" service (i.e. a service that will not be discovered by browsing, but will cause a name conflict if another client tries to register that same name). Most clients will not use placeholder services.

1234

**Result** Returns OK or error.

### Description

This service is discovered via Bonjour.Browse function.

### Examples

Register test service:

```
MBS( "Bonjour.Register"; "Test"; "_test._tcp"; ""; ""; 1234 )
```

### See also

- 47.1 Bonjour.Browse

## 47.4 Bonjour.RegisteredName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
47 Bonjour	8.4	Yes	Yes	Yes	No	Yes

MBS( "Bonjour.RegisteredName" )

**Result** Returns service name or error.

### Description

Returns the full name of the service registered currently.  
Created 31st July 2018, last changed 31st July 2018.

# Chapter 48

## Calendar

Functions for the Calendar database on Mac OS X. (iCal)

You may have events or todo items in your FileMaker database. Our plugin can help you sync them into the calendar database on Mac, e.g. create events and reminders into specific calendars. If one Mac has a calendar subscribed for each member of staff and those sync via iCloud/Google/Exchange to their mobile phones, your solution can push events or reminders to your staff on one central routine.

The calendar functions work on Mac OS X for 32 and 64-bit applications. But they are deprecated by Apple and you should move to Events functions for newer projects. Please do not mix Calendar and Events calls as they use different IDs.

On Server you can only use calendar functions if you got a calendar for the user account where the server runs. Normally the server user account has no calendars.

Use this functions to sync events to iCal/Calendar app.

### 48.1 Calendar.Alarm.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.Duplicate"; alarmRef )

#### Parameters

##### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns alarm reference text or error.

#### Description

Please make a copy whenever you take an alarm from one event to add it to another event.

**See also**

- 48.22 Calendar.Calendar.Duplicate 1285
- 48.36 Calendar.Item.Duplicate 1302

Created 18th August 2014, last changed 18th August 2014.

## 48.2 Calendar.Alarm.GetAbsoluteTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetAbsoluteTrigger"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns value or error.

### Description

The time that an alarm goes off is referred to as the trigger. Alarms have either a relative trigger, which means the alarm fires a certain number of seconds before an alarm occurs, or an absolute trigger, which specifies the exact time the alarm will trigger off. #

### See also

- 48.7 Calendar.Alarm.GetRelativeTrigger 1270
- 48.10 Calendar.Alarm.SetAbsoluteTrigger 1273
- 48.15 Calendar.Alarm.SetRelativeTrigger 1278

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.3 Calendar.Alarm.GetAcknowledged

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetAcknowledged"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns boolean value or error.

### Description

### See also

- 48.11 Calendar.Alarm.SetAcknowledged

1274

Created 18th August 2014, last changed 18th August 2014.

## 48.4 Calendar.Alarm.GetAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetAction"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns action name or error.

### Description

Action can be: Display, Email, Procedure or Sound.

### See also

- 48.8 Calendar.Alarm.GetSound 1271
- 48.9 Calendar.Alarm.GetURL 1272
- 48.12 Calendar.Alarm.SetAction 1275
- 48.50 Calendar.Item.GetLocation 1316

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.5 Calendar.Alarm.GetEmailAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetEmailAddress"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns email or error.

### Description

#### See also

- 48.13 Calendar.Alarm.SetEmailAddress 1276
- 77.3 Events.Alarm.GetEmailAddress 3562
- 77.10 Events.Alarm.SetEmailAddress 3569

Created 18th August 2014, last changed 18th August 2014.



## 48.6 Calendar.Alarm.GetRelatedTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetRelatedTo"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns text or error.

### Description

### See also

- 48.14 Calendar.Alarm.SetRelatedTo

1277

Created 18th August 2014, last changed 18th August 2014.

## 48.7 Calendar.Alarm.GetRelativeTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetRelativeTrigger"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns value or error.

### Description

Value is in seconds relative to parent calendar item.

The time that an alarm goes off is referred to as the trigger. Alarms have either a relative trigger, which means the alarm fires a certain number of seconds before an alarm occurs, or an absolute trigger, which specifies the exact time the alarm will trigger off.

### See also

- 48.2 Calendar.Alarm.GetAbsoluteTrigger 1265
- 48.10 Calendar.Alarm.SetAbsoluteTrigger 1273
- 48.15 Calendar.Alarm.SetRelativeTrigger 1278

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.8 Calendar.Alarm.GetSound

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetSound"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns sound name or error.

### Description

#### See also

- [48.4 Calendar.Alarm.GetAction](#) 1267
- [48.9 Calendar.Alarm.GetURL](#) 1272
- [48.16 Calendar.Alarm.SetSound](#) 1279
- [48.17 Calendar.Alarm.SetURL](#) 1280
- [77.6 Events.Alarm.GetSound](#) 3565

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.9 Calendar.Alarm.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.GetURL"; alarmRef )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

**Result** Returns URL or error.

### Description

#### See also

- 48.4 Calendar.Alarm.GetAction 1267
- 48.8 Calendar.Alarm.GetSound 1271
- 48.16 Calendar.Alarm.SetSound 1279
- 48.17 Calendar.Alarm.SetURL 1280
- 48.56 Calendar.Item.GetURL 1323
- 48.73 Calendar.Item.SetURL 1344

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.10 Calendar.Alarm.SetAbsoluteTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetAbsoluteTrigger"; alarmRef; timestamp )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### timestamp

The new date and time for this alarm.

Get(HostDateTime)+30

**Result** Returns OK or error.

### Description

Setting an absoluteTrigger will also set the relativeTrigger to undefined.

#### See also

- 48.2 Calendar.Alarm.GetAbsoluteTrigger 1265
- 48.7 Calendar.Alarm.GetRelativeTrigger 1270
- 48.15 Calendar.Alarm.SetRelativeTrigger 1278

Created 18th August 2014, last changed 18th August 2014.

## 48.11 Calendar.Alarm.SetAcknowledged

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetAcknowledged"; alarmRef; value )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### value

The new boolean value. Can be 0 or 1.

1

**Result** Returns OK or error.

### Description

#### See also

- 48.3 Calendar.Alarm.GetAcknowledged

1266

Created 18th August 2014, last changed 18th August 2014.

## 48.12 Calendar.Alarm.SetAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetAction"; alarmRef; action )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### action

The new action command.

"Display"

**Result** Returns OK or error.

### Description

Action can be: Display, Email, Procedure or Sound.

#### See also

- 48.4 Calendar.Alarm.GetAction 1267
- 48.16 Calendar.Alarm.SetSound 1279
- 48.17 Calendar.Alarm.SetURL 1280
- 48.68 Calendar.Item.SetLocation 1337

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

#### 48.12.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 13th September 2015.

## 48.13 Calendar.Alarm.SetEmailAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetEmailAddress"; alarmRef; email )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### email

The new email address a text.

"test@monkeybreadsoftware.de"

**Result** Returns OK or error.

### Description

Setting an emailAddress will also set the action to Email as well as set the sound and URL to "".

### See also

- 48.5 Calendar.Alarm.GetEmailAddress 1268
- 77.3 Events.Alarm.GetEmailAddress 3562
- 77.10 Events.Alarm.SetEmailAddress 3569

Created 18th August 2014, last changed 18th August 2014.



## 48.14 Calendar.Alarm.SetRelatedTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetRelatedTo"; alarmRef; value )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### value

The new text for the relatedTo field.

””

**Result** Returns OK or error.

### Description

### See also

- 48.6 Calendar.Alarm.GetRelatedTo

1269

Created 18th August 2014, last changed 18th August 2014.

## 48.15 Calendar.Alarm.SetRelativeTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetRelativeTrigger"; alarmRef; TimeOffset )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### TimeOffset

The relative time offset in seconds.

-15\*60

**Result** Returns OK or error.

### Description

Setting a relativeTrigger will also set the absoluteTrigger to undefined.

Value is in seconds relative to parent calendar item.

### See also

- 48.2 Calendar.Alarm.GetAbsoluteTrigger 1265
- 48.7 Calendar.Alarm.GetRelativeTrigger 1270
- 48.10 Calendar.Alarm.SetAbsoluteTrigger 1273

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

#### 48.15.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33

Created 18th August 2014, last changed 13th September 2015.

## 48.16 Calendar.Alarm.SetSound

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetSound"; alarmRef; soundName )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### soundName

The new sound name.

"Submarine"

**Result** Returns OK or error.

### Description

Setting a sound will also set the action to Sound as well as set the emailAddress and URL to nil.

Expects the name of a system alert.

Check this folders to find possible sound names:

- ~/Library/Sounds
- /Library/Sounds
- /Network/Library/Sounds
- /System/Library/Sounds

### See also

- 48.8 Calendar.Alarm.GetSound 1271
- 48.9 Calendar.Alarm.GetURL 1272
- 48.12 Calendar.Alarm.SetAction 1275
- 48.17 Calendar.Alarm.SetURL 1280
- 77.13 Events.Alarm.SetSound 3573

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.17 Calendar.Alarm.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.SetURL"; alarmRef; URL )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### URL

The new URL for the alarm.

\$URL

**Result** Returns OK or error.

### Description

Setting a URL will also set the action to Procedure as well as set the emailAddress and sound to nil. The URL must be a file URL.

### See also

- 48.8 Calendar.Alarm.GetSound 1271
- 48.9 Calendar.Alarm.GetURL 1272
- 48.12 Calendar.Alarm.SetAction 1275
- 48.16 Calendar.Alarm.SetSound 1279
- 48.56 Calendar.Item.GetURL 1323
- 48.73 Calendar.Item.SetURL 1344

Created 18th August 2014, last changed 18th August 2014.

## 48.18 Calendar.Alarm.TriggerDateRelativeTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Alarm.TriggerDateRelativeTo"; alarmRef; date )

### Parameters

#### alarmRef

The reference to the calendar alarm.

\$alarmRef

#### date

The reference timestamp.

Get(HostTimeStamp)

**Result** Returns timestamp value.

### Description

### See also

- 77.16 Events.Alarm.TriggerDateRelativeTo

3578

Created 18th August 2014, last changed 18th August 2014.

## 48.19 Calendar.Attendee.GetAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Attendee.GetAddress"; attendeeRef )

### Parameters

#### attendeeRef

The reference to the calendar attendee.

\$attendeeRef

**Result** Returns URL or error.

### Description

### See also

- 48.21 Calendar.Attendee.GetStatus

1284

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.20 Calendar.Attendee.GetCommonName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Attendee.GetCommonName"; attendeeRef )

### Parameters

#### **attendeeRef**

The reference to the calendar attendee.

\$attendeeRef

**Result** Returns name or error.

### Description

#### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.21 Calendar.Attendee.GetStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Attendee.GetStatus"; attendeeRef )

### Parameters

#### attendeeRef

The reference to the calendar attendee.

\$attendeeRef

**Result** Returns status or error.

### Description

Value can be NeedsAction, Accepted, Declined or Tentative.

For 64-bit also Pending, Delegated, Completed, InProcess or Unknown.

### See also

- 48.19 Calendar.Attendee.GetAddress

1282

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th November 2015.



## 48.22 Calendar.Calendar.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.Duplicate"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns ID of new calendar.

### Description

#### See also

- 48.1 Calendar.Alarm.Duplicate 1263
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.28 Calendar.Calendar.IsEditable 1293
- 48.31 Calendar.Calendar.SetTitle 1296
- 77.21 Events.Calendar.Duplicate 3584

Created 18th August 2014, last changed 18th August 2014.

## 48.23 Calendar.Calendar.GetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.GetColor"; calendarRef { ; ReturnAsNumbers } )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123§234§56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

Color is returned as hex numbers like "8295AF".

### Examples

Check color of calendar by ID:

MBS( "Calendar.Calendar.GetColor"; "B560017B-E414-4CD9-B3D1-3D6E7717D714" )

Get color for calendar by name:

MBS( "Calendar.Calendar.GetColor"; "Public" )

### See also

- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 77.22 Events.Calendar.GetColor 3585
- 77.27 Events.Calendar.SetColor 3591

### 48.23.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)

Created 18th August 2014, last changed 13th June 2018.

## 48.24 Calendar.Calendar.GetNotes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.GetNotes"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns notes or error.

### Description

#### Examples

Query notes of first calendar:

```
$list = MBS( "Calendar.Calendars" )
$calendarRef = GetValue( $list ; 1 )
$title = MBS( "Calendar.Calendar.GetNotes"; $calendarRef )
```

Get notes for calendar by ID:

```
MBS( "Calendar.Calendar.GetNotes"; "B560017B-E414-4CD9-B3D1-3D6E7717D714" )
```

Get notes for calendar by name:

```
MBS( "Calendar.Calendar.GetNotes"; "Public" )
```

### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.32 Calendar.Calendars 1297

Created 18th August 2014, last changed 12nd February 2016.

## 48.25 Calendar.Calendar.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.GetTitle"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns title or error.

### Description

### Examples

Queries name of first calendar:

```
$list = MBS( "Calendar.Calendars" )
$calendarRef = GetValue( $list ; 1 )
$title = MBS( "Calendar.Calendar.GetTitle"; $calendarRef )
```

Get title for calendar by ID:

```
MBS( "Calendar.Calendar.GetTitle"; "B560017B-E414-4CD9-B3D1-3D6E7717D714" )
```

### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.28 Calendar.Calendar.IsEditable 1293
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.32 Calendar.Calendars 1297
- 77.24 Events.Calendar.GetTitle 3588
- 77.29 Events.Calendar.SetTitle 3593

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)
- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)
- [Mac only/Calendar/Reminders](#)

### 48.25.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 12nd February 2016.

## 48.26 Calendar.Calendar.GetType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.GetType"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns type or error.

### Description

Can be Local, CalDAV, Exchange, Birthday, Subscription or IMAP.

### Examples

Check status of calendar named "Privat":

```
MBS( "Calendar.Calendar.GetType"; "Privat" )
```

Check status of calendar with ID:

```
MBS( "Calendar.Calendar.GetType"; "B560017B-E414-4CD9-B3D1-3D6E7717D714" )
```

### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.27 Calendar.Calendar.GetUID 1292
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 77.25 Events.Calendar.GetType 3589

Created 18th August 2014, last changed 12nd February 2016.

## 48.27 Calendar.Calendar.GetUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.GetUID"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns ID as text or error.

### Description

This is useful to know the unique id of a new calendar after saving it.

### Examples

Get UID for calendar by name:

```
MBS( "Calendar.Calendar.GetUID"; "Firma")
```

### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 22nd May 2016.



**48.28 Calendar.Calendar.IsEditable**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.IsEditable"; calendarRef )

**Parameters****calendarRef**

The id of the calendar to query.

\$calendarRef

**Result** Return value or error.

**Description**

Returns 1 if calendar is editable or zero if not.

**Examples**

Check editable state by ID:

MBS( "Calendar.Calendar.IsEditable"; "B560017B-E414-4CD9-B3D1-3D6E7717D714" )

**See also**

- 48.22 Calendar.Calendar.Duplicate 1285
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.31 Calendar.Calendar.SetTitle 1296

Created 18th August 2014, last changed 12nd February 2016.

## 48.29 Calendar.Calendar.SetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.SetColor"; calendarRef; Color )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

#### Color

The color to use. Can be a color name or hex notation like in HTML.

"red"

**Result** Returns OK or error message.

### Description

### Examples

Sets calendar to red:

MBS( "Calendar.Calendar.SetColor"; \$CalendarID; "# FF0000" )

### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.92 Calendar.SaveCalendar 1367
- 77.22 Events.Calendar.GetColor 3585
- 77.27 Events.Calendar.SetColor 3591

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

**48.30 Calendar.Calendar.SetNotes**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.SetNotes"; calendarRef; Text )

**Parameters****calendarRef**

The id of the calendar to query.

\$calendarRef

**Text**

The new text.

"Hello World"

**Result** Returns OK or error message.

**Description****See also**

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.27 Calendar.Calendar.GetUID 1292
- 48.29 Calendar.Calendar.SetColor 1294
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.92 Calendar.SaveCalendar 1367

**Example Databases**

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.31 Calendar.Calendar.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendar.SetTitle"; calendarRef; Text )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

#### Text

The new title.

"Birthdays"

**Result** Returns OK or error message.

### Description

#### See also

- 48.23 Calendar.Calendar.GetColor 1286
- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.26 Calendar.Calendar.GetType 1291
- 48.28 Calendar.Calendar.IsEditable 1293
- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.92 Calendar.SaveCalendar 1367
- 77.24 Events.Calendar.GetTitle 3588
- 77.29 Events.Calendar.SetTitle 3593

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.32 Calendar.Calendars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Calendars" )

**Result** Returns list of calendar ids.

### Description

If you get no calendars, please check in system privacy preferences whether FileMaker does have permissions to access the calendar at all.

### See also

- 48.24 Calendar.Calendar.GetNotes 1288
- 48.25 Calendar.Calendar.GetTitle 1289
- 48.75 Calendar.NewCalendar 1346
- 48.92 Calendar.SaveCalendar 1367

### 48.32.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 30th August 2015.

## 48.33 Calendar.Events

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

```
MBS( "Calendar.Events"; startDate; endDate { ; calendarRef } )
```

### Parameters

#### startDate

The start date time stamp.

\$startDate

#### endDate

The end time stamp. If you want to get events for one day, please pass startDate with that date and time 00:00:00 and for endDate the same date with endDate 23:59:59.

\$endDate

#### calendarRef

Optional

A calendar identifier or name to search only this calendar. If no calendar is specified, we check all calendars.

\$calendarRef

**Result** Returns list of event identifiers or error.

### Description

If you pass calendar, only this calendar is searched. Else the specific calendar is searched.

If you get no events, please check in system privacy preferences whether FileMaker does have permissions to access the calendars at all.

The system limits results to around 4 years, so if you need to query bigger time spans, please use several calls.

### Examples

Queries events:

```
MBS( "Calendar.Events"; myDatabase::StartDate; myDatabase::EndDate )
```

### See also

- 48.76 Calendar.NewEvent

1347

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)

### 48.33.1 **Blog Entries**

- [Import Calendar Items into FileMaker](#)

Created 18th August 2014, last changed 11st October 2019.

## 48.34 Calendar.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	9.2	Yes	No	Yes, macOS only	No	No

MBS( "Calendar.Initialize" )

**Result** Returns OK or error.

### Description

This is done usually when you call first function using Calendar.  
But here you can explicitly initialize it in your start script.

### 48.34.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr8](#)

Created 16th May 2019, last changed 16th May 2019.



## 48.35 Calendar.Item.AddAlarm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Item.AddAlarm"; itemRef; alarmRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### alarmRef

The reference to the calendar alarm.  
\$alarmRef

**Result** Returns OK or error.

### Description

#### See also

- 48.37 Calendar.Item.GetAlarms 1303
- 48.57 Calendar.Item.HasAlarm 1324
- 48.61 Calendar.Item.RemoveAlarm 1328

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

#### 48.35.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33

Created 18th August 2014, last changed 18th August 2014.

## 48.36 Calendar.Item.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.Duplicate"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns ID of new event or reminder.

### Description

#### See also

- 48.1 Calendar.Alarm.Duplicate 1263
- 77.67 Events.Item.Duplicate 3635

Created 18th August 2014, last changed 18th August 2014.

## 48.37 Calendar.Item.GetAlarms

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Item.GetAlarms"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.

\$eventRef

**Result** Returns list of alarm IDs or error.

### Description

Seems like there often is an alarm registered but with Action "NONE". You can ignore it.

### See also

- 48.35 Calendar.Item.AddAlarm 1301
- 48.38 Calendar.Item.GetAllDay 1304
- 48.51 Calendar.Item.GetNotes 1317
- 48.54 Calendar.Item.GetTitle 1320
- 48.57 Calendar.Item.HasAlarm 1324
- 48.59 Calendar.Item.NextAlarmDate 1326
- 48.61 Calendar.Item.RemoveAlarm 1328
- 48.62 Calendar.Item.SetAllDay 1329
- 48.69 Calendar.Item.SetNotes 1338

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.38 Calendar.Item.GetAllDay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48.Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetAllDay"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns setting or error.

### Description

Value is 1 for all day events or zero otherwise.

### See also

- 48.37 Calendar.Item.GetAlarms 1303
- 48.44 Calendar.Item.GetCalendar 1310
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.51 Calendar.Item.GetNotes 1317
- 48.54 Calendar.Item.GetTitle 1320
- 48.55 Calendar.Item.GetUID 1321
- 48.62 Calendar.Item.SetAllDay 1329
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.39 Calendar.Item.GetAttendeeCommonName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetAttendeeCommonName"; eventRef; index )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### index

The index of the attendee.

0

**Result** Returns name as text or error.

### Description

Index is from zero to Calendar.Item.GetAttendeeCount-1.

### See also

- 48.40 Calendar.Item.GetAttendeeCount

1306

### 48.39.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.40 Calendar.Item.GetAttendeeCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetAttendeeCount"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns number or error.

### Description

#### See also

- 48.39 Calendar.Item.GetAttendeeCommonName 1305
- 48.43 Calendar.Item.GetAttendees 1309
- 48.41 Calendar.Item.GetAttendeeStatus 1307
- 48.42 Calendar.Item.GetAttendeeURL 1308

Created 18th August 2014, last changed 18th August 2014.

## 48.41 Calendar.Item.GetAttendeeStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetAttendeeStatus"; eventRef; index )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### index

The index of the attendee.

0

**Result** Returns status text or error.

### Description

Index is from zero to Calendar.Item.GetAttendeeCount-1.

Status can be NeedsAction, Accepted, Declined or Tentative.

### See also

- [48.40 Calendar.Item.GetAttendeeCount](#) 1306
- [48.43 Calendar.Item.GetAttendees](#) 1309
- [48.42 Calendar.Item.GetAttendeeURL](#) 1308

### 48.41.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.42 Calendar.Item.GetAttendeeURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetAttendeeURL"; eventRef; index )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### index

The index of the attendee.

0

**Result** Returns URL text or error.

### Description

Index is from zero to Calendar.Item.GetAttendeeCount-1.

### See also

- 48.40 Calendar.Item.GetAttendeeCount 1306
- 48.43 Calendar.Item.GetAttendees 1309
- 48.41 Calendar.Item.GetAttendeeStatus 1307

### 48.42.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 18th August 2014.



## 48.43 Calendar.Item.GetAttendees

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Item.GetAttendees"; eventRef )

### Parameters

#### eventRef

The reference to the calendar event.

\$eventRef

**Result** Returns list of attendee IDs or error.

### Description

There is no API from Apple to modify attendees.

### See also

- 48.40 Calendar.Item.GetAttendeeCount 1306
- 48.41 Calendar.Item.GetAttendeeStatus 1307
- 48.42 Calendar.Item.GetAttendeeURL 1308
- 48.44 Calendar.Item.GetCalendar 1310
- 48.47 Calendar.Item.GetDateStamp 1313
- 48.48 Calendar.Item.GetDueDate 1314
- 48.51 Calendar.Item.GetNotes 1317
- 48.63 Calendar.Item.SetCalendar 1331

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.44 Calendar.Item.GetCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetCalendar"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.

\$eventRef

**Result** Returns id as text or error.

### Description

#### See also

- 48.38 Calendar.Item.GetAllDay 1304
- 48.43 Calendar.Item.GetAttendees 1309
- 48.45 Calendar.Item.GetCompleted 1311
- 48.47 Calendar.Item.GetDateStamp 1313
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.63 Calendar.Item.SetCalendar 1331
- 48.89 Calendar.RemoveCalendar 1364
- 77.68 Events.Item.GetCalendar 3636

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)
- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.45 Calendar.Item.GetCompleted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetCompleted"; reminderRef )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

**Result** Returns current setting or error.

### Description

#### See also

- [48.44 Calendar.Item.GetCalendar](#) 1310
- [48.46 Calendar.Item.GetCompletionDate](#) 1312
- [48.48 Calendar.Item.GetDueDate](#) 1314
- [48.49 Calendar.Item.GetEndDate](#) 1315
- [48.51 Calendar.Item.GetNotes](#) 1317
- [48.64 Calendar.Item.SetCompleted](#) 1333
- [48.77 Calendar.NewReminder](#) 1349
- [48.94 Calendar.SaveReminder](#) 1370

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.46 Calendar.Item.GetCompletionDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetCompletionDate"; reminderRef )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

**Result** Returns date or error.

### Description

#### See also

- [48.45 Calendar.Item.GetCompleted](#) 1311
- [48.65 Calendar.Item.SetCompletionDate](#) 1334

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.47 Calendar.Item.GetDateStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetDateStamp"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns date stamp or error.

### Description

#### See also

- [48.43 Calendar.Item.GetAttendees](#) 1309
- [48.44 Calendar.Item.GetCalendar](#) 1310
- [48.48 Calendar.Item.GetDueDate](#) 1314
- [48.53 Calendar.Item.GetStartDate](#) 1319
- [48.63 Calendar.Item.SetCalendar](#) 1331
- [48.66 Calendar.Item.SetDueDate](#) 1335
- [48.77 Calendar.NewReminder](#) 1349
- [48.94 Calendar.SaveReminder](#) 1370

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.48 Calendar.Item.GetDueDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetDueDate"; reminderRef )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

**Result** Returns date or error.

### Description

#### See also

- 48.49 Calendar.Item.GetEndDate 1315
- 48.51 Calendar.Item.GetNotes 1317
- 48.52 Calendar.Item.GetPriority 1318
- 48.53 Calendar.Item.GetStartDate 1319
- 48.54 Calendar.Item.GetTitle 1320
- 48.59 Calendar.Item.NextAlarmDate 1326
- 48.62 Calendar.Item.SetAllDay 1329
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.71 Calendar.Item.SetStartDate 1341

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

**48.49 Calendar.Item.GetEndDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetEndDate"; eventRef )

**Parameters****eventRef**

The reference to the event.

\$eventRef

**Result** Returns date or error.

**Description****See also**

- 48.48 Calendar.Item.GetDueDate 1314
- 48.51 Calendar.Item.GetNotes 1317
- 48.52 Calendar.Item.GetPriority 1318
- 48.53 Calendar.Item.GetStartDate 1319
- 48.54 Calendar.Item.GetTitle 1320
- 48.59 Calendar.Item.NextAlarmDate 1326
- 48.62 Calendar.Item.SetAllDay 1329
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.71 Calendar.Item.SetStartDate 1341

**Example Databases**

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.50 Calendar.Item.GetLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetLocation"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns location of the event.

### Description

### See also

- 48.4 Calendar.Alarm.GetAction 1267
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.51 Calendar.Item.GetNotes 1317
- 48.52 Calendar.Item.GetPriority 1318
- 48.68 Calendar.Item.SetLocation 1337
- 77.69 Events.Item.GetLocation 3637

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)

#### 48.50.1 Blog Entries

- [Import Calendar Items into FileMaker](#)

Created 18th August 2014, last changed 18th August 2014.



## 48.51 Calendar.Item.GetNotes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetNotes"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns notes text or error.

### Description

#### See also

- 48.45 Calendar.Item.GetCompleted 1311
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.50 Calendar.Item.GetLocation 1316
- 48.54 Calendar.Item.GetTitle 1320
- 48.55 Calendar.Item.GetUID 1321
- 48.69 Calendar.Item.SetNotes 1338
- 48.72 Calendar.Item.SetTitle 1342
- 48.77 Calendar.NewReminder 1349
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.52 Calendar.Item.GetPriority

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetPriority"; reminderRef )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

**Result** Returns value or error.

### Description

#### See also

- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.50 Calendar.Item.GetLocation 1316
- 48.70 Calendar.Item.SetPriority 1340

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.53 Calendar.Item.GetStartDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetStartDate"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns date or error.

### Description

#### See also

- [48.47 Calendar.Item.GetDateStamp](#) 1313
- [48.48 Calendar.Item.GetDueDate](#) 1314
- [48.49 Calendar.Item.GetEndDate](#) 1315
- [48.59 Calendar.Item.NextAlarmDate](#) 1326
- [48.66 Calendar.Item.SetDueDate](#) 1335
- [48.67 Calendar.Item.SetEndDate](#) 1336
- [48.71 Calendar.Item.SetStartDate](#) 1341

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)

#### 48.53.1 Blog Entries

- [Import Calendar Items into FileMaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.54 Calendar.Item.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetTitle"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns title or error.

### Description

#### See also

- 48.37 Calendar.Item.GetAlarms 1303
- 48.38 Calendar.Item.GetAllDay 1304
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.51 Calendar.Item.GetNotes 1317
- 48.55 Calendar.Item.GetUID 1321
- 48.56 Calendar.Item.GetURL 1323
- 48.69 Calendar.Item.SetNotes 1338
- 48.77 Calendar.NewReminder 1349
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)
- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)
- [Mac only/Calendar/Reminders](#)

#### 48.54.1 Blog Entries

- [Import Calendar Items into FileMaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.55 Calendar.Item.GetUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetUID"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns id as text or error.

### Description

#### See also

- 48.38 Calendar.Item.GetAllDay 1304
- 48.51 Calendar.Item.GetNotes 1317
- 48.54 Calendar.Item.GetTitle 1320
- 48.56 Calendar.Item.GetURL 1323
- 48.73 Calendar.Item.SetURL 1344
- 48.76 Calendar.NewEvent 1347
- 48.77 Calendar.NewReminder 1349
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)
- [Mac only/Calendar/Calendar Test](#)
- [Mac only/Calendar/Reminders](#)

#### 48.55.1 Blog Entries

- [Import Calendar Items into FileMaker](#)

**48.55.2 FileMaker Magazin**

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 48.56 Calendar.Item.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.GetURL"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.

\$eventRef

**Result** Returns URL or error.

### Description

#### See also

- [48.9 Calendar.Alarm.GetURL](#) 1272
- [48.17 Calendar.Alarm.SetURL](#) 1280
- [48.51 Calendar.Item.GetNotes](#) 1317
- [48.54 Calendar.Item.GetTitle](#) 1320
- [48.55 Calendar.Item.GetUID](#) 1321
- [48.73 Calendar.Item.SetURL](#) 1344

### Example Databases

- [Mac only/Calendar/Calendar Events](#)
- [Mac only/Calendar/Calendar Import](#)
- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

**48.57 Calendar.Item.HasAlarm**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.HasAlarm"; itemRef )

**Parameters****itemRef**

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns 0, 1 or error.

**Description****See also**

- 48.35 Calendar.Item.AddAlarm 1301
- 48.37 Calendar.Item.GetAlarms 1303
- 48.61 Calendar.Item.RemoveAlarm 1328

Created 18th August 2014, last changed 18th August 2014.



## 48.58 Calendar.Item.IsDetached

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.IsDetached"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns status or error.

### Description

If this event is an instance of a repeating event, and an attribute of this event has been changed to from the default value generated by the repeating event, `isDetached` will return 1. If the event is unchanged from its default state, or is not a repeating event, `isDetached` returns 0.

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.59 Calendar.Item.NextAlarmDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.NextAlarmDate"; itemRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

**Result** Returns date or error.

### Description

#### See also

- 48.37 Calendar.Item.GetAlarms 1303
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.53 Calendar.Item.GetStartDate 1319
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.71 Calendar.Item.SetStartDate 1341

Created 18th August 2014, last changed 18th August 2014.

## 48.60 Calendar.Item.Occurrence

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.Occurrence"; eventRef )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

**Result** Returns date or error.

### Description

Since all instances of a repeating event have the same UID, we need another way to differentiate between those events. This method returns the date on which this event was originally scheduled to occur. This value will remain the same even if the event has been detached and its start date has changed. For events not part of a repeating pattern, this method will return the same value as startDate.

### Example Databases

- [Mac only/Calendar/Calendar Events](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.61 Calendar.Item.RemoveAlarm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Item.RemoveAlarm"; itemRef; alarmRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### alarmRef

The reference to the calendar alarm.  
\$alarmRef

**Result** Returns OK or error.

### Description

Please query list of alarms first with Calendar.Item.GetAlarms function.

### See also

- 48.35 Calendar.Item.AddAlarm 1301
- 48.37 Calendar.Item.GetAlarms 1303
- 48.57 Calendar.Item.HasAlarm 1324
- 77.79 Events.Item.RemoveAlarm 3647

Created 18th August 2014, last changed 18th August 2014.

**48.62 Calendar.Item.SetAllDay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetAllDay"; eventRef; value )

**Parameters****eventRef**

The reference to the calendar item. Can be reference to event or reminder.

\$eventRef

**value**

The new setting. Pass 1 for all day or zero otherwise.

1

**Result** Returns OK or error.

**Description**

Pass 1 for all day or zero otherwise.

**See also**

- 48.37 Calendar.Item.GetAlarms 1303
- 48.38 Calendar.Item.GetAllDay 1304
- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.63 Calendar.Item.SetCalendar 1331
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.72 Calendar.Item.SetTitle 1342
- 48.76 Calendar.NewEvent 1347
- 48.93 Calendar.SaveEvent 1368

**Example Databases**

- [Mac only/Calendar/Calendar Test](#)

**48.62.1 FileMaker Magazin**

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 48.63 Calendar.Item.SetCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetCalendar"; itemRef; calendarRef )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### calendarRef

The id of the calendar to query.  
\$calendarRef

**Result** Returns OK or error.

### Description

### Examples

Create a new reminder:

```
$id = MBS("Calendar.NewReminder")
$r = MBS( "Calendar.Item.SetDueDate"; $id; Get(CurrentHostTimeStamp) )
$r = MBS( "Calendar.Item.SetTitle"; $id; "Test" )
$r = MBS( "Calendar.Item.SetCalendar"; $id; "Erinnerungen" )
$r = MBS( "Calendar.SaveReminder"; $id )
```

Create new event:

```
Set Variable [ $c; Value:MBS("Calendar.NewEvent") ]
# set title and other variables
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; CalendarTest::ItemTitle) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetAllDay"; $c; CalendarTest::ItemAllDay) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCalendar"; $c; CalendarTest::CalendarUID) ]
# save event
Set Variable [ $r; Value:MBS("Calendar.SaveEvent"; $c ) ]
```

### See also

- 48.62 Calendar.Item.SetAllDay 1329
- 48.64 Calendar.Item.SetCompleted 1333
- 48.66 Calendar.Item.SetDueDate 1335

- 48.67 Calendar.Item.SetEndDate 1336
- 48.71 Calendar.Item.SetStartDate 1341
- 48.72 Calendar.Item.SetTitle 1342
- 48.76 Calendar.NewEvent 1347
- 48.77 Calendar.NewReminder 1349
- 48.93 Calendar.SaveEvent 1368
- 77.81 Events.Item.SetCalendar 3649

### Example Databases

- [Mac only/Calendar/Calendar Test](#)
- [Mac only/Calendar/Reminders](#)

### 48.63.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr11](#)

### 48.63.2 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 31st October 2015.



## 48.64 Calendar.Item.SetCompleted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetCompleted"; reminderRef; value )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

#### value

The new setting. Pass 1 to mark as completed and 0 to mark as uncompleted.

1

**Result** Returns OK or error.

### Description

Setting the flag to 1 also sets completion date to current timestamp.

Setting this flag to 0 will set the date to be undefined.

### See also

- 48.45 Calendar.Item.GetCompleted 1311
- 48.63 Calendar.Item.SetCalendar 1331
- 48.65 Calendar.Item.SetCompletionDate 1334
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.69 Calendar.Item.SetNotes 1338
- 48.77 Calendar.NewReminder 1349
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.65 Calendar.Item.SetCompletionDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetCompletionDate"; reminderRef; Date )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

#### Date

The new timestamp for the completion date.

\$date

**Result** Returns OK or error.

### Description

Setting the date also sets the Completed flag to 1.

#### See also

- 48.46 Calendar.Item.GetCompletionDate 1312
- 48.64 Calendar.Item.SetCompleted 1333

Created 18th August 2014, last changed 18th August 2014.

## 48.66 Calendar.Item.SetDueDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetDueDate"; reminderRef; date )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

#### date

The new due date.

Get(CurrentTimestamp)

**Result** Returns OK or error.

### Description

There is a bug in OS X which prevents the saving of the time portion of the due date. You can move to Events.Reminder.SetDueDate function to workaroud this.

### See also

- 48.48 Calendar.Item.GetDueDate 1314
- 48.63 Calendar.Item.SetCalendar 1331
- 48.64 Calendar.Item.SetCompleted 1333
- 48.67 Calendar.Item.SetEndDate 1336
- 48.68 Calendar.Item.SetLocation 1337
- 48.69 Calendar.Item.SetNotes 1338
- 48.71 Calendar.Item.SetStartDate 1341
- 48.77 Calendar.NewReminder 1349
- 48.93 Calendar.SaveEvent 1368
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 10th March 2016.

## 48.67 Calendar.Item.SetEndDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetEndDate"; eventRef; timestamp )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### timestamp

The new end date/time.

Get(CurrentTimestamp)

**Result** Returns OK or error.

### Description

#### See also

- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.63 Calendar.Item.SetCalendar 1331
- 48.64 Calendar.Item.SetCompleted 1333
- 48.66 Calendar.Item.SetDueDate 1335
- 48.68 Calendar.Item.SetLocation 1337
- 48.69 Calendar.Item.SetNotes 1338
- 48.70 Calendar.Item.SetPriority 1340
- 48.72 Calendar.Item.SetTitle 1342
- 48.93 Calendar.SaveEvent 1368

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

### 48.67.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 18th August 2014.

## 48.68 Calendar.Item.SetLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetLocation"; eventRef; text )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### text

The new location text.

"Hamburg"

**Result** Returns OK or error.

### Description

#### See also

- 48.12 Calendar.Alarm.SetAction 1275
- 48.50 Calendar.Item.GetLocation 1316
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.69 Calendar.Item.SetNotes 1338
- 48.70 Calendar.Item.SetPriority 1340
- 48.76 Calendar.NewEvent 1347
- 48.93 Calendar.SaveEvent 1368
- 77.82 Events.Item.SetLocation 3651

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.69 Calendar.Item.SetNotes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetNotes"; itemRef; Notes )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### Notes

The new notes text.  
"Hello World"

**Result** Returns OK or error.

### Description

#### See also

- 48.37 Calendar.Item.GetAlarms 1303
- 48.54 Calendar.Item.GetTitle 1320
- 48.62 Calendar.Item.SetAllDay 1329
- 48.64 Calendar.Item.SetCompleted 1333
- 48.67 Calendar.Item.SetEndDate 1336
- 48.68 Calendar.Item.SetLocation 1337
- 48.72 Calendar.Item.SetTitle 1342
- 48.73 Calendar.Item.SetURL 1344
- 48.76 Calendar.NewEvent 1347
- 48.77 Calendar.NewReminder 1349

### Example Databases

- [Mac only/Calendar/Calendar Test](#)
- [Mac only/Calendar/Reminders](#)

### **48.69.1 FileMaker Magazin**

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 48.70 Calendar.Item.SetPriority

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetPriority"; reminderRef; value )

### Parameters

#### reminderRef

The reference to the reminder.

\$reminderRef

#### value

The new priority level.

**Result** Returns error or OK.

### Description

The iCalendar specification allows priority to be specified with an integer in the range of 0-9, with 0 representing an undefined priority, 1 the highest priority, and 9 the lowest priority. When a user sets the priority to high, medium or low in iCal saves the priority as 1, 5, or 9 respectively. Clients are encouraged to use these values when setting a task's priority, but it is possible to specify any integer value from 0 to 9. In iCal, a task with a priority in the range of 1-4 will show up as high priority, a task with a priority of 5 will be displayed as having medium priority, and 6-9 will be displayed as having a low priority.

### See also

- 48.52 Calendar.Item.GetPriority 1318
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.68 Calendar.Item.SetLocation 1337
- 48.77 Calendar.NewReminder 1349
- 48.94 Calendar.SaveReminder 1370

Created 18th August 2014, last changed 18th August 2014.



## 48.71 Calendar.Item.SetStartDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetStartDate"; eventRef; timestamp )

### Parameters

#### eventRef

The reference to the event.

\$eventRef

#### timestamp

The new start date/time.

Get(CurrentTimestamp)

**Result** Returns OK or error.

### Description

#### See also

- 48.48 Calendar.Item.GetDueDate 1314
- 48.49 Calendar.Item.GetEndDate 1315
- 48.53 Calendar.Item.GetStartDate 1319
- 48.59 Calendar.Item.NextAlarmDate 1326
- 48.63 Calendar.Item.SetCalendar 1331
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.76 Calendar.NewEvent 1347
- 48.93 Calendar.SaveEvent 1368

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

#### 48.71.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 48.72 Calendar.Item.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetTitle"; itemRef; title )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### title

The new title for the calendar item.  
"Hello"

**Result** Returns OK or error.

### Description

#### See also

- 48.51 Calendar.Item.GetNotes 1317
- 48.62 Calendar.Item.SetAllDay 1329
- 48.66 Calendar.Item.SetDueDate 1335
- 48.67 Calendar.Item.SetEndDate 1336
- 48.69 Calendar.Item.SetNotes 1338
- 48.73 Calendar.Item.SetURL 1344
- 48.76 Calendar.NewEvent 1347
- 48.77 Calendar.NewReminder 1349
- 48.93 Calendar.SaveEvent 1368
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Calendar Test](#)
- [Mac only/Calendar/Reminders](#)

### **48.72.1 FileMaker Magazin**

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32
- Ausgabe 1/2014, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 48.73 Calendar.Item.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Item.SetURL"; itemRef; URL )

### Parameters

#### itemRef

The reference to the calendar item. Can be reference to event or reminder.  
\$eventRef

#### URL

The new URL to store.

"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

#### See also

- 48.9 Calendar.Alarm.GetURL 1272
- 48.17 Calendar.Alarm.SetURL 1280
- 48.55 Calendar.Item.GetUID 1321
- 48.56 Calendar.Item.GetURL 1323
- 48.69 Calendar.Item.SetNotes 1338
- 48.72 Calendar.Item.SetTitle 1342
- 48.76 Calendar.NewEvent 1347
- 48.93 Calendar.SaveEvent 1368

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

### 48.73.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 18th August 2014.

## 48.74 Calendar.NewAlarm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.NewAlarm" )

**Result** Returns ID of new alarm.

### Description

Calendar item reference numbers are starting at 27000 and counting up for each new item.

### See also

- 48.76 Calendar.NewEvent

1347

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

### 48.74.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 9th January 2015.

## 48.75 Calendar.NewCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.NewCalendar" )

**Result** Returns ID of new calendar.

### Description

Calendar item reference numbers are starting at 27000 and counting up for each new item.

### See also

- [48.32 Calendar.Calendars](#) 1297
- [48.77 Calendar.NewReminder](#) 1349
- [48.89 Calendar.RemoveCalendar](#) 1364
- [48.92 Calendar.SaveCalendar](#) 1367

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 9th January 2015.

## 48.76 Calendar.NewEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.NewEvent" )

**Result** Returns ID of new event.

### Description

Calendar item reference numbers are starting at 27000 and counting up for each new item.

Or the plugin returns you the UUID for the event.

### Examples

Create an event:

```
# new event
Set Variable [ $c; Value:MBS("Calendar.NewEvent") ]
# set title and other variables
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; CalendarTest::ItemTitle) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetNotes"; $c; CalendarTest::ItemNotes) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetURL"; $c; CalendarTest::ItemURL) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetLocation"; $c;CalendarTest::ItemLocation) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetAllDay"; $c;CalendarTest::ItemAllDay) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCalendar"; $c; CalendarTest::CalendarUID) ]
# save event
Set Variable [ $r; Value:MBS("Calendar.SaveEvent"; $c ) ]
# store id for later reference
Set Field [ CalendarTest::ItemUID; MBS("Calendar.Item.GetUID"; $c) ]
```

### See also

- 48.33 Calendar.Events 1298
- 48.62 Calendar.Item.SetAllDay 1329
- 48.63 Calendar.Item.SetCalendar 1331
- 48.67 Calendar.Item.SetEndDate 1336
- 48.68 Calendar.Item.SetLocation 1337
- 48.69 Calendar.Item.SetNotes 1338
- 48.71 Calendar.Item.SetStartDate 1341
- 48.72 Calendar.Item.SetTitle 1342
- 48.73 Calendar.Item.SetURL 1344

- 48.93 Calendar.SaveEvent

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

### 48.76.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 10th August 2016.



## 48.77 Calendar.NewReminder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.NewReminder" )

**Result** Returns ID of new reminder.

### Description

Calendar item reference numbers are starting at 27000 and counting up for each new item. Or the plugin returns you the UUID for the event.

### Examples

Synchronize Todos with Reminders:

```
# Sync Todos as Reminders from FileMaker to Mac Reminder app
# And sync back changes
#
# Please adjust to your fields and your special use case!
# You can optimize to only update fields on each side if changed
#

Go to Record/Request/Page [ First ]
Loop
# Check if we have an ID for this todo already
If [ Todos::SyncUID = "" ]
Set Variable [ $c; Value:Todos::SyncUID ]
# Query last modification date
Set Variable [ $completed; Value:MBS( "Calendar.Item.GetCompleted"; Todos::SyncUID ) ]
Set Variable [ $datum; Value:MBS( "Calendar.Item.GetDateStamp"; Todos::SyncUID ) ]
If [ MBS("isError") ]
# Reminder was deleted, so we recreate
Set Field [ Todos::SyncUID; "" ]
Commit Records/Requests [ No dialog ]
Else
# Update
If [ $datum > Todos::Last_Change ]
#
# Reminder ->FM
#
# Sync note field
Set Variable [ $notes; Value:MBS( "Calendar.Item.GetNotes"; Todos::SyncUID ) ]
If [ Todos::To Do Main Text = $notes ]
# Special: If note starts with # then move number to duration field
If [ Left ( Trim ( $notes ) ; 1 ) = "# " ]
Set Variable [ $duration; Value:GetAsNumber ( LeftWords ( $notes ; 1 ) ) ]
Set Field [ Todos::To Do Completion Time in Minutes; $duration ]
```

```

Commit Records/Requests [ No dialog ]
Else
Set Field [ ToDos::To Do Main Text; $notes ]
Commit Records/Requests [ No dialog ]
End If
End If
# Sync title if changed
Set Variable [ $title; Value:MBS( "Calendar.Item.GetTitle"; ToDos::SyncUID ) ]
If [ ToDos::To Do Headline = $title ]
Set Field [ ToDos::To Do Headline; $title ]
Commit Records/Requests [ No dialog ]
End If
# Sync completed flag if changed
If [ $completed=1 ]
If [ ToDos::flag To Do Completed = "X" ]
Set Field [ ToDos::flag To Do Completed; "X" ]
Commit Records/Requests [ No dialog ]
End If
Else If [ $completed=0 ]
If [ ToDos::flag To Do Completed = "" ]
Set Field [ ToDos::flag To Do Completed; "" ]
Commit Records/Requests [ No dialog ]
End If
End If
Else
#
# FM ->Reminder
#
# overwrite all values
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; ToDos::To Do Headline) ]
Set Variable [ $n; Value:MBS("Calendar.Item.SetNotes"; $c; ToDos::To Do Main Text) ]
Set Variable [ $d; Value:MBS("Calendar.Item.SetDueDate"; $c; ToDos::To Do Deadline) ]
If [ ToDos::flag To Do Completed = "X" ]
Set Variable [ $c; Value:MBS("Calendar.Item.SetCompleted"; $c; 1) ]
End If
If [ ToDos::flag To Do Completed = "" ]
Set Variable [ $c; Value:MBS("Calendar.Item.SetCompleted"; $c; 0) ]
End If
If [ ToDos::To Do Priority="1 Jetzt" ]
Set Variable [ $c; Value:MBS("Calendar.Item.SetPriority"; $c;1) ]
End If
If [ ToDos::To Do Priority="2 Sofort" ]
Set Variable [ $c; Value:MBS("Calendar.Item.SetPriority"; $c;5) ]
End If
If [ ToDos::To Do Priority="4 Hat Zeit" ]
Set Variable [ $c; Value:MBS("Calendar.Item.SetPriority"; $c;9) ]
End If
Set Variable [ $c; Value:MBS("Calendar.SaveReminder"; $c) ]

```

```

End If
End If
End If
If [ Todos::SyncUID = "" ]
# Create new reminder
#
# Which calendar? (Reminder List)
Set Variable [ $CalendarName; Value:"" ]
If [ Todos::To Do By="PF" ]
Set Variable [ $CalendarName; Value:"ToDo PF" ]
Else If [ Todos::To Do By = "GK" ]
Set Variable [ $CalendarName; Value:"ToDo GK" ]
End If
If [ $CalendarName "" ]
Set Variable [ $c; Value:MBS("Calendar.NewReminder" ) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; Todos::To Do Headline) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetNotes"; $c; Todos::To Do Main Text) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCalendar"; $c;$CalendarName) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetDueDate"; $c; Todos::To Do Deadline ) ]
If [ Todos::To Do Priority="1 Jetzt" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;1 ) ]
End If
If [ Todos::To Do Priority="2 Sofort" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;5 ) ]
End If
If [ Todos::To Do Priority="4 Hat Zeit" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;9 ) ]
End If
If [ Todos::flag To Do Completed = "X" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 1) ]
End If
If [ Todos::flag To Do Completed = "" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 0) ]
End If
Set Variable [ $r; Value:MBS("Calendar.SaveReminder"; $c ) ]
# store id for update later
Set Field [ Todos::SyncUID; MBS("Calendar.Item.GetUID"; $c) ]
Commit Records/Requests [ No dialog ]
End If
End If
Go to Record/Request/Page [ Next; Exit after last ]
End Loop

```

**See also**

- 48.47 Calendar.Item.GetDateStamp 1313
- 48.51 Calendar.Item.GetNotes 1317

- 48.55 Calendar.Item.GetUID 1321
- 48.63 Calendar.Item.SetCalendar 1331
- 48.66 Calendar.Item.SetDueDate 1335
- 48.75 Calendar.NewCalendar 1346
- 48.91 Calendar.RemoveReminder 1366
- 48.93 Calendar.SaveEvent 1368
- 48.94 Calendar.SaveReminder 1370
- 127.6 IsError 6374

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 22nd September 2016.

## 48.78 Calendar.Notification.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.Clear" )

**Result** Returns OK.

### Description

### Examples

Clears script

MBS( "Calendar.Notification.Clear" )

### See also

- 48.79 Calendar.Notification.Evaluate 1354
- 48.87 Calendar.Notification.GetWhat 1362
- 48.88 Calendar.Notification.Set 1363

Created 18th August 2014, last changed 18th August 2014.

## 48.79 Calendar.Notification.Evaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	6.2	Yes	No	No	No	No

MBS( "Calendar.Notification.Evaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

This expression is evaluated whenever something in the calendar database changed.

#### See also

- 48.78 Calendar.Notification.Clear 1353
- 48.87 Calendar.Notification.GetWhat 1362
- 48.88 Calendar.Notification.Set 1363

### 48.79.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

**48.80 Calendar.Notification.GetChangedExternally**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetChangedExternally" )

**Result** Returns 1 or 0.

**Description**

If this function returns zero, the change was made by your own FileMaker solution.

This property is not always set by the OS for all changes, especially with some sync services.

**See also**

- [34.10 Addressbook.Notification.GetChangedExternally](#)

822

**Example Databases**

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 12nd January 2015.

## 48.81 Calendar.Notification.GetDeletedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetDeletedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

Please note that the plugin may not be able to provide information for deleted record contents.

Values in this list are IDs of calendars, events, or reminders, depending on the notification (See Calendar.Notification.GetWhat). If all three lists (updatedRecords, DeletedRecords, InsertedRecords) are empty, that indicates everything has changed, and the client should refresh the calendar, event, and reminder information currently being used. Since this tends to be an expensive and inconvenient operation, it will only occur under unusual circumstances, such as when restoring from backup.

### See also

- 34.11 Addressbook.Notification.GetDeletedRecords 823
- 48.82 Calendar.Notification.GetInsertedRecords 1357
- 48.85 Calendar.Notification.GetUpdatedRecords 1360
- 48.87 Calendar.Notification.GetWhat 1362

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.



## 48.82 Calendar.Notification.GetInsertedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetInsertedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

Values in this list are IDs of calendars, events, or reminders, depending on the notification (See Calendar.Notification.GetWhat). If all three lists (updatedRecords, DeletedRecords, InsertedRecords) are empty, that indicates everything has changed, and the client should refresh the calendar, event, and reminder information currently being used. Since this tends to be an expensive and inconvenient operation, it will only occur under unusual circumstances, such as when restoring from backup.

### See also

- [34.12 Addressbook.Notification.GetInsertedRecords](#) 824
- [48.81 Calendar.Notification.GetDeletedRecords](#) 1356
- [48.85 Calendar.Notification.GetUpdatedRecords](#) 1360
- [48.87 Calendar.Notification.GetWhat](#) 1362

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.83 Calendar.Notification.GetProcessID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetProcessID" )

**Result** Returns proces identifier.

### Description

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

### See also

- [34.13 Addressbook.Notification.GetProcessID](#) 825
- [48.84 Calendar.Notification.GetProcessName](#) 1359
- [48.86 Calendar.Notification.GetUserUID](#) 1361

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

**48.84 Calendar.Notification.GetProcessName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetProcessName" )

**Result** Returns process name.

**Description**

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

**See also**

- 34.14 Addressbook.Notification.GetProcessName 826
- 48.83 Calendar.Notification.GetProcessID 1358

**Example Databases**

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.85 Calendar.Notification.GetUpdatedRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetUpdatedRecords" )

**Result** Returns list of record IDs.

### Description

Only valid in a notification script.

Values in this list are IDs of calendars, events, or reminders, depending on the notification (See `Calendar.Notification.GetWhat`). If all three lists (`updatedRecords`, `DeletedRecords`, `InsertedRecords`) are empty, that indicates everything has changed, and the client should refresh the calendar, event, and reminder information currently being used. Since this tends to be an expensive and inconvenient operation, it will only occur under unusual circumstances, such as when restoring from backup.

### See also

- [34.15 Addressbook.Notification.GetUpdatedRecords](#) 827
- [48.81 Calendar.Notification.GetDeletedRecords](#) 1356
- [48.82 Calendar.Notification.GetInsertedRecords](#) 1357
- [48.87 Calendar.Notification.GetWhat](#) 1362

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.86 Calendar.Notification.GetUserUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetUserUID" )

**Result** Returns user ID as number.

### Description

In a notification script you can use this function to learn who made the change for external changes. For notifications caused by your own solution, this value may be undefined.

### See also

- 48.83 Calendar.Notification.GetProcessID 1358
- 48.87 Calendar.Notification.GetWhat 1362

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.87 Calendar.Notification.GetWhat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.GetWhat" )

**Result** Returns text or error.

### Description

Can be "Calendars", "Reminders" or "Events".

In a notification script you can use this function to learn what changed and what IDs the functions Calendar.Notification.GetUpdatedRecords, Calendar.Notification.GetDeletedRecords and Calendar.Notification.GetInsertedRecords return.

### See also

- 48.78 Calendar.Notification.Clear 1353
- 48.79 Calendar.Notification.Evaluate 1354
- 48.81 Calendar.Notification.GetDeletedRecords 1356
- 48.82 Calendar.Notification.GetInsertedRecords 1357
- 48.85 Calendar.Notification.GetUpdatedRecords 1360
- 48.86 Calendar.Notification.GetUserUID 1361
- 48.88 Calendar.Notification.Set 1363

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.88 Calendar.Notification.Set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.5	Yes	No	No	No	No

MBS( "Calendar.Notification.Set"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK on success.

### Description

This script is called whenever something in the calendar database changed.

It can be useful to just call this function without a script name just to have the plugin watch for changes in calendar and clear it's cache.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Installs notification script:

MBS( "Calendar.Notification.Set"; "test.fp7"; "MyScript" )

### See also

- 48.78 Calendar.Notification.Clear 1353
- 48.79 Calendar.Notification.Evaluate 1354
- 48.87 Calendar.Notification.GetWhat 1362

### Example Databases

- [Mac only/Calendar/Calendar Changes](#)

Created 18th August 2014, last changed 7th November 2016.

## 48.89 Calendar.RemoveCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.RemoveCalendar"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns OK or error.

### Description

#### See also

- 48.44 Calendar.Item.GetCalendar 1310
- 48.63 Calendar.Item.SetCalendar 1331
- 48.75 Calendar.NewCalendar 1346
- 48.91 Calendar.RemoveReminder 1366
- 48.92 Calendar.SaveCalendar 1367
- 77.149 Events.RemoveCalendar 3732

Created 18th August 2014, last changed 18th August 2014.



**48.90 Calendar.RemoveEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.RemoveEvent"; eventRef )

**Parameters****eventRef**

The id of the event to query.

\$eventRef

**Result** Returns OK or error.

**Description****See also**

- 48.76 Calendar.NewEvent 1347
- 48.93 Calendar.SaveEvent 1368
- 48.95 Calendar.SelectEvent 1374

**48.90.1 FileMaker Magazin**

- Ausgabe 1/2014, Seite 33

Created 18th August 2014, last changed 18th August 2014.

## 48.91 Calendar.RemoveReminder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.RemoveReminder"; reminderRef )

### Parameters

#### reminderRef

The id of the reminder to query.

\$reminderRef

**Result** Returns OK or error.

### Description

#### See also

- 48.77 Calendar.NewReminder 1349
- 48.89 Calendar.RemoveCalendar 1364
- 48.94 Calendar.SaveReminder 1370
- 77.151 Events.RemoveReminder 3734

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.92 Calendar.SaveCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.SaveCalendar"; calendarRef )

### Parameters

#### calendarRef

The id of the calendar to query.

\$calendarRef

**Result** Returns OK or error.

### Description

### Examples

Create a new calendar:

```
$c = MBS("Calendar.NewCalendar")
```

```
$r = MBS("Calendar.Calendar.SetTitle"; $c; CalendarTest::Title)
```

```
$r = MBS("Calendar.Calendar.SetNotes"; $c; CalendarTest::Notes)
```

```
$r = MBS("Calendar.Calendar.SetColor"; $c; CalendarTest::Color)
```

```
$r = MBS("Calendar.SaveCalendar"; $c )
```

### See also

- 48.29 Calendar.Calendar.SetColor 1294
- 48.30 Calendar.Calendar.SetNotes 1295
- 48.31 Calendar.Calendar.SetTitle 1296
- 48.32 Calendar.Calendars 1297
- 48.75 Calendar.NewCalendar 1346
- 48.89 Calendar.RemoveCalendar 1364
- 48.94 Calendar.SaveReminder 1370

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

Created 18th August 2014, last changed 18th August 2014.

## 48.93 Calendar.SaveEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.SaveEvent"; eventRef )

### Parameters

#### eventRef

The id of the event to query.

\$eventRef

**Result** Returns OK or error.

### Description

#### Examples

Creates new event:

```
$c = MBS("Calendar.NewEvent");
$r = MBS("Calendar.Item.SetTitle"; $c; CalendarTest::ItemTitle)
$r = MBS("Calendar.Item.SetNotes"; $c; CalendarTest::ItemNotes)
$r = MBS("Calendar.Item.SetURL"; $c; CalendarTest::ItemURL)
$r = MBS("Calendar.Item.SetLocation"; $c;CalendarTest::ItemLocation)
$r = MBS("Calendar.Item.SetStartDate"; $c; CalendarTest::ItemStartDate)
$r = MBS("Calendar.Item.SetEndDate"; $c; CalendarTest::ItemEndDate)
$r = MBS("Calendar.Item.SetAllDay"; $c;CalendarTest::ItemAllDay)
$r = MBS("Calendar.Item.SetCalendar"; $c; CalendarTest::CalendarUID)
$r = MBS("Calendar.SaveEvent"; $c )
```

Create a new reminder:

```
$id = MBS("Calendar.NewReminder")
$r = MBS( "Calendar.Item.SetDueDate"; $id; Get(CurrentHostTimeStamp) )
$r = MBS( "Calendar.Item.SetTitle"; $id; "Test" )
$r = MBS( "Calendar.Item.SetCalendar"; $id; "Erinnerungen" )
$r = MBS( "Calendar.SaveReminder"; $id )
```

### See also

- 48.62 Calendar.Item.SetAllDay 1329
- 48.63 Calendar.Item.SetCalendar 1331
- 48.67 Calendar.Item.SetEndDate 1336
- 48.68 Calendar.Item.SetLocation 1337
- 48.71 Calendar.Item.SetStartDate 1341

48.93. CALENDAR.SAVEEVENT	1369
• 48.72 Calendar.Item.SetTitle	1342
• 48.73 Calendar.Item.SetURL	1344
• 48.90 Calendar.RemoveEvent	1365
• 48.94 Calendar.SaveReminder	1370
• 48.95 Calendar.SelectEvent	1374

### Example Databases

- [Mac only/Calendar/Calendar Test](#)

#### 48.93.1 FileMaker Magazin

- Ausgabe 1/2014, Seite 33
- Ausgabe 1/2014, Seite 32

Created 18th August 2014, last changed 18th August 2014.

## 48.94 Calendar.SaveReminder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.SaveReminder"; reminderRef )

### Parameters

#### reminderRef

The id of the reminder to query.

\$reminderRef

**Result** Returns OK or error.

### Description

### Examples

Synchronize Todos with Reminders:

```
# Sync Todos as Reminders from FileMaker to Mac Reminder app
# And sync back changes
#
# Please adjust to your fields and your special use case!
# You can optimize to only update fields on each side if changed
#

Go to Record/Request/Page [ First ]
Loop
# Check if we have an ID for this todo already
If [ Todos::SyncUID = "" ]
Set Variable [ $c; Value:Todos::SyncUID ]
# Query last modification date
Set Variable [ $completed; Value:MBS( "Calendar.Item.GetCompleted"; Todos::SyncUID ) ]
Set Variable [ $datum; Value:MBS( "Calendar.Item.GetDateStamp"; Todos::SyncUID ) ]
If [ MBS("isError") ]
# Reminder was deleted, so we recreate
Set Field [ Todos::SyncUID; "" ]
Commit Records/Requests [ No dialog ]
Else
# Update
If [ $datum > Todos::Last_Change ]
#
# Reminder ->FM
#
# Sync note field
Set Variable [ $notes; Value:MBS( "Calendar.Item.GetNotes"; Todos::SyncUID ) ]
If [ Todos::To Do Main Text = $notes ]
# Special: If note starts with # then move number to duration field
```

```

If [ Left ( Trim ( $notes ); 1 ) = "# " ]
Set Variable [ $duration; Value:GetAsNumber ( LeftWords ( $notes ; 1 ) ) ]
Set Field [ Todos::To Do Completion Time in Minutes; $duration ]
Commit Records/Requests [ No dialog ]
Else
Set Field [ Todos::To Do Main Text; $notes ]
Commit Records/Requests [ No dialog ]
End If
End If
# Sync title if changed
Set Variable [ $title; Value:MBS( "Calendar.Item.GetTitle"; Todos::SyncUID ) ]
If [ Todos::To Do Headline $title ]
Set Field [ Todos::To Do Headline; $title ]
Commit Records/Requests [ No dialog ]
End If
# Sync completed flag if changed
If [ $completed=1 ]
If [ Todos::flag To Do Completed "X" ]
Set Field [ Todos::flag To Do Completed; "X" ]
Commit Records/Requests [ No dialog ]
End If
Else If [ $completed=0 ]
If [ Todos::flag To Do Completed "" ]
Set Field [ Todos::flag To Do Completed; "" ]
Commit Records/Requests [ No dialog ]
End If
End If
Else
#
# FM ->Reminder
#
# overwrite all values
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; Todos::To Do Headline) ]
Set Variable [ $n; Value:MBS("Calendar.Item.SetNotes"; $c; Todos::To Do Main Text) ]
Set Variable [ $d; Value:MBS("Calendar.Item.SetDueDate"; $c; Todos::To Do Deadline ) ]
If [ Todos::flag To Do Completed = "X" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 1) ]
End If
If [ Todos::flag To Do Completed = "" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 0) ]
End If
If [ Todos::To Do Priority="1 Jetzt" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;1) ]
End If
If [ Todos::To Do Priority="2 Sofort" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;5) ]
End If
If [ Todos::To Do Priority="4 Hat Zeit" ]

```

```

Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;9 ) ]
End If
Set Variable [ $r; Value:MBS("Calendar.SaveReminder"; $c ) ]
End If
End If
End If
If [ ToDos::SyncUID = "" ]
# Create new reminder
#
# Which calendar? (Reminder List)
Set Variable [ $CalendarName; Value:"" ]
If [ ToDos::To Do By="PF" ]
Set Variable [ $CalendarName; Value:"ToDo PF" ]
Else If [ ToDos::To Do By = "GK" ]
Set Variable [ $CalendarName; Value:"ToDo GK" ]
End If
If [ $CalendarName = "" ]
Set Variable [ $c; Value:MBS("Calendar.NewReminder") ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetTitle"; $c; ToDos::To Do Headline) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetNotes"; $c; ToDos::To Do Main Text) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCalendar"; $c;$CalendarName) ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetDueDate"; $c; ToDos::To Do Deadline ) ]
If [ ToDos::To Do Priority="1 Jetzt" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;1 ) ]
End If
If [ ToDos::To Do Priority="2 Sofort" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;5 ) ]
End If
If [ ToDos::To Do Priority="4 Hat Zeit" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetPriority"; $c;9 ) ]
End If
If [ ToDos::flag To Do Completed = "X" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 1) ]
End If
If [ ToDos::flag To Do Completed = "" ]
Set Variable [ $r; Value:MBS("Calendar.Item.SetCompleted"; $c; 0) ]
End If
Set Variable [ $r; Value:MBS("Calendar.SaveReminder"; $c ) ]
# store id for update later
Set Field [ ToDos::SyncUID; MBS("Calendar.Item.GetUID"; $c) ]
Commit Records/Requests [ No dialog ]
End If
End If
Go to Record/Request/Page [ Next; Exit after last ]
End Loop

```

**See also**



48.94. <i>CALENDAR.SAVEREMINDER</i>	1373
• 48.47 Calendar.Item.GetDateStamp	1313
• 48.51 Calendar.Item.GetNotes	1317
• 48.54 Calendar.Item.GetTitle	1320
• 48.64 Calendar.Item.SetCompleted	1333
• 48.66 Calendar.Item.SetDueDate	1335
• 48.69 Calendar.Item.SetNotes	1338
• 48.77 Calendar.NewReminder	1349
• 48.91 Calendar.RemoveReminder	1366
• 48.92 Calendar.SaveCalendar	1367
• 48.93 Calendar.SaveEvent	1368

### **Example Databases**

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 22nd September 2016.

**48.95 Calendar.SelectEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.SelectEvent"; EventRef; OccuranceDate )

**Parameters****EventRef**

The reference to the event.

\$EventRef

**OccuranceDate**

The occurrence date.

\$OccuranceDate

**Result** Returns new temporary event ID or error.

**Description**

This will select an event and return a new reference which you can use for other editing functions to work on an event.

Some events have several occurrence dates, but same unique IDs.

**See also**

- 48.76 Calendar.NewEvent 1347
- 48.90 Calendar.RemoveEvent 1365
- 48.93 Calendar.SaveEvent 1368

Created 18th August 2014, last changed 18th August 2014.

## 48.96 Calendar.Tasks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.Tasks" { ; calendarRef } )

### Parameters

#### calendarRef

Optional

A calendar identifier or name to search only this calendar.

\$calendarRef

**Result** Returns list of task/reminder identifiers or error.

### Description

If you pass calendar, only this calendar is searched. Else all calendars are searched.

### Examples

Queries tasks:

MBS( "Calendar.Tasks" )

### See also

- [48.97 Calendar.TasksCompletedSince](#)

1376

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 11st October 2019.

## 48.97 Calendar.TasksCompletedSince

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.TasksCompletedSince"; completedSince { ; calendarRef } )

### Parameters

#### completedSince

The date where we search tasks after.

\$completedSince

#### calendarRef

Optional

A calendar identifier or name to search only this calendar.

\$calendarRef

**Result** Returns list of task/reminder identifiers or error.

### Description

If you pass calendar, only this calendar is searched. Else all calendars are searched.

### Examples

Queries tasks:

```
MBS( "Calendar.TasksCompletedSince"; $completedSince )
```

### See also

- 48.96 Calendar.Tasks

1375

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 11st October 2019.

## 48.98 Calendar.UncompletedTasks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.UncompletedTasks" { ; calendarRef } )

### Parameters

#### calendarRef

Optional

Optional, a calendar identifier or name to search only this calendar.

\$calendarRef

**Result** Returns list of task/reminder identifiers or error.

### Description

If you pass calendar, only this calendar is searched. Else all calendars are searched.

### Examples

Queries tasks:

MBS( "Calendar.UncompletedTasks" )

### See also

- 48.99 Calendar.UncompletedTasksDueBefore

1378

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 11st October 2019.

## 48.99 Calendar.UncompletedTasksDueBefore

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
48 Calendar	3.4	Yes	No	No	No	No

MBS( "Calendar.UncompletedTasksDueBefore"; dueDate { ; calendarRef } )

### Parameters

#### dueDate

The date where we search tasks before.

\$dueDate

#### calendarRef

Optional

Optional, a calendar identifier or name to search only this calendar.

\$calendarRef

**Result** Returns list of task/reminder identifiers or error.

### Description

If you pass calendar, only this calendar is searched. Else all calendars are searched.

### Examples

Queries tasks:

```
MBS( "Calendar.UncompletedTasksDueBefore"; $dueDate )
```

### See also

- 48.98 Calendar.UncompletedTasks

1377

### Example Databases

- [Mac only/Calendar/Reminders](#)

Created 18th August 2014, last changed 11st October 2019.

# Chapter 49

## Certificates

X509 Certificates and PKCS12 file handling.

See also Sign functions.

### 49.1 PKCS12.CA

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.CA"; PKCS12 Reference; Index )

#### Parameters

##### PKCS12 Reference

The reference to the PKCS12.

\$pkcs12

##### Index

The index of the certificate to get. From 0 to PKCS12.CACount-1.

0

**Result** Returns X509 reference number or error.

#### Description

A PKCS12 file may contain more than one certificate.

#### Examples

Query certificates:

```
Set Variable [ $p12; Value:MBS( "PKCS12.ReadFromContainer"; test::Container; "Geslo123# " ) ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ "Error"; $p12 ]
```

```
Else
Set Variable [ $count; Value:MBS( "PKCS12.CACount"; $p12 ) ]
Set Variable [ $index; Value:0 ]
Loop
Set Variable [ $cert; Value:MBS( "PKCS12.CA"; $p12; $index ) ]
Show Custom Dialog [ "Certificate"; MBS( "X509.Description"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index >= $count ]
End Loop
Set Variable [ $r; Value:MBS( "PKCS12.Release"; $p12 ) ]
End If
```

**See also**

- 127.6 IsError 6374
- 49.2 PKCS12.CACount 1381
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388
- 49.22 X509.Description 1403
- 49.29 X509.Release 1410

Created 23th December 2016, last changed 23th December 2016.



## 49.2 PKCS12.CACount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.CACount"; PKCS12 Reference )

### Parameters

#### PKCS12 Reference

The reference to the PKCS12.

\$pkcs12

**Result** Returns OK or error.

### Description

### Examples

Get count:

Set Variable [ \$count; Value:MBS( "PKCS12.CACount"; \$p12 ) ]

### See also

- 49.1 PKCS12.CA 1379
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386

Created 23th December 2016, last changed 23th December 2016.

### 49.3 PKCS12.Cert

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.Cert"; PKCS12 Reference )

#### Parameters

#### PKCS12 Reference

The reference to the PKCS12.

\$pkcs12

**Result** Returns X509 reference number or error.

#### Description

#### Examples

Get certificate:

Set Variable [ \$cert; Value:MBS( "PKCS12.Cert"; \$p12 ) ]

#### See also

- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386

Created 23th December 2016, last changed 23th December 2016.

## 49.4 PKCS12.PKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.PKey"; PKCS12 Reference )

### Parameters

#### PKCS12 Reference

The reference to the PKCS12.

\$pkcs12

**Result** Returns PKey reference number or error.

### Description

### Examples

Get private key:

Set Variable [ \$pkey; Value:MBS( "PKCS12.PKey"; \$p12 ) ]

### See also

- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386

Created 23th December 2016, last changed 23th December 2016.

## 49.5 PKCS12.ReadFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.ReadFromContainer"; Container { ; Password } )

### Parameters

#### Container

The container with the certificate file.

#### Password

Optional

The password for the p12 file.

"Hello"

**Result** Returns PKCS12 reference number or error.

### Description

Please call PKCS12.Release later to release memory.

### Examples

Read PKCS12 from container and shows details:

```
Set Variable [ $p12; Value:MBS( "PKCS12. ReadFromContainer"; MyTable::MyContainerField; "test" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $p12 ]
Else
Set Variable [ $cert; Value:MBS( "PKCS12.Cert"; $p12 ) ]
Set Variable [ $pkey; Value:MBS( "PKCS12.PKey"; $p12 ) ]
Set Variable [ $CACount; Value:MBS( "PKCS12.CACount"; $p12 ) ]
Show Custom Dialog [ "Certificate"; MBS( "X509.Description"; $cert ) ]
Show Custom Dialog [ "Private Key"; MBS( "PKey.DescriptionPrivateKey"; $pkey ) ]
Set Variable [ $r; Value:MBS( "PKey.Release"; $pkey ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
Set Variable [ $r; Value:MBS( "PKCS12.Release"; $p12 ) ]
End If
```

### See also

- 86.1 GImage.ReadFromContainer 4395
- 127.6 IsError 6374
- 49.3 PKCS12.Cert 1382
- 49.4 PKCS12.PKey 1383
- 49.7 PKCS12.Release 1388

49.5. <i>PKCS12.READFROMCONTAINER</i>	1385
• 49.9 PKCS7.ReadFromContainer	1390
• 49.16 PKey.DescriptionPrivateKey	1397
• 49.22 X509.Description	1403
• 49.27 X509.ReadFromContainer	1408
• 49.29 X509.Release	1410

Created 23th December 2016, last changed 6th March 2019.

## 49.6 PKCS12.ReadFromFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.ReadFromFile"; Path; Password )

### Parameters

#### Path

The native file path to the PEM file.

"/Users/cs/Desktop/test.pem"

#### Password

The password for the p12 file.

"Hello"

**Result** Returns PKCS12 reference number or error.

### Description

Please call PKCS12.Release later to release memory.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read PKCS12 file and shows details:

```
Set Variable [ $p12; Value:MBS( "PKCS12.ReadFromFile"; "/Users/cs/Desktop/test.p12"; "test" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $p12 ]
Else
Set Variable [ $cert; Value:MBS( "PKCS12.Cert"; $p12 ) ]
Set Variable [ $pkey; Value:MBS( "PKCS12.PKey"; $p12 ) ]
Set Variable [ $CACount; Value:MBS( "PKCS12.CACount"; $p12 ) ]
Show Custom Dialog [ "Certificate"; MBS( "X509.Description"; $cert ) ]
Show Custom Dialog [ "Private Key"; MBS( "PKey.DescriptionPrivateKey"; $pkey ) ]
Set Variable [ $r; Value:MBS( "PKey.Release"; $pkey ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
Set Variable [ $r; Value:MBS( "PKCS12.Release"; $p12 ) ]
End If
```

### See also

- 127.6 IsError 6374
- 124.2 Path.FileMakerPathToNativePath 6247

49.6. <i>PKCS12.READFROMFILE</i>	1387
• 49.1 PKCS12.CA	1379
• 49.4 PKCS12.PKey	1383
• 49.7 PKCS12.Release	1388
• 49.10 PKCS7.ReadFromFile	1391
• 49.16 PKey.DescriptionPrivateKey	1397
• 49.20 PKey.Release	1401
• 49.22 X509.Description	1403
• 49.29 X509.Release	1410

Created 23th December 2016, last changed 6th March 2019.

## 49.7 PKCS12.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS12.Release"; PKCS12 Reference )

### Parameters

#### PKCS12 Reference

The reference to the PKCS12.  
\$pkcs12

**Result** Returns OK or error.

### Description

#### See also

- 49.1 PKCS12.CA 1379
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.8 PKCS12.ShowDialog 1389
- 49.11 PKCS7.Release 1392

Created 23th December 2016, last changed 23th December 2016.



## 49.8 PKCS12.ShowDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.2	Yes	No	No	No	No

MBS( "PKCS12.ShowDialog"; PKCS12 Reference )

### Parameters

#### PKCS12 Reference

The reference to the PKCS12.

\$pkcs12

**Result** Returns OK or error.

### Description

Displays the content of the certificate and the chain in the standard dialog to user.

### Examples

Show certificate:

```
Set Variable [ $p ; Value: MBS( "PKCS12.ReadFromFile"; "/Users/cs/Desktop/test_cert.pfx"; "123456" ) ]
```

```
Set Variable [ $r ; Value: MBS( "PKCS12.ShowDialog"; $p ) ]
```

```
Set Variable [ $r ; Value: MBS( "PKCS12.Release"; $p ) ]
```

### See also

- 49.6 PKCS12.ReadFromFile 1386
- 49.7 PKCS12.Release 1388

Created 30th April 2019, last changed 30th April 2019.

## 49.9 PKCS7.ReadFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.ReadFromContainer"; Container )

### Parameters

#### Container

The container with the certificate file.

**Result** Returns PKCS7 reference number or error.

### Description

Please call PKCS7.Release later to release memory.

### See also

- 49.5 PKCS12.ReadFromContainer 1384
- 49.11 PKCS7.Release 1392
- 49.27 X509.ReadFromContainer 1408

Created 6th March 2019, last changed 6th March 2019.

**49.10 PKCS7.ReadFromFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.ReadFromFile"; Path )

**Parameters****Path**

The native file path to the PKCS# 7 file.

"/Users/cs/Desktop/test.pem"

**Result** Returns PKCS7 reference number or error.

**Description**

Please call PKCS7.Release later to release memory.

**See also**

- 49.6 PKCS12.ReadFromFile 1386
- 49.11 PKCS7.Release 1392
- 49.12 PKCS7.SignedDataCert 1393
- 49.13 PKCS7.SignedDataCertCount 1394
- 49.14 PKCS7.SignedDataContent 1395
- 49.28 X509.ReadFromFile 1409

Created 6th March 2019, last changed 6th March 2019.

## 49.11 PKCS7.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.Release"; PKCS7 Reference )

### Parameters

#### PKCS7 Reference

The reference to the PKCS# 7.

\$pkcs7

**Result** Returns OK or error.

### Description

#### See also

- 49.7 PKCS12.Release 1388
- 49.9 PKCS7.ReadFromContainer 1390
- 49.10 PKCS7.ReadFromFile 1391
- 49.12 PKCS7.SignedDataCert 1393
- 49.13 PKCS7.SignedDataCertCount 1394
- 49.14 PKCS7.SignedDataContent 1395
- 49.20 PKey.Release 1401

Created 6th March 2019, last changed 6th March 2019.

## 49.12 PKCS7.SignedDataCert

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.SignedDataCert"; PKCS7 Reference )

### Parameters

#### PKCS7 Reference

The reference to the PKCS# 7.

\$pkcs7

**Result** Returns X509 reference number or error.

### Description

#### Examples

Show certificate used to sign:

```
Set Variable [ $pkcs7 ; Value: MBS( "PKCS7.ReadFromFile"; "/Users/cs/Desktop/IT12345.xml.p7m" ) ]
```

```
Set Variable [ $x509 ; Value: MBS( "PKCS7.SignedDataCert"; $pkcs7; 0 ) ]
```

```
Show Custom Dialog [ "Content" ; MBS( "X509.Description"; $x509 ) ]
```

```
Set Variable [ $x509 ; Value: MBS( "X509.Release"; $x509 ) ]
```

```
Set Variable [ $r ; Value: MBS( "PKCS7.Release"; $pkcs7 ) ]
```

#### See also

- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392
- 49.13 PKCS7.SignedDataCertCount 1394
- 49.14 PKCS7.SignedDataContent 1395
- 49.22 X509.Description 1403
- 49.29 X509.Release 1410

Created 6th March 2019, last changed 6th March 2019.

## 49.13 PKCS7.SignedDataCertCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.SignedDataCertCount"; PKCS7 Reference )

### Parameters

#### PKCS7 Reference

The reference to the PKCS# 7.

\$pkcs7

**Result** Returns number or error.

### Description

#### Examples

Show number of certificates:

```
Set Variable [ $pkcs7 ; Value: MBS( "PKCS7.ReadFromFile"; "/Users/cs/Desktop/IT12345.xml.p7m" ) ]
```

```
Show Custom Dialog [ "Content" ; MBS( "PKCS7.SignedDataCertCount"; $pkcs7 ) ]
```

```
Set Variable [ $r ; Value: MBS( "PKCS7.Release"; $pkcs7 ) ]
```

### See also

- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392
- 49.12 PKCS7.SignedDataCert 1393
- 49.14 PKCS7.SignedDataContent 1395

Created 6th March 2019, last changed 6th March 2019.

## 49.14 PKCS7.SignedDataContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "PKCS7.SignedDataContent"; PKCS7 Reference { ; Encoding } )

### Parameters

#### PKCS7 Reference

The reference to the PKCS# 7.

\$pkcs7

#### Encoding

Optional

The text encoding for result. Default is native. Can be hex or base64 for binary data.

"UTF8"

**Result** Returns text or error.

### Description

In Italy digitally signed e-invoices in CADES format include an embedded XML payload in a signed P7M file.

### Examples

Read XML embedded in p7m file:

```
Set Variable [ $pkcs7 ; Value: MBS( "PKCS7.ReadFromFile"; "/Users/cs/Desktop/IT12345.xml.p7m" ) ]
Show Custom Dialog [ "Content" ; MBS( "PKCS7.SignedDataContent"; $pkcs7; "UTF-8" ) ]
Set Variable [ $r ; Value: MBS( "PKCS7.Release"; $pkcs7 ) ]
```

### See also

- 49.10 PKCS7.ReadFromFile 1391
- 49.11 PKCS7.Release 1392
- 49.12 PKCS7.SignedDataCert 1393
- 49.13 PKCS7.SignedDataCertCount 1394

Created 6th March 2019, last changed 21st July 2019.

## 49.15 PKey.Bits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.Bits"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns bits count or error.

### Description

Created 23th December 2016, last changed 23th December 2016.



## 49.16 PKey.DescriptionPrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.DescriptionPrivateKey"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns text or error.

### Description

This is only for human to read.

### See also

- [49.5 PKCS12.ReadFromContainer](#) 1384
- [49.6 PKCS12.ReadFromFile](#) 1386
- [49.17 PKey.DescriptionPublicKey](#) 1398

Created 23th December 2016, last changed 23th December 2016.

## 49.17 PKey.DescriptionPublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.DescriptionPublicKey"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns text or error.

### Description

This is only for human to read.

### See also

- 49.16 PKey.DescriptionPrivateKey

1397

Created 23th December 2016, last changed 23th December 2016.

## 49.18 PKey.GetPrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.GetPrivateKey"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns text or error.

### Description

### See also

- 152.8 ECKey.ReadPrivateKey

7184

### 49.18.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 23th December 2016, last changed 23th December 2016.

## 49.19 PKey.GetPublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.GetPublicKey"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns text or error.

### Description

#### See also

- 152.9 ECKey.ReadPublicKey 7185
- 152.16 RSA.GetPublicKey 7193

Created 23th December 2016, last changed 23th December 2016.

**49.20 PKey.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.Release"; PKeyRef )

**Parameters****PKeyRef**

The reference to the private key.

\$pkey

**Result** Returns OK or error.

**Description****See also**

- 152.10 ECKey.Release 7186
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.11 PKCS7.Release 1392

Created 23th December 2016, last changed 25th December 2016.

## 49.21 PKey.Type

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "PKey.Type"; PKeyRef )

### Parameters

#### PKeyRef

The reference to the private key.

\$pkey

**Result** Returns text or error.

### Description

Can be DH, DSA, RSA or EC.

Created 23th December 2016, last changed 23th December 2016.

## 49.22 X509.Description

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Description"; X509Ref )

### Parameters

#### X509Ref

The reference to the X509 certificate.

\$cert

**Result** Returns text or error.

### Description

This is only for human to read.

### Examples

Shows description of certificate:

```
Set Variable [ $cert; Value:MBS( "X509.Read"; test::Cert ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "Description"; MBS( "X509.Description"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

### See also

- 127.6 IsError 6374
- 49.1 PKCS12.CA 1379
- 49.5 PKCS12.ReadFromContainer 1384
- 49.6 PKCS12.ReadFromFile 1386
- 49.12 PKCS7.SignedDataCert 1393
- 49.26 X509.Read 1407
- 49.29 X509.Release 1410
- 49.30 X509.SerialNumber 1411

Created 23th December 2016, last changed 23th December 2016.

**49.23 X509.Duplicate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Duplicate"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns reference number or error.

**Description**

Please call later X509.Release to free the memory.

**See also**

- 49.29 X509.Release

1410

Created 23th December 2016, last changed 23th December 2016.



**49.24 X509.IssuerName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.IssuerName"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns text or error.

**Description**

Returns a list of key=value entries.

**Examples**

Shows issuer name:

```
Set Variable [ $cert; Value:MBS( "X509.Read"; test::Cert ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "IssuerName"; MBS( "X509.IssuerName"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

**See also**

- 127.6 IsError 6374
- 49.26 X509.Read 1407
- 49.29 X509.Release 1410

Created 23th December 2016, last changed 23th December 2016.

**49.25 X509.Name**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Name"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns text or error.

**Description****See also**

- 49.26 X509.Read 1407
- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409

Created 23th December 2016, last changed 23th December 2016.

## 49.26 X509.Read

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Read"; Text )

### Parameters

#### Text

The certificate in PEM format as text.

**Result** Returns X509 reference number or error.

### Description

See also X509.ReadFromContainer for reading from container and X509.ReadFromFile to read from file on disk.

### Examples

Reads a certificate and shows name:

```
Set Variable [ $cert; Value:MBS( "X509.Read"; test::Cert ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "Name"; MBS( "X509.Name"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

### See also

- 127.6 IsError 6374
- 49.22 X509.Description 1403
- 49.24 X509.IssuerName 1405
- 49.25 X509.Name 1406
- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409
- 49.29 X509.Release 1410
- 49.30 X509.SerialNumber 1411
- 49.31 X509.ShowDialog 1412
- 49.32 X509.SubjectName 1413

Created 23th December 2016, last changed 4th April 2017.

## 49.27 X509.ReadFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.ReadFromContainer"; Container )

### Parameters

#### Container

The container with the certificate file.

**Result** Returns X509 reference number or error.

### Description

### Examples

Reads a certificate and shows name:

```
Set Variable [ $cert; Value:MBS( "X509.ReadFromContainer";test::Container ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "Name"; MBS( "X509.Name"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

### See also

- 127.6 IsError 6374
- 49.5 PKCS12.ReadFromContainer 1384
- 49.9 PKCS7.ReadFromContainer 1390
- 49.25 X509.Name 1406
- 49.26 X509.Read 1407
- 49.29 X509.Release 1410

Created 23th December 2016, last changed 23th December 2016.

## 49.28 X509.ReadFromFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.ReadFromFile"; Path )

### Parameters

#### Path

The native file path to the PEM file.

"/Users/cs/Desktop/test.pem"

**Result** Returns X509 reference number or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Reads a certificate and shows name:

```
Set Variable [ $cert; Value:MBS( "X509.ReadFromFile"; "/Users/cs/Desktop/test.pem" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "Name"; MBS( "X509.Name"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

### See also

- 127.6 IsError 6374
- 124.2 Path.FileMakerPathToNativePath 6247
- 49.10 PKCS7.ReadFromFile 1391
- 49.25 X509.Name 1406
- 49.26 X509.Read 1407
- 49.29 X509.Release 1410
- 49.30 X509.SerialNumber 1411

Created 23th December 2016, last changed 23th December 2016.

**49.29 X509.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Release"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns OK or error.

**Description****See also**

- 49.1 PKCS12.CA 1379
- 49.6 PKCS12.ReadFromFile 1386
- 49.22 X509.Description 1403
- 49.23 X509.Duplicate 1404
- 49.24 X509.IssuerName 1405
- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409
- 49.30 X509.SerialNumber 1411
- 49.31 X509.ShowDialog 1412
- 49.32 X509.SubjectName 1413

Created 23th December 2016, last changed 23th December 2016.

**49.30 X509.SerialNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.SerialNumber"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns text or error.

**Description****Examples**

Shows the serial number:

```
Show Custom Dialog [ "Serial Number"; MBS( "X509.SerialNumber"; $cert ) ]
```

Shows serial and description:

```
Set Variable [ $cert; Value:MBS( "X509.ReadFromFile"; "/Users/cs/Desktop/test.pem" ) ]
```

```
Show Custom Dialog [ "Serial"; MBS( "X509.SerialNumber"; $cert ) ]
```

```
Show Custom Dialog [ "Description"; MBS( "X509.Description"; $cert ) ]
```

```
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
```

**See also**

- 49.22 X509.Description 1403
- 49.26 X509.Read 1407
- 49.28 X509.ReadFromFile 1409
- 49.29 X509.Release 1410

Created 23th December 2016, last changed 14th March 2017.

**49.31 X509.ShowDialog**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.2	Yes	No	No	No	No

MBS( "X509.ShowDialog"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns OK or error.

**Description**

Displays the content of the certificate in the standard dialog to user.

**Examples**

Show certificate:

```
Set Variable [ $cert ; Value: MBS( "X509.Read"; Zertifikat::Certificate Text ) ]
```

```
Set Variable [ $serial ; Value: MBS( "X509.ShowDialog"; $cert ) ]
```

```
Set Variable [ $r ; Value: MBS( "X509.Release"; $cert ) ]
```

**See also**

- 49.26 X509.Read 1407
- 49.29 X509.Release 1410

Created 30th April 2019, last changed 23th August 2019.



**49.32 X509.SubjectName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.SubjectName"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns text or error.

**Description**

Returns a list of key=value entries.

**Examples**

Shows subject name:

```
Set Variable [ $cert; Value:MBS( "X509.Read"; test::Cert ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $cert ]
Else
Show Custom Dialog [ "SubjectName"; MBS( "X509.SubjectName"; $cert ) ]
Set Variable [ $r; Value:MBS( "X509.Release"; $cert ) ]
End If
```

**See also**

- 127.6 IsError 6374
- 49.26 X509.Read 1407
- 49.29 X509.Release 1410

Created 23th December 2016, last changed 23th December 2016.

**49.33 X509.Version**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Version"; X509Ref )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Result** Returns OK or error.

**Description**

Currently usually 2 for version 3.

**Examples**

Shows version:

Show Custom Dialog [ "Version"; MBS( "X509.Version"; \$cert ) ]

**See also**

- 127.62 Version

6446

Created 23th December 2016, last changed 23th December 2016.

**49.34 X509.Write**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
49 Certificates	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "X509.Write"; X509Ref { ; Binary } )

**Parameters****X509Ref**

The reference to the X509 certificate.

\$cert

**Binary**

Optional

Whether to return binary representation (DER format) instead of text (PEM format). Default is PEM.

0

**Result** Returns text or error.

**Description**

Provides either PEM file as text or DER file base64 encoded.

Created 22nd February 2019, last changed 25th February 2019.



# Chapter 50

## CGImageSource

MacOS Image loading functions to query metadata and thumbnails.

Can be used to get thumbnails from images or to query EXIF, IPTC or GPS metadata from images.

### 50.1 CGImageSource.ClearProperties

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.ClearProperties"; Ref )

#### Parameters

##### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL  
\$ref

**Result** Returns OK or error.

#### Description

Allows you to save image with empty properties, so no EXIF/IPTC data is stored.

#### See also

- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.8 CGImageSource.HasProperty 1427

- 50.11 CGImageSource.Properties 1432
- 50.14 CGImageSource.SetProperty 1439

### 50.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 5th September 2019, last changed 5th September 2019.

## 50.2 CGImageSource.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Count"; Ref )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

**Result** Returns number of images or error message.

### Description

### Examples

Query count:

MBS( "CGImageSource.Count"; \$ref )

### See also

- 50.3 `CGImageSource.CreateWithData` 1420
- 50.4 `CGImageSource.CreateWithPath` 1421
- 50.5 `CGImageSource.CreateWithURL` 1423
- 50.6 `CGImageSource.Export` 1424
- 50.10 `CGImageSource.Keys` 1430
- 50.11 `CGImageSource.Properties` 1432
- 50.12 `CGImageSource.Property` 1435
- 50.14 `CGImageSource.SetProperty` 1439
- 50.15 `CGImageSource.Status` 1441
- 50.18 `CGImageSource.ThumbnailAtIndex` 1445

Created 18th August 2014, last changed 18th August 2014.

## 50.3 CGImageSource.CreateWithData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.CreateWithData"; data )

### Parameters

#### data

A value from a Container Field.

**Result** Returns the reference number for this image source or error message.

### Description

Don't forget to call CGImageSource.Release later to release the reference number.

### Examples

Convert image from one container and output to other:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
Set Field [ test::output ; MBS( "CGImageSource.ImageAtIndex"; $img; 0; "PNG" ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.5 CGImageSource.CreateWithURL 1423
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435
- 50.13 CGImageSource.Release 1437
- 50.14 CGImageSource.SetProperty 1439
- 50.15 CGImageSource.Status 1441
- 50.18 CGImageSource.ThumbnailAtIndex 1445
- 50.19 CGImageSource.Type 1447

### Example Databases

- [Mac and iOS/CGImageSource](#)

Created 18th August 2014, last changed 5th January 2018.



## 50.4 CGImageSource.CreateWithPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.CreateWithPath"; Path )

### Parameters

#### Path

The platform specific native file path.

"/test.jpg"

**Result** Returns the reference number for this image source or error message.

### Description

Don't forget to call CGImageSource.Release later to release the reference number.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Load image and show it:

```
Set Variable [ $path ; Value: "/Users/cs/Pictures/IMG_3625.jpg" ]
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithPath"; $path ) ]
Set Field [ test::output ; MBS( "CGImageSource.ImageAtIndex"; $img; 0 ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

Read HEIC image:

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/IMG_3552.HEIC" ]
Set Variable [ $ImageSource ; Value: MBS( "CGImageSource.CreateWithPath"; $path ) ]
If [ MBS("IsError") = 0 ]
# you can get metadata as JSON to check later...
Set Variable [ $$MetaData ; Value: MBS( "CGImageSource.Properties"; $ImageSource ) ]
Set Variable [ $$ImageMetaData ; Value: MBS( "CGImageSource.Properties"; $ImageSource; 0 ) ]
# get image to show
Set Variable [ $image ; Value: MBS( "CGImageSource.ImageAtIndex"; $ImageSource; 0; "PNG"; "image.png" ) ]
If [ MBS("IsError") = 0 ]
Set Field [ Untitled::image ; $image ]
End If
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $ImageSource ) ]
End If
```

**See also**

- 50.1 CGImageSource.ClearProperties 1417
- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.6 CGImageSource.Export 1424
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435
- 50.14 CGImageSource.SetProperty 1439
- 50.18 CGImageSource.ThumbnailAtIndex 1445

### 50.4.1 Blog Entries

- [Read HEIC or HEIF image files in FileMaker](#)

Created 18th August 2014, last changed 27th January 2020.

## 50.5 CGImageSource.CreateWithURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.CreateWithURL"; URL )

### Parameters

#### URL

The URL to the file.

\$URL

**Result** Returns the reference number for this image source or error message.

### Description

Don't forget to call CGImageSource.Release later to release the reference number.

CoreGraphics Image Source reference numbers are starting at 25000 and counting up for each new image source.

### Examples

Loads image and shows it:

```
Set Variable [ $url ; Value: "http://www.monkeybreadsoftware.de/images/fmplugin16.png" ]
```

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithURL"; $url ) ]
```

```
Set Field [ test::output ; MBS( "CGImageSource.ImageAtIndex"; $img; 0 ) ]
```

```
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

### See also

- 50.1 CGImageSource.ClearProperties 1417
- 50.3 CGImageSource.CreateWithData 1420
- 50.8 CGImageSource.HasProperty 1427
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435
- 50.13 CGImageSource.Release 1437
- 50.14 CGImageSource.SetProperty 1439
- 50.19 CGImageSource.Type 1447

Created 18th August 2014, last changed 5th January 2018.

## 50.6 CGImageSource.Export

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Export"; Ref; FileName )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

#### FileName

The file name to use. If empty, we use the name of the loaded image. Falls back to export.jpg if no name is provided. Image destination is defined by file type from file name.

"test.jpg"

**Result** Returns container value or error.

### Description

Uses the image compression based on the file name used.

If possible, we move through data without recompressing image.

Use Container.WriteFile to write the image to a disk file.

### Examples

Changes some metadata and exports image:

```
Set Variable [ $ref ; Value: MBS("CGImageSource.CreateWithData"; CGImageSource::ImageFile) ]
Set Variable [ $keys ; Value: MBS( "CGImageSource.SetProperty"; $ref; 0; " { IPTC } .Keywords";
"House,Garden" ) ]
Set Variable [ $keys ; Value: MBS( "CGImageSource.SetProperty"; $ref; 0; " { IPTC } .Caption/Abstract";
"House with garden" ) ]
Set Variable [ $keys ; Value: MBS( "CGImageSource.SetProperty"; $ref; 0; " { TIFF } .ImageDescription";
"House with garden" ) ]
Set Variable [ $Image ; Value: MBS("CGImageSource.Export"; $ref) ]
Set Field [ CGImageSource::output ; $image ]
Set Variable [ $r ; Value: MBS("CGImageSource.Release"; $ref) ]
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423

50.6. <i>CGIMAGESOURCE.EXPORT</i>	1425
• 50.12 <i>CGImageSource.Property</i>	1435
• 50.13 <i>CGImageSource.Release</i>	1437
• 50.14 <i>CGImageSource.SetProperty</i>	1439
• 50.19 <i>CGImageSource.Type</i>	1447
• 56.35 <i>Container.WriteFile</i>	1694

## Example Databases

- [Mac and iOS/CGImageSource](#)

### 50.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)

Created 30th August 2019, last changed 12nd September 2019.

## 50.7 CGImageSource.FileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.FileName" )

**Result** Returns text or error.

### Description

### Examples

Queries filename:

```
Set Variable [ $ref ; Value: MBS("CGImageSource.CreateWithData"; CGImageSource::ImageFile) ]
Show Custom Dialog [ "filename" ; MBS( "CGImageSource.FileName"; $ref ) ]
Set Variable [ $r ; Value: MBS("CGImageSource.Release"; $ref) ]
```

### See also

- [50.3 CGImageSource.CreateWithData](#) 1420
- [50.13 CGImageSource.Release](#) 1437

### 50.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)

Created 30th August 2019, last changed 30th August 2019.

## 50.8 CGImageSource.HasProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.HasProperty"; Ref; Index; Key )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to `CGImageSource.Count-1`.

0

#### Key

The property name to query.  
"PixelWidth"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if property is found.

### See also

- 50.1 `CGImageSource.ClearProperties` 1417
- 50.2 `CGImageSource.Count` 1419
- 50.3 `CGImageSource.CreateWithData` 1420
- 50.4 `CGImageSource.CreateWithPath` 1421
- 50.5 `CGImageSource.CreateWithURL` 1423
- 50.11 `CGImageSource.Properties` 1432
- 50.12 `CGImageSource.Property` 1435
- 50.14 `CGImageSource.SetProperty` 1439

### 50.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)

Created 30th August 2019, last changed 28th November 2019.

## 50.9 CGImageSource.ImageAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.ImageAtIndex"; Ref; Index { ; ImageType; Filename } )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to `CGImageSource.Count-1`.  
0

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.  
"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

**Result** Returns image or error message.

### Description

This function can be used to query previews of various image formats including RAW images. (everything Preview app can also open)

### Examples

Convert image from one container and output to other:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
Set Field [ test::output ; MBS( "CGImageSource.ImageAtIndex"; $img; 0; "PNG" ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

Read HEIC image:

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/IMG_3552.HEIC" ]
Set Variable [ $ImageSource ; Value: MBS( "CGImageSource.CreateWithPath"; $path ) ]
If [ MBS("IsError") = 0 ]
# you can get metadata as JSON to check later...
Set Variable [ $$MetaData ; Value: MBS( "CGImageSource.Properties"; $ImageSource ) ]
Set Variable [ $$ImageMetaData ; Value: MBS( "CGImageSource.Properties"; $ImageSource; 0 ) ]
# get image to show
```



## 50.9. CGIMAGESOURCE.IMAGEATINDEX

1429

```
Set Variable [ $image ; Value: MBS( "CGImageSource.ImageAtIndex"; $ImageSource; 0; "PNG"; "image.png" ) ]
If [ MBS("IsError") = 0 ]
Set Field [ Untitled::image ; $image ]
End If
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $ImageSource ) ]
End If
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.11 CGImageSource.Properties 1432
- 50.13 CGImageSource.Release 1437
- 50.18 CGImageSource.ThumbnailAtIndex 1445
- 127.6 IsError 6374

### 50.9.1 Blog Entries

- [Read HEIC or HEIF image files in FileMaker](#)
- [MBS Filemaker Plugin, version 4.3pr2](#)

Created 18th August 2014, last changed 20th August 2019.

## 50.10 CGImageSource.Keys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Keys"; Ref; Index )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to `CGImageSource.Count-1`.  
0

**Result** Returns the list of keys or error message.

### Description

The list of keys varies depending on which image format is used and whether EXIF, IPTC or XMP metadata is available.

e.g. keys for a JPEG image:

```
{ TIFF } .Software, { TIFF } .Orientation, { TIFF } .DateTime, { TIFF } .Artist, { TIFF } .Make, {
TIFF } .Model, Depth, { IPTC } .Byline, { IPTC } .SpecialInstructions, { IPTC } .DigitalCreationDate,
{ IPTC } .DigitalCreationTime, { IPTC } .DateCreated, { IPTC } .TimeCreated, { IPTC } .StarRating,
PixelHeight, { Exif } .ExifVersion, { Exif } .Flash, { Exif } .CameraOwnerName, { Exif } .LensModel,
{ Exif } .RecommendedExposureIndex, { Exif } .SubsecTimeOriginal, { Exif } .ExposureMode, { Exif }
.LensSpecification, { Exif } .LensSerialNumber, { Exif } .FNumber, { Exif } .PixelYDimension, { Exif
} .ApertureValue, { Exif } .FocalPlaneXResolution, { Exif } .MeteringMode, { Exif } .FocalPlaneResolu-
tionUnit, { Exif } .ISOSpeedRatings, { Exif } .ExposureBiasValue, { Exif } .ShutterSpeedValue, { Exif }
.SceneCaptureType, { Exif } .MaxApertureValue, { Exif } .CustomRendered, { Exif } .FocalLength, { Exif }
.FocalPlaneYResolution, { Exif } .DateTimeOriginal, { Exif } .FlashPixVersion, { Exif } .SubsecTime, { Exif
} .ColorSpace, { Exif } .PixelXDimension, { Exif } .SubsecTimeDigitized, { Exif } .SensitivityType, { Exif
} .DateTimeDigitized, { Exif } .BodySerialNumber, { Exif } .ComponentsConfiguration, { Exif } .White-
Balance, { Exif } .ExposureTime, { Exif } .ExposureProgram, { JFIF } .DensityUnit, { JFIF } .YDensity,
{ JFIF } .JFIFVersion, { JFIF } .XDensity, ProfileName, DPIWidth, { ExifAux } .LensID, { ExifAux }
.SerialNumber, { ExifAux } .FlashCompensation, { ExifAux } .LensInfo, { ExifAux } .LensSerialNumber, {
ExifAux } .LensModel, { ExifAux } .Firmware, DPIHeight, ColorModel, Orientation and PixelWidth.
```

### Examples

Queries keys for an image:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
Show Custom Dialog [ "Keys" ; MBS( "CGImageSource.Keys"; $img; 0 ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

50.10. *CGIMAGESOURCE.KEYS* 1431

**See also**

- 50.2 *CGImageSource.Count* 1419
- 50.3 *CGImageSource.CreateWithData* 1420
- 50.4 *CGImageSource.CreateWithPath* 1421
- 50.5 *CGImageSource.CreateWithURL* 1423
- 50.12 *CGImageSource.Property* 1435
- 50.13 *CGImageSource.Release* 1437
- 50.15 *CGImageSource.Status* 1441
- 50.19 *CGImageSource.Type* 1447

**Example Databases**

- [Mac and iOS/CGImageSource](#)

**50.10.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 5th January 2018.

## 50.11 CGImageSource.Properties

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	8.3	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Properties"; Ref { ; Index } )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

#### Index

Optional

The index of the image to query. -1 for global properties. Else a number from 0 to `CGImageSource.Count-1`.

0

**Result** Returns OK or error.

### Description

### Examples

Query properties for first image:

```
MBS("CGImageSource.Properties"; $ref; 0)
```

```
Example result: {
  " { TIFF } " : {
    "ResolutionUnit" : 2,
    "Software" : "QuickTime 7.5.5",
    "DateTime" : "2008:10:19 13:29:12",
    "XResolution" : 72,
    "ImageDescription" : "Digital StillCamera",
    "Orientation" : 1,
    "YResolution" : 72,
    "Model" : "DC-8300",
    "Make" : "Traveler"
  },
  " { IPTC } " : {
    "DigitalCreationTime" : "142931",
    "DigitalCreationDate" : "20081015",
    "TimeCreated" : "142931",
    "DateCreated" : "20081015",
    "Caption\|Abstract" : "Digital StillCamera"
  },
  " { Exif } " : {
    "DateTimeOriginal" : "2008:10:15 14:29:31",
    "ComponentsConfiguration" : [
```

```
1,
2,
3,
0
],
"MaxApertureValue" : 3.1,
"DigitalZoomRatio" : 1,
"ExposureBiasValue" : 0,
"Saturation" : 0,
"FNumber" : 4.8,
"SceneCaptureType" : 0,
"ShutterSpeedValue" : 6.67,
"SubjectDistRange" : 0,
"ApertureValue" : 4.5,
"FileSource" : 3,
"Sharpness" : 0,
"ColorSpace" : 1,
"Contrast" : 0,
"PixelYDimension" : 267,
"WhiteBalance" : 0,
"LightSource" : 0,
"FlashPixVersion" : [
1,
0
],
"DateTimeDigitized" : "2008:10:15 14:29:31",
"ISOSpeedRatings" : [
50
],
"ExposureMode" : 0,
"PixelXDimension" : 200,
"ExifVersion" : [
2,
2
],
"CustomRendered" : 0,
"ExposureProgram" : 2,
"Flash" : 0,
"ExposureTime" : 0.01,
"FocalLenIn35mmFilm" : 68,
"MeteringMode" : 2
},
"PixelHeight" : 267,
"PixelWidth" : 200,
" { JFIF } " : {
"XDensity" : 72,
"YDensity" : 72,
"IsProgressive" : true,
```

```

"JFIFVersion" : [
1,
0,
1
] ,
"DensityUnit" : 1
} ,
"ProfileName" : "sRGB IEC61966-2.1",
"DPIWidth" : 72,
"DPIHeight" : 72,
"ColorModel" : "RGB",
"Orientation" : 1,
"Depth" : 8
}

```

**See also**

- 50.1 CGImageSource.ClearProperties 1417
- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.8 CGImageSource.HasProperty 1427
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.12 CGImageSource.Property 1435
- 50.14 CGImageSource.SetProperty 1439

**50.11.1 Blog Entries**

- [Read HEIC or HEIF image files in FileMaker](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 6th June 2018, last changed 6th June 2018.

## 50.12 CGImageSource.Property

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Property"; Ref; Index; Key )

### Parameters

#### Ref

The image source reference number returned by `CGImageSource.CreateWithData`, `CGImageSource.CreateWithPath` or `CGImageSource.CreateWithURL`

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to `CGImageSource.Count-1`.  
0

#### Key

The property name to query.

"PixelWidth"

**Result** Returns the value or error message.

### Description

See `CGImageSource.Keys` for a list of available properties.

Keys include (list not complete):

FileSize, { Exif } .ExposureTime, { Exif } .SubjectDistRange, { Exif } .MaxApertureValue, { Exif } .Flash, { Exif } .ColorSpace, { Exif } .ExifVersion, { Exif } .FocalLenIn35mmFilm, { Exif } .SceneCaptureType, { Exif } .ShutterSpeedValue, { Exif } .FNumber, { Exif } .LightSource, { Exif } .FileSource, { Exif } .Saturation, { Exif } .PixelYDimension, { Exif } .Sharpness, { Exif } .ApertureValue, { Exif } .Contrast, { Exif } .PixelXDimension, { Exif } .CustomRendered, { Exif } .WhiteBalance, { Exif } .DateTimeDigitized, { Exif } .ExposureProgram, { Exif } .ISOSpeedRatings, { Exif } .DateTimeOriginal, { Exif } .MeteringMode, { Exif } .FlashPixVersion, { Exif } .ComponentsConfiguration, { Exif } .ExposureMode, { Exif } .DigitalZoomRatio, { Exif } .ExposureBiasValue, ColorModel, Orientation, DPIHeight, PixelWidth, { IPTC } .Caption/Abstract, { IPTC } .TimeCreated, { IPTC } .DateCreated, { IPTC } .DigitalCreationDate, { IPTC } .DigitalCreationTime, PixelHeight, ProfileName, Depth, { TIFF } .Model, { TIFF } .ResolutionUnit, { TIFF } .YResolution, { TIFF } .XResolution, { TIFF } .Orientation, { TIFF } .ImageDescription, { TIFF } .Software, { TIFF } .DateTime, { TIFF } .Make, { JFIF } .DensityUnit, { JFIF } .IsProgressive, { JFIF } .YDensity, { JFIF } .JFIFVersion, { JFIF } .XDensity, DPIWidth.

Version 10.0 and newer may return arrays and dictionaries as JSON.

### Examples

Query Image dimensions in pixel :

```
MBS( "CGImageSource.Property"; $ref; 0; "PixelWidth") & " x " & MBS( "CGImageSource.Property";
$ref; 0; "PixelHeight")
```

Query Image resolution in dpi:

```
MBS( "CGImageSource.Property"; $ref; 0; "DPIWidth") & " x " & MBS( "CGImageSource.Property"; $ref;
0; "DPIHeight")
```

Query GPS of first image:

```
Set Variable [ $img ; Value: MBS("CGImageSource.CreateWithData"; CGImageSource::ImageFile) ]
Set Variable [ $lat ; Value: MBS("CGImageSource.Property"; $img; 0; " { GPS } .Latitude") ]
Set Variable [ $long ; Value: MBS("CGImageSource.Property"; $img; 0; " { GPS } .Longitude") ]
Show Custom Dialog [ "GPS" ; $lat & " / " & $long ]
Set Variable [ $r ; Value: MBS("CGImageSource.Release"; $img) ]
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.8 CGImageSource.HasProperty 1427
- 50.10 CGImageSource.Keys 1430
- 50.11 CGImageSource.Properties 1432
- 50.13 CGImageSource.Release 1437
- 50.14 CGImageSource.SetProperty 1439

### Example Databases

- [Mac and iOS/CGImageSource](#)

#### 50.12.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 18th August 2014, last changed 10th January 2020.



## 50.13 CGImageSource.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Release"; Ref )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

**Result** Returns OK or error message.

### Description

### Examples

Convert image from one container and output to other:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
Set Field [ test::output ; MBS( "CGImageSource.ImageAtIndex"; $img; 0; "PNG" ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

### See also

- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.7 CGImageSource.FileName 1426
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.10 CGImageSource.Keys 1430
- 50.15 CGImageSource.Status 1441
- 50.18 CGImageSource.ThumbnailAtIndex 1445
- 50.19 CGImageSource.Type 1447

### Example Databases

- [Mac and iOS/CGImageSource](#)

### 50.13.1 Blog Entries

- [Read HEIC or HEIF image files in FileMaker](#)

Created 18th August 2014, last changed 5th January 2018.

## 50.14 CGImageSource.SetProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.SetProperty"; Ref; Index; Key; Value )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to CGImageSource.Count-1.  
0

#### Key

The property name to query.

"PixelWidth"

#### Value

The value to use. Can be text, timestamp, boolean or number.

"Hello"

**Result** Returns OK or error.

### Description

You may need to use CGImageSource.Export to actually write an image with new metadata.

The creation of new property dictionary is implemented for version 10.2, so you can create new sections like GPS.

### See also

- 50.1 CGImageSource.ClearProperties 1417
- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.8 CGImageSource.HasProperty 1427
- 50.11 CGImageSource.Properties 1432
- 50.12 CGImageSource.Property 1435

**Example Databases**

- [Mac and iOS/CGImageSource](#)

**50.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr1](#)
- [MBS FileMaker Plugin, version 9.4pr5](#)

Created 30th August 2019, last changed 11st March 2020.

## 50.15 CGImageSource.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Status"; Ref { ; Index } )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

#### Index

Optional

The index of the image to query. -1 for global properties. Else a number from 0 to CGImageSource.Count-1.  
0

**Result** Returns status number or error message.

### Description

Possible status values:

kCGImageStatusUnexpectedEOF	-5	The end of the file was encountered unexpectedly.
kCGImageStatusInvalidData	-4	The data is not valid.
kCGImageStatusUnknownType	-3	The image is an unknown type.
kCGImageStatusReadingHeader	-2	In the process of reading the header.
kCGImageStatusIncomplete	-1	The operation is not complete
kCGImageStatusComplete	0	The operation is complete.

### Examples

Checks status:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
Show Custom Dialog [ "Status" ; MBS( "CGImageSource.Status"; $img; 0 ) ]
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423

- 50.10 CGImageSource.Keys 1430
- 50.13 CGImageSource.Release 1437

Created 18th August 2014, last changed 5th January 2018.

## 50.16 CGImageSource.SupportedExportTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.SupportedExportTypes" )

**Result** Returns OK or error.

### Description

With Mac OS X 10.15, this list is:

public.jpeg, public.png, com.compuserve.gif, public.tiff, public.jpeg-2000, com.apple.atx, org.khronos.ktx, org.khronos.astc, public.heic, com.microsoft.ico, com.microsoft.bmp, com.apple.icns, com.adobe.photoshop-image, com.adobe.pdf, com.truevision.tga-image, com.ilm.openexr-image, public.pbm, public.pvr

### See also

- [50.17 CGImageSource.SupportedTypes](#)

1444

### 50.16.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)

Created 30th August 2019, last changed 30th August 2019.

## 50.17 CGImageSource.SupportedTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.SupportedTypes" )

**Result** Returns type list.

### Description

With Mac OS X 10.15, this list is:

public.jpeg, public.png, com.compuserve.gif, com.canon.tif-raw-image, com.adobe.raw-image, com.dxo.raw-image, com.canon.cr2-raw-image, com.canon.cr3-raw-image, com.leafamerica.raw-image, com.hasselblad.fff-raw-image, com.hasselblad.3fr-raw-image, com.nikon.raw-image, com.nikon.nrw-raw-image, com.pentax.raw-image, com.samsung.raw-image, com.sony.raw-image, com.sony.sr2-raw-image, com.sony.arw-raw-image, com.epson.raw-image, com.kodak.raw-image, public.tiff, public.jpeg-2000, com.apple.atx, org.khronos.astc, org.khronos.ktx, public.avci, public.heic, public.heif, com.canon.crw-raw-image, com.fuji.raw-image, com.panasonic.raw-image, com.panasonic.rw2-raw-image, com.leica.raw-image, com.leica.rwl-raw-image, com.konicaminolta.raw-image, com.olympus.sr-raw-image, com.olympus.or-raw-image, com.olympus.raw-image, com.phaseone.raw-image, com.microsoft.ico, com.microsoft.bmp, com.apple.icns, com.adobe.photoshop-image, com.microsoft.cur, com.truevision.tga-image, com.ilm.openexr-image, com.sgi.sgi-image, public.radiance, public.pbm, public.mpo-image, public.pvr, com.microsoft.dds

### Examples

Show supported types:

Show Custom Dialog [ "Types" ; MBS( "CGImageSource.SupportedTypes" ) ]

### See also

- 50.16 CGImageSource.SupportedExportTypes

1443

Created 18th August 2014, last changed 30th August 2019.



## 50.18 CGImageSource.ThumbnailAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.ThumbnailAtIndex"; Ref; Index { ; ImageType; Filename } )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

#### Index

The index of the image to query. -1 for global properties. Else a number from 0 to CGImageSource.Count-1.  
0

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.  
"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

**Result** Returns image or error message.

### Description

If the image source is a PDF, this function creates a 72 dpi image of the PDF page specified by the index that you pass.

Maximum thumbnail size is 512 pixel.

This function can be used to query previews of various image formats including RAW images. (everything Preview app can also open)

### Examples

Create a thumbnail:

```
Set Variable [ $ref; Value:MBS("CGImageSource.CreateWithData"; MyTable::ImageFile) ]
Set Variable [ $image; Value:MBS("CGImageSource.ThumbnailAtIndex"; $ref; 0; "JPEG"; "thumbnail.jpg") ]
Set Variable [ $r; Value:MBS("CGImageSource.Release"; $ref) ]
```

Create thumbnail from a file on disk:

```
Set Variable [ $path ; Value: "/Users/cs/Pictures/IMG_3625.jpg" ]
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithPath"; $path ) ]
Set Field [ test::output ; MBS( "CGImageSource.ThumbnailAtIndex"; $img; 0; "JPEG"; "thumbnail.jpg" ) ]
```

Set Variable [ \$r ; Value: MBS( "CGImageSource.Release"; \$img ) ]

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.9 CGImageSource.ImageAtIndex 1428
- 50.13 CGImageSource.Release 1437

### 50.18.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr2](#)

Created 18th August 2014, last changed 27th January 2020.

## 50.19 CGImageSource.Type

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
50 CGImageSource	3.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CGImageSource.Type"; Ref )

### Parameters

#### Ref

The image source reference number returned by CGImageSource.CreateWithData, CGImageSource.CreateWithPath or CGImageSource.CreateWithURL

\$ref

**Result** Returns type string or error message.

### Description

e.g. "public.jpeg" for a jpeg image.

### Examples

Query type:

```
MBS( "CGImageSource.Type"; $ref )
```

Load image from container and query type:

```
Set Variable [ $img ; Value: MBS( "CGImageSource.CreateWithData"; test::input ) ]
```

```
Show Custom Dialog [ "Type" ; MBS( "CGImageSource.Type"; $img ) ]
```

```
Set Variable [ $r ; Value: MBS( "CGImageSource.Release"; $img ) ]
```

### See also

- 50.2 CGImageSource.Count 1419
- 50.3 CGImageSource.CreateWithData 1420
- 50.4 CGImageSource.CreateWithPath 1421
- 50.5 CGImageSource.CreateWithURL 1423
- 50.6 CGImageSource.Export 1424
- 50.10 CGImageSource.Keys 1430
- 50.13 CGImageSource.Release 1437

Created 18th August 2014, last changed 5th January 2018.



# Chapter 51

## CLGeocoder

Functions for geo coordinate lookup.

You can lookup your clients addresses, store the coordinates and later find records close to a given address.

### 51.1 CLGeocoder.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Cancel"; Geocoder )

#### Parameters

##### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns OK or error.

#### Description

You can use this method to cancel a pending request and free up the resources associated with that request.

Canceling a pending request causes the completion handler block to be called.

If the request is not pending, because it has already returned or has not yet begun, this method does nothing.

**See also**

- 51.2 CLGeocoder.Cancelled 1451
- 51.3 CLGeocoder.Close 1452
- 51.4 CLGeocoder.Distance 1453
- 51.5 CLGeocoder.Done 1455



## 51.2 CLGeocoder.Cancelled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Cancelled"; Geocoder )

### Parameters

#### Geocoder

The reference to the geocoder

\$Geocoder

**Result** Returns 0, 1 or error.

### Description

#### See also

- 51.1 CLGeocoder.Cancel

1449

Created 18th August 2014, last changed 18th August 2014.

## 51.3 CLGeocoder.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Close"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns OK or error.

### Description

Call this to close the request.

### See also

- [51.1 CLGeocoder.Cancel](#) 1449
- [51.5 CLGeocoder.Done](#) 1455
- [51.8 CLGeocoder.GeocodeAddressString](#) 1458
- [51.9 CLGeocoder.JSON](#) 1460
- [51.12 CLGeocoder.ReverseGeocodeLocation](#) 1466

### Example Databases

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)

#### 51.3.1 Blog Entries

- [Core Location Geocoder with JSON](#)

Created 18th August 2014, last changed 18th August 2014.



## 51.4 CLGeocoder.Distance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	6.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Distance"; latitude1; longitude1; latitude2; longitude2 )

### Parameters

#### latitude1

The latitude value for the geo coordinate.

51.50939

#### longitude1

The longitude value for the geo coordinate.

-0.11832

#### latitude2

The latitude value for the geo coordinate.

52.518611

#### longitude2

The longitude value for the geo coordinate.

13.408333

**Result** Returns OK or error.

### Description

This method measures the distance between the two locations by tracing a line between them that follows the curvature of the Earth. The resulting arc is a smooth curve and does not take into account specific altitude changes between the two locations.

### Examples

Returns distance between London and Berlin:

MBS( "CLGeocoder.Distance"; 51.50939; -0.11832; 52.518611; 13.408333)

### See also

- 51.1 CLGeocoder.Cancel

1449

### Example Databases

- [Mac and iOS/CoreLocation/Address Mapping](#)

#### 51.4.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)



## 51.5 CLGeocoder.Done

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Done"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns 0, 1 or error.

### Description

You can use CLGeocoder.Error to see if an error happened.

Or use CLGeocoder.PlacemarkCount to find out how many placemarks were found.

### See also

- [51.1 CLGeocoder.Cancel](#) 1449
- [51.3 CLGeocoder.Close](#) 1452
- [51.6 CLGeocoder.Error](#) 1456
- [51.9 CLGeocoder.JSON](#) 1460
- [51.10 CLGeocoder.PlacemarkCount](#) 1462

### Example Databases

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 18th August 2014.

## 51.6 CLGeocoder.Error

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.Error"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns 0, 1 or error.

### Description

Returns 1 if an error occurred. You can use CLGeocoder.ErrorMessage to get the error message.

### Examples

Checks error and shows message:

```
If [ MBS( "CLGeocoder.Error"; $g ) ]
  Display Dialog [ "Error"; MBS( "CLGeocoder.ErrorMessage"; $g ) ]
End If
```

### See also

- [51.5 CLGeocoder.Done](#) 1455
- [51.7 CLGeocoder.ErrorMessage](#) 1457

### Example Databases

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)

Created 18th August 2014, last changed 18th August 2014.

## 51.7 CLGeocoder.ErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.ErrorMessage"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns text or error.

### Description

#### Examples

Checks error and shows message:

```
If [ MBS( "CLGeocoder.Error"; $g ) ]
Display Dialog [ "Error"; MBS( "CLGeocoder.ErrorMessage"; $g ) ]
End If
```

### See also

- [51.6 CLGeocoder.Error](#)

1456

### Example Databases

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)

Created 18th August 2014, last changed 18th August 2014.

## 51.8 CLGeocoder.GeocodeAddressString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

```
MBS( "CLGeocoder.GeocodeAddressString"; Address { ; wait } )
```

### Parameters

#### Address

A string describing the location you want to look up. For example, you could specify the string "1 Infinite Loop, Cupertino, CA" to locate Apple headquarters. "Andernach, Germany"

#### wait

Optional

Available in MBS FileMaker Plugin 10.1 or newer.

Pass 1 to wait for geocoder to have a result. Pass 0 to not wait and check later if geocoder is done.

1

**Result** Returns reference number or error.

### Description

This method submits the specified location data to the geocoding server asynchronously and returns. Your completion handler block will be executed on the main thread. After initiating a forward-geocoding request, do not attempt to initiate another forward- or reverse-geocoding request.

Geocoding requests are rate-limited for each app, so making too many requests in a short period of time may cause some of the requests to fail. When the maximum rate is exceeded, the geocoder passes an error back.

You need to use CLGeocoder.Close later to free the geocoder.

### Examples

Geocodes an address:

```
$r = MBS("CLGeocoder.GeocodeAddressString"; CLGeocoder::AddressString)
```

Query in one let statement and return JSON or error:

```
Let ( [
  Address = "Berlin, Germany";
  // run query and wait a bit
  g = MBS( "CLGeocoder.GeocodeAddressString"; Address; 1 );
  e = MBS("IsError");
  // query JSON if we got something
  r = If (e = 0; MBS( "CLGeocoder.JSON"; g ); g);
  // free resources
  f = If (e = 0; MBS( "CLGeocoder.Close"; g ); 0)
]; r )
```

51.8. *CLGEOCODER.GEOCODEADDRESSSTRING* 1459

**See also**

- 51.3 CLGeocoder.Close 1452
- 51.9 CLGeocoder.JSON 1460
- 127.6 IsError 6374

**Example Databases**

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

**51.8.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr4](#)
- [Core Location Geocoder with JSON](#)

Created 18th August 2014, last changed 12nd February 2020.

## 51.9 CLGeocoder.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	10.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.JSON"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns JSON or error.

### Description

This includes status variables, the error dictionary with details in case of error and the array of place marks with details for a place mark including location, address text and time zone for the location.

### Examples

Query in one let statement and return JSON or error:

```
Let ( [
Address = "Berlin, Germany";
// run query and wait a bit
g = MBS( "CLGeocoder.GeocodeAddressString"; Address; 1 );
e = MBS("IsError");
// query JSON if we got something
r = If ( e = 0; MBS( "CLGeocoder.JSON"; g ); g );
// free resources
f = If ( e = 0; MBS( "CLGeocoder.Close"; g ); 0 )
]; r )
```

Run query and get back JSON or error:

```
Let ( [
latitude = 52.517631899999998;
longitude = 13.4096574;
// run query and wait a bit
g = MBS( "CLGeocoder.ReverseGeocodeLocation"; latitude; longitude; 1 );
e = MBS("IsError");
// query JSON if we got something
r = If ( e = 0; MBS( "CLGeocoder.JSON"; g ); g );
// free resources
f = If ( e = 0; MBS( "CLGeocoder.Close"; g ); 0 )
]; r )
```

**See also**



<i>51.9. CLGEOCODER.JSON</i>	1461
• 51.3 CLGeocoder.Close	1452
• 51.5 CLGeocoder.Done	1455
• 51.8 CLGeocoder.GeocodeAddressString	1458
• 51.12 CLGeocoder.ReverseGeocodeLocation	1466
• 127.6 IsError	6374

### **Example Databases**

- [Mac and iOS/CoreLocation/CLGeocoder](#)

### **51.9.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr4](#)
- [Core Location Geocoder with JSON](#)

Created 12nd February 2020, last changed 12nd February 2020.

## 51.10 CLGeocoder.PlacemarkCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.PlacemarkCount"; Geocoder )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

**Result** Returns count or error.

### Description

#### Examples

Queries placemark count:

MBS("CLGeocoder.PlacemarkCount"; \$g)

### See also

- 51.5 CLGeocoder.Done 1455
- 51.11 CLGeocoder.PlacemarkValue 1463

### Example Databases

- [Mac and iOS/CoreLocation/CLGeocoder](#)

Created 18th August 2014, last changed 18th August 2014.

## 51.11 CLGeocoder.PlacemarkValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.PlacemarkValue"; Geocoder; Index; Selector; otherLatitude; otherLongitude )

### Parameters

#### Geocoder

The reference number of the geocoder instance.

\$Geocoder

#### Index

The index of the placemark. From 0 to CLGeocoder.PlacemarkCount-1.

0

#### Selector

Which property to return.

"Name"

#### otherLatitude

For distance calculation the latitude of the other place.

\$lat

#### otherLongitude

For distance calculation the longitude of the other place.

\$lon

**Result** Returns value or error.

### Description

Possible values for selector:

### Examples

Query name of the first placemark:

```
$name = MBS("CLGeocoder.PlacemarkValue"; $g; 0; "name")
```

Queries the coordinates of the placemark:

```
$latitude = MBS("CLGeocoder.PlacemarkValue"; $g; 0; "location.latitude")
```

```
$longitude = MBS("CLGeocoder.PlacemarkValue"; $g; 0; "location.longitude")
```

Queries distance to New York:

```
$distance = MBS("CLGeocoder.PlacemarkValue"; $g; 0; "distance"; 40,712778; -74,005833)
```

**See also**

- 51.10 CLGeocoder.PlacemarkCount 1462

**Example Databases**

- [Mac and iOS/CoreLocation/Address Mapping](#)
- [Mac and iOS/CoreLocation/CLGeocoder](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

**51.11.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 18th August 2014.

name	The name of the placemark.
thoroughfare	The street address associated with the placemark. The street address contains the street name. For example, if the placemark location is Apple's headquarters, the value for this property would be the string "Infinite Loop".
subThoroughfare	Additional street-level information for the placemark. Subthroughfares provide information such as the street number for the location. For example, if the placemark location is Apple's headquarters (1 Infinite Loop), the value for this property would be the string "1".
locality	The city associated with the placemark. If the placemark location is Apple's headquarters, for example, the value for this property would be the string "Cupertino".
subLocality	Additional city-level information for the placemark. This property contains additional information, such as the name of the neighborhood or landmark associated with the placemark. It might also refer to a common name that is associated with the location.
administrativeArea	The state or province associated with the placemark. The string in this property can be either the spelled out name of the administrative area or its designated abbreviation, if one exists. If the placemark location is Apple's headquarters, for example, the value for this property would be the string "CA" or "California".
subAdministrativeArea	Additional administrative area information for the placemark. Subadministrative areas typically correspond to counties or other regions that are then organized into a larger administrative area or state. For example, if the placemark location is Apple's headquarters, the value for this property would be the string "Santa Clara", which is the county in California that contains the city of Cupertino.
postalCode	The postal code associated with the placemark. If the placemark location is Apple's headquarters, for example, the value for this property would be the string "95014".
ISOcountryCode	The abbreviated country name. This string is the standard abbreviation used to refer to the country. For example, if the placemark location is Apple's headquarters, the value for this property would be the string "US".
country	The name of the country associated with the placemark. If the placemark location is Apple's headquarters, for example, the value for this property would be the string "United States".
inlandWater	The name of the inland water body associated with the placemark. For coordinates that lie over an inland body of water, this property contains the name of that water body—the name of a lake, stream, river, or other waterway.
ocean	The name of the ocean associated with the placemark. For coordinates that lie over an ocean, this property contains the name of the ocean.
areasOfInterest	The relevant areas of interest associated with the placemark. Examples of an area of interest are the name of a military base or large national park or an attraction such as Eiffel Tower, Disneyland, or Golden Gate Park. This is a list of several texts.
region.radius	The radius of the geographic region associated with the placemark.
region.center.latitude	The latitude of the geographic region associated with the placemark.
region.center.longitude	The longitude of the geographic region associated with the placemark.
region.identifier	The identifier of the geographic region associated with the placemark.
address	The formatted address.
location.horizontalAccuracy	The horizontal accuracy of the location.
location.verticalAccuracy	The vertical accuracy of the location.
location.altitude	The altitude of the location.
location.timestamp	The timestamp of the location.
location.description	The description text of the location.
location.latitude	The latitude of the location.
location.longitude	The longitude of the location.
distance	Calculates the distance to another location. Please provide the other place with additional parameters. Returns value in meters.

## 51.12 CLGeocoder.ReverseGeocodeLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
51 CLGeocoder	4.1	Yes	No	Yes, macOS only	No	Yes

MBS( "CLGeocoder.ReverseGeocodeLocation"; latitude; longitude { ; wait } )

### Parameters

#### latitude

The latitude of the coordinate.

#### longitude

The longitude of the coordinate.

#### wait

Optional

Available in MBS FileMaker Plugin 10.1 or newer.

Pass 1 to wait for geocoder to have a result. Pass 0 to not wait and check later if geocoder is done.

1

**Result** Returns reference number or error.

### Description

This method submits the specified location data to the geocoding server asynchronously and returns. Your completion handler block will be executed on the main thread. After initiating a reverse-geocoding request, do not attempt to initiate another reverse- or forward-geocoding request.

Geocoding requests are rate-limited for each app, so making too many requests in a short period of time may cause some of the requests to fail. When the maximum rate is exceeded, the geocoder passes an error back.

You need to use CLGeocoder.Close later to free the geocoder.

CoreLocation Geocoder reference numbers are starting at 24000 and counting up for each new geocoder.

### Examples

Reverse geocode location:

```
MBS("CLGeocoder.ReverseGeocodeLocation"; CLGeocoder::Latitude; CLGeocoder::Longitude)
```

Run query and get back JSON or error:

```
Let ( [
latitude = 52.517631899999998;
longitude = 13.4096574;
// run query and wait a bit
g = MBS( "CLGeocoder.ReverseGeocodeLocation"; latitude; longitude; 1 );
e = MBS("IsError");
// query JSON if we got something
r = If (e = 0; MBS( "CLGeocoder.JSON"; g ); g);
// free resources
f = If (e = 0; MBS( "CLGeocoder.Close"; g ); 0)
```

51.12. *CLGEOCODER.REVERSEGEOCODELOCATION* 1467  
]; r )

**See also**

- 51.3 CLGeocoder.Close 1452
- 51.9 CLGeocoder.JSON 1460
- 127.6 IsError 6374

**Example Databases**

- [Mac and iOS/CoreLocation/CLGeocoder](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

**51.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr4](#)
- [Core Location Geocoder with JSON](#)

Created 18th August 2014, last changed 12nd February 2020.





# Chapter 52

## Clipboard

Get and set clipboard text.

### 52.1 Clipboard.DetectFileMakerDataType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	10.1	Yes	Yes	Yes	No	No

MBS( "Clipboard.DetectFileMakerDataType"; XML Text )

#### Parameters

##### XML Text

The xml text to put on the clipboard.

\$text

**Result** Returns text or error.

#### Description

Returns the type as text: ValueList, Script, ScriptStep, Layout, CustomFunction, Table, Field or Layout12.

#### 52.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 21st February 2020, last changed 21st February 2020.

## 52.2 Clipboard.GetData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	4.4	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetData"; ClipboardType; ResultType { ; Param1; Param2 } )

### Parameters

#### ClipboardType

The clipboard type to query. On Windows can also be a number.  
"com.apple.icns"

#### ResultType

How to return the data. Can be "hex" for hex encoded, "base64" for base 64 encoded, "text" for trying to read data as text, "file" for a container value containing a file or "image" for reading data as image.  
"image"

#### Param1

Optional

For ResultType "file" the filename of the container value. For ResultType "image" the image type. Can be PNG, JPEG, GIF or BMP.  
"JPEG"

#### Param2

Optional

For ResultType "image", the file name of the image in the container value.  
"image.jpg"

**Result** Returns OK or error.

### Description

We look at the clipboard for a matching item with given type and return it in the format type you request.

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### Examples

Queries icon from clipboard:

```
MBS("Clipboard.GetData"; "com.apple.icns"; "image")
```

### See also

- 52.4 Clipboard.GetFiles 1474
- 52.9 Clipboard.GetText 1479
- 52.10 Clipboard.GetTypes 1481
- 52.17 Clipboard.SetText 1492

### 52.2.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr1](#)

Created 20th September 2014, last changed 3th June 2015.

## 52.3 Clipboard.GetFileMakerData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	4.0	Yes	Yes	No	No	No

MBS( "Clipboard.GetFileMakerData"; Type )

### Parameters

#### Type

What element type to query. Can be "auto" for version 10.1 for automatic type selection.  
"Layout"

**Result** Returns text or error.

### Description

The result is a XML text which you can store for later.

The type can be ValueList, Script, ScriptStep, Layout, CustomFunction, Table, Field or Layout12.

Pass auto as type in version 10.1 or newer to let the plugin look for all types and return the data found.

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

Added type ValueList for FileMaker 16.

For custom menus in FileMaker 17, please use Clipboard.GetText function.

Warning: Some settings in script step for import, export or printer setup may not be preserved in copied content!

### See also

- [52.9 Clipboard.GetText](#) 1479
- [52.11 Clipboard.SetFileMakerData](#) 1482
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Mac only/Script Workspace Context Menu Commands](#)
- [Third Party/FileMaker Snippet Storage](#)
- [XML/XML Colored](#)

### 52.3.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

- Define hot keys for functions in the FileMaker development
- Add a search and replace command for FileMaker Script Workspace
- Custom context menu commands for FileMaker ScriptWorkspace
- MBS FileMaker Plugin, version 7.2pr1
- MBS Filemaker Plugin, version 4.0pr2
- MBS Filemaker Plugin, version 4.0pr1

Created 18th August 2014, last changed 21st February 2020.

## 52.4 Clipboard.GetFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.1	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetFiles" )

**Result** Returns list or error.

### Description

If you copy files in Finder or Explorer, you can use this plugin function to get a list of files. Returns native file paths, so you may need Path.NativePathToFileMakerPath function.

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### Examples

Query list of files:

MBS( "Clipboard.GetFiles" )

### See also

- 52.2 Clipboard.GetData 1470
- 52.9 Clipboard.GetText 1479
- 52.10 Clipboard.GetTypes 1481
- 52.12 Clipboard.SetFiles 1484
- 124.7 Path.NativePathToFileMakerPath 6255

### 52.4.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 23th April 2015, last changed 29th April 2016.

## 52.5 Clipboard.GetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	6.0	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetHTMLText" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding for result. Default is Windows ANSI.

UTF8

**Result** Returns html text or error.

### Description

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

For Mac OS X, if a webarchive is on the clipboard, the plugin will pick data from that webarchive. Safari puts a Webarchive on the clipboard if you do a copy to the clipboard. If text encoding is UTF-8, the plugin will automatically use this encoding as default unless you overwrite it.

### See also

- [52.7 Clipboard.GetRTFText](#) 1477
- [52.8 Clipboard.GetStyledText](#) 1478
- [52.9 Clipboard.GetText](#) 1479
- [52.13 Clipboard.SetHTMLText](#) 1486
- [52.15 Clipboard.SetRTFText](#) 1489
- [52.17 Clipboard.SetText](#) 1492

### Example Databases

- [Clipboard](#)

#### 52.5.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr7](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 7th January 2016, last changed 27th January 2016.

## 52.6 Clipboard.GetPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	6.3	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetPicture" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

You can store image in a container field for example.

#### See also

- [52.14 Clipboard.SetPicture](#)

1488

### 52.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr3](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 3th July 2016, last changed 17th June 2018.



## 52.7 Clipboard.GetRTFText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.0	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetRTFText" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding for result. Default is Windows ANSI.

UTF8

**Result** Returns text or error.

### Description

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### See also

- [52.5 Clipboard.GetHTMLText](#) 1475
- [52.9 Clipboard.GetText](#) 1479
- [52.10 Clipboard.GetTypes](#) 1481
- [52.13 Clipboard.SetHTMLText](#) 1486
- [52.15 Clipboard.SetRTFText](#) 1489
- [52.17 Clipboard.SetText](#) 1492

### Example Databases

- [Clipboard](#)

Created 17th November 2014, last changed 12nd November 2015.

## 52.8 Clipboard.GetStyledText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.0	Yes	No	No	No	Yes

MBS( "Clipboard.GetStyledText" )

**Result** Returns text or error.

### Description

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### See also

- 52.5 Clipboard.GetHTMLText 1475
- 52.16 Clipboard.SetStyledText 1491
- 183.37 WebView.Copy 8454

### Example Databases

- [Clipboard](#)
- [WebViewer/WebView Copy and Paste](#)

### 52.8.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 17th November 2014, last changed 3th June 2015.

## 52.9 Clipboard.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	2.6	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetText" { ; type } )

### Parameters

#### type

Optional

The data type. By default NSStringPboardType, but can be other Mac types. Mac only.

””

**Result** The text from the clipboard. Empty if no text is there.

### Description

Examples for type parameter: public.utf8-plain-text, CorePasteboardFlavorType 0x54455854, public.rtf,CorePasteboardFlavorType 0x75747874.

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### Examples

Get text from clipboard:

```
MBS("Clipboard.GetText")
```

Query addressbook data from Contacts app:

```
MBS("Clipboard.GetText"; "ABPeopleDictPboardType")
```

Get design from clipboard after copying it in FileMaker:

```
MBS("Clipboard.GetText"; "dyn.agk8u")
```

### See also

- 52.2 Clipboard.GetData 1470
- 52.3 Clipboard.GetFileMakerData 1472
- 52.4 Clipboard.GetFiles 1474
- 52.5 Clipboard.GetHTMLText 1475
- 52.7 Clipboard.GetRTFText 1477
- 52.10 Clipboard.GetTypes 1481

- 52.13 Clipboard.SetHTMLText 1486
- 52.15 Clipboard.SetRTFText 1489
- 52.17 Clipboard.SetText 1492

### Example Databases

- [Clipboard](#)
- [Third Party/FileMaker Snippet Storage](#)
- [WebViewer/WebView Copy and Paste](#)
- [XML/XML Colored](#)

### 52.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr3](#)
- [MBS FileMaker Plugin, version 8.2pr6](#)
- [MBS Filemaker Plugin, version 4.2pr11](#)
- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 24th February 2020.

## 52.10 Clipboard.GetTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	4.0	Yes	Yes	No	No	Yes

MBS( "Clipboard.GetTypes" )

**Result** Returns list or error.

### Description

The plugin currently only get/set unicode text using Clipboard.GetText/Clipboard.SetText. If you need additional data types supported, please contact us.

For server this will query the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### Examples

Query list of types:

MBS( "Clipboard.GetTypes" )

### See also

- [52.2 Clipboard.GetData](#) 1470
- [52.4 Clipboard.GetFiles](#) 1474
- [52.7 Clipboard.GetRTFText](#) 1477
- [52.9 Clipboard.GetText](#) 1479
- [52.12 Clipboard.SetFiles](#) 1484
- [52.17 Clipboard.SetText](#) 1492

### 52.10.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 21st October 2017.

## 52.11 Clipboard.SetFileMakerData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	4.0	Yes	Yes	No	No	No

MBS( "Clipboard.SetFileMakerData"; Type; Text )

### Parameters

#### Type

What element type to set. Can be "auto" for version 10.1 for automatic type selection.  
"Layout"

#### Text

The text to put on the clipboard.  
\$text

**Result** Returns OK or error.

### Description

Be sure to put the correct xml on the clipboard to avoid FileMaker being confused.  
The type can be ValueList, Script, ScriptStep, Layout, CustomFunction, Table, Field or Layout12.  
Pass auto as type in version 10.1 or newer to let the plugin look at the xml to decide on type.

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

Added type ValueList for FileMaker 16.  
For custom menus in FileMaker 17, please use Clipboard.SetText function.

### Examples

Put xml back on clipboard:

```
Set Variable [ $r; Value: MBS( "Clipboard.SetFileMakerData"; "auto"; $xml ) ]
```

### See also

- [52.3 Clipboard.GetFileMakerData](#) 1472
- [52.17 Clipboard.SetText](#) 1492
- [90.15 HotKey.Register](#) 4909
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Create Sort Script](#)

### 52.11.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [Insert snippet for FileMaker on Windows](#)
- [Add a search and replace command for FileMaker Script Workspace](#)
- [Custom context menu commands for FileMaker ScriptWorkspace](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS Filemaker Plugin, version 4.0pr2](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 21st February 2020.

## 52.12 Clipboard.SetFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.1	Yes	Yes	No	No	Yes

MBS( "Clipboard.SetFiles"; Paths )

### Parameters

#### Paths

The list of file paths.

"C:\Users\Christian\Desktop\Jaguar Aqua Graphite.jpg"

**Result** Returns OK or error.

### Description

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Put a file path to clipboard on Windows:

```
MBS("Clipboard.SetFiles"; "C:\Users\Christian\Desktop\test.fmp12")
```

Put two file paths on clipboard on Windows:

```
MBS("Clipboard.SetFiles"; "C:\Users\Christian\Desktop\test.fmp12&C:\Users\Christian\Desktop\Jaguar Aqua Graphite.jpg")
```

Put a file path on clipboard on Mac:

```
MBS("Clipboard.SetFiles"; "/Users/cs/Desktop/todo.rtf")
```

### See also

- 52.4 Clipboard.GetFiles 1474
- 52.10 Clipboard.GetTypes 1481
- 52.17 Clipboard.SetText 1492
- 124.2 Path.FileMakerPathToNativePath 6247



### 52.12.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 23th April 2015, last changed 3th June 2015.

## 52.13 Clipboard.SetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	6.0	Yes	Yes	No	No	Yes

```
MBS( "Clipboard.SetHTMLText"; HTMLText { ; Encoding } )
```

### Parameters

#### HTMLText

The html data to put in clipboard.

```
"<p>Hello</p>" \f0\b\fs28 \cf0 Hello World }
```

#### Encoding

Optional

The text encoding for text parameter. Default is Windows ANSI.

UTF8

**Result** Returns OK or error.

### Description

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

On Windows you may want to use Text.ReplaceNewline first to convert line endings. FileMaker on Windows uses Mac line endings internally.

### Examples

Put some HTML on clipboard:

```
MBS( "Clipboard.SetHTMLText"; "<b>Hello</b>"; "UTF8")
```

### See also

- 52.5 Clipboard.GetHTMLText 1475
- 52.7 Clipboard.GetRTFText 1477
- 52.9 Clipboard.GetText 1479
- 52.15 Clipboard.SetRTFText 1489
- 52.16 Clipboard.SetStyledText 1491
- 52.17 Clipboard.SetText 1492
- 167.59 Text.ReplaceNewline 7985

### Example Databases

- [Clipboard](#)

### 52.13.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 7th January 2016, last changed 26th December 2019.

## 52.14 Clipboard.SetPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	6.3	Yes	Yes	No	No	Yes

MBS( "Clipboard.SetPicture"; Image )

### Parameters

#### Image

The container with image. Can be in various formats including JPEG, PNG, TIFF and BMP.  
MyTable::myContainer

**Result** Returns OK or error.

### Description

### Examples

Put image on clipboard:

```
MBS( "Clipboard.SetPicture";  
MBS( "Container.ReadFile"; "/Users/cs/Pictures/IMG_3625.jpg"; "auto" ) )
```

### See also

- [52.6 Clipboard.GetPicture](#) 1476
- [56.28 Container.ReadFile](#) 1681

### 52.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 3th July 2016, last changed 26th December 2019.

## 52.15 Clipboard.SetRTFText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.0	Yes	Yes	No	No	Yes

MBS( "Clipboard.SetRTFText"; RTFText { ; Encoding } )

### Parameters

#### RTFText

The RTF data to put in clipboard.

```
" { \rtf1\ansi\ansicpg1252\cocoartf1265\cocoasubrtf210 \cocoascreenfonts1 { \fonttbl\f0\fswiss\fcharset0
Helvetica; } { \colortbl;\red255\green255\blue255; } \pard\tx560\tx1120\tx1680\tx2240\tx2800\tx3360\tx3920\tx4480\tx5040\tx5600\tx6160\tx6720\pardirnatural
\f0\b\fs28 \cf0 Hello World } "
```

#### Encoding

Optional

The text encoding for text parameter. Default is Windows ANSI.

UTF8

**Result** Returns OK or error.

### Description

See also Text.TextToRTF to convert formatted text to RTF.

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

On Windows you may want to use Text.ReplaceNewline first to convert line endings. FileMaker on Windows uses Mac line endings internally.

### Examples

Put text on clipboard:

```
MBS( "Clipboard.SetRTFText"; " { \rtf1\ansi\ansicpg1252\cocoartf1265\cocoasubrtf210
\cocoascreenfonts1 { \fonttbl\f0\fswiss\fcharset0 Helvetica; }
{ \colortbl;\red255\green255\blue255; }
\pard\tx560\tx1120\tx1680\tx2240\tx2800\tx3360\tx3920\tx4480\tx5040\tx5600\tx6160\tx6720\pardirnatural
\f0\b\fs28 \cf0 Hello World } "; "UTF8" )
```

### See also

- 52.5 Clipboard.GetHTMLText 1475
- 52.7 Clipboard.GetRTFText 1477

- 52.9 Clipboard.GetText 1479
- 52.13 Clipboard.SetHTMLText 1486
- 52.16 Clipboard.SetStyledText 1491
- 52.17 Clipboard.SetText 1492
- 167.59 Text.ReplaceNewline 7985
- 167.65 Text.TextToRTF 7995

### Example Databases

- [Clipboard](#)

Created 17th November 2014, last changed 26th December 2019.

## 52.16 Clipboard.SetStyledText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	5.0	Yes	No	No	No	Yes

MBS( "Clipboard.SetStyledText"; Text )

### Parameters

#### Text

The styled text to put in clipboard.

"Hello World"

**Result** Returns OK or error.

### Description

This is direct way for styled text without converting in-between to RTF.

For Windows or cross platform solutions you can combine `Text.TextToRTF` and `Clipboard.SetRTFText`.

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

### Examples

Put red text on the clipboard:

```
MBS( "Clipboard.SetStyledText"; TextColor ( "Hello World" ; RGB ( 65535 ; 0 ; 0 ) ) )
```

### See also

- [52.8 Clipboard.GetStyledText](#) 1478
- [52.13 Clipboard.SetHTMLText](#) 1486
- [52.15 Clipboard.SetRTFText](#) 1489
- [167.65 Text.TextToRTF](#) 7995

### Example Databases

- [Clipboard](#)

Created 17th November 2014, last changed 26th December 2019.

## 52.17 Clipboard.SetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
52 Clipboard	2.6	Yes	Yes	No	No	Yes

```
MBS( "Clipboard.SetText"; text { ; type } )
```

### Parameters

#### text

The new txt for the clipboard.

"Hello World"

#### type

Optional

The data type. By default NSStringPboardType, but can be other Mac types.

""

**Result** Returns "OK" or error message.

### Description

For server this will modify the clipboard of the user account running the server app on the server computer and not the clipboard of any client.

On Windows you may want to use Text.ReplaceNewline first to convert line endings. FileMaker on Windows uses Mac line endings internally.

If called on WebDirect, the plugin puts text on the clipboard for the server, not for the client! So the functions are of no use on server.

### Examples

Sets text:

```
MBS( "Clipboard.SetText"; "Hello World" )
```

### See also

- 52.2 Clipboard.GetData 1470
- 52.5 Clipboard.GetHTMLText 1475
- 52.7 Clipboard.GetRTFText 1477
- 52.9 Clipboard.GetText 1479
- 52.10 Clipboard.GetTypes 1481
- 52.11 Clipboard.SetFileMakerData 1482
- 52.12 Clipboard.SetFiles 1484



<i>52.17. CLIPBOARD.SETTEXT</i>	1493
• 52.13 Clipboard.SetHTMLText	1486
• 52.15 Clipboard.SetRTFText	1489
• 167.59 Text.ReplaceNewline	7985

## **Example Databases**

- [Clipboard](#)

### **52.17.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr6](#)
- [MBS Filemaker Plugin, version 4.2pr11](#)
- [MBS Filemaker Plugin, version 2.6pr7](#)

### **52.17.2 FileMaker Magazin**

- Ausgabe 3/2017, Seite 15
- Ausgabe 3/2017, Seite 14

Created 18th August 2014, last changed 25th August 2018.



# Chapter 53

## ColorPanel

Functions for Color Panels

On Windows, can show only a dialog. For MacOS, we can show color palette.

### 53.1 ColorPanel.Choose

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	No	Yes	No	No	No

MBS( "ColorPanel.Choose"; Color { ; Expand } )

#### Parameters

##### Color

The color to prefill.

##### Expand

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

Whether to show dialog expanded. Default is 0 to show collapsed. Pass 1 for expanded view.

1

**Result** Returns color, Cancel or error.

#### Description

If you pass a color, it's preselected.

Versions until 8.5 return OK when cancel was selected. This was corrected for 9.0.

Windows may not select the given color if it doesn't like it.

#### Examples

Choose color:

```
MBS( "ColorPanel.Choose"; "# FF0000")
```

#### See also

- 53.11 ColorPanel.Show

1507

#### Example Databases

- [Color Panel](#)

#### 53.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr8](#)
- [MBS FileMaker Plugin, version 8.6pr1](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 13th June 2018, last changed 8th May 2020.

## 53.2 ColorPanel.GetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.GetColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Pass 1 to return color as list of red, green and blue, e.g. "123§234§56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

Returns color as hex values, e.g. FF0000 for red.

### Examples

Query color:

```
Set Variable [ $c ; Value: MBS( "ColorPanel.GetColor" ) ]
```

```
If [ MBS("IsError") = 0 ]
```

```
Set Field [ Color Panel::Color ; "# " & $c ]
```

```
End If
```

### See also

- [53.7 ColorPanel.SetColor](#) 1502
- [53.8 ColorPanel.SetColorChangedEvaluate](#) 1503
- [127.6 IsError](#) 6374

### Example Databases

- [Color Panel](#)

#### 53.2.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 13th June 2018, last changed 13th June 2018.

### 53.3 ColorPanel.GetColorChangedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.GetColorChangedEvaluate" )

**Result** Returns expression or error.

#### Description

#### See also

- [53.4 ColorPanel.GetColorChangedScript](#) 1499
- [53.8 ColorPanel.SetColorChangedEvaluate](#) 1503
- [53.9 ColorPanel.SetColorChangedScript](#) 1504

Created 13th June 2018, last changed 13th June 2018.

## 53.4 ColorPanel.GetColorChangedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.GetColorChangedScript" )

**Result** Returns script name or error.

### Description

### See also

- [53.3 ColorPanel.GetColorChangedEvaluate](#) 1498
- [53.8 ColorPanel.SetColorChangedEvaluate](#) 1503
- [53.9 ColorPanel.SetColorChangedScript](#) 1504

Created 13th June 2018, last changed 13th June 2018.

## 53.5 ColorPanel.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	10.2	Yes	No	No	No	No

MBS( "ColorPanel.GetVisible" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible or 0 if not.

### See also

- [53.10 ColorPanel.SetVisible](#)

1506

### 53.5.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 20th April 2020, last changed 20th April 2020.



## 53.6 ColorPanel.Hide

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.Hide" )

**Result** Returns OK or error.

### Description

### Examples

Hide panel:

```
Set Variable [ $c ; Value: MBS( "ColorPanel.Hide" ) ]
```

Show panel:

```
Set Variable [ $c ; Value: MBS( "ColorPanel.Show" ) ]
```

### See also

- [53.11 ColorPanel.Show](#)

1507

### Example Databases

- [Color Panel](#)

Created 13th June 2018, last changed 13th June 2018.

## 53.7 ColorPanel.SetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.SetColor"; color )

### Parameters

#### color

A color value. This can be a common color name or color in hex notation: # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"# FF0000"

**Result** Returns OK or error.

### Description

### Examples

Set red:

MBS( "ColorPanel.SetColor"; "# FF0000" )

### See also

- [53.2 ColorPanel.GetColor](#) 1497
- [53.9 ColorPanel.SetColorChangedScript](#) 1504
- [53.11 ColorPanel.Show](#) 1507

### Example Databases

- [Color Panel](#)

Created 13th June 2018, last changed 19th September 2019.

## 53.8 ColorPanel.SetColorChangedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.SetColorChangedEvaluate"; Expression )

### Parameters

#### Expression

The expression to calculate.

**Result** Returns OK or error.

### Description

The plugin can evaluate this expression to set variables, call plugin functions to trigger other things. Use ColorPanel.GetColor to query new color.

It may be good to call this with empty expression when you leave the layout where you need it to avoid unexpected calculations later.

### See also

- 53.2 ColorPanel.GetColor 1497
- 53.3 ColorPanel.GetColorChangedEvaluate 1498
- 53.4 ColorPanel.GetColorChangedScript 1499
- 53.9 ColorPanel.SetColorChangedScript 1504

Created 13th June 2018, last changed 20th April 2020.

## 53.9 ColorPanel.SetColorChangedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.SetColorChangedScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

Script parameter to pass.

**Result** Returns OK or error.

### Description

You may need to clear this to disable the plugin from triggering script while in layout mode until version 8.4, where we don't call trigger in layout mode.

It may be good to call this with empty script and file name when you leave the layout where you need it to avoid unexpected script triggers later.

### Examples

Set color changed script trigger:

```
Set Variable [ $r ; Value: MBS( "ColorPanel.SetColorChangedScript"; Get(Filename); "ColorChanged" ) ]
```

Clear script trigger:

```
MBS( "ColorPanel.SetColorChangedScript"; ""; "" )
```

### See also

- 53.3 ColorPanel.GetColorChangedEvaluate 1498
- 53.4 ColorPanel.GetColorChangedScript 1499
- 53.7 ColorPanel.SetColor 1502
- 53.8 ColorPanel.SetColorChangedEvaluate 1503
- 53.11 ColorPanel.Show 1507

### Example Databases

- [Color Panel](#)

Created 13th June 2018, last changed 20th April 2020.

## 53.10 ColorPanel.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	10.2	Yes	No	No	No	No

MBS( "ColorPanel.SetVisible"; Visible )

### Parameters

#### Visible

Pass 1 to show panel or 0 to hide.

1

**Result** Returns OK or error.

### Description

#### See also

- [53.5 ColorPanel.GetVisible](#)

1500

### 53.10.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 20th April 2020, last changed 20th April 2020.

## 53.11 ColorPanel.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
53 ColorPanel	8.3	Yes	No	No	No	No

MBS( "ColorPanel.Show" )

**Result** Returns OK or error.

### Description

### Examples

Show panel and optionally load a color:

```
Set Variable [ $r ; Value: MBS( "ColorPanel.SetColorChangedScript"; Get(FileName); "ColorChanged" ) ]
If [ Length ( Color Panel::Color ) >0 ]
Set Variable [ $r ; Value: MBS( "ColorPanel.SetColor"; Color Panel::Color ) ]
End If
Set Variable [ $r ; Value: MBS( "ColorPanel.Show" ) ]
```

### See also

- [53.1 ColorPanel.Choose](#) 1495
- [53.6 ColorPanel.Hide](#) 1501
- [53.7 ColorPanel.SetColor](#) 1502
- [53.9 ColorPanel.SetColorChangedScript](#) 1504

### Example Databases

- [Color Panel](#)

Created 13th June 2018, last changed 26th December 2019.





# Chapter 54

## Compression

Functions to handle Zip and gzip files.

Please use Archive functions for newer projects.

### 54.1 GZipFile.Compress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "GZipFile.Compress"; InputPath; OutputPath )

#### Parameters

##### InputPath

The native path to the input file.

"C:\test.txt"

##### OutputPath

The native path to the input file.

"C:\test.gz"

**Result** Returns OK or error.

#### Description

This function uses gzip file format, so please use file extension .gz. Maximum compression is used.

As this function processes file in chunks it should work fine with huge files.

In case of an error like a full hard disk, you need to manually delete the half written output file.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Compress a file:

```
MBS( "GZipFile.Compress"; "C:\test.txt"; "C:\test.gz" )
```

**See also**

- 54.2 GZipFile.Decompress 1511
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th August 2014, last changed 5th September 2014.

## 54.2 GZipFile.Decompress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "GZipFile.Decompress"; InputPath; OutputPath )

### Parameters

#### InputPath

The native path to the input file.

"C:\test.gz"

#### OutputPath

The native path to the input file.

"C:\test.txt"

**Result** Returns OK or error.

### Description

This function uses gzip file format, so please use file extension .gz.

As this function processes file in chunks it should work fine with huge files.

In case of an error like a full hard disk, you need to manually delete the half written output file.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Uncompress a file:

MBS( "GZipFile.Decompress"; "C:\test.gz"; "C:\test.txt" )

### See also

- 54.1 GZipFile.Compress 1509
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th August 2014, last changed 5th September 2014.

## 54.3 UnZipFile.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.Close" )

**Result** Returns OK or error.

**Description**

**Examples**

Close file

MBS( "UnZipFile.Close" )

**See also**

- 54.4 UnZipFile.ExtractFiles 1513
- 54.34 ZipFile.Close 1546

**Example Databases**

- [Zip/Show Zip File Content](#)

### 54.3.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 33
- Ausgabe 6/2013, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 54.4 UnZipFile.ExtractFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	6.0	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ExtractFiles"; destFolder { ; ExtractWithoutPath; Overwrite } )

### Parameters

#### destFolder

The native path to the destination folder. Please make sure this folder exists.

"/Users/cs/Desktop/test"

#### ExtractWithoutPath

Optional

If 1, all files are put in one folder and no subfolders are created.

0

#### Overwrite

Optional

Pass 1 to allow files to be overwritten. Default is 0 to not overwrite.

**Result** Returns OK or error.

### Description

Please use UnZipFile.OpenContainer and UnZipFile.OpenFile to open the archive first.

This function does not restore file permissions or other metadata.  
And it may not work with non ASCII characters.

If you need more control over files being extracted, stored or error checking, please check example database coming with plugin.

Deprecated. Please use Archive.Extraxct for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Opens archive and expands files:

```
Set Variable [ $r; Value:MBS( "UnZipFile.OpenFile"; "/Users/cs/Desktop/test.zip" ) ]
If [ $r = "OK" ]
Set Variable [ $r; Value:MBS( "UnZipFile.ExtractFiles"; "/Users/cs/Desktop/test"; 0 ) ]
Set Variable [ $r; Value:MBS( "UnZipFile.Close" ) ]
End If
```

Expand files on Windows:

```
Set Variable [ $r; Value:MBS( "UnZipFile.OpenFile"; "C:\Users\Christian\Desktop\DebugView.zip" ) ]
If [ $r = "OK" ]
Set Variable [ $r; Value:MBS( "UnZipFile.ExtractFiles"; "C:\Users\Christian\Desktop\test"; 0 ) ]
Set Variable [ $r; Value:MBS( "UnZipFile.Close" ) ]
End If
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 54.3 UnZipFile.Close 1512
- 54.23 UnZipFile.OpenContainer 1534
- 54.24 UnZipFile.OpenFile 1535
- 54.34 ZipFile.Close 1546
- 54.37 ZipFile.Open 1551

### 54.4.1 Blog Entries

- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)

### 54.4.2 FileMaker Magazin

- Ausgabe 1/2016, Seite 32

Created 16th January 2016, last changed 12nd February 2019.

## 54.5 UnZipFile.GlobalComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.GlobalComment" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding for result. Default is native.

UTF8

**Result** Returns text or error.

### Description

### Examples

Query the global comment:

MBS( "UnZipFile.GlobalComment" )

### See also

- [54.7 UnZipFile.ItemComment](#)

1517

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 12nd November 2015.

## 54.6 UnZipFile.ItemCRC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemCRC"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.  
\$index

**Result** Returns checksum number or error.

### Description

#### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.11 UnZipFile.ItemDate 1521
- 54.14 UnZipFile.ItemFlag 1524
- 54.16 UnZipFile.ItemName 1527

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.



## 54.7 UnZipFile.ItemComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemComment"; Index { ; Encoding } )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

#### Encoding

Optional

The text encoding for result. Default is native.

"UTF8"

**Result** Returns comment as text or error.

### Description

#### See also

- [54.5 UnZipFile.GlobalComment](#) 1515
- [54.10 UnZipFile.ItemCount](#) 1520
- [54.16 UnZipFile.ItemName](#) 1527

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 12nd November 2015.

## 54.8 UnZipFile.ItemCompressedSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemCompressedSize"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns size as number or error.

### Description

### Examples

Queries sizes:

```
$UncompressedSize = MBS( "UnZipFile.ItemUncompressedSize"; 0 )
```

```
$CompressedSize = MBS( "UnZipFile.ItemCompressedSize"; 0 )
```

```
$PercentSaved = ($UncompressedSize - $CompressedSize) / $UncompressedSize
```

### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.20 UnZipFile.ItemUncompressedSize](#) 1531

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.9 UnZipFile.ItemCompressionMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemCompressionMethod"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

Can be 0 for no compression and 1 for deflate compression.

Any other value is not supported by the plugin.

### See also

- 54.10 UnZipFile.ItemCount

1520

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.10 UnZipFile.ItemCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemCount" )

**Result** Returns number or error.

### Description

### Examples

Queries the number of files:

```
$count = MBS( "UnZipFile.ItemCount" )
```

### See also

- 54.7 UnZipFile.ItemComment 1517
- 54.16 UnZipFile.ItemName 1527
- 54.20 UnZipFile.ItemUncompressedSize 1531
- 54.21 UnZipFile.ItemVersion 1532
- 54.22 UnZipFile.ItemVersionNeeded 1533
- 54.23 UnZipFile.OpenContainer 1534
- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.30 UnZipFile.ReadAsText 1542

### Example Databases

- [Zip/Show Zip File Content](#)

#### 54.10.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32
- Ausgabe 6/2013, Seite 31

Created 18th August 2014, last changed 18th August 2014.

## 54.11 UnZipFile.ItemDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemDate"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns date or error.

### Description

### Examples

Queries date of 5th item:

MBS( "UnZipFile.ItemDate"; 4 )

### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.6 UnZipFile.ItemCRC](#) 1516
- [54.14 UnZipFile.ItemFlag](#) 1524
- [54.16 UnZipFile.ItemName](#) 1527

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.12 UnZipFile.ItemDiskNumberStart

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemDiskNumberStart"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.  
\$index

**Result** Returns number or error.

### Description

### See also

- [54.10 UnZipFile.ItemCount](#) 1520

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.13 UnZipFile.ItemExternalFileAttributes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemExternalFileAttributes"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

#### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.15 UnZipFile.ItemInternalFileAttributes](#) 1526

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.14 UnZipFile.ItemFlag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemFlag"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

The flag is a bit field with various values.

Last bit of the flag is encryption state: value is 1 (odd) for encrypted and 0 (even) for unencrypted value.

The bit values 2 and 4 define compression level between 0 to 9.

Flag Value	Encryption	Compression Level
0	no	6
1	yes	6
2	no	9
3	yes	9
4	no	2
5	yes	2
6	no	1
7	yes	1

### Examples

Check compressed state:

```
Set Variable [ $compressed; Value: MBS( "Math.BitwiseAND"; MBS( "UnZipFile.ItemFlag"; Index ); 1 ) = 1 ]
```

### See also

- 110.1 Math.BitwiseAND 5839
- 54.10 UnZipFile.ItemCount 1520
- 54.6 UnZipFile.ItemCRC 1516
- 54.11 UnZipFile.ItemDate 1521
- 54.16 UnZipFile.ItemName 1527



**Example Databases**

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 31st August 2017.

## 54.15 UnZipFile.ItemInternalFileAttributes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemInternalFileAttributes"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.13 UnZipFile.ItemExternalFileAttributes](#) 1523

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.16 UnZipFile.ItemName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemName"; Index { ; Encoding } )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.  
\$index

#### Encoding

Optional  
The text encoding for result. Default is native.  
"UTF8"

**Result** Returns name or error.

### Description

Can include folder names and slash as separator.

### See also

- 54.7 UnZipFile.ItemComment 1517
- 54.10 UnZipFile.ItemCount 1520
- 54.6 UnZipFile.ItemCRC 1516
- 54.11 UnZipFile.ItemDate 1521
- 54.14 UnZipFile.ItemFlag 1524

### Example Databases

- [Zip/Show Zip File Content](#)

#### 54.16.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32
- Ausgabe 6/2013, Seite 31

Created 18th August 2014, last changed 12nd November 2015.

## 54.17 UnZipFile.ItemSizeFileComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemSizeFileComment"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.  
\$index

**Result** Returns number or error.

### Description

#### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.18 UnZipFile.ItemSizeFileExtra 1529
- 54.19 UnZipFile.ItemSizeFileName 1530

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.18 UnZipFile.ItemSizeFileExtra

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemSizeFileExtra"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

#### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.17 UnZipFile.ItemSizeFileComment](#) 1528
- [54.19 UnZipFile.ItemSizeFileName](#) 1530

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.19 UnZipFile.ItemSizeFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemSizeFileName"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.  
\$index

**Result** Returns number or error.

### Description

#### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.17 UnZipFile.ItemSizeFileComment](#) 1528
- [54.18 UnZipFile.ItemSizeFileExtra](#) 1529

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.20 UnZipFile.ItemUncompressedSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemUncompressedSize"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns size as number or error.

### Description

### Examples

Queries sizes:

```
$UncompressedSize = MBS( "UnZipFile.ItemUncompressedSize"; 0 )
```

```
$CompressedSize = MBS( "UnZipFile.ItemCompressedSize"; 0 )
```

```
$PercentSaved = ($UncompressedSize - $CompressedSize) / $UncompressedSize
```

### See also

- 54.8 UnZipFile.ItemCompressedSize 1518
- 54.10 UnZipFile.ItemCount 1520

### Example Databases

- [Zip/Show Zip File Content](#)

### 54.20.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 33
- Ausgabe 6/2013, Seite 32

Created 18th August 2014, last changed 18th August 2014.

## 54.21 UnZipFile.ItemVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemVersion"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

#### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.22 UnZipFile.ItemVersionNeeded](#) 1533

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.



## 54.22 UnZipFile.ItemVersionNeeded

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ItemVersionNeeded"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns number or error.

### Description

#### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.21 UnZipFile.ItemVersion](#) 1532

### Example Databases

- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.23 UnZipFile.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.OpenContainer"; Container )

### Parameters

#### Container

The container value with the zip archive file inside.

\$path

**Result** Returns OK on success.

### Description

The plugin reads the directory so you can use UnZipFile.ItemCount function to learn the number of items.

Deprecated. Please use Archive.Compress for new projects.

### See also

- 37.1 Archive.Compress 955
- 54.4 UnZipFile.ExtractFiles 1513
- 54.10 UnZipFile.ItemCount 1520
- 192.12 WordFile.OpenContainer 8964

### 54.23.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

### 54.23.2 FileMaker Magazin

- Ausgabe 6/2013, Seite 32
- Ausgabe 6/2013, Seite 31

Created 18th August 2014, last changed 7th October 2019.

## 54.24 UnZipFile.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.OpenFile"; Path )

### Parameters

#### Path

Native file path.

\$path

**Result** Returns OK or error.

### Description

The plugin reads the directory so you can use UnZipFile.ItemCount function to learn the number of items.

Deprecated. Please use Archive.Compress for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Open archive on Windows:

```
MBS( "UnZipFile.OpenFile"; "c:\folder\test.zip" )
```

Open Archive and expand:

```
MBS( "UnZipFile.OpenFile"; "C:\Users\Christian\Desktop\MBSFMPlugins153.zip")
```

```
MBS( "UnZipFile.ExtractFiles"; "C:\Users\Christian\Desktop\test")
```

### See also

- 37.1 Archive.Compress 955
- 124.2 Path.FileMakerPathToNativePath 6247
- 54.4 UnZipFile.ExtractFiles 1513
- 54.10 UnZipFile.ItemCount 1520
- 192.13 WordFile.OpenFile 8966
- 54.37 ZipFile.Open 1551

### Example Databases

- [Zip/Show Zip File Content](#)

#### 54.24.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 31

Created 18th August 2014, last changed 7th October 2019.

## 54.25 UnZipFile.ReadAsFileContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsFileContainer"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns container value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### Examples

Read file:

```
$r = MBS( "UnZipFile.ReadAsFileContainer"; $Index )
```

### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.29 UnZipFile.ReadAsPNGContainer 1541
- 54.32 UnZipFile.UsePassword 1544
- 54.39 ZipFile.UsePassword 1554

### 54.25.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32

Created 18th August 2014, last changed 26th February 2015.

## 54.26 UnZipFile.ReadAsGIFContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsGIFContainer"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns container value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### Examples

Read file:

```
$r = MBS( "UnZipFile.ReadAsGIFContainer"; $Index )
```

### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.29 UnZipFile.ReadAsPNGContainer 1541
- 54.32 UnZipFile.UsePassword 1544
- 54.39 ZipFile.UsePassword 1554

Created 18th August 2014, last changed 26th February 2015.

## 54.27 UnZipFile.ReadAsHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsHex"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns text value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.30 UnZipFile.ReadAsText 1542
- 54.32 UnZipFile.UsePassword 1544
- 54.39 ZipFile.UsePassword 1554

Created 18th August 2014, last changed 26th February 2015.

## 54.28 UnZipFile.ReadAsJPEGContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsJPEGContainer"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns container value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### Examples

Read file:

```
$r = MBS( "UnZipFile.ReadAsJPEGContainer"; $Index )
```

### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.25 UnZipFile.ReadAsFileContainer](#) 1537
- [54.26 UnZipFile.ReadAsGIFContainer](#) 1538
- [54.29 UnZipFile.ReadAsPNGContainer](#) 1541
- [54.32 UnZipFile.UsePassword](#) 1544
- [54.39 ZipFile.UsePassword](#) 1554

### Example Databases

- [Zip/Show Zip File Content](#)

### 54.28.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32

Created 18th August 2014, last changed 26th February 2015.



## 54.29 UnZipFile.ReadAsPNGContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsPNGContainer"; Index )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

**Result** Returns container value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### Examples

Read file:

```
$r = MBS( "UnZipFile.ReadAsPNGContainer"; $Index )
```

### See also

- 54.10 UnZipFile.ItemCount 1520
- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.32 UnZipFile.UsePassword 1544
- 54.39 ZipFile.UsePassword 1554

### 54.29.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32

Created 18th August 2014, last changed 26th February 2015.

## 54.30 UnZipFile.ReadAsText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadAsText"; Index { ; Encoding } )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF8"

**Result** Returns text value or error.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

### Examples

Read text in variable:

```
$text = MBS( "UnZipFile.ReadAsText"; $Index )
```

### See also

- [54.10 UnZipFile.ItemCount](#) 1520
- [54.27 UnZipFile.ReadAsHex](#) 1539
- [54.32 UnZipFile.UsePassword](#) 1544
- [54.39 ZipFile.UsePassword](#) 1554

### Example Databases

- [Zip/Show Zip File Content](#)

### 54.30.1 FileMaker Magazin

- Ausgabe 6/2013, Seite 32

Created 18th August 2014, last changed 12nd November 2015.

## 54.31 UnZipFile.ReadToFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.ReadToFile"; Index; Path )

### Parameters

#### Index

Index of the item from 0 to UnZipFile.ItemCount-1.

\$index

#### Path

The native file path to the file to write from the archive.

\$path

**Result** Returns OK on success.

### Description

If you want to decrypt an encrypted file, please use UnZipFile.UsePassword before calling this function.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [54.10 UnZipFile.ItemCount](#) 1520
- [54.32 UnZipFile.UsePassword](#) 1544
- [54.39 ZipFile.UsePassword](#) 1554

### Example Databases

- [Zip/Show Zip File Content](#)

#### 54.31.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)
- [MBS Filemaker Plugin, version 4.2pr1](#)

Created 18th August 2014, last changed 26th February 2015.

## 54.32 UnZipFile.UsePassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	5.1	Yes	Yes	Yes	No	Yes

MBS( "UnZipFile.UsePassword"; Password { ; Encoding } )

### Parameters

#### Password

The password text.

"pass123"

#### Encoding

Optional

The text encoding for password parameter. Default is native.

"native"

**Result** Returns OK or error.

### Description

The password is needed to open encrypted files in archive.

Each item in archive could have its own password, but normally all have the same.

### See also

- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.27 UnZipFile.ReadAsHex 1539
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.29 UnZipFile.ReadAsPNGContainer 1541
- 54.30 UnZipFile.ReadAsText 1542
- 54.31 UnZipFile.ReadToFile 1543
- 54.39 ZipFile.UsePassword 1554

### Example Databases

- [Zip/Show Zip File Content](#)

#### 54.32.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 26th February 2015, last changed 12nd November 2015.

## 54.33 ZipFile.CRCFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	4.3	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.CRCFile"; Path )

### Parameters

#### Path

Native file path.

\$path

**Result** Returns CRC as number.

### Description

This is same CRC as used in zip files.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Calculate CRC of a file:

```
MBS( "ZipFile.CRCFile"; "C:\test.txt" )
```

### See also

- 124.2 Path.FileMakerPathToNativePath

6247

### 54.33.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 22nd January 2015.

## 54.34 ZipFile.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.Close" { ; Comment } )

### Parameters

#### Comment

Optional

The comment to include in the form

**Result** Returns OK or error.

### Description

### Examples

Close the archive with comment:

```
MBS( "ZipFile.Close"; "Archive created using MBS Plugin" )
```

### See also

- [54.3 UnZipFile.Close](#) 1512
- [54.4 UnZipFile.ExtractFiles](#) 1513

### Example Databases

- [Zip/ZipFile](#)

### 54.34.1 FileMaker Magazin

- Ausgabe 5/2013, Seite 22

Created 18th August 2014, last changed 5th July 2015.

## 54.35 ZipFile.CompressFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	6.0	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.CompressFiles"; SourceFolder; ZipFilePath; FileList; Overwrite; CompressionLevel )

### Parameters

#### SourceFolder

The native file path to the source folder for files to compress.

"/Users/cs/Desktop/test"

#### ZipFilePath

The native file path to the zip archive.

"/Users/cs/Desktop/test.zip"

#### FileList

The list of relative file names to compress. Please only ASCII file names.

"image1.jpg\$image2.jpg"

#### Overwrite

Whether to overwrite the zip archive. Pass 0 to not overwrite an existing file. Pass 1 to overwrite. Pass 2 to append to a zip file.

1

#### CompressionLevel

The compress level from 0 (no compression) to 9 (max compression). Default is 9.

9

**Result** Returns OK or error.

### Description

This is a simple function to compress a couple of files.

It does not preserve file permissions on Mac/Linux or other metadata.

And it may not work with non ASCII characters. We use UTF-8 on Mac/Linux/iOS, but there is no guarantee that this will work.

If you need more control over files being added, compression or error checking, please use example projects coming with plugin which use our other zip functions. Or use the shell functions and the zip command line tool.

Deprecated. Please use Archive.Compress for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Compresses some image files:

```
# first get list of file names in folder:
Set Variable [ $list; Value:MBS( "Files.List"; "/Users/cs/Pictures/TestFiles" ) ]
# now compress them:
Set Variable [ $r; Value:MBS( "ZipFile.CompressFiles"; "/Users/cs/Pictures/TestFiles"; "/Users/cs/Desktop/test.zip"; $list; 0; 9 ) ]
```

Compress some images on Windows:

```
MBS( "ZipFile.CompressFiles"; "C:\Users\Administrator\Documents"; "C:\Users\Administrator\Desktop\test.zip";
"MBSLogo100.png$test.png$other.jpg"; 0; 9 )
```

Zip a file on Mac:

```
MBS( "ZipFile.CompressFiles"; "/Users/cs/Desktop"; "/Users/cs/Desktop/Kontakte.zip"; "Kontakte.fmp12";
1; 9 )
```

**See also**

- [37.1 Archive.Compress](#) 955
- [79.37 Files.List](#) 3882
- [124.2 Path.FileMakerPathToNativePath](#) 6247

**54.35.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr4](#)
- [MBS FileMaker Plugin, version 6.1pr2](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 16th January 2016, last changed 12nd February 2019.



## 54.36 ZipFile.CreateFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.CreateFile"; filename; date { ; Comment; Encoding; zip64 } )

### Parameters

#### filename

The filename to use. Can include path information with slashes as delimiter.  
"myfolder/test.txt"

#### date

The file date to use.  
Get(CurrentTimestamp)

#### Comment

Optional  
The file comment.  
"My first file."

#### Encoding

Optional  
The text encoding for the comment parameter. Default is UTF-8.  
UTF8

#### zip64

Optional  
Pass 1 to enable 64-bit zip file. Default is 0 for 32-bit zip file.  
0

**Result** Return OK or error.

### Description

Use this method before writing data to the file using ZipFile.WriteContainer or ZipFile.WriteTextFile. Before creating files in archive, you need to open it using ZipFile.Open. If you want to encrypt file, please use ZipFile.UsePassword before calling this function.

Deprecated. Please use Archive.Compress for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Creates a file:

```
MBS( "ZipFile.CreateFile"; "test.txt"; $date )
```

**See also**

- [37.1 Archive.Compress](#) 955
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [54.37 ZipFile.Open](#) 1551
- [54.39 ZipFile.UsePassword](#) 1554
- [54.40 ZipFile.WriteContainer](#) 1556
- [54.41 ZipFile.WriteFile](#) 1557
- [54.42 ZipFile.WriteHex](#) 1559
- [54.43 ZipFile.WriteText](#) 1560

**Example Databases**

- [Zip/ZipFile](#)

**54.36.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr6](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)
- [MBS Filemaker Plugin, version 4.4pr4](#)
- [MBS Filemaker Plugin, version 4.3pr2](#)

**54.36.2 FileMaker Magazin**

- [Ausgabe 5/2013, Seite 22](#)
- [Ausgabe 5/2013, Seite 21](#)

Created 18th August 2014, last changed 7th October 2019.

## 54.37 ZipFile.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.Open"; Path { ; Mode } )

### Parameters

#### Path

Native file path.

\$path

#### Mode

Optional

The appending mode: 0 to create a new archive (default), 1 create on file end, 2 append to existing archive.

0

**Result** Returns OK or error.

### Description

Deprecated. Please use Archive.Compress for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Create new archive:

```
MBS( "ZipFile.Open"; "c:\folder\test.zip"; 0 )
```

### See also

- [37.1 Archive.Compress](#) 955
- [127.6 IsError](#) 6374
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [54.4 UnZipFile.ExtractFiles](#) 1513
- [54.24 UnZipFile.OpenFile](#) 1535
- [54.36 ZipFile.CreateFile](#) 1549

### Example Databases

- [Zip/ZipFile](#)

### 54.37.1 FileMaker Magazin

- Ausgabe 5/2013, Seite 21

Created 18th August 2014, last changed 7th October 2019.

## 54.38 ZipFile.SetCompressionLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.SetCompressionLevel"; Method; Level )

### Parameters

#### Method

The compression method to use. Can be 0 for no compression and 1 for deflate compression.

1

#### Level

The compression level from 0 (fastest) to 9 (maximum).

9

**Result** Returns OK or error message.

### Description

By default the plugin uses maximum compression level.

### Examples

Set default settings:

MBS( "ZipFile.SetCompressionLevel"; 1; 9 )

### See also

- [71.140 DynaPDF.GetCompressionLevel](#) 2816
- [71.360 DynaPDF.SetCompressionLevel](#) 3163

### 54.38.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr9](#)

Created 18th August 2014, last changed 17th January 2018.

## 54.39 ZipFile.UsePassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	5.1	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.UsePassword"; Password { ; Encoding } )

### Parameters

#### Password

The password text.

"pass123"

#### Encoding

Optional

The text encoding for Password parameter. Default is native.

"native"

**Result** Returns OK or error.

### Description

The password is needed to create encrypted files in archive.

Each item in archive could have its own password, but normally all have the same.

### Examples

Set password:

```
MBS( "ZipFile.UsePassword"; "Hello" )
```

### See also

- 54.25 UnZipFile.ReadAsFileContainer 1537
- 54.26 UnZipFile.ReadAsGIFContainer 1538
- 54.27 UnZipFile.ReadAsHex 1539
- 54.28 UnZipFile.ReadAsJPEGContainer 1540
- 54.29 UnZipFile.ReadAsPNGContainer 1541
- 54.30 UnZipFile.ReadAsText 1542
- 54.31 UnZipFile.ReadToFile 1543
- 54.32 UnZipFile.UsePassword 1544
- 54.36 ZipFile.CreateFile 1549

### Example Databases

- [Zip/ZipFile](#)

### 54.39.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 26th February 2015, last changed 24th February 2016.

## 54.40 ZipFile.WriteContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.WriteContainer"; Container )

### Parameters

#### Container

The container to pick the data.

\$container

**Result** Returns OK or error.

### Description

### Examples

Creates a text file:

```
MBS( "ZipFile.CreateFile"; "test.jpg"; $date )
```

```
MBS( "ZipFile.WriteContainer"; $container )
```

### See also

- [45.17 BinaryFile.WriteContainer](#) 1227
- [54.36 ZipFile.CreateFile](#) 1549

### Example Databases

- [Zip/ZipFile](#)

#### 54.40.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

#### 54.40.2 FileMaker Magazin

- [Ausgabe 5/2013, Seite 22](#)
- [Ausgabe 5/2013, Seite 21](#)

Created 18th August 2014, last changed 18th August 2014.



## 54.41 ZipFile.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.WriteFile"; Path )

### Parameters

#### Path

The native file path to the file to read and put into the archive.

\$path

**Result** Returns OK on success.

### Description

Please use ZipFile.CreateFile first to create a new file before writing to it.

This works with all types of files.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Creates a file:

```
MBS( "ZipFile.CreateFile"; "test.txt"; $date )
```

```
MBS( "ZipFile.WriteFile"; "/tmp/test.txt" )
```

### See also

- [79.62 Files.WriteFile](#) 3925
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [192.25 WordFile.WriteFile](#) 8984
- [54.36 ZipFile.CreateFile](#) 1549
- [54.42 ZipFile.WriteHex](#) 1559
- [54.43 ZipFile.WriteText](#) 1560

### 54.41.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)

### 54.41.2 FileMaker Magazin

- Ausgabe 5/2013, Seite 22

Created 18th August 2014, last changed 20th April 2017.

## 54.42 ZipFile.WriteHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

MBS( "ZipFile.WriteHex"; text )

### Parameters

#### text

The text to write.

"48656C6C6F20576F726C64"

**Result** Returns "OK" on success.

### Description

The data is encoded as hex string, so you can pass any byte values as a text. The hex string is decoded before writing.

Please use ZipFile.CreateFile first to create a new file before writing to it.

### Examples

Creates a text file:

MBS( "ZipFile.CreateFile"; "test.txt"; \$date )

MBS( "ZipFile.WriteHex"; "48656C6C6F20576F726C64" )

### See also

- [54.36 ZipFile.CreateFile](#) 1549
- [54.41 ZipFile.WriteFile](#) 1557
- [54.43 ZipFile.WriteText](#) 1560

### Example Databases

- [Zip/ZipFile](#)

Created 18th August 2014, last changed 18th August 2014.

## 54.43 ZipFile.WriteText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
54 Compression	3.4	Yes	Yes	Yes	No	Yes

```
MBS( "ZipFile.WriteText"; text { ; Encoding } )
```

### Parameters

#### text

The text to write.

```
"Hello World"
```

#### Encoding

Optional

The text encoding for text parameter. Default is native.

```
UTF8
```

**Result** Returns "OK" on success.

### Description

This is a way to easily add a text file to a zip archive.

Please use ZipFile.CreateFile first to create a new file before writing to it.

In version 5.0 of the plugin, the parameters are changed and we got an extra unused parameter between function name and text. This was corrected in 5.1pr3.

### Examples

Creates a text file:

```
MBS( "ZipFile.CreateFile"; "test.txt"; $date )
MBS( "ZipFile.WriteTextFile"; "Hello World" )
```

### See also

- [45.21 BinaryFile.WriteText](#) 1233
- [54.36 ZipFile.CreateFile](#) 1549
- [54.41 ZipFile.WriteFile](#) 1557
- [54.42 ZipFile.WriteHex](#) 1559

### Example Databases

- [Zip/ZipFile](#)

### 54.43.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr3](#)

### 54.43.2 **FileMaker Magazin**

- Ausgabe 5/2013, Seite 22

Created 18th August 2014, last changed 12nd November 2015.



# Chapter 55

## Contacts

The newer Apple API for Addressbook access

For 64-bit MacOS and iOS to work with addressbook and multiple accounts. Replaces older deprecated Addressbook functions.

### 55.1 CNContact.AddEmailAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddEmailAddress"; ContactIdentifier; Email { ; Label } )

#### Parameters

##### **ContactIdentifier**

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

##### **Email**

The email address.

"test@test.test"

##### **Label**

Optional

The label to use. For your convenience we translate iCloud, Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

**Result** Returns OK or error.

#### **Description**

This is a convenience function to add just one email with a given label to the contact.

Please call `CNContactStore.UpdateContact` later to store the values.

**See also**

- 55.5 `CNContact.AddPostalAddress` 1568
- 55.10 `CNContact.AddURLAddress` 1575
- 55.26 `CNContactStore.AddContact` 1598
- 55.50 `CNContactStore.NewContact` 1626
- 55.58 `CNContactStore.UpdateContact` 1637

**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 2nd August 2018.



## 55.2 CNContact.AddInstantMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddInstantMessage"; ContactIdentifier; Name; Service { ; Label } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Name

The name of the account.

"Test"

#### Service

The service for this account. We translate AIM, Facebook, GaduGadu, GoogleTalk, ICQ, Jabber, MSN, QQ, Skype and Yahoo to the right constant for you.

"Facebook"

#### Label

Optional

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

**Result** Returns OK or error.

### Description

This is a convenience function to add just one instant message account with a given label to the contact.

Please call `CNContactStore.UpdateContact` later to store the values.

### See also

- 55.3 `CNContact.AddInstantMessageJSON` 1566
- 55.26 `CNContactStore.AddContact` 1598
- 55.50 `CNContactStore.NewContact` 1626
- 55.58 `CNContactStore.UpdateContact` 1637

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 4th August 2018.

### 55.3 CNContact.AddInstantMessageJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddInstantMessageJSON"; ContactIdentifier; Label; JSON )

#### Parameters

##### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

##### Label

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

##### JSON

The JSON with details

**Result** Returns OK or error.

#### Description

This is a convenience function to add just one instant message account with a given label to the contact.

Please call CNContactStore.UpdateContact later to store the values.

The JSON object may contain the keys service and username.

Service can be AIM, Facebook, GaduGadu, GoogleTalk, ICQ, Jabber, MSN, QQ, Skype or Yahoo.

#### See also

- 55.2 CNContact.AddInstantMessage 1565
- 55.58 CNContactStore.UpdateContact 1637

Created 1st August 2018, last changed 4th August 2018.

## 55.4 CNContact.AddPhoneNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddPhoneNumber"; ContactIdentifier; PhoneNumber { ; Label } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### PhoneNumber

The phone number.

"+49123456"

#### Label

Optional

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

**Result** Returns OK or error.

### Description

This is a convenience function to add just one phone number with a given label to the contact.

Please call CNContactStore.UpdateContact later to store the values.

### See also

- 55.26 CNContactStore.AddContact 1598
- 55.50 CNContactStore.NewContact 1626
- 55.58 CNContactStore.UpdateContact 1637

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 2nd August 2018.

## 55.5 CNContact.AddPostalAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddPostalAddress"; ContactIdentifier { ; Label; Street; City; State; postalCode; country; ISOCountryCode; subLocality; subAdministrativeArea } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Label

Optional

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

#### Street

Optional

The street name with house number.

"Teststreet 123"

#### City

Optional

The city name.

"Greatcity"

#### State

Optional

The name of the state.

"TX"

#### postalCode

Optional

The postal code.

"12345"

#### country

Optional

The name of the country.

"USA"

#### ISOCountryCode

Optional

The ISO country code.

"US"

#### subLocality

## 55.5. *CNCONTACT.ADDPOSTALADDRESS*

1569

Optional

The sub locality. Only used on MacOS 10.12.4 or iOS 10.3 and newer.

### **subAdministrativeArea**

Optional

The sub administrative area. Only used on MacOS 10.12.4 or iOS 10.3 and newer.

**Result** Returns OK or error.

### **Description**

This is a convenience function to add just one postal address account with a given label to the contact. Please call `CNContactStore.UpdateContact` later to store the values.

### **See also**

- 55.1 `CNContact.AddEmailAddress` 1563
- 55.6 `CNContact.AddPostalAddressJSON` 1570
- 55.10 `CNContact.AddURLAddress` 1575
- 55.26 `CNContactStore.AddContact` 1598
- 55.50 `CNContactStore.NewContact` 1626
- 55.58 `CNContactStore.UpdateContact` 1637

### **Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 3th August 2018.

## 55.6 CNContact.AddPostalAddressJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddPostalAddressJSON"; ContactIdentifier; Label; JSON )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Label

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

#### JSON

The block of JSON.

**Result** Returns OK or error.

### Description

This is a convenience function to add just one postal address account with a given label to the contact. Please call CNContactStore.UpdateContact later to store the values.

The JSON should be an object with a few of the following keys: street, city, state, postalCode, country and ISOCountryCode. For MacOS 10.12.4 or iOS 10.3, you can set subLocality and subAdministrativeArea, too.

#### See also

- 55.5 CNContact.AddPostalAddress 1568
- 55.58 CNContactStore.UpdateContact 1637

Created 1st August 2018, last changed 3th August 2018.

## 55.7 CNContact.AddRelation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddRelation"; ContactIdentifier; Name; Label )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Name

The name to use.

"Christian Schmitz"

#### Label

The label to use. For your convenience we translate Assistant, Brother, Child, Daughter, Father, Friend, Manager, Mother, Parent, Partner, Sister, Son and Spouse to the right values, so they get localized in display. Default label is Other.

"Dad"

**Result** Returns OK or error.

### Description

This is a convenience function to add just one relation with a given label to the contact.

Please call CNContactStore.UpdateContact later to store the values.

### See also

- 55.26 CNContactStore.AddContact 1598
- 55.50 CNContactStore.NewContact 1626
- 55.58 CNContactStore.UpdateContact 1637

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 2nd August 2018.

## 55.8 CNContact.AddSocialProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddSocialProfile"; ContactIdentifier; Label; URLString; Username; UserIdentifier; Service )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Label

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

#### URLString

The URL of the service.

"http://twitter.com/MBSPugins"

#### Username

The user name.

"MBSPugins"

#### UserIdentifier

The user identifier.

""

#### Service

The service name. For your convenience we accept here Facebook, Flickr, LinkedIn, MySpace, SinaWeibo, TencentWeibo, Twitter, Yelp and GameCenter to the correct constant.

"Twitter"

**Result** Returns OK or error.

### Description

This is a convenience function to add just one social profile with a given label to the contact.

Please call CNContactStore.UpdateContact later to store the values.

### See also

- 55.9 CNContact.AddSocialProfileJSON 1574
- 55.26 CNContactStore.AddContact 1598
- 55.50 CNContactStore.NewContact 1626
- 55.58 CNContactStore.UpdateContact 1637

### Example Databases



- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 3th August 2018.

## 55.9 CNContact.AddSocialProfileJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddSocialProfileJSON"; ContactIdentifier; Label; JSON )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Label

The label to use. For your convenience we translate Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

#### JSON

The JSON with the object containing the fields urlString, username, userIdentifier and service.

**Result** Returns OK or error.

### Description

This is a convenience function to add just one social profile with a given label to the contact. Please call CNContactStore.UpdateContact later to store the values.

### See also

- 55.8 CNContact.AddSocialProfile 1572
- 55.58 CNContactStore.UpdateContact 1637

Created 1st August 2018, last changed 2nd August 2018.

**55.10 CNContact.AddURLAddress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.AddURLAddress"; ContactIdentifier; URL { ; Label } )

**Parameters****ContactIdentifier**

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**URL**

The URL address.

"http://www.mbsplugins.com"

**Label**

Optional

The label to use. For your convenience we translate Homepage, Work, Home and Other to the right values, so they get localized in display. Default label is Other.

"Work"

**Result** Returns OK or error.

**Description**

This is a convenience function to add just one URL with a given label to the contact.

Please call CNContactStore.UpdateContact later to store the values.

**See also**

- 55.1 CNContact.AddEmailAddress 1563
- 55.5 CNContact.AddPostalAddress 1568
- 55.26 CNContactStore.AddContact 1598
- 55.50 CNContactStore.NewContact 1626
- 55.58 CNContactStore.UpdateContact 1637

**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 2nd August 2018.

## 55.11 CNContact.DeleteValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	Yes	No	No	No	Yes

MBS( "CNContact.DeleteValue"; ContactIdentifier; Selector { ; Identifier } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Selector

Which value to set.

"givenName"

#### Identifier

Optional

Identifier or label to delete only one entry in a list. Pass empty text to delete all.

**Result** Returns OK or error.

### Description

Selector can be birthday, contactRelations, dates, departmentName, emailAddresses, familyName, givenName, imageData, imageDataAvailable, instantMessageAddresses, jobTitle, middleName, namePrefix, nameSuffix, nickname, nonGregorianBirthday, organizationName, phoneNumbers, phoneticFamilyName, phoneticGivenName, phoneticMiddleName, phoneticOrganizationName, postalAddresses, previousFamilyName, socialProfiles, thumbnailImageData, note, type, ImageData and thumbnailImageData or urlAddresses.

PhoneNumbers, emailAddresses, postalAddresses, urlAddresses, contactRelations, socialProfiles, instantMessageAddresses and dates can specify a label/identifier to delete only one entry.

### Examples

Delete home address:

```
MBS( "CNContact.DeleteValue"; $contactID; "postalAddresses"; "home")
```

Delete all emails:

```
MBS( "CNContact.DeleteValue"; $contactID; "emailAddresses"; "")
```

Delete job title:

```
MBS( "CNContact.DeleteValue"; $contactID; "jobTitle")
```

**See also**

55.11. *CNCONTACT.DELETEVALUE*

1577

- 55.17 CNContact.SetValue

1584

### 55.11.1 **Blog Entries**

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 2nd March 2020, last changed 2nd March 2020.

## 55.12 CNContact.EditInAddressbook

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContact.EditInAddressbook"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

### See also

- 55.19 CNContact.ShowInAddressbook

1588

Created 3th August 2018, last changed 3th August 2018.

**55.13 CNContact.IsUnifiedWithContact**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.5	Yes	No	No	No	Yes

MBS( "CNContact.IsUnifiedWithContact"; ContactIdentifier; OtherContactIdentifier )

**Parameters****ContactIdentifier**

The contact identifier.

"9B6315CA-5331-44A6-96D0-16F315BA9AEB"

**OtherContactIdentifier**

The second contact identifier.

"F73B1D68-984A-434E-B3DE-1E92549C89B0:ABPerson"

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if the receiver was fetched as a unified contact and includes the contact having contactIdentifier in its unification, else 0.

**Examples**

Check if a contact belongs to another:

MBS( "CNContact.IsUnifiedWithContact"; "9B6315CA-5331-44A6-96D0-16F315BA9AEB"; "F73B1D68-984A-434E-B3DE-1E92549C89B0:ABPerson" )

**See also**

- 55.20 CNContact.UnifiedContacts

1589

**55.13.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 25th September 2018, last changed 25th September 2018.

## 55.14 CNContact.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.JSON"; ContactIdentifier { ; SkipImage } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### SkipImage

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

If you pass 1, we skip the images. Default is 0 to include images.

1

**Result** Returns JSON or error.

### Description

If the application is not properly code signed with entitlements, you may only get limited data like no phone numbers.

### Examples

Query your JSON:

```
MBS( "CNContact.JSON"; MBS( "CNContactStore.UnifiedMeContact" ) )
```

Get formatted and colored JSON:

```
Set Variable [ $json ; Value: MBS( "CNContact.JSON"; MBS( "CNContactStore.UnifiedMeContact" ) ) ]
```

```
Set Variable [ $json ; Value: MBS( "JSON.Colorize"; MBS( "JSON.Format"; $json ) ) ]
```

```
Set Field [ Contacts::Result ; $json ]
```

### See also

- 55.16 CNContact.Name 1583
- 55.18 CNContact.Show 1586
- 55.26 CNContactStore.AddContact 1598
- 55.50 CNContactStore.NewContact 1626
- 55.57 CNContactStore.UnifiedMeContact 1635
- 102.16 JSON.Colorize 5334
- 102.40 JSON.Format 5368



**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

**55.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 1st August 2018, last changed 25th September 2018.

## 55.15 CNContact.MailingAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.MailingAddress"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns text or error.

### Description

Combine the postal address components into a multi-line mailing address.

### Examples

Get your mailing address:

MBS( "CNContact.MailingAddress"; MBS( "CNContactStore.UnifiedMeContact" ) )

Example result: Eckertshohl 22

56645 Nickenich

Deutschland

### See also

- 55.57 CNContactStore.UnifiedMeContact

1635

Created 1st August 2018, last changed 2nd August 2018.

## 55.16 CNContact.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.Name"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns name or error.

### Description

### Examples

Query your name:

```
MBS( "CNContact.Name"; MBS( "CNContactStore.UnifiedMeContact" ) )
```

Query name of first contact found with given name:

```
MBS("CNContact.Name"; GetValue ( MBS( "CNContactStore.ContactsMatchingName"; "Joe Miller" ); 1))
```

### See also

- 55.14 CNContact.JSON 1580
- 55.18 CNContact.Show 1586
- 55.21 CNContact.Value 1590
- 55.32 CNContactStore.Contacts 1606
- 55.35 CNContactStore.ContactsMatchingName 1609
- 55.57 CNContactStore.UnifiedMeContact 1635
- 55.59 CNContainer.Name 1638

### 55.16.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)

Created 1st August 2018, last changed 21st September 2018.

## 55.17 CNContact.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.SetValue"; ContactIdentifier; Selector; Value )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Selector

Which value to set.

"givenName"

#### Value

The value to set.

"Test"

**Result** Returns OK or error.

### Description

Selector can be birthday, contactRelations, dates, departmentName, emailAddresses, familyName, givenName, imageData, imageDataAvailable, instantMessageAddresses, jobTitle, middleName, namePrefix, nameSuffix, nickname, nonGregorianBirthday, organizationName, phoneNumbers, phoneticFamilyName, phoneticGivenName, phoneticMiddleName, phoneticOrganizationName, postalAddresses, previousFamilyName, socialProfiles, thumbnailImageData, note, type or urlAddresses.

ImageData and thumbnailImageData are passed as containers.

PhoneNumbers, emailAddresses, postalAddresses, urlAddresses, contactRelations, socialProfiles, instantMessageAddresses, dates, birthday and nonGregorianBirthday are passed as JSON.

### Examples

Set given name for a contact:

```
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "givenName"; "Joe" ) ]
```

Clear email for contact:

```
// first set email list to empty JSON array:
```

```
MBS( "CNContact.SetValue"; "BD2307E5-92F6-4A8F-946D-C4804615C18B:ABPerson"; "emailAddresses";  
" [ ] " ) &
```

```
// and save
```

```
MBS( "CNContactStore.UpdateContact"; "BD2307E5-92F6-4A8F-946D-C4804615C18B:ABPerson" )
```

Set email list with two emails:

```
// set email address list:
```

```
MBS( "CNContact.SetValue"; "BD2307E5-92F6-4A8F-946D-C4804615C18B:ABPerson"; "emailAddresses"; " [
```

```
{ \"label\" : \"_<Home>!$_\", \"value\" : \"home@test.de\" }, { \"label\" : \"My Label\", \"value\" : \"private@test.de\" } ] ) &
// and save
MBS( \"CNContactStore.UpdateContact\"; \"BD2307E5-92F6-4A8F-946D-C4804615C18B:ABPerson\" )
```

Set birthday:

```
Set Variable [ $r ; Value: MBS( \"CNContact.SetValue\"; $contactID; \"Birthday\"; \" { \\\"day\\\": \\\"27\\\", \\\"month\\\": \\\"12\\\", \\\"year\\\": \\\"2018\\\" } \" ) ]
```

### See also

- 55.11 *CNContact.DeleteValue* 1576
- 55.21 *CNContact.Value* 1590
- 55.26 *CNContactStore.AddContact* 1598
- 55.50 *CNContactStore.NewContact* 1626
- 55.58 *CNContactStore.UpdateContact* 1637

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

#### 55.17.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)
- [MBS FileMaker Plugin, version 8.4pr4](#)

Created 1st August 2018, last changed 4th May 2020.

## 55.18 CNContact.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	No	No	No	No	Yes

MBS( "CNContact.Show"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

Shows Cancel and Edit buttons to work on the contact.

Does currently not work on MacOS due to bugs in Apple frameworks.

### Examples

Show contact:

```
# show a contact by ID (iOS only currently)
Set Variable [ $r ; Value: MBS( "CNContact.Show"; Placeholder::ContactID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to show contact" ; $r ]
End If
```

### See also

- [55.14 CNContact.JSON](#) 1580
- [55.16 CNContact.Name](#) 1583
- [55.19 CNContact.ShowInAddressbook](#) 1588
- [127.6 IsError](#) 6374

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)

#### 55.18.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)

- [MBS FileMaker Plugin, version 10.1pr2](#)
- [Contact picker and viewer for FileMaker](#)

Created 31st January 2020, last changed 8th February 2020.

## 55.19 CNContact.ShowInAddressbook

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContact.ShowInAddressbook"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

### Examples

Show owner in addressbook:

MBS( "CNContact.ShowInAddressbook"; MBS( "CNContactStore.UnifiedMeContact" ) )

### See also

- 55.12 CNContact.EditInAddressbook 1578
- 55.18 CNContact.Show 1586
- 55.57 CNContactStore.UnifiedMeContact 1635

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 3th August 2018, last changed 3th August 2018.



## 55.20 CNContact.UnifiedContacts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.5	Yes	No	No	No	Yes

MBS( "CNContact.UnifiedContacts"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

### Examples

Find contacts an unified contact is based off:

MBS( "CNContact.UnifiedContacts"; "9B6315CA-5331-44A6-96D0-16F315BA9AEB" )

Example result: F73B1D68-984A-434E-B3DE-1E92549C89B0:ABPerson  
C4BC32A1-7776-4C32-B480-3015327BB42C:ABPerson

### See also

- 55.13 CNContact.IsUnifiedWithContact

1579

### 55.20.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 25th September 2018, last changed 26th September 2018.

## 55.21 CNContact.Value

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContact.Value"; ContactIdentifier; Selector { ; ImageType; FileName } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### Selector

Which value to return.

"nickname"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### FileName

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns value or error.

### Description

Selector can be birthday, contactRelations, dates, departmentName, emailAddresses, familyName, givenName, imageData, imageDataAvailable, instantMessageAddresses, jobTitle, middleName, namePrefix, nameSuffix, nickname, nonGregorianBirthday, organizationName, phoneNumbers, phoneticFamilyName, phoneticGivenName, phoneticMiddleName, phoneticOrganizationName, postalAddresses, previousFamilyName, socialProfiles, thumbnailImageData, note, type or urlAddresses.

ImageData and thumbnailImageData are returned as container and you can pass in ImageType and FileName to use.

PhoneNumbers, emailAddresses, postalAddresses, urlAddresses, contactRelations, socialProfiles, instantMessageAddresses, dates, birthday and nonGregorianBirthday are returned as JSON.

### Examples

Get my phone numbers:

MBS("CNContact.Value"; MBS("CNContactStore.UnifiedMeContact"); "phonenumbers")

Example result: [

```
{
  "identifier" : "7AA474C5-CB5B-406F-9C19-077E14E8F48B",
  "label" : "__$!<Mobile>!$_",
  "value" : "+49 1234 56789"
```

```

    },
    {
      "identifier" : "96F71635-B932-49C5-ABA6-905528A152D0",
      "label" : "_$!<Work>!$_",
      "value" : "+49 1234 56789"
    }
  ]

```

Get my social profiles:

```
MBS("CNContact.Value"; MBS("CNContactStore.UnifiedMeContact"); "socialprofiles")
```

Example result: [

```

{
  "identifier" : "DC992125-7999-4C52-ADF6-D544BC3ADA04",
  "label" : "Twitter",
  "value" : {
    "username" : "MBSPlugins",
    "userIdentifier" : null,
    "service" : "Twitter",
    "urlString" : "http://twitter.com/MBSPlugins"
  }
},
{
  "identifier" : "4D26EDF7-EE68-4125-AAF1-C79C5D4A66AA",
  "label" : "Facebook",
  "value" : {
    "username" : "MonkeybreadSoftware",
    "userIdentifier" : null,
    "service" : "Facebook",
    "urlString" : "http://facebook.com/MonkeybreadSoftware"
  }
}
]

```

Get image of contact as container value:

```
MBS( "CNContact.Value"; $contact; "imageData")
```

Query email addresses:

```
MBS( "CNContact.Value"; "BD2307E5-92F6-4A8F-946D-C4804615C18B:ABPerson"; "emailAddresses")
```

### See also

- 55.16 CNContact.Name 1583
- 55.17 CNContact.SetValue 1584
- 55.57 CNContactStore.UnifiedMeContact 1635

### 55.21.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr4](#)

Created 1st August 2018, last changed 1st March 2020.

## 55.22 CNContactPicker.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	Yes	No	No	No	Yes

MBS( "CNContactPicker.Close" )

**Result** Returns OK or error.

### Description

### See also

- [55.23 CNContactPicker.Current](#) 1594
- [55.25 CNContactPicker.Show](#) 1596

Created 31st January 2020, last changed 31st January 2020.

## 55.23 CNContactPicker.Current

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	Yes	No	No	No	Yes

MBS( "CNContactPicker.Current" )

**Result** Returns contact identifier or error.

### Description

Can be called in trigger script to query current contact selected.  
For multiple selection mode, this returns list of contacts.

### See also

- 55.22 CNContactPicker.Close 1593
- 55.25 CNContactPicker.Show 1596

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)

Created 31st January 2020, last changed 4th February 2020.

## 55.24 CNContactPicker.SetTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	Yes	No	No	No	Yes

MBS( "CNContactPicker.SetTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

This script is called when a contact is selected.

### See also

- [55.25 CNContactPicker.Show](#)

1596

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)

Created 31st January 2020, last changed 31st January 2020.

## 55.25 CNContactPicker.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	10.1	Yes	No	No	No	Yes

MBS( "CNContactPicker.Show" { ; Multi or Window; Position } )

### Parameters

#### Multi or Window

Optional

For iOS: Whether to allow multiple selection. Pass 1 for multiple or 0 for single selection. Default is single selection.

For MacOS: the window reference name/number.

0

#### Position

Optional

Where to position the popover. Can be "left" for left of the FileMaker window. Can be "right" for right side. Can be "mouse" to place where mouse is, e.g. when using with button. Can be "toolbar" to center on window hanging from toolbar.

"mouse"

**Result** Returns OK or error.

### Description

Use CNContactPicker.Current later to get the result.

### Examples

Show picker:

```
# use picker sheet/popover to select contact
Set Variable [ $r ; Value: MBS( "CNContactPicker.SetTrigger"; Get(FileName); "Picked" ) ]
Set Variable [ $r ; Value: MBS( "CNContactPicker.Show" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to show picker" ; $r ]
End If
```

Show at mouse position in front window:

```
MBS( "CNContactPicker.Show"; 0; "mouse" )
```

### See also

- 55.22 CNContactPicker.Close 1593
- 55.23 CNContactPicker.Current 1594
- 55.24 CNContactPicker.SetTrigger 1595



55.25. *CNCONTACTPICKER.SHOW*

1597

- 127.6 IsError

6374

### **Example Databases**

- [Mac and iOS/Contacts/Contacts Dialogs](#)

#### **55.25.1 Blog Entries**

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr3](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)
- [Contact picker and viewer for FileMaker](#)

Created 31st January 2020, last changed 4th February 2020.

## 55.26 CNContactStore.AddContact

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.AddContact"; ContactIdentifier { ; ContainerIdentifier } )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

#### ContainerIdentifier

Optional

The identifier for the container.

"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns OK or error.

### Description

Optionally pass in container identifier to specify which account to use.

### Examples

Create a contact:

```
#
Set Variable [ $contactID ; Value: MBS( "CNContactStore.NewContact" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "givenName"; "Joe" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "familyName"; "Miller" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "jobTitle"; "Family Manager" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "organization"; "Family" ) ]
#
#
Set Variable [ $image ; Value: MBS( "Container.ReadFile"; "/Library/Desktop Pictures/Lion.jpg" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "imageData"; $image ) ]
#
Set Variable [ $r ; Value: MBS( "CNContact.AddEmailAddress"; $contactID; "test@test.test"; "Work" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddInstantMessage"; $contactID; "instantTest"; "Facebook";
"Work" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddURLAddress"; $contactID; "http://www.monkeybread-
software.com/"; "Homepage" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddSocialProfile"; $contactID; "Home"; "http://www.face-
book.com"; "testSocial"; "" ; "Facebook" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddRelation"; $contactID; "Jane Miller"; "Sister" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddPhoneNumber"; $contactID; "123 456 789"; "iPhone" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddPostalAddress"; $contactID; "Home"; "Main Street 123";
"New City"; "NS"; "12345"; "USA"; "US" ) ]
#
Set Variable [ $contactID ; Value: MBS( "CNContactStore.AddContact"; $contactID ) ]
```

55.26. *CNCONTACTSTORE.ADDCONTACT* 1599

```
If [ MBS("IsError") ]  
Show Custom Dialog [ "Failed to create a contact" ; $r ]  
Else  
Set Field [ Contacts::ContactID ; $contactID ]  
Set Variable [ $json ; Value: MBS( "CNContact.JSON"; $contactID) ]  
Set Variable [ $json ; Value: MBS("JSON.Colorize"; MBS( "JSON.Format"; $json) ) ]  
Set Field [ Contacts::Result ; $json ]  
End If
```

**See also**

- 55.7 CNContact.AddRelation 1571
- 55.8 CNContact.AddSocialProfile 1572
- 55.10 CNContact.AddURLAddress 1575
- 55.17 CNContact.SetValue 1584
- 55.28 CNContactStore.AddMember 1602
- 55.32 CNContactStore.Contacts 1606
- 55.50 CNContactStore.NewContact 1626
- 55.58 CNContactStore.UpdateContact 1637
- 56.28 Container.ReadFile 1681
- 102.40 JSON.Format 5368

**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

## 55.27 CNContactStore.AddGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.AddGroup"; Name { ; ContainerIdentifier } )

### Parameters

#### Name

The new group name.  
"Test"

#### ContainerIdentifier

Optional  
The identifier for the container.  
"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns OK or error.

### Description

Optionally pass in container identifier to specify which account to use.

### Examples

Create a group:

```
Set Variable [ $r ; Value: MBS( "CNContactStore.AddGroup"; "Test Group" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create a group" ; $r ]
Else
Set Field [ Contacts::GroupID ; $r ]
End If
```

### See also

- 55.28 CNContactStore.AddMember 1602
- 55.29 CNContactStore.AddSubgroup 1603
- 55.44 CNContactStore.DeleteGroup 1618
- 55.46 CNContactStore.Groups 1621
- 55.53 CNContactStore.RenameGroup 1630
- 55.56 CNContactStore.Subgroups 1634
- 127.6 IsError 6374

### Example Databases

55.27. *CNCONTACTSTORE.ADDGROUP*

1601

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

## 55.28 CNContactStore.AddMember

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.AddMember"; GroupIdentifier; ContactIdentifier )

### Parameters

#### GroupIdentifier

The group to add the member to. Can be identifier or group name.  
"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

#### ContactIdentifier

The new member to add to the group.  
"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

#### See also

- 55.26 CNContactStore.AddContact 1598
- 55.27 CNContactStore.AddGroup 1600
- 55.29 CNContactStore.AddSubgroup 1603
- 55.51 CNContactStore.RemoveMember 1628

Created 1st August 2018, last changed 30th August 2018.

**55.29 CNContactStore.AddSubgroup**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.AddSubgroup"; GroupIdentifier; GroupIdentifier )

**Parameters****GroupIdentifier**

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**GroupIdentifier**

The sub group identifier. Can be identifier or group name.

"62D07651-4F83-47D0-99F8-A72EAECBD8B7:ABGroup"

**Result** Returns OK or error.

**Description****See also**

- 55.27 CNContactStore.AddGroup 1600
- 55.28 CNContactStore.AddMember 1602
- 55.44 CNContactStore.DeleteGroup 1618
- 55.52 CNContactStore.RemoveSubgroup 1629
- 55.53 CNContactStore.RenameGroup 1630
- 55.56 CNContactStore.Subgroups 1634

Created 1st August 2018, last changed 30th August 2018.

## 55.30 CNContactStore.AuthorizationError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.AuthorizationError" )

**Result** Returns text or error.

### Description

Set by CNContactStore.RequestAccesss in case of errors.

### See also

- [55.31 CNContactStore.AuthorizationStatus](#) 1605
- [55.54 CNContactStore.RequestAccesss](#) 1631

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)
- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 2nd August 2018.



## 55.31 CNContactStore.AuthorizationStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.AuthorizationStatus" )

**Result** Returns status or error.

### Description

Can be NotDetermined, Restricted, Denied or Authorized.

### Examples

Check status:

```
Show Custom Dialog [ "r" ; MBS( "CNContactStore.AuthorizationStatus" ) ]
```

### See also

- [55.30 CNContactStore.AuthorizationError](#) 1604
- [55.54 CNContactStore.RequestAccess](#) 1631

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)
- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

## 55.32 CNContactStore.Contacts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.5	Yes	No	No	No	Yes

MBS( "CNContactStore.Contacts" { ; unifyResults } )

### Parameters

#### unifyResults

Optional

Whether to unify results. 1 to unify contacts and 0 to return all individual contacts. Default is 1.

1

**Result** Returns list of contact identifiers or error.

### Description

You get the list unified, so contacts in several accounts are merged.

Or you get list of all contacts with those merged which appear in multiple accounts.

Seems like Addressbook.people and CNContactStore.Contacts with unifyResults = 0 is the same list.

### See also

- [34.55 Addressbook.people](#) 879
- [55.16 CNContact.Name](#) 1583
- [55.26 CNContactStore.AddContact](#) 1598
- [55.35 CNContactStore.ContactsMatchingName](#) 1609
- [55.39 CNContactStore.Containers](#) 1613
- [55.40 CNContactStore.Country](#) 1614
- [55.50 CNContactStore.NewContact](#) 1626

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)

#### 55.32.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)
- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 25th September 2018, last changed 25th September 2018.

## 55.33 CNContactStore.ContactsInContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContactsInContainer"; ContainerIdentifier )

### Parameters

#### ContainerIdentifier

The identifier for the container.

"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns list or error.

### Description

Returns list of contact identifiers.

### See also

- 55.49 CNContactStore.GroupsInContainer

1625

Created 1st August 2018, last changed 2nd August 2018.

## 55.34 CNContactStore.ContactsInGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContactsInGroup"; GroupIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**Result** Returns list or error.

### Description

Returns list of contact identifiers.

This will use unified contacts, so data is merged from several sources.

### See also

- 55.36 CNContactStore.ContactsWithData 1610
- 55.38 CNContactStore.ContainerForGroup 1612

### 55.34.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 1st August 2018, last changed 10th September 2018.

## 55.35 CNContactStore.ContactsMatchingName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContactsMatchingName"; Name )

### Parameters

#### Name

The name to match against.

"Joe Miller"

**Result** Returns list or error.

### Description

Returns list of contact identifiers.

This will use unified contacts, so data is merged from several sources.

### Examples

Query name of first contact found with given name:

```
MBS("CNContact.Name"; GetValue ( MBS( "CNContactStore.ContactsMatchingName"; "Joe Miller" ); 1))
```

### See also

- [55.16 CNContact.Name](#) 1583
- [55.32 CNContactStore.Contacts](#) 1606
- [55.36 CNContactStore.ContactsWithData](#) 1610

### Example Databases

- [Mac and iOS/Contacts/Contacts Dialogs](#)

### 55.35.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 1st August 2018, last changed 21st September 2018.

## 55.36 CNContactStore.ContactsWithData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContactsWithData"; ContactIdentifiers )

### Parameters

#### ContactIdentifiers

The list of contact identifiers.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns text or error.

### Description

This converts between a contact and its vCard representation.

### See also

- 55.34 CNContactStore.ContactsInGroup 1608
- 55.35 CNContactStore.ContactsMatchingName 1609

Created 1st August 2018, last changed 2nd August 2018.

**55.37 CNContactStore.ContainerForContact**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContainerForContact"; ContactIdentifier )

**Parameters****ContactIdentifier**

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns container identifier or error.

**Description****See also**

- 55.38 CNContactStore.ContainerForGroup 1612
- 55.48 CNContactStore.GroupsForContact 1624
- 55.57 CNContactStore.UnifiedMeContact 1635

Created 1st August 2018, last changed 2nd August 2018.

## 55.38 CNContactStore.ContainerForGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.ContainerForGroup"; GroupIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**Result** Returns container identifier or error.

### Description

### Examples

Query container for a group:

MBS( "CNContactStore.ContainerForGroup"; "F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup" )

### See also

- [55.34 CNContactStore.ContactsInGroup](#) 1608
- [55.37 CNContactStore.ContainerForContact](#) 1611

### 55.38.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 1st August 2018, last changed 30th August 2018.



**55.39 CNContactStore.Containers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.Containers" )

**Result** Returns list or error.

**Description**

This should return list of accounts for contacts.

**Examples**

Query all accounts:

MBS( "CNContactStore.Containers" )

Example result: 9892A5CC-964E-497A-B877-A47619F7493C:ABAccount  
\_local

**See also**

- [55.32 CNContactStore.Contacts](#) 1606
- [55.40 CNContactStore.Country](#) 1614

**55.39.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 15th August 2018, last changed 16th August 2018.

## 55.40 CNContactStore.Country

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.Country" )

**Result** Returns text or error.

### Description

e.g. "de" for Germany.

### See also

- 55.32 CNContactStore.Contacts 1606
- 55.39 CNContactStore.Containers 1613
- 55.46 CNContactStore.Groups 1621

Created 1st August 2018, last changed 2nd August 2018.

**55.41 CNContactStore.DataWithContacts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.DataWithContacts"; Data )

**Parameters****Data**

The vcard data as text.

**Result** Returns contact identifiers or error.

**Description**

Contacts are serialized as vCards and you can write that text to a vcard file. This converts between a contact and its vCard representation.

This will use unified contacts, so data is merged from several sources.

**See also**

- 55.43 CNContactStore.DeleteContact 1617
- 55.58 CNContactStore.UpdateContact 1637

Created 1st August 2018, last changed 10th September 2018.

## 55.42 CNContactStore.DefaultContainerIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.DefaultContainerIdentifier" )

**Result** Returns container identifier or error.

### Description

Created 1st August 2018, last changed 2nd August 2018.

**55.43 CNContactStore.DeleteContact**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.DeleteContact"; ContactIdentifier )

**Parameters****ContactIdentifier**

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

**Description****Examples**

Delete contact:

```

If [ Length ( Contacts::ContactID ) = 0 ]
Show Custom Dialog [ "Failed to delete a contact" ; "No ID in field" ]
Else
Set Variable [ $r ; Value: MBS( "CNContactStore.DeleteContact"; Contacts::ContactID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to delete a contact" ; $r ]
Else
Set Field [ Contacts::ContactID ; "" ]
End If
End If

```

**See also**

- [55.26 CNContactStore.AddContact](#) 1598
- [55.41 CNContactStore.DataWithContacts](#) 1615
- [55.44 CNContactStore.DeleteGroup](#) 1618
- [55.50 CNContactStore.NewContact](#) 1626
- [55.57 CNContactStore.UnifiedMeContact](#) 1635
- [55.58 CNContactStore.UpdateContact](#) 1637
- [127.6 IsError](#) 6374

**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

## 55.44 CNContactStore.DeleteGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.DeleteGroup"; GroupIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**Result** Returns OK or error.

### Description

### Examples

Delete group:

```

If [ Length ( Contacts::GroupID ) = 0 ]
Show Custom Dialog [ "Failed to delete a group" ; "No ID in field" ]
Else
Set Variable [ $r ; Value: MBS( "CNContactStore.DeleteGroup"; Contacts::GroupID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to delete a group" ; $r ]
Else
Set Field [ Contacts::GroupID ; "" ]
End If
End If

```

### See also

- 55.27 CNContactStore.AddGroup 1600
- 55.29 CNContactStore.AddSubgroup 1603
- 55.43 CNContactStore.DeleteContact 1617
- 55.53 CNContactStore.RenameGroup 1630
- 127.6 IsError 6374

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 30th August 2018.

## 55.45 CNContactStore.GroupHierarchy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.5	Yes	No	No	No	Yes

MBS( "CNContactStore.GroupHierarchy" )

**Result** Returns JSON or error.

### Description

This is a convenience method to give you data for all groups with all subgroups and members in one call.

### Examples

Query group hierarchie:

MBS("CNContactStore.GroupHierarchy")

```
Example result: {
  "62D07651-4F83-47D0-99F8-A72EAECBD8B7:ABGroup" : {
    "subgroups" : [
      "A0A7844B-1E8E-4ECF-8B81-273CB06B282D:ABGroup"
    ],
    "contacts" : [
      "4A2B7E15-BF77-416F-824E-0360FC4B196B:ABPerson",
      "A0C31D4D-E573-432B-A8E4-016919E46A3A:ABPerson",
      "1DC6166E-131E-449B-8BBC-DA689316D02A:ABPerson"
    ],
    "identifier" : "62D07651-4F83-47D0-99F8-A72EAECBD8B7:ABGroup",
    "name" : "Big Group"
  },
  "A0A7844B-1E8E-4ECF-8B81-273CB06B282D:ABGroup" : {
    "parent" : "62D07651-4F83-47D0-99F8-A72EAECBD8B7:ABGroup",
    "subgroups" : [
    ],
    "contacts" : [
      "4A2B7E15-BF77-416F-824E-0360FC4B196B:ABPerson",
      "3495273B-715E-4258-9946-B0FC487211C5:ABPerson",
      "773E1A42-ABCD-4CCF-88DE-E9C64BEE6D33:ABPerson",
      "05DC9067-7FEE-4146-8CD9-6F88E7053307:ABPerson"
    ],
    "identifier" : "A0A7844B-1E8E-4ECF-8B81-273CB06B282D:ABGroup",
    "name" : "Test Group"
  }
}
```

### See also

- 55.47 CNContactStore.GroupsByName

### 55.45.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 26th September 2018, last changed 26th September 2018.



## 55.46 CNContactStore.Groups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.Groups" )

**Result** Returns list or error.

### Description

You get back a list with the group identifiers.

### Examples

Show groups with IDs and names in field:

```

Set Variable [ $groups ; Value: MBS( "CNContactStore.Groups" ) ]
Set Variable [ $count ; Value: ValueCount ( $groups ) ]
If [ $count >0 ]
Set Variable [ $index ; Value: 1 ]
Set Variable [ $text ; Value: "" ]
Loop
#
Set Variable [ $groupID ; Value: GetValue($groups; $index) ]
Set Variable [ $groupName ; Value: MBS( "CNGroup.Name"; $groupID ) ]
Set Variable [ $text ; Value: $text & $GroupName & " " & $groupID ]
#
# next
Set Variable [ $index ; Value: $index + 1 ]
Exit Loop If [ $index >$count ]
Set Variable [ $text ; Value: $text & § ]
End Loop
End If
Set Field [ Contacts::Result ; $text ]

```

### See also

- 55.27 CNContactStore.AddGroup 1600
- 55.40 CNContactStore.Country 1614
- 55.47 CNContactStore.GroupsByName 1623
- 55.48 CNContactStore.GroupsForContact 1624
- 55.54 CNContactStore.RequestAccesss 1631
- 55.56 CNContactStore.Subgroups 1634
- 55.61 CNGroup.Name 1640

**Example Databases**

- [Mac and iOS/Contacts/Contacts Dialogs](#)
- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

**55.47 CNContactStore.GroupsByName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.GroupsByName"; Name )

**Parameters****Name**

The group name.  
"Friends"

**Result** Returns list of group identifiers or error.

**Description**

Returns empty list if nothing found.  
Comparison is localized case insensitive.

**Examples**

Query a group:

MBS( "CNContactStore.GroupsByName"; "Zeitungen" )

**See also**

- [55.45 CNContactStore.GroupHierarchy](#) 1619
- [55.46 CNContactStore.Groups](#) 1621

**55.47.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr5](#)

Created 22nd August 2018, last changed 27th January 2020.

## 55.48 CNContactStore.GroupsForContact

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.GroupsForContact"; ContactIdentifier )

### Parameters

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns list of group identifiers or error.

### Description

### Examples

Search groups for a contact:

MBS( "CNContactStore.GroupsForContact"; "185E03A8-D1B8-4C9A-8183-D0B63FF7569C:ABPerson" )

### See also

- 55.37 CNContactStore.ContainerForContact 1611
- 55.46 CNContactStore.Groups 1621
- 55.49 CNContactStore.GroupsInContainer 1625
- 55.57 CNContactStore.UnifiedMeContact 1635
- 55.58 CNContactStore.UpdateContact 1637

### 55.48.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr5](#)

Created 22nd August 2018, last changed 27th January 2020.

**55.49 CNContactStore.GroupsInContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.GroupsInContainer"; ContainerIdentifier )

**Parameters****ContainerIdentifier**

The identifier for the container.

"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns list or error.

**Description**

This function allows you to query groups in a certain account.

Returns list of group identifiers.

**See also**

- 55.33 CNContactStore.ContactsInContainer 1607
- 55.48 CNContactStore.GroupsForContact 1624

Created 1st August 2018, last changed 27th January 2020.

## 55.50 CNContactStore.NewContact

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.NewContact" )

**Result** Returns contact identifier or error.

### Description

Please use later CNContactStore.AddContact to store changes.

### Examples

Create a contact:

```

Set Variable [ $contactID ; Value: MBS( "CNContactStore.NewContact" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "givenName"; "Joe" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "familyName"; "Miller" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "jobTitle"; "Family Manager" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "organization"; "Family" ) ]
#
#
Set Variable [ $image ; Value: MBS( "Container.ReadFile"; "/Library/Desktop Pictures/Lion.jpg" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.SetValue"; $contactID; "imageData"; $image ) ]
#
Set Variable [ $r ; Value: MBS( "CNContact.AddEmailAddress"; $contactID; "test@test.test"; "Work" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddInstantMessage"; $contactID; "instantTest"; "Facebook";
"Work" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddURLAddress"; $contactID; "http://www.monkeybread-
software.com/"; "Homepage" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddSocialProfile"; $contactID; "Home"; "http://www.face-
book.com"; "testSocial"; ""; "Facebook" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddRelation"; $contactID; "Jane Miller"; "Sister" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddPhoneNumber"; $contactID; "123 456 789"; "iPhone" ) ]
Set Variable [ $r ; Value: MBS( "CNContact.AddPostalAddress"; $contactID; "Home"; "Main Street 123";
"New City"; "NS"; "12345"; "USA"; "US" ) ]
#
Set Variable [ $contactID ; Value: MBS( "CNContactStore.AddContact"; $contactID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create a contact" ; $r ]
Else
Set Field [ Contacts::ContactID ; $contactID ]
Set Variable [ $json ; Value: MBS( "CNContact.JSON"; $contactID ) ]
Set Variable [ $json ; Value: MBS("JSON.Colorize"; MBS( "JSON.Format"; $json ) ) ]
Set Field [ Contacts::Result ; $json ]
End If

```

**See also**

<i>55.50. CNCONTACTSTORE.NEWCONTACT</i>	1627
• 55.5 CNContact.AddPostalAddress	1568
• 55.7 CNContact.AddRelation	1571
• 55.8 CNContact.AddSocialProfile	1572
• 55.17 CNContact.SetValue	1584
• 55.26 CNContactStore.AddContact	1598
• 55.43 CNContactStore.DeleteContact	1617
• 55.58 CNContactStore.UpdateContact	1637
• 127.6 NSError	6374
• 102.16 JSON.Colorize	5334
• 102.40 JSON.Format	5368

### **Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 2nd August 2018, last changed 6th August 2018.

## 55.51 CNContactStore.RemoveMember

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.RemoveMember"; GroupIdentifier; ContactIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

#### ContactIdentifier

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns OK or error.

### Description

### See also

- 55.28 CNContactStore.AddMember 1602
- 55.52 CNContactStore.RemoveSubgroup 1629

Created 1st August 2018, last changed 30th August 2018.



**55.52 CNContactStore.RemoveSubgroup**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.RemoveSubgroup"; GroupIdentifier; GroupIdentifier )

**Parameters****GroupIdentifier**

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**GroupIdentifier**

The sub group identifier. Can be identifier or group name.

"62D07651-4F83-47D0-99F8-A72EAECBD8B7:ABGroup"

**Result** Returns OK or error.

**Description****See also**

- 55.29 CNContactStore.AddSubgroup 1603
- 55.51 CNContactStore.RemoveMember 1628
- 55.53 CNContactStore.RenameGroup 1630
- 55.56 CNContactStore.Subgroups 1634

Created 1st August 2018, last changed 27th January 2020.

## 55.53 CNContactStore.RenameGroup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.RenameGroup"; GroupIdentifier; Name )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

#### Name

The new name.

"Test"

**Result** Returns OK or error.

### Description

#### See also

- 55.27 CNContactStore.AddGroup 1600
- 55.29 CNContactStore.AddSubgroup 1603
- 55.44 CNContactStore.DeleteGroup 1618
- 55.52 CNContactStore.RemoveSubgroup 1629

Created 1st August 2018, last changed 30th August 2018.

**55.54 CNContactStore.RequestAccess**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.RequestAccess" { ; Wait } )

**Parameters****Wait**

Optional

Available in MBS FileMaker Plugin 10.1 or newer.

Pass 1 to wait for user to decide or 0 to return immediately. Default is 0.

1

**Result** Returns OK or error.

**Description**

Users are able to grant or deny access to contact data on a per-application basis. To request access to contact data, call CNContactStore.RequestAccess function. This will not block the application while the user is being asked to grant or deny access. The user will only be prompted the first time access is requested; any subsequent ContactStore calls will use the existing permissions.

Later you can use CNContactStore.AuthorizationStatus to check status or CNContactStore.AuthorizationError to learn why you didn't get permissions.

The application needs to be code signed with entitlements with com.apple.security.personal-information.addressbook identifier. See also my idea here:

<https://community.filemaker.com/ideas/3240>

**Examples**

Request access:

```
Set Variable [ $r; Value: MBS( "CNContactStore.RequestAccess" ) ]
```

Request authorization with some error checking:

```
Set Variable [ $r ; Value: MBS( "CNContactStore.RequestAccess" ) ]
```

```
Pause/Resume Script [ Duration (seconds): 1 ]
```

```
Set Variable [ $r ; Value: MBS( "CNContactStore.AuthorizationError" ) ]
```

```
If [ Length($r) >0 ]
```

```
Show Custom Dialog [ "Error" ; $r ]
```

```
End If
```

```
Set Variable [ $groups ; Value: MBS( "CNContactStore.Groups" ) ]
```

```
If [ Length ( $groups ) = 0 ]
```

```
Show Custom Dialog [ "Possible Problem" ; "Either you have no groups or you did not code sign the app?"
```

```
]
```

```
End If
```

**See also**

- 55.30 CNContactStore.AuthorizationError 1604
- 55.31 CNContactStore.AuthorizationStatus 1605
- 55.46 CNContactStore.Groups 1621

**Example Databases**

- [Mac and iOS/Contacts/Contacts Dialogs](#)
- [Mac and iOS/Contacts/Contacts](#)

**55.54.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 1st August 2018, last changed 16th February 2020.

**55.55 CNContactStore.SetChangeScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.SetChangeScript"; Filename; ScriptName { ; Parameter } )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Parameter**

Optional

The parameter to pass.

**Result** Returns OK or error.

**Description****Examples**

Set Trigger:

Set Variable [ \$r ; Value: MBS( "CNContactStore.SetChangeScript"; Get(Filename); "Trigger" ) ]

**Example Databases**

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 6th August 2018.

## 55.56 CNContactStore.Subgroups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.Subgroups"; GroupIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**Result** Returns list of group identifiers or error.

### Description

#### See also

- 55.27 CNContactStore.AddGroup 1600
- 55.29 CNContactStore.AddSubgroup 1603
- 55.46 CNContactStore.Groups 1621
- 55.52 CNContactStore.RemoveSubgroup 1629

Created 1st August 2018, last changed 27th January 2020.

**55.57 CNContactStore.UnifiedMeContact**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	No

MBS( "CNContactStore.UnifiedMeContact" )

**Result** Returns contact identifier or error.

**Description**

This will use unified contacts, so data is merged from several sources.

**Examples**

Get yourself as JSON:

```
MBS( "CNContact.JSON"; MBS( "CNContactStore.UnifiedMeContact" ) )
```

Get formatted and colored JSON:

```
Set Variable [ $json ; Value: MBS( "CNContact.JSON"; MBS( "CNContactStore.UnifiedMeContact" ) ) ]
```

```
Set Variable [ $json ; Value: MBS( "JSON.Colorize"; MBS( "JSON.Format"; $json ) ) ]
```

```
Set Field [ Contacts::Result ; $json ]
```

**See also**

- 55.15 CNContact.MailingAddress 1582
- 55.16 CNContact.Name 1583
- 55.19 CNContact.ShowInAddressbook 1588
- 55.21 CNContact.Value 1590
- 55.37 CNContactStore.ContainerForContact 1611
- 55.43 CNContactStore.DeleteContact 1617
- 55.48 CNContactStore.GroupsForContact 1624
- 55.58 CNContactStore.UpdateContact 1637
- 102.16 JSON.Colorize 5334
- 102.40 JSON.Format 5368

**Example Databases**

- [Mac and iOS/Contacts/Contacts Dialogs](#)
- [Mac and iOS/Contacts/Contacts](#)

### 55.57.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 1st August 2018, last changed 27th January 2020.



**55.58 CNContactStore.UpdateContact**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContactStore.UpdateContact"; ContactIdentifier )

**Parameters****ContactIdentifier**

The contact identifier.

"46B1E34D-58F9-4B6B-A80D-0F71ABB87A0E"

**Result** Returns contact identifier or error.

**Description**

After you set values with `CNContact.SetValue`, you can make changes permanent here.

**See also**

- 55.4 `CNContact.AddPhoneNumber` 1567
- 55.5 `CNContact.AddPostalAddress` 1568
- 55.6 `CNContact.AddPostalAddressJSON` 1570
- 55.8 `CNContact.AddSocialProfile` 1572
- 55.10 `CNContact.AddURLAddress` 1575
- 55.17 `CNContact.SetValue` 1584
- 55.26 `CNContactStore.AddContact` 1598
- 55.41 `CNContactStore.DataWithContacts` 1615
- 55.48 `CNContactStore.GroupsForContact` 1624
- 55.57 `CNContactStore.UnifiedMeContact` 1635

Created 1st August 2018, last changed 2nd August 2018.

## 55.59 CNContainer.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContainer.Name"; ContainerIdentifier )

### Parameters

#### ContainerIdentifier

The identifier for the container.

"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns name or error.

### Description

The container is the source of contacts, e.g. an account on iCloud.

### See also

- 55.16 CNContact.Name 1583
- 55.60 CNContainer.Type 1639

Created 1st August 2018, last changed 2nd August 2018.

## 55.60 CNContainer.Type

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNContainer.Type"; ContainerIdentifier )

### Parameters

#### ContainerIdentifier

The identifier for the container.

"9892A5CC-964E-497A-B877-A47619F7493C:ABAccount"

**Result** Returns type or error.

### Description

Type can be Unassigned, Local, Exchange or CardDAV.

### See also

- 55.59 CNContainer.Name

1638

Created 1st August 2018, last changed 2nd August 2018.

## 55.61 CNGroup.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
55 Contacts	8.4	Yes	No	No	No	Yes

MBS( "CNGroup.Name"; GroupIdentifier )

### Parameters

#### GroupIdentifier

The group identifier. Can be identifier or group name.

"F527BF7C-6426-4D48-86CA-CB5E57743FFE:ABGroup"

**Result** Returns text or error.

### Description

### See also

- 55.46 CNContactStore.Groups

1621

### Example Databases

- [Mac and iOS/Contacts/Contacts](#)

Created 1st August 2018, last changed 30th August 2018.

# Chapter 56

## Container

Functions to work on containers.

### 56.1 Container.Compress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Compress"; ContainerValue )

#### Parameters

##### ContainerValue

The container value to compress.

**Result** Returns container value or error.

#### Description

Compression is not recommended for file formats which are normally compressed already. This includes PDF, various image formats like PNG and JPEG, video and audio files as well as zip archives. Compression works very well for text files.

It is recommended to check with `Container.GetTotalSize` to see if compressed data is smaller. If you compress an already compressed container, the result may be bigger due to the archive header.

Compressed containers can be detected by looking if the type list returned by `Container.GetTypes` contains an item named `ZLIB`. You can use `Container.GetTypeSize` to query the size of compressed data alone.

Not recommended for bigger file sizes. Compression may take long enough that user doesn't like to wait. e.g. 20 seconds for 300 MB.

#### Examples

Compress container:

```
Set Field [ Container Compression::Compressed; MBS("Container.Compress"; Container Compression::Some-Container) ]
```

### See also

- [56.4 Container.Decompress](#) 1646
- [56.21 Container.GetTotalSize](#) 1671
- [56.22 Container.GetType](#) 1672
- [56.24 Container.GetTypes](#) 1676
- [56.23 Container.GetTypeSize](#) 1674
- [56.26 Container.IsCompressed](#) 1679

### Example Databases

- [Containers/Container Compression](#)

#### 56.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)
- [MBS FileMaker Plugin, version 5.3pr4](#)
- [Compressed Containers](#)

Created 15th September 2015, last changed 21st September 2015.

## 56.2 Container.DecodeFromBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.DecodeFromBase64"; type; text { ; filename; DontRenderPreview } )

### Parameters

#### type

The type to return. Can be JPEG, TIFF, GIF, PNG, PDF or File.

"JPEG"

#### text

The text to process.

#### filename

Optional

If filter is container, this defines the file name to use.

"test.txt"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container. (only for returning PDF)

0

**Result** Returns container or error.

### Description

See also Container.GetBase64.

If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

From PDF in Base64 to a PNG in Base64:

```
# decode some PDF in base64 text
Set Variable [ $PDFData; Value:MBS( "Container.DecodeFromBase64"; "PDF"; PDF_ToPNG::base64_PDF;
"test.pdf" ) ]
# render first page to a picture in PNG format
Set Variable [ $PNGData; Value:MBS( "PDFKit.GetPDFPageImage"; $PDFData; 0; "PNG"; "test.png";
150; 1; 0 ) ]
# encode PNG as Base64
Set Variable [ $EncodedPNG; Value:MBS( "Container.GetBase64"; $PNGData; "PNGf" ) ]
# store text in a field
Set Field [ PDF_ToPNG::Convert_text; $EncodedPNG ]
```

**See also**

- 56.3 Container.DecodeFromHex 1645
- 56.8 Container.GetBase64 1653
- 125.15 PDFKit.GetPDFPageImage 6285

### Example Databases

- [DynaPDF/List XFA Fields](#)

### 56.2.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 6th November 2014, last changed 17th August 2018.



## 56.3 Container.DecodeFromHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Container.DecodeFromHex"; type; text { ; filename; DontRenderPreview } )

### Parameters

#### type

The type to return. Can be JPEG, TIFF, GIF, PNG, PDF or File.

"JPEG"

#### text

The text to process.

#### filename

Optional

If filter is container, this defines the file name to use.

"test.txt"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container. (only for returning PDF)

0

**Result** Returns container or error.

### Description

If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### See also

- 56.2 Container.DecodeFromBase64 1643
- 167.32 Text.EncodeToHex 7947

### 56.3.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 30th November 2016, last changed 17th August 2018.

## 56.4 Container.Decompress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Decompress"; ContainerValue )

### Parameters

#### ContainerValue

The container value to decompress.

**Result** Returns container value or error.

### Description

If you pass a compressed container value, this function will decompress it and return the container value with uncompressed data.

Compressed containers can be detected by looking if the type list returned by `Container.GetTypes` contains an item named ZLIB. You can use `Container.GetTypeSize` to query the size of compressed data alone.

### Examples

Decompress container:

```
Set Field [ Container Compression::Decompressed; MBS("Container.Decompress"; Container Compression::Compressed) ]
```

### See also

- [56.1 Container.Compress](#) 1641
- [56.22 Container.GetType](#) 1672
- [56.24 Container.GetTypes](#) 1676
- [56.23 Container.GetTypeSize](#) 1674
- [56.26 Container.IsCompressed](#) 1679

### Example Databases

- [Containers/Container Compression](#)

#### 56.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)
- [MBS FileMaker Plugin, version 5.3pr4](#)

- [Compressed Containers](#)

Created 15th September 2015, last changed 15th September 2015.

## 56.5 Container.Deserialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Deserialize"; Text )

### Parameters

#### Text

The serialized data as text.

**Result** Returns container value or error.

### Description

### Examples

Serialize to a text field and deserialize back:

```
Set Field [ myTable::TextField ; MBS("Container.Serialize"; myTable::FirstContainerField) ]
Set Field [ myTable::OtherContainerField ; MBS("Container.Deserialize"; myTable::TextField) ]
```

### See also

- 56.21 Container.GetTotalSize 1671
- 56.33 Container.Serialize 1691

### 56.5.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 6th July 2015.

## 56.6 Container.Export

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.6	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Export"; Container; Index or Type; FilePath )

### Parameters

#### Container

The container where the data is stored.

#### Index or Type

Specify a type (like "JPEG", "PDF ", "GIF" or "PICT") or the index "JPEG"

#### FilePath

Absolute path to store file.

**Result** Returns "OK" on success or error message.

### Description

For example you can write out from a TIFF image stored in the database the TIFF data itself or the preview JPEG.

Please note that types are always 4 characters long, "PDF " has a space on the end.

Some of the allowed types include "TIFF", "PDF ", "PNG", "GIF", "BMP", "EPS ", "PICT", "M4V", "WAV ", "M4A ", "MOV ", "AVI ", "AU ", "MP3 ", "MPEG", "MPG4", "AIFF", "8BPS", "FILE", "MAIN", "JPEG" and maybe some more.

To convert image formats, please review GraphicsMagick functions like `GImage.NewFromContainer` and `GImage.WriteToPNGContainer`.

To convert PDF to PNG, check functions like `PDFKit.GetPDFPageImage`, `DynaPDF.GeneratePreview` or `DynaPDF.RenderPage`.

This function is only for internal containers. Please use `Container.WriteFile` for all containers.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Export JPEG file:

```
MBS("Container.Export"; Files::data; "JPEG"; GetAsText(Files::data)+".jpg")
```

Export all streams in container to individual files:

```
Set Variable [ $container; Value:Test::Image ]
```

```

# where to save
Set Variable [ $DesktopFolder; Value:MBS("Folders.UserDesktop") ]
# loop over streams in container
Set Variable [ $count; Value:MBS( "Container.GetCount"; $container ) ]
Set Variable [ $index; Value:0 ]
Loop
# query the type of stream with given index
Set Variable [ $type; Value:MBS( "Container.GetType"; $container; $index ) ]
# write it to a file
Set Variable [ $path; Value:$DesktopFolder & "/" & $type ]
Set Variable [ $r; Value:MBS( "Container.Export"; $container; $index; $path ) ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop

```

Export a container to desktop:

```

# get path stored in the container field
Set Variable [ $ContainerPath ; Value: GetAsText ( Contacts::Photo Container ) ]
# get the file name portion
Set Variable [ $ContainerName ; Value: MBS( "Path.LastPathComponent"; $ContainerPath ) ]
# take a folder on the computer, e.g. desktop
Set Variable [ $DesktopFolder ; Value: MBS( "Folders.UserDesktop" ) ]
# build path with file name on that folder
Set Variable [ $FilePath ; Value: MBS( "Path.AddPathComponent"; $DesktopFolder; $ContainerName ) ]
# and export the content of container to that path
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Contacts::Photo Container; $FilePath ) ]

```

### See also

- 56.9 Container.GetCount 1655
- 56.22 Container.GetType 1672
- 56.35 Container.WriteFile 1694
- 71.120 DynaPDF.GeneratePreview 2790
- 71.320 DynaPDF.RenderPage 3093
- 82.8 Folders.UserDesktop 4235
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Mac only/Slideshow Example](#)

#### 56.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr7](#)
- [Filemaker: Export Text to File](#)

Created 18th August 2014, last changed 22nd November 2019.

## 56.7 Container.ExtractStream

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.ExtractStream"; Container; InputType { ; NewName; OutputType } )

### Parameters

#### Container

The container value to modify.

\$data

#### InputType

The input type.

"JPEG"

#### NewName

Optional

The new file name to use.

"test.psd"

#### OutputType

Optional

The output type.

"FILE"

**Result** Returns modified container value.

### Description

See Container.GetTypes to figure out what stream types a container value has.

### Examples

Extract a Photoshop image and package it like a file import:

```
MBS("Container.ExtractStream"; Test::InputContainer; "8BPS"; "test.psd"; "FILE")
```

### See also

- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 56.32 Container.RenameStream 1690

### 56.7.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.



## 56.8 Container.GetBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetBase64"; Container; Name or Index )

### Parameters

#### Container

The container field or value to inspect.

MyTable::MyContainerField

#### Name or Index

either the name of the Type or it's index

0

**Result** Returns data or error.

### Description

You must tell the plug-in which of the types in the container field you want to use. You can use either it's name (JPEG, TIFF, PNGf etc) or it's index. The index is from 0 to the count of types -1 You can use Container.GetCount to return the count of types in the container.

You can pass index zero and get data form references file in case container is a file reference.

See also Container.DecodeFromBase64.

### Examples

Get PNG image in Container as Base64:

```
MBS( "Container.GetBase64"; MyTable::MyContainerField; "PNGf" )
```

Get JPEG image in Container as Base64:

```
MBS( "Container.GetBase64"; MyTable::MyContainerField; "JPEG" )
```

From PDF in Base64 to a PNG in Base64:

```
# decode some PDF in base64 text
Set Variable [ $PDFData; Value:MBS( "Container.DecodeFromBase64"; "PDF"; PDF_ToPNG::base64_PDF;
"test.pdf" ) ]
# render first page to a picture in PNG format
Set Variable [ $PNGData; Value:MBS( "PDFKit.GetPDFPageImage"; $PDFData; 0; "PNG"; "test.png";
150; 1; 0 ) ]
# encode PNG as Base64
Set Variable [ $EncodedPNG; Value:MBS( "Container.GetBase64"; $PNGData; "PNGf" ) ]
# store text in a field
Set Field [ PDF_ToPNG::Convert_text; $EncodedPNG ]
```

**See also**

- 56.2 Container.DecodeFromBase64 1643
- 56.9 Container.GetCount 1655
- 56.17 Container.GetName 1664
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 125.15 PDFKit.GetPDFPageImage 6285

### Example Databases

- [Containers/Containers](#)

### 56.8.1 Blog Entries

- [Custom Filemaker Function: MBS\\_HTML\\_EncodeImage\\_JPG](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.9 Container.GetCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetCount"; Container )

### Parameters

#### Container

The container field or variable containing container value.

### Description

A container contains several data parts, each with an unique type. This returns the number of types in a container.

### Examples

Export all streams in container to individual files:

```
Set Variable [ $container; Value:Test::Image ]
# where to save
Set Variable [ $DesktopFolder; Value:MBS("Folders.UserDesktop") ]
# loop over streams in container
Set Variable [ $count; Value:MBS( "Container.GetCount"; $container ) ]
Set Variable [ $index; Value:0 ]
Loop
# query the type of stream with given index
Set Variable [ $type; Value:MBS( "Container.GetType"; $container; $index ) ]
# write it to a file
Set Variable [ $path; Value:$DesktopFolder & "/" & $type ]
Set Variable [ $r; Value:MBS( "Container.Export"; $container; $index; $path ) ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop
```

### See also

- 56.6 Container.Export 1649
- 56.8 Container.GetBase64 1653
- 56.11 Container.GetHeight 1658
- 56.12 Container.GetHex 1659
- 56.17 Container.GetName 1664
- 56.19 Container.GetSize 1667

- 56.20 Container.GetText 1669
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 56.25 Container.GetWidth 1678

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)

Created 18th August 2014, last changed 6th November 2018.

## 56.10 Container.GetDataURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetDataURL"; container )

### Parameters

#### container

The container field or value to inspect.

**Result** Returns Container or error.

### Description

This is very useful for displaying images in web pages. The function tries to make data urls from the images in the container field in the following order: Tiff, PNG, PDF, GIF, JPEG Unfortunately, FileMaker on Windows XP doesn't display image urls very well since it is based on Internet Explorer which doesn't like Image URLs.

In plugin version this also works for referenced JPEG images.

### Example Databases

- [Containers/Containers](#)

### 56.10.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 21st October 2017.

## 56.11 Container.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetHeight"; Container )

### Parameters

#### Container

The container field or value to inspect.

### Description

This is based on the metadata in the container (SIZE part) stored by FileMaker and not based on the actual content of the container.

### Examples

Get the Height

MBS( "Container.GetWidth" ; ContainerField )

### See also

- 56.9 Container.GetCount 1655
- 56.12 Container.GetHex 1659
- 56.13 Container.GetJPEGHeight 1660
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.25 Container.GetWidth 1678

### Example Databases

- [Containers/Containers](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.12 Container.GetHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetHex"; Container; Name or Index )

### Parameters

#### Container

The container field or value to inspect.

MyTable::MyContainerField

#### Name or Index

either the name of the Type or it's index

0

**Result** Returns data or error.

### Description

You must tell the plug-in which of the types in the container field you want to use. You can use either it's name (JPEG, TIFF, PNGf etc) or it's index. The index is from 0 to the count of types -1 You can use Container.GetCount to return the count of types in the container.

You can pass index zero and get data form references file in case container is a file reference.

### See also

- 56.9 Container.GetCount 1655
- 56.11 Container.GetHeight 1658
- 56.17 Container.GetName 1664
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 167.32 Text.EncodeToHex 7947

### 56.12.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 30th November 2016, last changed 20th May 2019.

## 56.13 Container.GetJPEGHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetJPEGHeight"; Container )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Container

The container field or value to inspect.

### Description

The height is in pixels. FileMaker always stores a copy of every image as a JPEG (unless it is already a JPEG). This function is targeting that JPEG.

### Examples

Get the height of the JPEG image

MBS( "Container.GetJPEGHeight" ; ContainerField )

### See also

- 56.11 Container.GetHeight 1658
- 56.14 Container.GetJPEGHeightResolution 1661
- 56.15 Container.GetJPEGWidth 1662

### 56.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.



## 56.14 Container.GetJPEGHeightResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetJPEGHeightResolution"; Container )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Container

The container field or value to inspect.

### Description

FileMaker always stores a copy of every image as a JPEG (unless it is already a JPEG). This function is targeting that JPEG.

### Examples

Get Height Resolution

MBS( "Container.GetJPEGHeightResolution" ; ContainerField )

### See also

- [56.13 Container.GetJPEGHeight](#) 1660
- [56.16 Container.GetJPEGWidthResolution](#) 1663

### 56.14.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.15 Container.GetJPEGWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetJPEGWidth"; Container )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Container

The container field or value to inspect.

### Description

The Width is in pixels. FileMaker always stores a copy of every image as a JPEG (unless it is already a JPEG). This function is targeting that JPEG.

### Examples

Get Width

MBS( "Container.GetJPEGWidth" ; ContainerField )

### See also

- [56.13 Container.GetJPEGHeight](#) 1660
- [56.16 Container.GetJPEGWidthResolution](#) 1663
- [56.25 Container.GetWidth](#) 1678

### 56.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.16 Container.GetJPEGWidthResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetJPEGWidthResolution"; Container )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Container

The container field or value to inspect.

### Description

FileMaker always stores a copy of every image as a JPEG (unless it is already a JPEG). This function is targeting that JPEG.

### Examples

Get width resolution

MBS( "Container.GetJPEGWidthResolution" ; ContainerField )

### See also

- [56.14 Container.GetJPEGHeightResolution](#) 1661
- [56.15 Container.GetJPEGWidth](#) 1662

### 56.16.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.17 Container.GetName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetName"; Container )

### Parameters

#### Container

The container field or value to inspect.

**Result** Returns the path list or error.

### Description

This is not the same as reading container as text.

The result may be a file path, several file paths, a file name or nothing.

### See also

- 56.8 Container.GetBase64 1653
- 56.9 Container.GetCount 1655
- 56.12 Container.GetHex 1659
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 56.25 Container.GetWidth 1678
- 56.31 Container.Rename 1688
- 193.17 XL.Book.GetPicture 9012

### 56.17.1 Blog Entries

- [Tracing MBS Filemaker Plugin](#)
- [MBS Filemaker Plugin, version 3.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.18 Container.GetResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetResolution"; Container { ; Selector } )

### Parameters

#### Container

The container field or value to inspect.

MyTable::MyContainerField

#### Selector

Optional

Optional, if you pass "x" or "y" only the requested value is returned.

"x"

**Result** Returns value or error.

### Description

This does not look into the image resolution of an image, but just in the metadata FileMaker stored there when importing the image. FileMaker stores resolution in "DPI " part in the container.

If selector x or y are passed, we return just the DPI value in x or y direction. If no selector is passed, we return list with both values. First entry is x, second y.

### Examples

Query resolution:

MBS( "Container.GetResolution"; MyTable::MyContainerField )

Example result: "300

300"

Query X resolution:

MBS( "Container.GetResolution"; MyTable::MyContainerField; "x" )

Example result: 300

Query Y resolution:

MBS( "Container.GetResolution"; MyTable::MyContainerField; "y" )

Example result: 300

### 56.18.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr3](#)



## 56.19 Container.GetSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetSize"; Container; Type )

### Parameters

#### Container

The container field or value to inspect.

#### Type

Name or index

### Description

A container contains several data parts with data and this function queries size in bytes of one of them. You must pass either the name of the type you wish to get or its index. Index start at 0.

See Container.GetTotalSize to query size of all data in a container.

### Examples

Query size of container with PNG:

```
MBS("Container.GetSize"; Images::Image; "PNGf")
```

### See also

- [56.17 Container.GetName](#) 1664
- [56.20 Container.GetText](#) 1669
- [56.21 Container.GetTotalSize](#) 1671
- [56.22 Container.GetType](#) 1672
- [56.24 Container.GetTypes](#) 1676
- [56.23 Container.GetTypeSize](#) 1674
- [56.25 Container.GetWidth](#) 1678
- [56.33 Container.Serialize](#) 1691
- [71.299 DynaPDF.Optimize](#) 3046
- [71.413 DynaPDF.SetOrientationEx](#) 3247

### Example Databases

- [DynaPDF/Optimize PDF](#)

- [GraphicsMagick/Reduce Image](#)
- [Mac and iOS/PDFKit/Compress PDF](#)

### 56.19.1 Blog Entries

- [Custom function to optimize PDF in FileMaker via DynaPDF](#)

Created 18th August 2014, last changed 6th November 2018.



## 56.20 Container.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetText"; Container; Name or Index { ; Encoding } )

### Parameters

#### Container

The container field or value to inspect.

MyTable::MyContainerField

#### Name or Index

either the name of the Type or it's index

0

#### Encoding

Optional

The text encoding for result. Default is native.

UTF8

**Result** Returns text or error.

### Description

You must tell the plug-in which of the types in the container field you want to use. You can use either it's name (JPEG, TIFF, PNGf etc) or it's index. The index is from 0 to the count of types -1 You can use Container.GetCount to return the count of types in the container.

You can pass index zero and get data form references file in case container is a file reference.

### Examples

Show main item in container:

```
Show Custom Dialog [ "Main item"; MBS("Container.GetText"; test::Test; "MAIN") ]
```

Query text of XML file in a container:

```
Set Variable [ $text ; Value: MBS( "Container.GetText"; test::test; "FILE"; "UTF-8") ]
```

### See also

- 56.8 Container.GetBase64 1653
- 56.9 Container.GetCount 1655
- 56.11 Container.GetHeight 1658
- 56.12 Container.GetHex 1659
- 56.17 Container.GetName 1664

- 56.19 Container.GetSize 1667
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 56.25 Container.GetWidth 1678

### 56.20.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 24th March 2017, last changed 20th May 2019.

## 56.21 Container.GetTotalSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetTotalSize"; Container )

### Parameters

#### Container

The container field or value to inspect.

### Description

A file is typically broken up into several object types when stored in a container field. This function returns the total size of all those objects.

### Examples

Get Total Size

MBS( "Container.GetTotalSize" ; ContainerField )

### See also

- [56.1 Container.Compress](#) 1641
- [56.5 Container.Deserialize](#) 1648
- [56.19 Container.GetSize](#) 1667
- [56.23 Container.GetTypeSize](#) 1674

### Example Databases

- [Containers/Container Compression](#)
- [Containers/Containers](#)

### 56.21.1 Blog Entries

- [Compressed Containers](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.22 Container.GetType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetType"; Container; index )

### Parameters

#### Container

The container field or value to inspect.

\$container

#### index

The index of the the item to query in the container.

0

### Description

A container contains several data parts, each with an unique type. Types are 4 character long and some types like "PDF " have an extra space.

See Container.GetTypes to query list of all types in a container.

### Examples

Export all streams in container to individual files:

```
Set Variable [ $container; Value:Test::Image ]
# where to save
Set Variable [ $DesktopFolder; Value:MBS("Folders.UserDesktop") ]
# loop over streams in container
Set Variable [ $count; Value:MBS( "Container.GetCount"; $container ) ]
Set Variable [ $index; Value:0 ]
Loop
# query the type of stream with given index
Set Variable [ $type; Value:MBS( "Container.GetType"; $container; $index ) ]
# write it to a file
Set Variable [ $path; Value:$DesktopFolder & "/" & $type ]
Set Variable [ $r; Value:MBS( "Container.Export"; $container; $index; $path ) ]
# next
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $count = $index ]
End Loop
```

### See also

- 56.9 Container.GetCount 1655
- 56.12 Container.GetHex 1659

56.22. <i>CONTAINER.GETTYPE</i>	1673
• 56.19 Container.GetSize	1667
• 56.24 Container.GetTypes	1676
• 56.23 Container.GetTypeSize	1674
• 56.25 Container.GetWidth	1678
• 56.30 Container.Remove	1686
• 56.32 Container.RenameStream	1690
• 71.120 DynaPDF.GeneratePreview	2790
• 125.7 PDFKit.GeneratePreview	6272

### 56.22.1 Blog Entries

- [MBS Filemaker Plugin 2.1 prerelease 2](#)

Created 18th August 2014, last changed 6th November 2018.

## 56.23 Container.GetTypeSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetTypeSize"; Container; Type )

### Parameters

#### Container

The container field or value to inspect.

\$container

#### Type

The type code for the type to check. e.g. "JPEG" for a jpeg image.

"JPEG"

### Description

For referenced files, this function will just return the size of the referenced file independent of the type.

See Container.GetTotalSize to query size of all data in a container.

### Examples

Get size of PNG image

```
MBS( "Container.GetTypeSize" ; ContainerField; "PNGf" )
```

Get the size of a JPEG image

```
MBS( "Container.GetTypeSize" ; ContainerField; "JPEG" )
```

Get the size of a TIFF image

```
MBS( "Container.GetTypeSize" ; ContainerField; "TIFF" )
```

### See also

- 56.1 Container.Compress 1641
- 56.4 Container.Decompress 1646
- 56.19 Container.GetSize 1667
- 56.21 Container.GetTotalSize 1671
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 71.120 DynaPDF.GeneratePreview 2790

## Example Databases

- [Containers/Containers](#)

### 56.23.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)
- [MBS Filemaker Plugin, version 3.5pr10](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)

Created 18th August 2014, last changed 6th November 2018.

## 56.24 Container.GetTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetTypes"; Container )

### Parameters

#### Container

The container field or value to inspect.

**Result** Returns types or error.

### Description

FileMaker stores a copy of the image in the container field as a JPEG if the image is not already of that type. That is why you will always see JPEG in the list of Types, even if the image in question is a PNG. This function will have "FILE" in the list of types if the image has File inserted into it.

Some of the allowed types include "TIFF", "PDF ", "PNGf", "GIFf", "BMPf", "EPS ", "PICT", "FILE" and "JPEG".

"ZLIB" is the type used by compressed containers.

This function does not work for unencrypted external containers.

### Examples

Get Types

MBS( "Container.GetTypes" ; ContainerField )

### See also

- 56.9 Container.GetCount 1655
- 56.12 Container.GetHex 1659
- 56.17 Container.GetName 1664
- 56.23 Container.GetTypeSize 1674
- 56.25 Container.GetWidth 1678
- 56.30 Container.Remove 1686
- 56.32 Container.RenameStream 1690
- 71.120 DynaPDF.GeneratePreview 2790
- 125.7 PDFKit.GeneratePreview 6272
- 193.17 XL.Book.GetPicture 9012



### Example Databases

- [Containers/Archive Container](#)
- [Containers/Container Remove Test](#)
- [Containers/Containers](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Optimize PDF](#)
- [Window/PDF from Window \(Mac\)](#)

#### 56.24.1 Blog Entries

- [FileMaker and PDF Containers](#)
- [Compressed Containers](#)
- [Filemaker: Export Text to File](#)
- [MBS Filemaker Plugin 2.1 prerelease 2](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.25 Container.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.GetWidth"; Container )

### Parameters

#### Container

The container field or value to inspect.

### Description

This is based on the metadata in the container (SIZE part) stored by FileMaker and not based on the actual content of the container.

### Examples

Get the width

MBS( "Container.GetWidth" ; ContainerField )

### See also

- 56.9 Container.GetCount 1655
- 56.11 Container.GetHeight 1658
- 56.15 Container.GetJPEGWidth 1662
- 56.17 Container.GetName 1664
- 56.19 Container.GetSize 1667
- 56.20 Container.GetText 1669
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676

### Example Databases

- [Containers/Containers](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.26 Container.IsCompressed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Container.IsCompressed"; Container )

### Parameters

#### Container

The container field or value to inspect.

**Result** Returns 1, 0 or error.

### Description

Returns 1 if compressed and 0 if not.

### See also

- [56.1 Container.Compress](#) 1641
- [56.4 Container.Decompress](#) 1646

### 56.26.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 21st October 2017, last changed 20th May 2019.

## 56.27 Container.ReadArchive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.ReadArchive"; Path )

### Parameters

#### Path

Native path to the archive file to use.

"C:\Benutzer\Christian\Desktop\test.txt"

**Result** Returns OK or error.

### Description

Please use Container.WriteArchive to create the archive. The zip file must have a special format to be read successful, so probably only archives created by Container.WriteArchive will work.

This works for any content of a container, except for referenced container files.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Reads an archive:

```
MBS("Container.ReadArchive"; "C:\Benutzer\Christian\Desktop\test.txt")
```

Writes an archive:

```
MBS("Container.WriteArchive"; MyTable::MyContainer; "C:\Benutzer\Christian\Desktop\test.txt")
```

### See also

- 56.28 Container.ReadFile 1681
- 56.34 Container.WriteArchive 1692
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Containers/Archive Container](#)

Created 21st September 2014, last changed 21st September 2014.

## 56.28 Container.ReadFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.ReadFile"; FilePath { ; mode; filename } )

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac.

`"test.txt"`

#### mode

Optional

If missing or `"auto"`, the plugin will try to detect type by file name extension. If filter is `"container"`, the result is returned as a container with a FILE stream inside. The type can be specific here like PDF, JPEG, TIFF, GIF, BMP or PSD to return as image container. Or `"compressed"` to return a compressed container.

`"Auto"`

#### filename

Optional

If result is container, this defines the file name to use.

`"test.txt"`

**Result** Returns container value or error.

### Description

Reads the data in the file and returns as container.

See also `Text.ReadTextFile` for reading text files with specific encoding.

For reading simple text files, please use `Text.ReadTextFile`.

See also `Files.ReadFile`, `Files.ReadJPEG`, `Files.ReadPDF`, `Files.ReadPNG`, `Text.ReadTextFile` and `RichText.ReadFile`.

This function is optimized for FM 14 and newer to stream file content when using auto mode. This allows to import up to 4 GB of data in small chunks.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read image file:

```
MBS( "Container.ReadFile"; "/Users/cs/Pictures/test.jpg"; "auto")
```

Read image file with error checking:

```
# get native path
Set Variable [ $path ; Value: "/Users/cs/Pictures/mond.jpg" ]
#
# read file
Set Variable [ $content ; Value: MBS( "Container.ReadFile"; $path) ]
#
# check for error
If [ MBS("IsError") = 0 ]
Set Field [ Contacts::Photo Container ; $content ]
Else
Show Custom Dialog [ "Failed to read file." ; $content ]
End If
```

### See also

- 56.27 Container.ReadArchive 1680
- 56.35 Container.WriteFile 1694
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.75 ImageCapture.ImagePaths 5074
- 93.91 ImageCapture.SetParameter 5094
- 127.6 IsError 6374
- 141.10 RichText.ReadFile 6838
- 167.49 Text.ReadTextFile 7971
- 184.8 WIA.Image 8641
- 184.9 WIA.ImageCount 8643

### Example Databases

- [DynaPDF/PDF Library](#)
- [iOS/DocumentPicker iOS](#)
- [Mac and iOS/Contacts/Contacts](#)
- [Mac only/ImageCapture/ImageCapture Dialogs](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [SQL in FileMaker/ImageGallery](#)
- [Utility functions/Trigger Script on Plugin Error](#)
- [Win Only/WIA Scan](#)

### 56.28.1 Blog Entries

- [Read HEIC or HEIF image files in FileMaker](#)
- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [ImageCapture functions for Mac OS X](#)
- [MBS FileMaker Plugin, version 6.4pr6](#)

Created 6th September 2016, last changed 24th January 2020.

## 56.29 Container.ReadImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	8.4	Yes	No	Yes, macOS only	No	No

MBS( "Container.ReadImage"; Container { ; ImageType; Filename } )

### Parameters

#### Container

The container field or value to inspect.

MyTable::MyContainerField

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image container or error.

### Description

This function is useful to read all the image formats supported by Apple's frameworks and convert them to a common format like JPEG or PNG.

Use this function to convert old PICT images in containers.

Works as well for HEIC and HEIF images.

### Examples

Convert PICT to PNG:

```
Set Field [ Test::output ; MBS("Container.ReadImage"; Test::OldImage; "PNG"; "image.png") ]
```

Read file from disk and read as image:

```
Set Field [ Batch Emailer::Inline Graphics ; MBS("Container.ReadImage"; MBS("Container.ReadFile";  
"/Users/cs/Desktop/test.heic")) ]
```

Read HEIC file:

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/IMG_3552.HEIC" ]
Set Variable [ $container ; Value: MBS( "Container.ReadFile"; $path) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $image ; Value: MBS( "Container.ReadImage"; $container; "PNG"; "image.png") ]
If [ MBS("IsError") = 0 ]
Set Field [ Untitled::image ; $image ]
End If
```



56.29. *CONTAINER.READIMAGE*

1685

End If

#### See also

- 56.28 Container.ReadFile 1681
- 127.6 IsError 6374

#### 56.29.1 Blog Entries

- [Read HEIC or HEIF image files in FileMaker](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 29th July 2018, last changed 20th August 2019.

## 56.30 Container.Remove

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Remove"; Container; Type )

### Parameters

#### Container

The container field or value to inspect.

#### Type

The type code of the stream to remove. Can be "PDF ", "JPEG" or one of the other usual types. "JPEG"

**Result** Returns modified container value or error.

### Description

This function can be used to remove the JPEG preview from an image.

Or if you have a container with PDF and preview, you could remove the PDF to just get the preview image.

Use Container.GetTypes to learn what types are inside a container.

### Examples

Renames an image to have a new file extension.

```
$jpegOnly = MBS( "Container.Remove"; $PDFContainer; "JPEG" )
```

Remove PDF from container value:

```
/* PDF produced with DynaPDF Pro will have Preview image. Removing PDF will reveal the preview: */
MBS( "Container.Remove"; FinalPDF; "PDF " )
```

### See also

- [56.22 Container.GetType](#) 1672
- [56.24 Container.GetTypes](#) 1676
- [56.31 Container.Rename](#) 1688

### Example Databases

- [Containers/Container Remove Test](#)
- [DynaPDF/Generate Previews](#)

#### 56.30.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr3](#)

56.30. *CONTAINER.REMOVE*

1687

Created 18th August 2014, last changed 20th May 2019.

## 56.31 Container.Rename

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Rename"; Container; name )

### Parameters

#### Container

The container field or value to inspect.

#### name

New file name or new path list.

"test.jpg"

**Result** Returns modified container value or error.

### Description

Does only work for normal containers, not with referenced files.

### Examples

Renames an image to have a new file extension.

```
$oldname = MBS( "Container.GetName"; $container )
$newname = substitute($oldname; ".jpg"; ".png")
$newcontainer = MBS( "Container.Rename"; $container; $newname )
```

Rename external saved container:

```
# rename field container into variable
Set Variable [ $newContainer; Value:MBS( "Container.Rename"; test::file; "test.txt" ) ]
# Put new container in field
Set Field [ test::file; $newContainer ]
# write changes to disk
Commit Records/Requests [ ]
```

### See also

- 56.17 Container.GetName 1664
- 56.30 Container.Remove 1686
- 56.32 Container.RenameStream 1690

### Example Databases

- [Containers/Rename Container](#)

### 56.31.1 Blog Entries

- [Tracing MBS Filemaker Plugin](#)
- [MBS Filemaker Plugin, version 3.0pr7](#)

Created 18th August 2014, last changed 20th May 2019.

## 56.32 Container.RenameStream

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Container.RenameStream"; Container; InputType; OutputType )

### Parameters

#### Container

The container field or value to inspect.

\$data

#### InputType

The input type.

"JPEG"

#### OutputType

The output type.

"FILE"

**Result** Returns modified container value.

### Description

See Container.GetTypes to figure out what stream types a container value has.

### Examples

Rename JPEG like a file import:

```
MBS("Container.RenameStream"; Test::InputContainer; "JPEG"; "FILE")
```

### See also

- [56.7 Container.ExtractStream](#) 1652
- [56.22 Container.GetType](#) 1672
- [56.24 Container.GetTypes](#) 1676
- [56.31 Container.Rename](#) 1688

### 56.32.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 21st October 2017.

## 56.33 Container.Serialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Container.Serialize"; Container )

### Parameters

#### Container

The container field or value to serialize.

**Result** Returns text or error.

### Description

The container content is stored in a base64 encoded string which the plugin function Container.Deserialize can read.

Does not work with external containers.

Using this function allows to store a container in a text field or transmit it with Socket functions, SerialPort functions or by writing it to a file.

### Examples

Serialize to a text field and deseralize back:

```
Set Field [ myTable::TextField ; MBS("Container.Serialize"; myTable::FirstContainerField) ]
```

```
Set Field [ myTable::OtherContainerField ; MBS("Container.Deserialize"; myTable::TextField) ]
```

### See also

- [56.5 Container.Deserialize](#) 1648
- [56.19 Container.GetSize](#) 1667

### 56.33.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 21st October 2017.

## 56.34 Container.WriteArchive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.WriteArchive"; Container; Path )

### Parameters

#### Container

The container field or value to archive.

MyTable::MyContainer

#### Path

Native path to the archive file to use.

"C:\Benutzer\Christian\Desktop\test.txt"

**Result** Returns OK or error.

### Description

This function allows you to archive whatever the container contains into a zip archive. Please use Container.ReadArchive to read back.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Reads an archive:

```
MBS("Container.ReadArchive"; "C:\Benutzer\Christian\Desktop\test.txt")
```

Writes an archive:

```
MBS("Container.WriteArchive"; MyTable::MyContainer; "C:\Benutzer\Christian\Desktop\test.txt")
```

### See also

- 56.27 Container.ReadArchive 1680
- 56.35 Container.WriteFile 1694
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Containers/Archive Container](#)



### 56.34.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr1](#)

Created 21st September 2014, last changed 21st October 2017.

## 56.35 Container.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
56 Container	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "Container.WriteFile"; Data; FilePath )

### Parameters

#### Data

The container field or value to save.

\$Image

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.jpg"` on Mac and `"C:\Programs\Data\test.jpg"` on Windows. Files without path end in the root directory on Mac.

`"test.jpg"`

**Result** Returns OK or error.

### Description

See also `Files.WriteFile` for more options.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read a file and write it elsewhere

```
Set Variable [ $Image; Value:MBS( "Container.ReadFile"; "/Users/cs/Pictures/Test.jpg" ) ]
Set Variable [ $r; Value:MBS( "Container.WriteFile"; $Image; "/Users/cs/Desktop/target.jpg" ) ]
```

Export a container to desktop:

```
# get path stored in the container field
Set Variable [ $ContainerPath ; Value: GetAsText ( Contacts::Photo Container ) ]
# get the file name portion
Set Variable [ $ContainerName ; Value: MBS( "Path.LastPathComponent"; $ContainerPath ) ]
# take a folder on the computer, e.g. desktop
Set Variable [ $DesktopFolder ; Value: MBS( "Folders.UserDesktop" ) ]
# build path with file name on that folder
Set Variable [ $FilePath ; Value: MBS( "Path.AddPathComponent"; $DesktopFolder; $ContainerName ) ]
# and export the content of container to that path
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Contacts::Photo Container; $FilePath ) ]
```

Write a HTML file and an image file to load in web viewer:

```
Set Variable [ $folder ; Value: MBS( "Folders.UserTemporary" ) ]
```

```

Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.jpg" ) ]
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Images::Image; $path ) ]
#
Set Variable [ $html ; Value: "<html><body><p>Hello World</p><img src=test.jpg width=300></body></html>" ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.html" ) ]
Set Variable [ $r ; Value: MBS( "Text.WriteTextFile"; $html; $path ) ]
#
Set Variable [ $URL ; Value: MBS( "Path.FilePathToFileURL"; $Path ) ]
Set Web Viewer [ Object Name: "web" ; URL: $URL ]

```

**See also**

- 56.28 Container.ReadFile 1681
- 56.34 Container.WriteArchive 1692
- 79.62 Files.WriteFile 3925
- 93.80 ImageCapture.PDF 5080
- 108.59 MapView.Screenshot 5791
- 124.1 Path.AddPathComponent 6243
- 124.5 Path.LastPathComponent 6252
- 144.9 Screenshot 6959
- 144.10 ScreenshotRect 6961
- 167.68 Text.WriteTextFile 7999

**Example Databases**

- [CURL/Email/IMAP Email](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Signature Appearance](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView](#)

**56.35.1 Blog Entries**

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [Storing files for download on FileMaker Server with download URLs](#)
- [Xojo Web Apps on FileMaker Cloud Server](#)
- [MBS FileMaker Plugin, version 6.4pr6](#)

### **56.35.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 31
- Ausgabe 6/2018, Seite 30

Created 6th September 2016, last changed 23th February 2020.

# Chapter 57

## ContinuityCamera

A panel for iOS to select or take picture.

You can take a new picture via camera, record video or pick an existing picture.

### 57.1 ContinuityCamera.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Clear" )

**Result** Returns OK or error.

**Description**

**See also**

- 94.2 ContinuityCamera.Import 5102
- 94.4 ContinuityCamera.Result 5105

Created 3th April 2019, last changed 6th January 2020.

## 57.2 ContinuityCamera.Import

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Import"; Type )

### Parameters

#### Type

Pass 0 for Photo (default) or 1 for document.

0

**Result** Returns OK or error.

### Description

#### Examples

Import photo:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.Import";0) ]
```

Import document:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.Import"; 1) ]
```

### See also

- [94.1 ContinuityCamera.Clear](#) 5101
- [94.4 ContinuityCamera.Result](#) 5105

### Example Databases

- [Mac only/ContinuityCamera](#)

#### 57.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

#### 57.2.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 36

Created 3th April 2019, last changed 6th January 2020.

## 57.3 ContinuityCamera.PopupMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.PopupMenu"; mode { ; x; y; window; item; objectName } )

### Parameters

#### mode

The mode to use. Can be "mouse", "screen" or "window". Default is mouse for leaving away the parameter or passing empty text. Version 8.3 adds mode "content" to make it relative to the content part of the window, below toolbars.

"mouse"

#### x

Optional

The relative x coordinates for the position relative to the mouse, screen or window.

0

#### y

Optional

The relative y coordinates for the position relative to the mouse, screen or window.

0

#### window

Optional

The window reference for the showing menu relative to a window.

\$window

#### item

Optional

The menu item to be positioned at the specified location in the view.

\$item

#### objectName

Optional

The object name for mode=object.

"web"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if item was selected or 0 if not.

### Example Databases

- [Mac only/ContinuityCamera](#)

### 57.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr3](#)

### 57.3.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 37

Created 7th April 2019, last changed 6th January 2020.



## 57.4 ContinuityCamera.Result

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Result" { ; FileName } )

### Parameters

#### FileName

Optional

File name to use.

"test.jpg"

**Result** Returns container value or error.

### Description

The result may be PNG, PDF, JPEG or TIFF document.

Usually documents come as PDF and images as JPEG.

### Examples

Write result to container field:

Set Field [ ContinuityCamera::Image ; MBS("ContinuityCamera.Result") ]

### See also

- [94.1 ContinuityCamera.Clear](#) 5101
- [94.2 ContinuityCamera.Import](#) 5102

### Example Databases

- [Mac only/ContinuityCamera](#)

#### 57.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

#### 57.4.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 37](#)
- [Ausgabe 6/2019, Seite 36](#)

Created 3th April 2019, last changed 6th January 2020.

## 57.5 ContinuityCamera.SetScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.SetScriptTrigger"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

When some picture or document is available, we call the script.

Parameter to the script is currently the document type, e.g. JPEG, TIFF or PDF.

### Examples

Set trigger:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.SetScriptTrigger"; Get(FileName); "ContinuityCamera-Trigger") ]
```

### Example Databases

- [Mac only/ContinuityCamera](#)

### 57.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

### 57.5.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 36](#)

Created 31st March 2019, last changed 6th January 2020.

# Chapter 58

## CoreImage

Core Image Process on Mac

### 58.1 CoreImage.Detect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
58 CoreImage	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreImage.Detect"; Image; Type { ; Options } )

#### Parameters

##### Image

The image to check. Pass container here with image.

##### Type

The type of recognizer to use. Can be Face, Rectangle, Text or QRCode.

"Face"

##### Options

Optional

List of options. If EyeBlink is included, facial expressions, such as blinking and closed eyes are extracted. If Smile is included, facial expressions, such as smile are extracted.

"EyeBlink\$Smile"

**Result** Returns JSON or error.

#### Description

This function can do face recognition, find text or rectangle areas and read barcodes.

Result is a JSON structure with all the results.

See also [Vision.RecognizeText](#), [Vision.DetectBarcode](#) and [Vision.ClassifyImage](#).

Type	macOS Versions	iOS Versions	Description
Face	macOS 10.7 or newer	iOS 5.0 and newer	Detects faces and eyes
Rectangle	macOS 10.10 or newer	iOS 8.0 and newer	Detects rectangles
QRCode	macOS 10.10 or newer	iOS 8.0 and newer	Detects barcodes
Text	macOS 10.11 or newer, 64-bit only	iOS 9.0 and newer	Detects text areas

### See also

- [44.1 Barcode.Detect](#) 1171
- [182.1 Vision.ClassifyImage](#) 8401
- [182.2 Vision.DetectBarcode](#) 8403
- [182.4 Vision.RecognizeText](#) 8406

### Example Databases

- [Mac and iOS/Machine Learning/Core Image Detection](#)

#### 58.1.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr1](#)
- [Face detection via CoreImage in FileMaker](#)

Created 21st July 2017, last changed 19th August 2019.

# Chapter 59

## CoreLocation

Query location of a Mac..

See also CLGeocoder functions.

### 59.1 CoreLocation.ClearFailHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.ClearFailHandler" )

**Result** Returns OK or error.

#### Description

See also

- 59.6 CoreLocation.SetFailHandler

1710

#### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.2 CoreLocation.ClearUpdateLocationHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.ClearUpdateLocationHandler" )

**Result** Returns OK or error.

### Description

### See also

- 59.7 CoreLocation.SetUpdateLocationEvaluate 1711
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.3 CoreLocation.RegionMonitoringAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	Yes	No	No	No	Yes

MBS( "CoreLocation.RegionMonitoringAvailable" )

**Result** Returns 1, 0 or error.

### Description

Support for region monitoring may not be available on all devices and models. You should check the value of this property before attempting to set up any regions or initiate region monitoring.

Even if region monitoring support is present on a device, it may still be unavailable because the user disabled it for the current app or for all apps.

### See also

- 59.4 CoreLocation.RegionMonitoringEnabled

1708

Created 17th February 2019, last changed 17th February 2019.

## 59.4 CoreLocation.RegionMonitoringEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	Yes	No	No	No	Yes

MBS( "CoreLocation.RegionMonitoringEnabled" )

**Result** Returns 1, 0 or error.

### Description

In iOS, the user can enable or disable location services (including region monitoring) using the controls in Settings >Location Services.

You should check the return value of this method before starting region monitoring updates to determine whether the user currently allows location services to be used at all. If this method returns false and you start region monitoring updates anyway, the Core Location framework prompts the user to confirm asking whether location services should be reenabled.

This method does not check to see if region monitoring capabilities are actually supported by the device. Therefore, you should also check the return value of the `regionMonitoringAvailable()` class method before attempting to start region monitoring services.

### See also

- 59.3 CoreLocation.RegionMonitoringAvailable

1707

Created 17th February 2019, last changed 17th February 2019.



## 59.5 CoreLocation.SetFailEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	6.2	Yes	No	No	No	Yes

MBS( "CoreLocation.SetFailEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

#### See also

- 59.6 CoreLocation.SetFailHandler

1710

### 59.5.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 4th April 2018.

## 59.6 CoreLocation.SetFailHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	No	No	Yes

MBS( "CoreLocation.SetFailHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker file that contains the script  
Get(FileName)

#### ScriptName

The name of the script to run

**Result** Returns OK or error.

### Description

Scriptparameter is a localized error message.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers drag action handler:

```
MBS( "CoreLocation.SetFailHandler"; Get ( FileName ); "CoreLocationError"
```

### See also

- [59.1 CoreLocation.ClearFailHandler](#) 1705
- [59.5 CoreLocation.SetFailEvaluate](#) 1709

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 9th November 2018.

## 59.7 CoreLocation.SetUpdateLocationEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	6.2	Yes	No	No	No	Yes

MBS( "CoreLocation.SetUpdateLocationEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

You can query current location with the other location functions.

You don't need to install this evaluation to read location. You can always simply call location functions to get last known location.

### See also

- [59.2 CoreLocation.ClearUpdateLocationHandler](#) 1706
- [59.8 CoreLocation.SetUpdateLocationHandler](#) 1712

### 59.7.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 4th April 2018.

## 59.8 CoreLocation.SetUpdateLocationHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	No	No	Yes

MBS( "CoreLocation.SetUpdateLocationHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script  
"test.fp7"

#### ScriptName

The name of the script to run  
"MyScript"

**Result** Returns OK or error.

### Description

You can query current location with the other location functions.

You don't need to install this script call to read location. You can always simply call location functions to get last known location.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers drag action handler:

```
MBS( "CoreLocation.SetUpdateLocationHandler"; Get ( FileName ); "CoreLocationUpdate"
```

### See also

- 59.9 CoreLocation.altitude 1714
- 59.2 CoreLocation.ClearUpdateLocationHandler 1706
- 59.11 CoreLocation.course 1716
- 59.12 CoreLocation.description 1717
- 59.19 CoreLocation.horizontalAccuracy 1724
- 59.20 CoreLocation.latitude 1725
- 59.7 CoreLocation.SetUpdateLocationEvaluate 1711
- 59.31 CoreLocation.speed 1736

59.8. <i>CORELOCATION.SETUPDATELOCATIONHANDLER</i>	1713
• 59.38 CoreLocation.timestamp	1743
• 59.39 CoreLocation.verticalAccuracy	1744

### **Example Databases**

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 27th January 2016.

## 59.9 CoreLocation.altitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.altitude" )

**Result** Returns altitude as number.

### Description

Positive values indicate altitudes above sea level. Negative values indicate altitudes below sea level. This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

Returns zero if not location is available. See CoreLocation.hasLocation function.

### See also

- 59.17 CoreLocation.hasLocation 1722
- 59.20 CoreLocation.latitude 1725
- 59.22 CoreLocation.longitude 1727
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 12nd September 2019.

## 59.10 CoreLocation.authorizationStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	Yes	No	No	No	Yes

MBS( "CoreLocation.authorizationStatus" )

**Result** Returns status or error.

### Description

The authorization status of a given app is managed by the system and determined by several factors. Apps must be explicitly authorized to use location services by the user and location services must themselves currently be enabled for the system. A request for user authorization is displayed automatically when your app first attempts to use location services.

notDetermined	The user has not yet made a choice regarding whether this app can use location services.
restricted	This app is not authorized to use location services.
denied	The user explicitly denied the use of location services for this app or location services are currently disabled in Settings.
authorizedAlways	This app is authorized to start location services at any time.
authorizedWhenInUse	This app is authorized to start most location services while running in the foreground.

Created 17th February 2019, last changed 17th February 2019.

## 59.11 CoreLocation.course

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.course" )

**Result** Returns direction number.

### Description

Course values are measured in degrees starting at due north and continuing clockwise around the compass. Thus, north is 0 degrees, east is 90 degrees, south is 180 degrees, and so on. Course values may not be available on all devices. A negative value indicates that the direction is invalid.

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.23 CoreLocation.purpose 1728
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.



## 59.12 CoreLocation.description

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.description" )

**Result** Returns description.

### Description

A string of the form "«latitude>, <longitude>» +/- <accuracy>m (speed <speed>kph / heading <heading>) @ <date-time>", where <latitude>, <longitude>, <accuracy>, <speed>, and <heading>are formatted floating point numbers and <date-time>is a formatted date string that includes date, time, and time zone information.

The returned string is intended for display purposes only.

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.17 CoreLocation.hasLocation 1722
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.13 CoreLocation.desiredAccuracy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.desiredAccuracy" )

**Result** Returns value or error.

**Description**

**See also**

- 59.27 CoreLocation.setDesiredAccuracy 1732
- 59.39 CoreLocation.verticalAccuracy 1744

Created 18th August 2014, last changed 18th August 2014.

## 59.14 CoreLocation.dismissHeadingCalibrationDisplay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.dismissHeadingCalibrationDisplay" )

**Result** Returns OK or error.

### Description

Core Location uses the heading calibration alert to calibrate the available heading hardware as needed. The display of this view is automatic, assuming your delegate supports displaying the view at all. If the view is displayed, you can use this method to dismiss it after an appropriate amount of time to ensure that your app's user interface is not unduly disrupted.

Created 17th February 2019, last changed 17th February 2019.

## 59.15 CoreLocation.distanceFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.distanceFilter" )

**Result** Returns value or error.

**Description**

**See also**

- 59.28 CoreLocation.setDistanceFilter

1733

Created 18th August 2014, last changed 18th August 2014.

**59.16 CoreLocation.distanceFromLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.distanceFromLocation"; latitude; longitude )

**Parameters****latitude**

The latitude value for the geo coordinate.

51.50939

**longitude**

The latitude value for the geo coordinate.

-0.11832

**Result** Returns distance in meters.

**Description**

This method measures the distance between the two locations by tracing a line between them that follows the curvature of the Earth. The resulting arc is a smooth curve and does not take into account specific altitude changes between the two locations.

**Examples**

Return distance from London

MBS( "CoreLocation.distanceFromLocation"; 51.50939, -0.11832)

**Example Databases**

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.17 CoreLocation.hasLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.hasLocation" )

**Result** Returns 1 or 0 or error.

### Description

You may need to call `CoreLocation.startUpdatingLocation` to start getting locations.

### See also

- 59.9 `CoreLocation.altitude` 1714
- 59.12 `CoreLocation.description` 1717
- 59.20 `CoreLocation.latitude` 1725
- 59.22 `CoreLocation.longitude` 1727
- 59.25 `CoreLocation.requestLocation` 1730
- 59.34 `CoreLocation.startUpdatingLocation` 1739

### 59.17.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr8](#)

Created 12nd September 2019, last changed 12nd September 2019.

## 59.18 CoreLocation.headingAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.headingAvailable" )

**Result** Returns 1 if heading data is available; 0 if it is not.

### Description

Heading data may not be available on Macs.

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.19 CoreLocation.horizontalAccuracy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.horizontalAccuracy" )

**Result** Returns the horizontal accuracy value.

### Description

The location's latitude and longitude identify the center of the circle, and this value indicates the radius of that circle. A negative value indicates that the location's latitude and longitude are invalid.

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.8 CoreLocation.SetUpdateLocationHandler 1712
- 59.39 CoreLocation.verticalAccuracy 1744

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.



## 59.20 CoreLocation.latitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.latitude" )

**Result** Returns latitude of geo coordinate.

### Description

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

Returns zero if not location is available. See CoreLocation.hasLocation function.

### See also

- 59.9 CoreLocation.altitude 1714
- 59.17 CoreLocation.hasLocation 1722
- 59.22 CoreLocation.longitude 1727
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 12nd September 2019.

## 59.21 CoreLocation.locationServicesEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.locationServicesEnabled" )

**Result** Returns 1 if location services are enabled or 0 if they are not.

### Description

The user can enable or disable location services altogether from the Settings application by toggling the switch in Settings >General >Location Services.

You should check the return value of this method before starting location updates to determine if the user has location services enabled for the current device. If this method returns 0 and you start location updates anyway, the Core Location framework prompts the user with a confirmation panel asking whether location services should be reenabled.

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.22 CoreLocation.longitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.longitude" )

**Result** Returns longitude of geo coordinate.

### Description

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

Returns zero if not location is available. See CoreLocation.hasLocation function.

### See also

- 59.9 CoreLocation.altitude 1714
- 59.17 CoreLocation.hasLocation 1722
- 59.20 CoreLocation.latitude 1725
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 12nd September 2019.

## 59.23 CoreLocation.purpose

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.purpose" )

**Result** Returns the purpose text.

### Description

If the value of this property is non-nil, the system includes the string in the dialog that asks the user whether it is all right for your application to use location services. The string gives you a chance to explain the reason for why your application is using location services.

You must set the value of this property prior to calling the `CoreLocation.startUpdatingLocation` method. Because the string is ultimately displayed to the user, you should always load it from a localized strings file. Available in Mac OS X v10.7 and later.

### See also

- 59.11 `CoreLocation.course` 1716
- 59.29 `CoreLocation.setPurpose` 1734
- 59.34 `CoreLocation.startUpdatingLocation` 1739

Created 18th August 2014, last changed 18th August 2014.

## 59.24 CoreLocation.requestAlwaysAuthorization

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.requestAlwaysAuthorization" )

**Result** Returns OK or error.

### Description

When the current authorization status is notDetermined, this method runs asynchronously and prompts the user to grant permission to the app to use location services. The user prompt contains the text from the NSLocationAlwaysUsageDescription key in your app's Info.plist file, and the presence of that key is required when calling this method.

See also

<https://developer.apple.com/documentation/corelocation/cllocationmanager/1620551-requestalwaysauthorization>

### See also

- 59.26 CoreLocation.requestWhenInUseAuthorization

1731

Created 17th February 2019, last changed 17th February 2019.

## 59.25 CoreLocation.requestLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.requestLocation" )

**Result** Returns OK or error.

### Description

This method returns immediately. Calling it causes the location manager to obtain a location fix (which may take several seconds).

### See also

- 59.17 CoreLocation.hasLocation

1722

Created 17th February 2019, last changed 17th February 2019.

## 59.26 CoreLocation.requestWhenInUseAuthorization

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.requestWhenInUseAuthorization" )

**Result** Returns OK or error.

### Description

When the current authorization status is notDetermined, this method runs asynchronously and prompts the user to grant permission to the app to use location services. The user prompt contains the text from the NSLocationWhenInUseUsageDescription key in your app's Info.plist file, and the presence of that key is required when calling this method.

### See also

- 59.24 CoreLocation.requestAlwaysAuthorization

1729

Created 17th February 2019, last changed 17th February 2019.

## 59.27 CoreLocation.setDesiredAccuracy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.setDesiredAccuracy"; Accuracy )

### Parameters

#### Accuracy

The new value. Can be a number or the following text strings: Best, NearestTenMeters, HundredMeters, Kilometer and ThreeKilometers. Default is "best".

123

**Result** Returns OK or error.

### Description

The receiver does its best to achieve the requested accuracy; however, the actual accuracy is not guaranteed. You should assign a value to this property that is appropriate for your usage scenario. In other words, if you need only the current location within a few kilometers, you should not specify "best" for the accuracy. Determining a location with greater accuracy requires more time and more power.

When requesting high accuracy location data, the initial event delivered by the location service may not have the accuracy you requested. The location service delivers the initial event as quickly as possible. It then continues to determine the location with the accuracy you requested and delivers additional events, as necessary, when that data is available.

### See also

- 59.13 CoreLocation.desiredAccuracy 1718
- 59.39 CoreLocation.verticalAccuracy 1744

Created 18th August 2014, last changed 18th August 2014.



**59.28 CoreLocation.setDistanceFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.setDistanceFilter"; value )

**Parameters****value**

The distance. Either a number or text "none".

123

**Result** Returns OK or error.

**Description**

This distance is measured relative to the previously delivered location. Use the value "none" to be notified of all movements.

The default value of this property is "none".

**See also**

- 59.15 CoreLocation.distanceFilter

1720

Created 18th August 2014, last changed 18th August 2014.

## 59.29 CoreLocation.setPurpose

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.setPurpose"; text )

### Parameters

#### text

Your purpose message.

"For tracking your location."

**Result** Returns "OK" or error.

### Description

If the value of this property is non-nil, the system includes the string in the dialog that asks the user whether it is all right for your application to use location services. The string gives you a chance to explain the reason for why your application is using location services.

You must set the value of this property prior to calling the `CoreLocation.startUpdatingLocation` method. Because the string is ultimately displayed to the user, you should always load it from a localized strings file. Available in Mac OS X v10.7 and later.

### See also

- 59.23 `CoreLocation.purpose` 1728
- 59.34 `CoreLocation.startUpdatingLocation` 1739

Created 18th August 2014, last changed 18th August 2014.

## 59.30 CoreLocation.significantLocationChangeMonitoringAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.significantLocationChangeMonitoringAvailable" )

**Result** Returns 1 if location change monitoring is available; 0 if it is not.

### Description

This method indicates whether the device is able to report updates based on significant location changes only. (Significant location change monitoring primarily involves detecting changes in the cell tower currently associated with the device.) This capability provides tremendous power savings for applications that want to track a user's approximate location and do not need highly accurate position information.

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.31 CoreLocation.speed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.speed" )

**Result** Returns speed value.

### Description

This value reflects the instantaneous speed of the device in the direction of its current heading. A negative value indicates an invalid speed. Because the actual speed can change many times between the delivery of subsequent location events, you should use this property for informational purposes only.

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

**59.32 CoreLocation.startMonitoringSignificantLocationChanges**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.startMonitoringSignificantLocationChanges" )

**Result** Returns OK or error.

**Description**

This method initiates the delivery of location events asynchronously, returning shortly after you call it. Location events are delivered to your `didUpdateLocation` script. The first event to be delivered is usually the most recently cached location event (if any) but may be a newer event in some circumstances. Obtaining a current location fix may take several additional seconds, so be sure to check the timestamps on the location events in your delegate method.

Your fail script may be called if an error occurs.

**See also**

- 59.35 CoreLocation.stopMonitoringSignificantLocationChanges 1740

Created 18th August 2014, last changed 18th August 2014.

## 59.33 CoreLocation.startUpdatingHeading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.startUpdatingHeading" )

**Result** Returns OK or error.

### Description

This method returns immediately. Calling this method when the receiver is stopped causes it to obtain an initial heading and notify your delegate. After that, the receiver generates update events when the value in the headingFilter property is exceeded.

Before calling this method, you should always check the headingAvailable property to see whether heading information is supported on the current device. If heading information is not supported, calling this method has no effect and does not result in the delivery of events to your delegate.

Calling this method several times in succession does not automatically result in new events being generated. Calling stopUpdatingHeading() in between, however, does cause a new initial event to be sent the next time you call this method.

If you start this service and your app is suspended, the system stops the delivery of events until your app starts running again (either in the foreground or background). If your app is terminated, the delivery of new heading events stops altogether and must be restarted by your code when the app is relaunched.

### See also

- 59.34 CoreLocation.startUpdatingLocation 1739
- 59.36 CoreLocation.stopUpdatingHeading 1741
- 59.37 CoreLocation.stopUpdatingLocation 1742

Created 17th February 2019, last changed 17th February 2019.

**59.34 CoreLocation.startUpdatingLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.startUpdatingLocation" )

**Description**

This method returns immediately. Calling this method when the receiver is stopped causes it to obtain an initial location fix (which may take several seconds) and notify your script. After that, the receiver generates update events primarily when the value in the distanceFilter property is exceeded. Updates may be delivered in other situations though. For example, the receiver may send another notification if the hardware gathers a more accurate location reading.

Calling this method several times in succession does not automatically result in new events being generated. Calling stopUpdatingLocation in between, however, does cause a new initial event to be sent the next time you call this method.

Available in Mac OS X v10.6 and later.

**See also**

- 59.17 CoreLocation.hasLocation 1722
- 59.23 CoreLocation.purpose 1728
- 59.29 CoreLocation.setPurpose 1734
- 59.33 CoreLocation.startUpdatingHeading 1738
- 59.36 CoreLocation.stopUpdatingHeading 1741
- 59.37 CoreLocation.stopUpdatingLocation 1742

**Example Databases**

- [Mac and iOS/CoreLocation/CoreLocation](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.35 CoreLocation.stopMonitoringSignificantLocationChanges

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.stopMonitoringSignificantLocationChanges" )

**Result** Returns OK or error.

### Description

Use this method to stop the delivery of location events that was started using the CoreLocation.startMonitoringSignificantLocationChanges method.

### See also

- 59.32 CoreLocation.startMonitoringSignificantLocationChanges 1737

Created 18th August 2014, last changed 18th August 2014.



## 59.36 CoreLocation.stopUpdatingHeading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	9.1	No	No	No	No	Yes

MBS( "CoreLocation.stopUpdatingHeading" )

**Result** Returns OK or error.

### Description

Call this method whenever your code no longer needs to receive heading-related events. Disabling event delivery gives the receiver the option of disabling the appropriate hardware (and thereby saving power) when no clients need location data. You can always restart the generation of heading updates by calling the startUpdatingHeading() method again.

### See also

- 59.33 CoreLocation.startUpdatingHeading 1738
- 59.34 CoreLocation.startUpdatingLocation 1739
- 59.37 CoreLocation.stopUpdatingLocation 1742

Created 17th February 2019, last changed 17th February 2019.

## 59.37 CoreLocation.stopUpdatingLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.stopUpdatingLocation" )

**Result** Returns "OK" or error.

### Description

You should call this method whenever your code no longer needs to receive location-related events. Disabling event delivery gives the receiver the option of disabling the appropriate hardware (and thereby saving power) when no clients need location data. You can always restart the generation of location updates by calling the CoreLocation.startUpdatingLocation method again.

### See also

- [59.33 CoreLocation.startUpdatingHeading](#) 1738
- [59.34 CoreLocation.startUpdatingLocation](#) 1739
- [59.36 CoreLocation.stopUpdatingHeading](#) 1741

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.38 CoreLocation.timestamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.timestamp" )

**Result** Returns the timestamp.

### Description

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)

Created 18th August 2014, last changed 18th August 2014.

## 59.39 CoreLocation.verticalAccuracy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
59 CoreLocation	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreLocation.verticalAccuracy" )

**Result** Returns the vertical accuracy value.

### Description

The value in the altitude property could be plus or minus the value indicated by this property. A negative value indicates that the altitude value is invalid.

Determining the vertical accuracy requires a device with GPS capabilities.

This function queries current know location. It's updated from time to time. To receive a script call when new location is available, please use CoreLocation.SetUpdateLocationHandler.

### See also

- 59.13 CoreLocation.desiredAccuracy 1718
- 59.19 CoreLocation.horizontalAccuracy 1724
- 59.27 CoreLocation.setDesiredAccuracy 1732
- 59.8 CoreLocation.SetUpdateLocationHandler 1712

### Example Databases

- [Mac and iOS/CoreLocation/CoreLocation](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 18th August 2014.

# Chapter 60

## CoreML

macOS 10.13 and iOS 11 functions for machine learning.

### 60.1 CoreML.Add2DArrayParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	10.2	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Add2DArrayParameter"; CoreMLRef; Name; Size1; Size2; Values; Type )

#### Parameters

##### CoreMLRef

The reference number to the model.

\$Model

##### Name

The name of the parameter.

"test"

##### Size1

Size of first dimension.

123

##### Size2

Size of second dimension.

234

##### Values

The list with values. For floating values, please use dot as decimal separator.

"1\$3\$5"

##### Type

The type of array to pass. Can be Double, Float or Int32.  
"Int32"

**Result** Returns OK or error.

### Description

Please pass list of values for the whole array, e.g. Size1 \* Size2 values.

If you pass too many values, we ignore that and if you pass too few, we simply don't set the remaining values.

### Examples

Add one 2D array parameters:

```
Set Variable [ $r; Value: MBS( "CoreML.AddArrayParameter"; $CoreMLRef; "values"; 2; 2; "1.2$1.5$1.8$2.9";
"double" ) ]
```

Set parameters for BERT-SQuAD mlmodel:

```
MBS("CoreML.Add2DArrayParameter"; $$ML; "wordIDs" ; 1; 384; CoreML::wordsIDs; "double")
MBS("CoreML.Add2DArrayParameter"; $$ML; "wordTypes" ; 1; 384; CoreML::wordTypes; "double")
```

### See also

- 60.2 CoreML.AddArrayParameter 1747
- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751

## 60.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 23th April 2020, last changed 25th April 2020.

## 60.2 CoreML.AddArrayParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddArrayParameter"; CoreMLRef; Name; Values; Type )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Values

The list with values. For floating values, please use dot as decimal separator.

"1\$3\$5"

#### Type

The type of array to pass. Can be Double, Float or Int32.

"Int32"

**Result** Returns OK or error.

### Description

Please pass list of values for the whole array as we pick the size by the numbers of values.

Please use CoreML.Add2DArrayParameter for 2D arrays.

### Examples

Add two array parameters:

```
Set Variable [ $r; Value: MBS( "CoreML.AddArrayParameter"; $CoreMLRef; "wordIDs"; "1.2$1.5$1.8"; "double" ) ]
```

```
Set Variable [ $r; Value: MBS( "CoreML.AddArrayParameter"; $CoreMLRef; "wordTypes"; "2.1$3.4$5.7"; "double" ) ]
```

### See also

- [60.1 CoreML.Add2DArrayParameter](#) 1745
- [60.3 CoreML.AddDoubleParameter](#) 1748
- [60.4 CoreML.AddImageParameter](#) 1749
- [60.5 CoreML.AddIntegerParameter](#) 1751
- [60.6 CoreML.AddTextParameter](#) 1752

Created 16th September 2017, last changed 23th April 2020.

## 60.3 CoreML.AddDoubleParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddDoubleParameter"; CoreMLRef; Name; Value )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Value

The value to use.

123

**Result** Returns OK or error.

### Description

#### See also

- 60.1 CoreML.Add2DArrayParameter 1745
- 60.2 CoreML.AddArrayParameter 1747
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751
- 60.6 CoreML.AddTextParameter 1752

Created 16th September 2017, last changed 16th September 2017.



## 60.4 CoreML.AddImageParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddImageParameter"; CoreMLRef; Name; Image )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Image

A container value with image content. Can be PNG, JPEG, GIF, TIFF, BMP or various other types.

**Result** Returns OK or error.

### Description

Please make sure that the image has the required size.

Version 8.4 automatically scales image to required size.

### Examples

Add image parameter:

```
Set Variable [ $r ; Value: MBS("CoreML.AddImageParameter"; $$ML; "image"; CoreML::Input Picture) ]
```

### See also

- [60.1 CoreML.Add2DArrayParameter](#) 1745
- [60.2 CoreML.AddArrayParameter](#) 1747
- [60.3 CoreML.AddDoubleParameter](#) 1748
- [60.5 CoreML.AddIntegerParameter](#) 1751
- [60.6 CoreML.AddTextParameter](#) 1752
- [60.14 CoreML.PredictionFromFeatures](#) 1764

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

### 60.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr9](#)

Created 16th September 2017, last changed 16th September 2018.

## 60.5 CoreML.AddIntegerParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddIntegerParameter"; CoreMLRef; Name; Value )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Value

The value to use.

123

**Result** Returns OK or error.

### Description

#### See also

- 60.1 CoreML.Add2DArrayParameter 1745
- 60.2 CoreML.AddArrayParameter 1747
- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.6 CoreML.AddTextParameter 1752
- 60.7 CoreML.AddUndefinedParameter 1753

Created 16th September 2017, last changed 16th September 2017.

## 60.6 CoreML.AddTextParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddTextParameter"; CoreMLRef; Name; Value )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Value

The text value to use.

"Hello"

**Result** Returns OK or error.

### Description

#### See also

- 60.2 CoreML.AddArrayParameter 1747
- 60.3 CoreML.AddDoubleParameter 1748
- 60.4 CoreML.AddImageParameter 1749
- 60.5 CoreML.AddIntegerParameter 1751

Created 16th September 2017, last changed 16th September 2017.

## 60.7 CoreML.AddUndefinedParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.AddUndefinedParameter"; CoreMLRef; Name { ; Type } )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"test"

#### Type

Optional

Default value type to use is invalid. Can be Int64, Double, Text, Image or Array.

"Text"

**Result** Returns OK or error.

### Description

### See also

- 60.5 CoreML.AddIntegerParameter

1751

Created 16th September 2017, last changed 16th September 2017.

## 60.8 CoreML.Available

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Available" )

**Result** Returns 1, 0 or error.

### Description

Should return 1 on macOS 10.13 or newer or 0 on other versions.

### Examples

Check availability:

```
If [ MBS("CoreML.Available") = 1 ]
Show Custom Dialog [ "Core ML not available" ; "Please run on macOS 10.13 High Sierra" ]
Exit Script [ Text Result: "" ]
End If
```

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

Created 16th September 2017, last changed 16th September 2017.

## 60.9 CoreML.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Clear"; CoreMLRef )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

**Result** Returns OK or error.

### Description

### Examples

Clear parameters:

Set Variable [ \$r ; Value: MBS("CoreML.Clear"; \$\$ML) ]

### See also

- 60.14 CoreML.PredictionFromFeatures

1764

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

Created 16th September 2017, last changed 16th September 2017.

## 60.10 CoreML.CompileModel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.CompileModel"; Path )

### Parameters

#### Path

The native file path to the model.

"/Users/cs/Desktop/test.mlmodel"

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Compile model when needed:

```

If [ Right ( CoreML::Model Path; 8 ) = ".mlmodel" ]
Set Variable [ $r ; Value: MBS("CoreML.CompileModel"; CoreML::Model Path) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to compile" ; $r ]
Set Variable [ $$ML ; Value: "" ]
Else
Set Field [ CoreML::Model Path ; $r ]
End If
End If

```

Compile a model:

```
MBS( "CoreML.CompileModel"; "/Users/cs/Desktop/UpdatableDrawingClassifier.mlmodel" )
```

### See also

- 60.13 CoreML.OpenModel 1762
- 127.6 IsError 6374
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)



- [Mac and iOS/Machine Learning/CoreML](#)

Created 16th September 2017, last changed 16th December 2019.

## 60.11 CoreML.Description

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Description"; CoreMLRef )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

**Result** Returns JSON or error.

### Description

This is returned as a JSON block.

Common keys include predictedFeatureName, predictedProbabilitiesName, metadata, inputDescriptionsByName and outputDescriptionsByName.

Added isUpdatable key in v10.0 to indicate whether model can be updated.

Includes trainingInputDescriptionsByName and parameterDescriptionsByKey For MacOS 10.15 to provide details on training input and parameters.

### Examples

Query description:

```
Set Field [ CoreML::Model Description ; MBS("CoreML.Description"; $$ML) ]
```

```
Example result: {
  "predictedProbabilitiesName" : "classLabelProbs",
  "predictedFeatureName" : "classLabel",
  "inputDescriptionsByName" : {
    "image" : {
      "optional" : false,
      "type" : "Image",
      "imageConstraint" : {
        "pixelsWide" : 224,
        "pixelFormatTypeName" : "32BGRA",
        "pixelFormatType" : 1111970369,
        "pixelFormatTypeDescription" : "32 bit BGRA",
        "pixelsHigh" : 224
      },
      "name" : "image"
    }
  },
  "outputDescriptionsByName" : {
    "classLabel" : {
      "optional" : false,
```

```

"type" : "String",
"name" : "classLabel"
},
"classLabelProbs" : {
"optional" : false,
"dictionaryConstraint" : {
"keyType" : "String"
},
"type" : "Dictionary",
"name" : "classLabelProbs"
},
"metadata" : {
"MLModelVersionStringKey" : "",
"MLModelDescriptionKey" : "Detects the dominant objects present in an image from a set of 1000 categories such
as trees, animals, food, vehicles, person etc. The top-5 error from the original publication is 7.8% .",
"MLModelCreatorDefinedKey" : {
},
"MLModelAuthorKey" : "Original Paper: Kaiming He and Xiangyu Zhang and Shaoqing Ren and Jian Sun. Keras
Implementation: François Chollet",
"MLModelLicenseKey" : "MIT License. More information available at https://github.com/fchollet/keras/blob/master/LICENSE"
}
}

```

Load model to get description:

```

Set Variable [ $model ; Value: MBS( "CoreML.OpenModel"; "/Users/cs/Desktop/UpdatableDrawingClassifier.mlmodelc" ) ]
Set Field [ test::ModelDescription ; MBS( "CoreML.Description"; $model ) ]
Set Variable [ $r ; Value: MBS( "CoreML.Release"; $model ) ]

```

### See also

- 60.13 CoreML.OpenModel 1762
- 60.15 CoreML.Release 1766
- 60.18 CoreML.Update 1769
- 152.3 ECKey.Description 7178

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

### 60.11.1 Blog Entries

- [Train machine learning models on device](#)
- [MBS FileMaker Plugin, version 9.6pr3](#)

Created 16th September 2017, last changed 16th December 2019.

**60.12 CoreML.GetUsesCPUOnly**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.GetUsesCPUOnly"; CoreMLRef )

**Parameters****CoreMLRef**

The reference number to the model.

\$Model

**Result** Returns 1, 0 or error.

**Description****See also**

- 60.17 CoreML.SetUsesCPUOnly

1768

Created 16th September 2017, last changed 16th September 2017.

## 60.13 CoreML.OpenModel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.OpenModel"; Path )

### Parameters

#### Path

The path to the model file.

"/test.mlmodelc"

**Result** Returns OK or error.

### Description

If the model is not compiled (\*.mlmodel), you can compile it with CoreML.CompileModel. Returns error message if there is a problem.

See also Vision.ClassifyImage to use Vision framework from Apple to classify images with Apple's model.

### Examples

Load Model:

```
Set Variable [ $$ML ; Value: MBS("CoreML.OpenModel"; CoreML::Model Path) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to load" ; $$ML ]
Set Variable [ $$ML ; Value: "" ]
Else
Set Field [ CoreML::Model Description ; MBS("CoreML.Description"; $$ML) ]
End If
```

### See also

- 60.10 CoreML.CompileModel 1756
- 60.11 CoreML.Description 1758
- 127.6 IsError 6374
- 182.1 Vision.ClassifyImage 8401

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

### 60.13.1 Blog Entries

- [Train machine learning models on device](#)

Created 16th September 2017, last changed 17th October 2019.

## 60.14 CoreML.PredictionFromFeatures

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.PredictionFromFeatures"; CoreMLRef )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

**Result** Returns JSON or error.

### Description

Returns JSON with the result from the model.

The result is stored for later query result images via CoreML.ResultImage.

See also Vision.ClassifyImage to use Vision framework from Apple to classify images with Apple's model.

### Examples

Run model:

```

If [ Length ( $$ML ) = 0 ]
Show Custom Dialog [ "Please load model first." ]
Exit Script [ Text Result: "" ]
End If
Set Variable [ $r ; Value: MBS("CoreML.Clear"; $$ML) ]
# The Resnet50 model we use for testing, needs a specific image size
Set Variable [ $r ; Value: MBS("CoreML.AddImageParameter"; $$ML; "image"; CoreML::Input Picture) ]
Set Variable [ $r ; Value: MBS("CoreML.PredictionFromFeatures"; $$ML) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to process" ; $r ]
Else
Set Field [ CoreML::Output ; $r ]
Show Custom Dialog [ "Result" ; MBS( "JSON.GetPathItem"; $r; "classLabel";1 ) ]
End If

```

### See also

- 60.4 CoreML.AddImageParameter 1749
- 60.9 CoreML.Clear 1755
- 60.16 CoreML.ResultImage 1767
- 127.6 IsError 6374



60.14. <i>COREML.PREDICTIONFROMFEATURES</i>	1765
• 102.53 JSON.GetPathItem	5387
• 182.1 Vision.ClassifyImage	8401

### **Example Databases**

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

Created 16th September 2017, last changed 17th October 2019.

## 60.15 CoreML.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Release"; CoreMLRef )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

**Result** Returns OK or error.

### Description

### Examples

Release model:

```
If [ $$ML >0 ]
Set Variable [ $r ; Value: MBS("CoreML.Release"; $$ML) ]
Set Variable [ $$ML ; Value: "" ]
End If
```

### See also

- 60.11 CoreML.Description

1758

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Machine Learning/CoreML](#)

Created 16th September 2017, last changed 16th September 2017.

## 60.16 CoreML.ResultImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.ResultImage"; CoreMLRef; Name { ; ImageType; Filename } )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Name

The name of the parameter.

"image"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value or error.

### Description

If the CoreML.PredictionFromFeatures returns result and there is an image included, you can query it here.

### See also

- 60.14 CoreML.PredictionFromFeatures

1764

Created 16th September 2017, last changed 16th September 2017.

## 60.17 CoreML.SetUsesCPUOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	7.4	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.SetUsesCPUOnly"; CoreMLRef; Value )

### Parameters

#### CoreMLRef

The reference number to the model.

\$Model

#### Value

The new setting. 1 = CPU only 0 = CPU and GPU (Default)

1

**Result** Returns OK or error.

### Description

Set to 1 to disable GPU and only do processing on CPU.

Pass 0 (default) to use both.

### See also

- 60.12 CoreML.GetUsesCPUOnly

1761

Created 16th September 2017, last changed 16th September 2017.

## 60.18 CoreML.Update

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
60 CoreML	10.0	Yes	No	Yes, macOS only	No	Yes

MBS( "CoreML.Update"; InputPath; OutputPath; trainingData )

### Parameters

#### InputPath

The input path to the model file.

"/test.mlmodel"

#### OutputPath

The output path to the model file.

"/output.mlmodel"

#### trainingData

The new training data as JSON array.

**Result** Returns OK or error.

### Description

Update a machine learning model on a user's device. Pass in path to existing model and path for new model. Training data is a JSON array. Each entry is an object with the input and output keys. Each key has a value, either a number or text, array or image path. The image is defined with a native file path and format is automatically adjusted.

Look in CoreML.Description for the inputDescriptionsByName, outputDescriptionsByName and trainingInputDescriptionsByName. The constrains may tell you what image sizes to use.

### Examples

Update a model:

```
MBS( "CoreML.Update"; "/Users/cs/Desktop/UpdatableDrawingClassifier.mlmodelc"; "/Users/cs/Desktop/UpdatableDrawingClassifier2.mlmodelc"; " [ { \"drawing\": \"/Users/cs/Desktop/mbslogo.png\", \"label\": \"car\" } ] " )
```

### See also

- 60.11 CoreML.Description

1758

### 60.18.1 Blog Entries

- [Train machine learning models on device](#)
- [MBS FileMaker Plugin, version 9.6pr3](#)

Created 16th December 2019, last changed 16th December 2019.



# Chapter 61

## CUPS

Print RAW data on Mac OS X (for label printers).

You can send raw commands to label printers. Or print a file directly to a printer. For a laser printer you may also send directly PostScript or PDF data. See also Printer functions.

### 61.1 CUPS.CancelJob

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.CancelJob"; name; JobID )

#### Parameters

##### **name**

Name of the printer.

"Brother\_DCP\_8085DN"

##### **JobID**

The job number of the job you want to cancel. Pass -1 to cancel all jobs or 0 to cancel current job.

123

**Result** Returns 1 on success, 0 on failure.

#### Description

#### Examples

Cancel all jobs on this printer queue:

MBS( "CUPS.CancelJob"; "Brother\_DCP\_8085DN"; -1 )

**See also**

- 61.19 CUPS.LastErrorCode 1791
- 61.20 CUPS.LastErrorMessage 1792

Created 18th August 2014, last changed 18th August 2014.



## 61.2 CUPS.GetDefaultPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetDefaultPrinterName" )

**Result** The name of the default printer.

### Description

This function returns the default printer or class as defined by the LPDEST or PRINTER environment variables. If these environment variables are not set, the server default destination is returned.

Returns empty string if no default printer is defined.

### Examples

Query default printer name:

```
$result = MBS( "CUPS.GetDefaultPrinterName" )
```

Created 18th August 2014, last changed 18th August 2014.

## 61.3 CUPS.GetJobCompletionTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobCompletionTime"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.  
0

**Result** The completion time.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.4 CUPS.GetJobCreationTime 1775
- 61.15 CUPS.GetJobsCount 1786

### Example Databases

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.4 CUPS.GetJobCreationTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobCreationTime"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.  
0

**Result** The creation time.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.3 CUPS.GetJobCompletionTime 1774
- 61.15 CUPS.GetJobsCount 1786

### Example Databases

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.5 CUPS.GetJobFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobFormat"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The document format.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.15 CUPS.GetJobsCount

1786

### Example Databases

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.6 CUPS.GetJobID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobID"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.  
0

**Result** Returns job number, empty or error.

### Description

Please call CUPS.GetJobsCount once before you call this function.

#### See also

- 61.15 CUPS.GetJobsCount

1786

### Example Databases

- [CUPS/List Jobs](#)

### 61.6.1 FileMaker Magazin

- Ausgabe 6/2017, Seite 26

Created 18th August 2014, last changed 29th August 2017.

## 61.7 CUPS.GetJobIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	7.4	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobIndex"; JobID )

### Parameters

#### JobID

The job ID.

123

**Result** Returns job index, empty or error.

### Description

You can use this function to quickly locate a job by ID in the list of jobs.

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.15 CUPS.GetJobsCount 1786
- 61.11 CUPS.GetJobSize 1782
- 61.14 CUPS.GetJobUser 1785

### 61.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 29th August 2017, last changed 29th August 2017.

## 61.8 CUPS.GetJobPrinter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobPrinter"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The printer name.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.9 CUPS.GetJobPriority 1780
- 61.15 CUPS.GetJobsCount 1786

### Example Databases

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.9 CUPS.GetJobPriority

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobPriority"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.  
0

**Result** The job priority (1 to 100).

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.8 CUPS.GetJobPrinter 1779
- 61.15 CUPS.GetJobsCount 1786

### Example Databases

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.



## 61.10 CUPS.GetJobProcessingTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobProcessingTime"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.  
0

**Result** The processing time.

### Description

Please call CUPS.GetJobsCount once before you call this function.

#### See also

- 61.15 CUPS.GetJobsCount

Created 18th August 2014, last changed 18th August 2014.

## 61.11 CUPS.GetJobSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobSize"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The job size in kilobytes.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.7 CUPS.GetJobIndex 1778
- 61.15 CUPS.GetJobsCount 1786
- 61.12 CUPS.GetJobState 1783
- 61.13 CUPS.GetJobTitle 1784
- 61.14 CUPS.GetJobUser 1785

Created 18th August 2014, last changed 18th August 2014.

## 61.12 CUPS.GetJobState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobState"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The job state value.

### Description

Please call CUPS.GetJobsCount once before you call this function.

Value is 3 for pending, 4 for held, 5 for processing, 6 for stopped, 7 for cancelled, 8 for aborted and 9 for completed.

### See also

- 61.15 CUPS.GetJobsCount 1786
- 61.11 CUPS.GetJobSize 1782
- 61.13 CUPS.GetJobTitle 1784

### Example Databases

- [CUPS/List Jobs](#)

#### 61.12.1 FileMaker Magazin

- Ausgabe 6/2017, Seite 26

Created 18th August 2014, last changed 18th August 2014.

## 61.13 CUPS.GetJobTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobTitle"; index )

### Parameters

#### index

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The job title.

### Description

Please call CUPS.GetJobsCount once before you call this function.

### See also

- 61.15 CUPS.GetJobsCount 1786
- 61.11 CUPS.GetJobSize 1782
- 61.12 CUPS.GetJobState 1783

Created 18th August 2014, last changed 18th August 2014.

**61.14 CUPS.GetJobUser**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetJobUser"; index )

**Parameters****index**

Index in the jobs list. Value from 0 to CUPS.GetJobsCount-1.

0

**Result** The user name.

**Description**

Please call CUPS.GetJobsCount once before you call this function.

**See also**

- 61.7 CUPS.GetJobIndex 1778
- 61.15 CUPS.GetJobsCount 1786
- 61.11 CUPS.GetJobSize 1782

**Example Databases**

- [CUPS/List Jobs](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.15 CUPS.GetJobsCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

```
MBS( "CUPS.GetJobsCount" { ; Name; OnlyMyJobs; whichJobs } )
```

### Parameters

#### Name

Optional

Name of the printer queue to query. If no name or empty string is specified, we get all queues.

"Brother\_DCP\_8085DN"

#### OnlyMyJobs

Optional

Pass either "my" for your users jobs or "all" for all jobs.

"all"

#### whichJobs

Optional

Pass "active" to get only active jobs, "all" for all jobs or "complete" for completed jobs.

"complete"

**Result** The number of jobs found.

### Description

First call this function to build job list. Than call other GetJob\* functions to query values.

With indexes from 0 to count-1, you can call the other functions CUPS.GetJobState, CUPS.GetJobCompletionTime, CUPS.GetJobCreationTime, CUPS.GetJobProcessingTime, CUPS.GetJobPrinter, CUPS.GetJobID, CUPS.GetJobTitle, CUPS.GetJobPriority, CUPS.GetJobFormat, CUPS.GetJobSize and CUPS.GetJobUser.

### Examples

Query all jobs:

```
MBS( "CUPS.GetJobsCount"; ""; "all"; "all" )
```

### See also

- 61.3 CUPS.GetJobCompletionTime 1774
- 61.4 CUPS.GetJobCreationTime 1775
- 61.5 CUPS.GetJobFormat 1776
- 61.7 CUPS.GetJobIndex 1778
- 61.9 CUPS.GetJobPriority 1780
- 61.10 CUPS.GetJobProcessingTime 1781

<i>61.15. CUPS.GETJOBSCOUNT</i>	1787
• 61.11 CUPS.GetJobSize	1782
• 61.12 CUPS.GetJobState	1783
• 61.13 CUPS.GetJobTitle	1784
• 61.14 CUPS.GetJobUser	1785

### **61.15.1 FileMaker Magazin**

- Ausgabe 6/2017, Seite 25

Created 18th August 2014, last changed 5th July 2015.

## 61.16 CUPS.GetPrinterCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetPrinterCount" )

**Result** The number of printers.

### Description

Please call this method before calling CUPS.GetPrinterDefault or CUPS.GetPrinterName.

### Examples

Query number of printers

```
$count = MBS( "CUPS.GetPrinterCount" )
```

### See also

- 61.17 CUPS.GetPrinterDefault 1789
- 61.18 CUPS.GetPrinterName 1790

Created 18th August 2014, last changed 18th August 2014.



## 61.17 CUPS.GetPrinterDefault

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetPrinterDefault"; index )

### Parameters

#### index

Index of the printer. Value is between 0 and CUPS.GetPrinterCount-1.  
0

**Result** A boolean value. True if the printer is the default printer.

### Description

#### Examples

Get default state of 3rd printer:

```
MBS( "CUPS.GetPrinterDefault"; 2 )
```

### See also

- 61.16 CUPS.GetPrinterCount

1788

### Example Databases

- [CUPS/List Printers](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.18 CUPS.GetPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.GetPrinterName"; index )

### Parameters

#### index

Index of the printer. Value is between 0 and CUPS.GetPrinterCount-1.  
0

**Result** The name of the printer.

### Description

### Examples

Get name of 3rd printer:

MBS( "CUPS.GetPrinterName"; 2 )

### See also

- 61.16 CUPS.GetPrinterCount

1788

### Example Databases

- [CUPS/List Printers](#)

Created 18th August 2014, last changed 18th August 2014.

## 61.19 CUPS.LastErrorCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.LastErrorCode" )

**Result** Last error code.

### Description

### Examples

This cancels a job and queries last error code (will be 1030) and error message (something like "job 123 doesn't exist"):

```
$result = MBS( "CUPS.CancelJob"; "test"; 123 )  
$message = MBS( "CUPS.LastErrorMessage" )  
$errorCode = MBS( "CUPS.LastErrorCode" )
```

### See also

- 61.1 CUPS.CancelJob 1771
- 61.20 CUPS.LastErrorMessage 1792

Created 18th August 2014, last changed 18th August 2014.

## 61.20 CUPS.LastErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.LastErrorMessage" )

**Result** Error message text.

### Description

### Examples

This cancels a job and queries last error code (will be 1030) and error message (something like "job 123 doesn't exist"):

```
$result = MBS( "CUPS.CancelJob"; "test"; 123 )
$message = MBS( "CUPS.LastErrorMessage" )
$errorCode = MBS( "CUPS.LastErrorCode" )
```

### See also

- 61.1 CUPS.CancelJob 1771
- 61.19 CUPS.LastErrorCode 1791

Created 18th August 2014, last changed 18th August 2014.

## 61.21 CUPS.PrintData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

```
MBS( "CUPS.PrintData"; Printer; Data { ; Title; Options } )
```

### Parameters

#### Printer

The name of the printer.

```
"Brother_DCP_8085DN"
```

#### Data

The file data to print. You can include escapes with backslash. \n gives new line, \r gives return, \\ gives a backslash. \xx with a hex number gives that character. e.g. \41 gives an A.

```
"Hello World\nJust a test!\n"
```

#### Title

Optional

The title of the print job.

```
"FileMaker Printout"
```

#### Options

Optional

List of options. Simply add key and values as string parameters to the function call.

```
"key1"; "value1"; "key2"; "value2"
```

**Result** Returns job number.

### Description

With \xx you can embed any character in the text.

\t gives a tab, \n a LF, \r a newline.

### Examples

Print data:

```
MBS( "CUPS.PrintData"; "Brother_DCP_8085DN"; "Hello World\nJust a test!\n"; "FileMaker Printout" )
```

Print data with options:

```
MBS( "CUPS.PrintData"; "Brother_DCP_8085DN"; "Hello World\nJust a test!\n"; "FileMaker Printout";  
// first option  
"Scaling"; "75";  
// second option  
"media"; "A4" )
```

Build Data, send to printer and write a text file for debugging:

```
Set Variable [ $data; Value:"# !A1# DC REM Drucker wird aktiviert$" & "# IMSR103.87/25.00 REM  
Etikettenmasse$" & "# PR5/5/ REM Druckgeschwindigkeit$" & "# HV70 REM Druckhitze$" & "# ER$" & "$" & "$" & "$" & "$" & "# T06.5 # J18.7 # YN101/1R/33///\80# G$" ... ]  
Set Variable [ $data; Value:MBS( "Text.ReplaceNewline"; $data; 3 ) ]  
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $data; "/tmp/test.txt"; "Dos" ) ]  
Set Variable [ $r; Value:MBS( "CUPS.PrintData"; "LabelPrinter"; $data; "Label" ) ]
```

### See also

- 61.22 CUPS.PrintDataEncoding 1795
- 61.23 CUPS.PrintFile 1797
- 167.59 Text.ReplaceNewline 7985
- 167.68 Text.WriteTextFile 7999

### Example Databases

- [CUPS/Print Data](#)

Created 18th August 2014, last changed 25th February 2017.

## 61.22 CUPS.PrintDataEncoding

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	6.3	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.PrintDataEncoding"; Printer; Data; Encoding { ; Title; Options } )

### Parameters

#### Printer

The name of the printer.

"Brother\_DCP\_8085DN"

#### Data

The file data to print. You can include escapes with backslash. \n gives new line, \r gives return, \\ gives a backslash. \xx with a hex number gives that character. e.g. \41 gives an A.

"Hello World\nJust a test!\n"

#### Encoding

The text encoding for data.

"UTF-8"

#### Title

Optional

The title of the print job.

"FileMaker Printout"

#### Options

Optional

List of options. Simply add key and values as string parameters to the function call.

"key1"; "value1"; "key2"; "value2"

**Result** Returns OK or error.

### Description

With \xx you can embed any character in the text.

\t gives a tab, \n a LF, \r a newline.

### Examples

Sends some data in Windows encoding:

```
Set Variable [ $data; Value:"Hello World.§Tägliche Grüße!" ]
Set Variable [ $data; Value:MBS( "Text.ReplaceNewline"; $data; 3 ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $data; "/tmp/test.txt"; "Windows" ) ]
Set Variable [ $r; Value:MBS( "CUPS.PrintDataEncoding"; "Brother_DCP_8085DN"; $data; "Windows";
"Test Print" ) ]
```

### See also

- 61.21 CUPS.PrintData

- 167.59 Text.ReplaceNewline 7985
- 167.68 Text.WriteTextFile 7999

### 61.22.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 20th June 2016, last changed 20th June 2016.



## 61.23 CUPS.PrintFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
61 CUPS	2.5	Yes	No	Yes, macOS only	No	No

MBS( "CUPS.PrintFile"; Printer; Path { ; Title; Options } )

### Parameters

#### Printer

The name of the printer.

"Brother\_DCP\_8085DN"

#### Path

The file path of the file to print.

"/test/testfile.txt"

#### Title

Optional

The title of the print job.

"FileMaker Printout"

#### Options

Optional

List of options. Simply add key and values as string parameters to the function call.

"key1"; "value1"; "key2"; "value2"

**Result** Returns job number.

### Description

### Examples

Print a file:

```
MBS( "CUPS.PrintFile"; "Brother_DCP_8085DN"; "/test/testfile.txt"; "FileMaker Printout" )
```

### See also

- 61.21 CUPS.PrintData

1793

### 61.23.1 FileMaker Magazin

- Ausgabe 6/2017, Seite 25

Created 18th August 2014, last changed 25th February 2017.



# Chapter 62

## CURL

Up- and Download with FTP/SFTP/FTPS/HTTP/HTTPS.

You can use CURL functions for webservices, ftp uploads, directory listing and other network tasks. See examples on how to use IMAP to receive emails and SMTP to send emails. See SendMail functions to send emails with attachments and HTML.

See SSH functions to run coomands line tools on a server. SFTP file transfers are done here with CURL functions.

### 62.1 CURL.AddInputFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.7	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.AddInputFile"; curl; data )
```

#### Parameters

##### **curl**

The CURL session handle.

\$curl

##### **data**

The container value with the data to upload.

**Result** Returns "OK" on success.

#### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use `CURL.SetInputFile`.  
If you have a file path, please use `CURL.OpenInputFile` instead.

**Examples**

Add container:

```
MBS( "CURL.AddInputFile"; $curl; MyTable::MyContainer )
```

**See also**

- [62.2 CURL.AddInputGIF](#) 1801
- [62.3 CURL.AddInputJPEG](#) 1802
- [62.4 CURL.AddInputPDF](#) 1803
- [62.5 CURL.AddInputPNG](#) 1804
- [62.6 CURL.AddInputText](#) 1806
- [62.11 CURL.CloseInputFile](#) 1812
- [62.142 CURL.OpenInputFile](#) 1989
- [62.161 CURL.SetInputFile](#) 2032

**62.1.1 Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 20th April 2017.

## 62.2 CURL.AddInputGIF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.AddInputGIF"; curl; data )

### Parameters

#### curl

The CURL session handle.

\$curl

#### data

The container value with the data to upload.

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use CURL.SetInputGIF.

### Examples

Add GIF picture from container:

```
MBS( "CURL.AddInputGIF"; $curl; MyTable::MyContainer )
```

### See also

- [62.1 CURL.AddInputFile](#) 1799
- [62.3 CURL.AddInputJPEG](#) 1802
- [62.4 CURL.AddInputPDF](#) 1803
- [62.5 CURL.AddInputPNG](#) 1804
- [62.6 CURL.AddInputText](#) 1806
- [62.162 CURL.SetInputGIF](#) 2035

### 62.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr8](#)

Created 18th August 2014, last changed 7th December 2016.

## 62.3 CURL.AddInputJPEG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.AddInputJPEG"; curl; data )

### Parameters

#### curl

The CURL session handle.

\$curl

#### data

The container value with the data to upload.

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use CURL.SetInputJPEG.

### Examples

Add JPEG picture from container:

```
MBS( "CURL.AddInputJPEG"; $curl; MyTable::MyContainer )
```

### See also

- [62.1 CURL.AddInputFile](#) 1799
- [62.2 CURL.AddInputGIF](#) 1801
- [62.4 CURL.AddInputPDF](#) 1803
- [62.5 CURL.AddInputPNG](#) 1804
- [62.6 CURL.AddInputText](#) 1806
- [62.163 CURL.SetInputJPEG](#) 2037

### 62.3.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 7th December 2016.

## 62.4 CURL.AddInputPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.AddInputPDF"; curl; data )

### Parameters

#### curl

The CURL session handle.

\$curl

#### data

The container value with the data to upload.

\$pdfContainer

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use CURL.SetInputPDF.

### Examples

Add PDF from container:

```
MBS( "CURL.AddInputPDF"; $curl; MyTable::MyContainer )
```

### See also

- [62.1 CURL.AddInputFile](#) 1799
- [62.2 CURL.AddInputGIF](#) 1801
- [62.3 CURL.AddInputJPEG](#) 1802
- [62.5 CURL.AddInputPNG](#) 1804
- [62.6 CURL.AddInputText](#) 1806
- [62.164 CURL.SetInputPDF](#) 2039

### 62.4.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr2](#)

Created 18th August 2014, last changed 7th December 2016.

## 62.5 CURL.AddInputPNG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.AddInputPNG"; curl; data )

### Parameters

#### curl

The CURL session handle.

\$curl

#### data

The container value with the data to upload.

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use CURL.SetInputPNG.

### Examples

Add PNG picture from container:

```
MBS( "CURL.AddInputPNG"; $curl; MyTable::MyContainer )
```

### See also

- [62.1 CURL.AddInputFile](#) 1799
- [62.2 CURL.AddInputGIF](#) 1801
- [62.3 CURL.AddInputJPEG](#) 1802
- [62.4 CURL.AddInputPDF](#) 1803
- [62.6 CURL.AddInputText](#) 1806
- [62.165 CURL.SetInputPNG](#) 2041

### 62.5.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr8](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)



- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 7th December 2016.

## 62.6 CURL.AddInputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.AddInputText"; curl; text { ; Encoding } )

### Parameters

#### curl

The CURL session handle.

\$curl

#### text

The text to send.

#### Encoding

Optional

The text encoding. Default is UTF-8 for version 10.0 or newer and native encoding before.

UTF8

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Please make sure you choose the text encoding the other side expects.

Using SetInput\* functions and AddInput\* functions you can construct the input data in several function calls. This is useful if you do a multipart upload with text parts and file content mixed.

This is for adding to existing data, but for uploading only a file, you can use CURL.SetInputText.

### Examples

Add Text:

```
MBS("CURL.AddInputText"; $curl; "Hello World"; "utf8")
```

### See also

- 62.1 CURL.AddInputFile 1799
- 62.2 CURL.AddInputGIF 1801
- 62.3 CURL.AddInputJPEG 1802
- 62.4 CURL.AddInputPDF 1803
- 62.5 CURL.AddInputPNG 1804
- 62.62 CURL.GetInputAsText 1891
- 62.166 CURL.SetInputText 2043

### 62.6.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr10](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 6th December 2019.

## 62.7 CURL.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Cancel"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns "OK" on success.

### Description

Technically set a flag so the background thread will quit soon. Can take a second till transfer ends. Only useful with CURL.PerformInBackground.

### Examples

Cancels a transfer running async or in background:

MBS( "CURL.Cancel"; \$curl )

### See also

- [62.16 CURL.ErrorCode](#) 1823
- [62.143 CURL.Perform](#) 1992
- [62.145 CURL.PerformInBackground](#) 2003

### Example Databases

- [CURL/CURL Download in Background](#)
- [CURL/Download Async](#)

Created 18th August 2014, last changed 7th December 2016.

## 62.8 **CURL.Check**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Check" )

**Result** Returns OK or error.

### **Description**

You can call this on a server in a loop to have asynchronous perform call work.

### **Examples**

Checks CURL transfers for events:

MBS( "CURL.Check" )

Created 12nd July 2015, last changed 12nd July 2015.

## 62.9 CURL.CloseDebugFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CloseDebugFile"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns "OK" on success or error message.

### Description

To create file for debug messages use CURL.CreateDebugOutputFile function.

The plugin closes files automatically when you call CURL.Release.

Do not call this method while a transfer is running.

In case close operation itself fails, the result is a number with the native file system error code.

### Examples

Close debug log file:

```
MBS("CURL.CloseDebugFile"; $curl)
```

### See also

- [62.10 CURL.CloseHeaderFile](#) 1811
- [62.11 CURL.CloseInputFile](#) 1812
- [62.12 CURL.CloseOutputFile](#) 1813
- [62.13 CURL.CreateDebugOutputFile](#) 1815
- [62.149 CURL.Release](#) 2011

### 62.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr1](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.10 CURL.CloseHeaderFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CloseHeaderFile"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns "OK" on success or error message.

### Description

To create file for header messages use `CURL.CreateHeaderOutputFile` function.

The plugin closes files automatically when you call `CURL.Release`.

Do not call this method while a transfer is running.

In case close operation itself fails, the result is a number with the native file system error code.

### Examples

Close header file:

```
MBS("CURL.CloseHeaderFile"; $curl)
```

### See also

- [62.9 CURL.CloseDebugFile](#) 1810
- [62.14 CURL.CreateHeaderOutputFile](#) 1817
- [62.149 CURL.Release](#) 2011

### 62.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr1](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.11 CURL.CloseInputFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CloseInputFile"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns "OK" on success or error message.

### Description

To open file for reading data use CURL.OpenInputFile function.

The plugin closes files automatically when you call CURL.Release.

Do not call this method while a transfer is running.

In case close operation itself fails, the result is a number with the native file system error code.

### Examples

Close input file:

```
MBS("CURL.CloseInputFile"; $curl)
```

### See also

- [62.1 CURL.AddInputFile](#) 1799
- [62.9 CURL.CloseDebugFile](#) 1810
- [62.12 CURL.CloseOutputFile](#) 1813
- [62.142 CURL.OpenInputFile](#) 1989
- [62.149 CURL.Release](#) 2011
- [62.161 CURL.SetInputFile](#) 2032

### 62.11.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr1](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.



**62.12 CURL.CloseOutputFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CloseOutputFile"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns "OK" on success or error message.

**Description**

To create file for data use CURL.CreateOutputFile function.

The plugin closes files automatically when you call CURL.Release.

Do not call this method while a transfer is running.

In case close operation itself fails, the result is a number with the native file system error code.

**Examples**

Download URL to temp file:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# this is URL to download
Set Variable [ $url; Value:"https://www.monkeybreadsoftware.com/filemaker/test.txt" ]
# get file name from URL
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $URL ) ]
# now make temp file path
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.SystemTemporary" ); $name
) ]
# set URL to download
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; $url ) ]
# open destination file
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# close destination file
Set Variable [ $r; Value:MBS("CURL.CloseOutputFile"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Close output file:

```
MBS("CURL.CloseOutputFile"; $curl)
```

**See also**

- 62.9 `CURL.CloseDebugFile` 1810
- 62.15 `CURL.CreateOutputFile` 1819
- 62.43 `CURL.GetDebugAsText` 1866
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011
- 62.373 `CURL.SetOptionURL` 2329
- 82.5 `Folders.System` 4231
- 124.1 `Path.AddPathComponent` 6243
- 124.5 `Path.LastPathComponent` 6252

**62.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.4pr1](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.

**62.13 CURL.CreateDebugOutputFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CreateDebugOutputFile"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

Native file path.

C:\Documents\Test.Txt

**Result** Returns "OK" on success or error message.

**Description**

Debug messages are written to file if you use this functions and debug messages are always collected for calling `CURL.GetDebugAsText` after the transfer. This can be useful as you can have your FileMaker solution write a copy of debug messages in temporary file. If your client has problems, you can simply read messages from last transfer. If creation of the file fails, you get an error message back, but still your transfer will probably succeed.

Do not call this method while a transfer is running.

Logging to a file is useful to read messages in case FileMaker crashes while a transfer.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Write copy of debug messages to a file into temp folder on Mac:

MBS( "CURL.CreateDebugOutputFile"; \$curl; "/tmp/LastMessages.txt" )

**See also**

- 62.9 `CURL.CloseDebugFile` 1810
- 62.14 `CURL.CreateHeaderOutputFile` 1817
- 62.15 `CURL.CreateOutputFile` 1819
- 62.43 `CURL.GetDebugAsText` 1866
- 62.157 `CURL.SetDebugWithProgress` 2024

- 62.382 `CURL.SetOptionVerbose` 2348
- 124.2 `Path.FileMakerPathToNativePath` 6247

### Example Databases

- [CURL/FTP/CURL FTP Download File](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

### 62.13.1 Blog Entries

- [Debugging problems on FileMaker Cloud for AWS](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 15th June 2016.

**62.14 CURL.CreateHeaderOutputFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CreateHeaderOutputFile"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

Native file path.

C:\Documents\Test.Txt

**Result** Returns "OK" on success or error message.

**Description**

Header messages are written to file if you use this functions and header text are always collected for calling `CURL.GetHeaderAsText` after the transfer. This can be useful as you can have your FileMaker solution write a copy of headers in temporary file. If your client has problems, you can simply read headers from last transfer. If creation of the file fails, you get an error message back, but still your transfer will probably succeed.

Do not call this method while a transfer is running.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Write copy of header texts to a file into temp folder on Mac:

```
MBS( "CURL.CreateHeaderOutputFile"; $curl; "/tmp/LastHeaders.txt" )
```

**See also**

- 62.10 `CURL.CloseHeaderFile` 1811
- 62.13 `CURL.CreateDebugOutputFile` 1815
- 62.15 `CURL.CreateOutputFile` 1819
- 62.59 `CURL.GetHeaderAsText` 1887
- 124.2 `Path.FileMakerPathToNativePath` 6247

**Example Databases**

- [CURL/FTP/CURL FTP Download File](#)
- [CURL/FTP/CURL FTP Upload File](#)

### 62.14.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 5th September 2014.

**62.15 CURL.CreateOutputFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.CreateOutputFile"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

Native file path.

C:\Documents\Test.Txt

**Result** Returns "OK" on success or error message.

**Description**

If you set MBS( "CURL.SetOptionFileOnlyMode"; \$curl; 1 ), the data is only written to file and not available with CURL.GetResult\* functions. If creation of the file fails, you get an error message back, but still your transfer will probably succeed.

Do not call this method while a transfer is running.

Sets CURL.SetOptionFileOnlyMode to 1 for version 9.3 or later automatically.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Write data to a file on Mac in temp folder:

```
MBS( "CURL.CreateOutputFile"; $curl; "/tmp/download.dat" )
```

Write data only to file on Windows:

```
MBS( "CURL.SetOptionFileOnlyMode"; $curl; 1 )
```

```
MBS( "CURL.CreateOutputFile"; $curl; "c:\download.dat" )
```

Download URL to temp file:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
# this is URL to download
```

```
Set Variable [ $url; Value:"https://www.monkeybreadsoftware.com/filemaker/test.txt" ]
```

```
# get file name from URL
```

```
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $URL ) ]
```

```

# now make temp file path
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.SystemTemporary" ); $name
) ]
# set URL to download
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.com/file-
maker/test.txt" ) ]
# open destination file
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# close destination file
Set Variable [ $r; Value:MBS("CURL.CloseOutputFile"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Download file via SFTP to file on disk:

```

Set Variable [ $curl; Value:MBS("CURL.New") ]
# set download URL, e.g. sftp://monkeybreadsoftware.net/test.jpg
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; SFTP Download::URL ) ]
# build file path on disk and open output file
Set Variable [ $name; Value:GetValue(SFTP Download::FileName; 1) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; SFTP Download::FolderPath; $name ) ]
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# login only via password
Set Variable [ $result; Value:MBS( "CURL.SetOptionSSHAAuthTypes"; $curl; 2+8 ) ]
# set credentials
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; SFTP Download::UserName ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; SFTP Download::Password ) ]
# run transfer
Set Field [ SFTP Download::ErrorCode; MBS("CURL.Perform"; $curl) ]
# check debug log for errors
Set Field [ SFTP Download::Debug; MBS("CURL.GetDebugAsText"; $curl) ]
# free CURL session
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Batch download a lot of files via FTP/SFTP:

```

# URL field contains ftp or sftp URL with / on end.
# FileList field contains list of files to load
# OutputPath field contains folder path on disk
#
Set Variable [ $i; Value:1 ]
Set Variable [ $max; Value:ValueCount ( SFTP Download::FileList ) ]
#
Set Variable [ $curl; Value:MBS("CURL.New") ]

```



```

#
# login only via password
Set Variable [ $result; Value:MBS( "CURL.SetOptionSSHAuthTypes"; $curl; 2+8 ) ]
#
# set credentials
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; SFTP Download::UserName ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; SFTP Download::Password ) ]
#
# start loop over file lists
Loop
#
Set Variable [ $name; Value:GetValue ( SFTP Download::FileList ; $i ) ]
#
# build file path on disk and open output file
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; SFTP Download::OutputPath; $name ) ]
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
#
# set URL with file name
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; SFTP Download::URL & $name ) ]
#
# run transfer
Set Field [ SFTP Download::ERGEBNIS; MBS("CURL.Perform"; $curl) ]
#
# query debug log
Set Field [ SFTP Download::DEBUG; MBS("CURL.GetDebugAsText"; $curl) ]
#
Set Variable [ $i; Value:$i +1 ]
Exit Loop If [ $max = $i ]
#
End Loop
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.12 *CURL.CloseOutputFile* 1813
- 62.14 *CURL.CreateHeaderOutputFile* 1817
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011
- 62.325 *CURL.SetOptionSSHAuthTypes* 2264
- 62.373 *CURL.SetOptionURL* 2329
- 62.381 *CURL.SetOptionUsername* 2346
- 82.5 *Folders.System* 4231

- 82.7 Folders.SystemTemporary 4233
- 124.1 Path.AddPathComponent 6243

### **Example Databases**

- [CURL/CURL Download on Server](#)
- [CURL/CURL Download Picture to file](#)
- [CURL/CURL Download Text to file](#)
- [CURL/FTP/CURL FTP Download all Files in Directory](#)
- [CURL/FTP/CURL FTP Download File](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

### **62.15.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr5](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.

**62.16 CURL.ErrorCode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.ErrorCode"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** The last error code from CURL.

**Description**

Typical error codes are 6 for a wrong domain name in the URL, 67 for wrong name/password combination, 60 for missing SSL settings, 1 for an unsupported protocol.

The list of possible error codes:

**Examples**

On success puts download in container, else shows failed:

```
Set Variable [ $errorCode; Value:MBS("CURL.ErrorCode"; $curl) ]
Set Variable [ $httpResult; Value:MBS("CURL.GetResponseCode"; $curl) ]
Set Field [ Download Async::Result; $errorCode ]
Set Field [ Download Async::DebugMessages; MBS("CURL.GetDebugAsText"; $curl) ]
If [ $errorCode = 0 and $httpResult = 200 ]
Set Field [ Download Async::Progress; "Done" ]
Set Field [ Download Async::Output; MBS("CURL.GetResultAsContainer"; $curl) ]
Else
Set Field [ Download Async::Progress; "Failed" ]
Set Field [ Download Async::Output; "" ]
End If
```

**See also**

- 62.7 CURL.Cancel 1808
- 62.43 CURL.GetDebugAsText 1866
- 62.111 CURL.GetResponseCode 1942
- 62.112 CURL.GetResultAsContainer 1944
- 62.134 CURL.IsRunning 1979

- 62.147 `CURL.ReceiveData` 2006
- 62.148 `CURL.ReceiveText` 2008
- 62.153 `CURL.SendData` 2016
- 62.154 `CURL.SendText` 2018
- 62.187 `CURL.SetOptionConnectOnly` 2073

### Example Databases

- [CURL/CURL Certificate Pinning](#)
- [CURL/CURL Low Level Sockets](#)
- [CURL/Download Async](#)
- [CURL/Email/Batch Emailer](#)

Created 18th August 2014, last changed 6th October 2015.

Name	Number	Description
CURLE_OK	0	No error.
CURLE_UNSUPPORTED_PROTOCOL	1	Unsupported protocol.
CURLE_FAILED_INIT	2	Initialization failed or option not available.
CURLE_URL_MALFORMAT	3	URL has wrong format.
CURLE_COULDNT_RESOLVE_PROXY	5	DNS didn't return proxy IP.
CURLE_COULDNT_RESOLVE_HOST	6	DNS didn't return IP for host.
CURLE_COULDNT_CONNECT	7	Connection failed.
CURLE_FTP_WEIRD_SERVER_REPLY	8	FTP error.
CURLE_REMOTE_ACCESS_DENIED	9	A service was denied by the server due to lack of access when login fails this is not returned.
CURLE_FTP_WEIRD_PASS_REPLY	11	FTP error.
CURLE_FTP_WEIRD_PASV_REPLY	13	FTP error.
CURLE_FTP_WEIRD_227_FORMAT	14	FTP error.
CURLE_FTP_CANT_GET_HOST	15	FTP error.
CURLE_FTP_COULDNT_SET_TYPE	17	FTP set command failed.
CURLE_PARTIAL_FILE	18	Only a part of the file was downloaded.
CURLE_FTP_COULDNT_RETR_FILE	19	File not found.
CURLE_QUOTE_ERROR	21	quote command failure
CURLE_HTTP_RETURNED_ERROR	22	HTTP returned an error.
CURLE_WRITE_ERROR	23	Write error.
CURLE_UPLOAD_FAILED	25	failed upload "command"
CURLE_READ_ERROR	26	couldn't open/read from file
CURLE_OUT_OF_MEMORY	27	Out Of memory
CURLE_OPERATION_TIMEDOUT	28	the timeout time was reached
CURLE_FTP_PORT_FAILED	30	FTP PORT operation failed
CURLE_FTP_COULDNT_USE_REST	31	the REST command failed
CURLE_RANGE_ERROR	33	RANGE "command" didn't work
CURLE_HTTP_POST_ERROR	34	HTTP Post failed.
CURLE_SSL_CONNECT_ERROR	35	wrong when connecting with SSL
CURLE_BAD_DOWNLOAD_RESUME	36	couldn't resume download
CURLE_FILE_COULDNT_READ_FILE	37	Failed to read file.
CURLE_LDAP_CANNOT_BIND	38	LDAP can't connect.
CURLE_LDAP_SEARCH_FAILED	39	LDAP Search failed.
CURLE_FUNCTION_NOT_FOUND	41	Function not found.
CURLE_ABORTED_BY_CALLBACK	42	Transfer aborted with CURL.Cancel.
CURLE_BAD_FUNCTION_ARGUMENT	43	Bad parameters.
CURLE_INTERFACE_FAILED	45	CURL.OptionInterface failed
CURLE_TOO_MANY_REDIRECTS	47	catch endless re-direct loops
CURLE_UNKNOWN_TELNET_OPTION	48	User specified an unknown option
CURLE_TELNET_OPTION_SYNTAX	49	Malformed telnet option
CURLE_PEER_FAILED_VERIFICATION	51	peer's certificate or fingerprint wasn't verified fine
CURLE_GOT_NOHING	52	when this is a specific error
CURLE_SSL_ENGINE_NOTFOUND	53	SSL crypto engine not found
CURLE_SSL_ENGINE_SETFAILED	54	can not set SSL crypto engine as default
CURLE_SEND_ERROR	55	failed sending network data
CURLE_RECV_ERROR	56	failure in receiving network data
CURLE_SSL_CERTPROBLEM	58	problem with the local certificate
CURLE_SSL_CIPHER	59	couldn't use specified cipher
CURLE_SSL_CACERT	60	problem with the CA cert (path?)
CURLE_BAD_CONTENT_ENCODING	61	Unrecognized transfer encoding
CURLE_LDAP_INVALID_URL	62	Invalid LDAP URL
CURLE_FILESIZE_EXCEEDED	63	Maximum file size exceeded
CURLE_USE_SSL_FAILED	64	Requested FTP SSL level failed
CURLE_SEND_FAIL_REWIND	65	Sending the data requires a rewind that failed
CURLE_SSL_ENGINE_INITFAILED	66	failed to initialise ENGINE
CURLE_LOGIN_DENIED	67	user, password or similar was not accepted and we failed to login
CURLE_TFTP_NOTFOUND	68	file not found on server
CURLE_TFTP_PERM	69	permission problem on server
CURLE_REMOTE_DISK_FULL	70	out of disk space on server
CURLE_TFTP_ILLEGAL	71	Illegal TFTP operation
CURLE_TFTP_UNKNOWNID	72	Unknown transfer ID
CURLE_REMOTE_FILE_EXISTS	73	File already exists
CURLE_TFTP_NOSUCHUSER	74	No such user
CURLE_CONV_FAILED	75	conversion failed
CURLE_CONV_REQD	76	caller must register conversion callbacks
CURLE_SSL_CACERT_BADFILE	77	could not load CACERT file, missing or wrong format
CURLE_REMOTE_FILE_NOT_FOUND	78	remote file not found
CURLE_SSH	79	error from the SSH layer, somewhat generic so the error message will be of interest when this has happened
CURLE_SSL_SHUTDOWN_FAILED	80	Failed to shut down the SSL connection
CURLE_AGAIN	81	socket is not ready for send/rcv, wait till it's ready and try again.
CURLE_SSL_CRL_BADFILE	82	could not load CRL file, missing or wrong format.
CURLE_SSL_ISSUER_ERROR	83	Issuer check failed.
CURLE_FTP_PRET_FAILED	84	a PRET command failed
CURLE_RTSP_CSEQ_ERROR	85	mismatch of RTSP CSeq numbers
CURLE_RTSP_SESSION_ERROR	86	mismatch of RTSP Session Identifiers

## 62.17 CURL.ErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.ErrorMessage"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** The last CURL error message.

### Description

### Examples

Query Error Message:

```
Set Variable [ $ErrorMessage; Value:MBS( "CURL.ErrorMessage"; $curl ) ]
```

```
Show Custom Dialog [ "Transfer error"; $ErrorMessage ]
```

### See also

- 62.134 CURL.IsRunning

1979

### Example Databases

- [CURL/WebServices/WeatherBit.io test](#)

Created 18th August 2014, last changed 8th December 2016.

## 62.18 **CURL.Features**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Features" )

**Result** Returns JSON or error.

### **Description**

Returns JSON with features enabled for the CURL version in use.

### 62.18.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr4](#)

Created 12nd February 2020, last changed 12nd February 2020.

## 62.19 CURL.FileInfos

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FileInfos"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns JSON or error.

### Description

Requires wild card being enabled (CURL.SetOptionWildCardMatch) and an URL with a pattern, e.g. \* at the end.

Only for FTP and SFTP protocols.

The JSON is an array of objects. Each object includes the following values:

As various servers return different listings, we can not always know all fields.

Some servers don't give the year, so we assume this year and last year depending on month and day.

For MBS Plugin 9.0 or newer you can alternatively run a custom request "MLSD" and then get file infos, too.

### Examples

Query file list with wildcard:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS( "CURL.SetOptionWildCardMatch"; $curl; 1 ) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL & "*" ) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::listing ; MBS( "JSON.Colorize"; MBS("CURL.FileInfos"; $curl) ) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

Query file list with MLSD:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS( "CURL.SetOptionWildCardMatch"; $curl; 1 ) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL & "*" ) ]
```



hasFileName	Whether file name is known.
hasFiletype	Whether file type is known.
hasTime	Whether time is known.
hasPerm	Whether file permissions are known.
hasUID	Whether UID is known.
hasGID	Whether GID is known.
hasSize	Whether file size is known.
hasHardLinkCount	Whether hard link count is known.
FileName	The file name.
FileType	The file type. Usually file, directory or symlink.
Time	The time as returned from server.
Perm	The permissions as returned from server.
User	The user name as returned from server.
Group	The group name as returned from server.
Target	The target file path of the symbolic link.
HardLinks	The number of hard links to this file.
Size	The file size in bytes.
UID	The user ID if known.
GID	The group ID if known.
Permissions	The file permissions as octal number as text, e.g. 755.
TimeValue	The unix time stamp.
Year	The year of the time, if available.
Month	The month of the time, if available.
Day	The day of the time, if available.
Hour	The hour of the time, if available.
Minute	The minute of the time, if available.
Second	The second of the time, if available.

```

Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::listing ; MBS( "JSON.Colorize"; MBS("CURL.FileInfos"; $curl)) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.43 *CURL.GetDebugAsText* 1866
- 62.140 *CURL.New* 1985
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011

- 62.268 CURL.SetOptionPassword 2186
- 62.373 CURL.SetOptionURL 2329
- 62.381 CURL.SetOptionUsername 2346
- 62.382 CURL.SetOptionVerbose 2348
- 62.383 CURL.SetOptionWildCardMatch 2350
- 102.16 JSON.Colorize 5334

### Example Databases

- [CURL/FTP/CURL FTP Directory Listing](#)

### 62.19.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)

Created 16th October 2018, last changed 19th April 2020.

## 62.20 **CURL.FormAddKeyContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyContainer"; curl; name; filename; container )

### Parameters

**curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**filename**

The file name for this file.

"test.txt"

**container**

The file content as a container value. Can be PDF, PNG, GIF, BMP, JPEG or other file content.

**Result** Returns "OK" or error code.

### Description

This adds file form field with a given name and value.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

### Examples

Add file from container:

```
MBS("CURL.FormAddKeyContainer"; $curl; "Attachment"; "paris.jpg"; Test::test)
```

### See also

- 62.21 `CURL.FormAddKeyContainerContentType` 1833
- 62.25 `CURL.FormAddKeyTextContentType` 1841
- 62.29 `CURL.FormFinish` 1848
- 62.143 `CURL.Perform` 1992
- 62.268 `CURL.SetOptionPassword` 2186

### 62.20.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr6](#)



**62.21 CURL.FormAddKeyContainerContentType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyContainerContentType"; curl; name; filename; container; ContentType )

**Parameters****curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**filename**

The file name for this file.

"test.txt"

**container**

The file content as a container value. Can be PDF, PNG, GIF, BMP, JPEG or other file content.

**ContentType**

The content type for this file.

"text/plain"

**Result** Returns "OK" or error code.

**Description**

This adds file form field with a given name and value.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

**Examples**

Add file from container:

```
MBS("CURL.FormAddKeyContainerContentType"; $curl; "Attachment"; "paris.jpg"; Test::test; "image/jpeg")
```

Use netverify.com to check a driver license:

```
# Setup transfer
```

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://netverify.com/api/netverify/v2/fast-fill") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionUserName"; $curl; "25D63FB16966473DA2416454FD468BBD") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "4356789038498914948018924658901622") ]
```

```

]
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Accept: application/json"; "Expect:") ]
Set Variable [ $metadata; Value:" { \"type\": \"DRIVING_LICENSE\", \"country\": \"USA\" } " ]
Set Variable [ $r; Value:MBS("CURL.FormAddKeyValue";$curl; "metadata"; $metadata) ]
Set Variable [ $r; Value:MBS("CURL.FormAddKeyContainerContentType";$curl; "backsideImage"; "test.jpg"; Donor Docs::DocPDF; "image/jpeg") ]
Set Variable [ $r; Value:MBS("CURL.FormFinish";$curl) ]
# Run transfer
Set Field [ Donor Docs::ResultCodePost; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Donor Docs::DebugTextPost; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Donor Docs::ResultTextPost; $result ]

```

### See also

- 62.20 [CURL.FormAddKeyContainer](#) 1831
- 62.23 [CURL.FormAddKeyFileContentType](#) 1837
- 62.25 [CURL.FormAddKeyTextContentType](#) 1841
- 62.27 [CURL.FormAddKeyValueContentType](#) 1845
- 62.29 [CURL.FormFinish](#) 1848
- 62.121 [CURL.GetResultAsText](#) 1963
- 62.140 [CURL.New](#) 1985
- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.381 [CURL.SetOptionUsername](#) 2346

### Example Databases

- [CURL/WebServices/AdobeSign WebService](#)

#### 62.21.1 Blog Entries

- [Using NetVerify web service with FileMaker](#)
- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 12nd July 2019.

**62.22 CURL.FormAddKeyFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyFile"; curl; name; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**Path**

Native file path.

"/Users/cs/Desktop/test.txt"

**Result** Returns "OK" or error code.

**Description**

This adds a file with the given key name into the form.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Add image file to form:

MBS("CURL.FormAddKeyFile"; \$curl; "Attachment"; "/Users/cs/desktop/Paris.jpg")

**See also**

- 62.23 `CURL.FormAddKeyFileType` 1837
- 62.24 `CURL.FormAddKeyText` 1839
- 62.26 `CURL.FormAddKeyValue` 1843
- 62.29 `CURL.FormFinish` 1848
- 62.143 `CURL.Perform` 1992
- 124.2 `Path.FileMakerPathToNativePath` 6247

### 62.22.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 5th September 2014.



**62.23 CURL.FormAddKeyFileContentType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyFileContentType"; curl; name; Path; ContentType )

**Parameters****curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**Path**

Native file path.

"/Users/cs/Desktop/test.txt"

**ContentType**

The content type for this file.

"text/plain"

**Result** Returns "OK" or error code.

**Description**

This adds a file with the given key name into the form.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Add image file to form:

```
MBS("CURL.FormAddKeyFileContentType"; $curl; "Attachment"; "/Users/cs/desktop/Paris.jpg"; "image/jpeg")
```

**See also**

- 62.21 `CURL.FormAddKeyContainerContentType` 1833
- 62.22 `CURL.FormAddKeyFile` 1835
- 62.25 `CURL.FormAddKeyTextContentType` 1841
- 62.27 `CURL.FormAddKeyValueContentType` 1845

- 62.29 `CURL.FormFinish` 1848
- 62.143 `CURL.Perform` 1992
- 124.2 `Path.FileMakerPathToNativePath` 6247

### **62.23.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 5th September 2014.

## 62.24 **CURL.FormAddKeyText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyText"; curl; name; filename; text { ; Encoding } )

### Parameters

**curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**filename**

The file name for this file.

"test.txt"

**text**

The text for the text file.

"Hello World"

**Encoding**

Optional

The text encoding. Default is native until version 10.1, UTF-8 from 10.2 on.

UTF8

**Result** Returns "OK" or error code.

**Description**

This adds simply text file field with a given name and value.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

**Examples**

Add a text file to form:

```
MBS("CURL.FormAddKeyText"; $curl; "Attachment"; "test.txt"; "Hello World"; "UTF-8")
```

**See also**

- 62.22 `CURL.FormAddKeyFile` 1835
- 62.25 `CURL.FormAddKeyTextContentType` 1841
- 62.26 `CURL.FormAddKeyValue` 1843
- 62.29 `CURL.FormFinish` 1848

- 62.54 `CURL.GetFormData` 1880
- 62.143 `CURL.Perform` 1992

### 62.24.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr6](#)
- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 2nd May 2020.

## 62.25 **CURL.FormAddKeyTextContentType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyTextContentType"; curl; name; filename; text; Encoding; ContentType )

### Parameters

**curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**filename**

The file name for this file.

"test.txt"

**text**

The text for the text file.

"Hello World"

**Encoding**

The text encoding. Default is native until version 10.1, UTF-8 from 10.2 on.

UTF8

**ContentType**

The content type for this file.

"text/plain"

**Result** Returns "OK" or error code.

### Description

This adds text file form field with a given name and value.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

### Examples

Add text file:

```
MBS("CURL.FormAddKeyTextContentType"; $curl; "Attachment"; "test.txt"; "Hello World"; "UTF-8"; "text/plain")
```

Add PDF container:

```
Set Variable [ $r; Value: MBS( "CURL.FormAddKeyContainerContentType"; $curl; "file"; "document.pdf"; Test::MyContainer; "application/pdf" ) ]
```

Set Variable [ \$r; Value: MBS( "CURL.FormFinish"; Handle ) ]

### See also

- 62.20 [CURL.FormAddKeyContainer](#) 1831
- 62.21 [CURL.FormAddKeyContainerContentType](#) 1833
- 62.23 [CURL.FormAddKeyFileContentType](#) 1837
- 62.24 [CURL.FormAddKeyText](#) 1839
- 62.27 [CURL.FormAddKeyValueContentType](#) 1845
- 62.29 [CURL.FormFinish](#) 1848
- 62.143 [CURL.Perform](#) 1992

### Example Databases

- [CURL/CURL Send Form](#)

### 62.25.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr6](#)
- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 2nd May 2020.

**62.26 CURL.FormAddKeyValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyValue"; curl; Name; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Name**

The name of the form field.

"city"

**Value**

The value for the form field.

"Nickenich"

**Result** Returns "OK" or error code.

**Description**

This adds simply form field with a given name and value.

For text encoding UTF-8 is used here.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

**Examples**

Sets city in a form

```
MBS( "CURL.FormAddKeyValue"; $curl; "City"; "Nickenich" )
```

Build form:

```
MBS( "CURL.FormAddKeyValue"; $curl; "login"; "testuser" )
```

```
MBS( "CURL.FormAddKeyValue"; $curl; "password"; "xxx" )
```

```
MBS( "CURL.FormFinish"; $curl )
```

**See also**

- 62.21 `CURL.FormAddKeyContainerContentType` 1833
- 62.22 `CURL.FormAddKeyFile` 1835
- 62.24 `CURL.FormAddKeyText` 1839
- 62.27 `CURL.FormAddKeyValueContentType` 1845

- 62.29 *CURL.FormFinish* 1848
- 62.54 *CURL.GetFormData* 1880
- 62.143 *CURL.Perform* 1992
- 62.268 *CURL.SetOptionPassword* 2186
- 62.275 *CURL.SetOptionPostFields* 2199

### **Example Databases**

- [CURL/CURL Send Form](#)
- [CURL/WebServices/TinyURL](#)
- [Third Party/Google OAUTH 2 example](#)

### **62.26.1 Blog Entries**

- [Using NetVerify web service with FileMaker](#)

Created 18th August 2014, last changed 12nd February 2015.



**62.27 CURL.FormAddKeyValueContentType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormAddKeyValueContentType"; curl; name; value; contenttype )

**Parameters****curl**

The CURL session handle.

\$curl

**name**

The name of the form field.

"city"

**value**

The value for the form field.

"<html></html>"

**contenttype**

The mime content type for this field.

"text/html"

**Result** Returns "OK" or error code.

**Description**

This adds simply form field with a given name and value.

For text encoding UTF-8 is used here.

Please call `CURL.FormFinish` after you added all your fields and before you call `CURL.Perform`.

You can use `Text.FileExtensionToMimeType` to find the content type for a file extension.

**Examples**

Sets comment field with text file:

```
MBS("CURL.FormAddKeyValueContentType"; $curl; "Comment"; "Hello World"; "text/plain")
```

**See also**

- 62.21 `CURL.FormAddKeyContainerContentType` 1833
- 62.23 `CURL.FormAddKeyFileContentType` 1837
- 62.25 `CURL.FormAddKeyTextContentType` 1841
- 62.26 `CURL.FormAddKeyValue` 1843
- 62.29 `CURL.FormFinish` 1848

- 62.143 `CURL.Perform` 1992
- 167.37 `Text.FileExtensionToMimeType` 7956

Created 18th August 2014, last changed 2nd October 2015.

## 62.28 **CURL.FormClear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormClear"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns OK or error.

### Description

You usually don't need to call this as CURL.Perform clears form data when transfer is done.

### See also

- 62.143 CURL.Perform

1992

### 62.28.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr3](#)

Created 12nd December 2018, last changed 12nd December 2018.

## 62.29 CURL.FormFinish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.FormFinish"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns "OK" or error code.

### Description

The form is assigned to the HTTPPost property.

### Examples

Sets form values and finishes:

```
MBS( "CURL.FormAddKeyValue"; $curl; "login"; "testuser" )
MBS( "CURL.FormAddKeyValue"; $curl; "password"; "xxx" )
MBS( "CURL.FormFinish"; $curl )
```

Add PDF container:

```
Set Variable [ $r; Value: MBS( "CURL.FormAddKeyContainerContentType"; $curl; "file"; "document.pdf";
Test::MyContainer; "application/pdf" ) ]
Set Variable [ $r; Value: MBS( "CURL.FormFinish"; $curl ) ]
```

### See also

- 62.20 CURL.FormAddKeyContainer 1831
- 62.21 CURL.FormAddKeyContainerContentType 1833
- 62.23 CURL.FormAddKeyFileContentType 1837
- 62.24 CURL.FormAddKeyText 1839
- 62.25 CURL.FormAddKeyTextContentType 1841
- 62.26 CURL.FormAddKeyValue 1843
- 62.27 CURL.FormAddKeyValueContentType 1845
- 62.54 CURL.GetFormData 1880
- 62.268 CURL.SetOptionPassword 2186

## 62.29. *CURL.FORMFINISH*

1849

- 62.275 *CURL.SetOptionPostFields*

2199

### **Example Databases**

- [CURL/CURL Send Form](#)
- [CURL/WebServices/AdobeSign Webservice](#)
- [CURL/WebServices/TinyURL](#)
- [Third Party/Google OAUTH 2 example](#)

### **62.29.1 Blog Entries**

- [Using NetVerify web service with FileMaker](#)

Created 18th August 2014, last changed 3th October 2019.

## 62.30 CURL.GetActiveSocket

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetActiveSocket"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

If the socket is no longer valid, -1 is returned. When you finish working with the socket, the CURL.Release closes the socket and cleanup other resources associated with the handle. This is typically used in combination with CURL.SetOptionConnectOnly.

This option was added as a replacement for CURL.GetLastSocket since that one isn't working on all platforms.

### See also

- 62.64 CURL.GetLastSocket 1894
- 62.149 CURL.Release 2011
- 62.187 CURL.SetOptionConnectOnly 2073

Created 15th April 2018, last changed 19th April 2020.

**62.31 CURL.GetAppConnectTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetAppConnectTime"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

This time is most often very near to the PRETRANSFER time, except for cases such as HTTP pipelining where the pretransfer time can be delayed due to waits in line for the pipeline and more.

**See also**

- 62.38 CURL.GetConnectTime

1859

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.32 CURL.GetBatchCurrentFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetBatchCurrentFileName"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

For a batch download with wildcard match, you can query current file name to show in progress dialog. Only available while downloading a file.

### See also

- [62.33 CURL.GetBatchCurrentFilePath](#) 1853

### 62.32.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 19th December 2016, last changed 19th December 2016.



## 62.33 **CURL.GetBatchCurrentFilePath**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetBatchCurrentFilePath"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

For a batch download with wildcard match, you can query current file path to show in progress dialog.

Only available while downloading a file.

Returns the native path to the destination file.

### See also

- 62.32 [CURL.GetBatchCurrentFileName](#)

1852

### 62.33.1 **Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 19th December 2016, last changed 20th December 2016.

## 62.34 CURL.GetBatchDestinationPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.GetBatchDestinationPath"; curl )
```

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns path or error.

### Description

Returns the native path to the destination folder.

### See also

- [62.155 CURL.SetBatchDestinationPath](#) 2020

### 62.34.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 19th December 2016, last changed 20th December 2016.

**62.35 CURL.GetBatchFileNames**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetBatchFileNames"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description**

While or after transfer you get query list of file names here.

**See also**

- 62.155 [CURL.SetBatchDestinationPath](#) 2020
- 62.383 [CURL.SetOptionWildCardMatch](#) 2350

**Example Databases**

- [CURL/FTP/CURL FTP Download all Files in Directory](#)

**62.35.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 19th December 2016, last changed 19th December 2016.

## 62.36 CURL.GetCertInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetCertInfo"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

Returns a list of lists with infos.

### Examples

Query certificate information for MBS website:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.de/") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionCertInfo"; $curl; 1) ]
```

```
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
```

```
Set Field [ CURL Test::Text; MBS("CURL.GetCertInfo"; $curl) ]
```

```
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992
- 62.149 CURL.Release 2011
- 62.186 CURL.SetOptionCertInfo 2071
- 62.373 CURL.SetOptionURL 2329

### Example Databases

- [CURL/CURL Certificate Pinning](#)

#### 62.36.1 Blog Entries

- [Using pinned certificates with our CURL plugin functions](#)

- Use root certificates included with FileMaker
- MBS FileMaker Plugin, version 7.4pr2

Created 12nd July 2015, last changed 19th April 2020.

## 62.37 CURL.GetConditionUnmet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetConditionUnmet"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

see CURL.SetOptionTimeCondition. Alas, if this returns a 1 you know that the reason you didn't get data in return is because it didn't fulfill the condition. You get a zero if the condition instead was met.

### See also

- 62.367 CURL.SetOptionTimeCondition 2322

Created 18th August 2014, last changed 18th August 2014.

**62.38 CURL.GetConnectTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetConnectTime"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description****See also**

- 62.31 [CURL.GetAppConnectTime](#) 1851
- 62.41 [CURL.GetContentType](#) 1862
- 62.108 [CURL.GetRedirectTime](#) 1938

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.39 CURL.GetContentLengthDownload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetContentLengthDownload"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

This is the value read from the Content-Length: field. Returns -1 if the size isn't known.

### See also

- 62.40 CURL.GetContentLengthUpload

1861

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.



**62.40 CURL.GetContentLengthUpload**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetContentLengthUpload"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

Returns -1 if the size isn't known.

**See also**

- 62.39 [CURL.GetContentLengthDownload](#)

1860

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.41 CURL.GetContentType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetContentType"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

This is the value read from the Content-Type: field. If you get an empty string, it means that the server didn't send a valid Content-Type header or that the protocol used doesn't support this.

### See also

- 62.38 CURL.GetConnectTime 1859

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.42 CURL.GetCookieList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetCookieList"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

If there are no cookies (cookies for the handle have not been enabled or simply none have been received), the list is just an empty string.

**Examples**

Perform SOAP service with login and use cookies in second request:

```
# The URL of the service
Set Variable [ $url ; Value: "http://somedomain.com/PartnerService17.asmx" ]
# Build XML for SOAP Login request, e.g. with MBS XML functions or simply substitute()
Set Variable [ $xml ; Value: "<?xml version=\"1.0\" encoding=\"utf-8\"?><soap:Envelope xmlns:xsi=\"http://www.w3.org
instance\" xmlns:xsd=\"http://www.w3.org/2001/XMLSchema\" xmlns:soap=\"http://schemas.xmlsoap.org/soap/en-
velope/\"><soap:Body></soap:Body>..." ]
Set Field [ Curl_Test::XML ; $xml ]
# The SOAP action to use
Set Variable [ $action ; Value: "http://somedomain.com/partner/loginWithLicenceUnlockInfo" ]
#
# Setup transfer
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; $url) ]
# Put SOAP action and XML data type in the headers
Set Variable [ $result ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml;
charset=utf-8"; "Expect: "; "SOAPAction: \"\& $action & \"") ]
# Ask CURL to manage cookies
Set Variable [ $result ; Value: MBS("CURL.SetOptionCookieFile"; $curl; "" ) ]
# Set the payload for the login transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionPostFields"; $curl; $xml) ]
# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# Let's take a look on the cookie list
Set Variable [ $$cookie ; Value: MBS("CURL.GetCookieList"; $curl) ]
Set Field [ Curl_Test::Cookie ; $$cookie ]
# Check result
Set Field [ Curl_Test::Debug ; MBS("CURL.GetDebugAsText"; $curl) ]
```

```

Set Variable [ $result ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Curl_Test::Resultat ; $result ]
#
# Reuse same $curl for second request reusing existing cookies
#
# Make new XML for second request
Set Variable [ $npk ; Value: "103" ]
# Build XML for SOAP Login request, e.g. with MBS XML functions or simply substitute()
Set Variable [ $xml ; Value: "<soap:Envelope xmlns:xsi=\"http://www.w3.org/2001/XMLSchema-instance\"
xmlns:xsd=\"http://www.w3.org/2001/XMLSchema\" xmlns:soap=\"http://schemas.xmlsoap.org/soap/en-
velope/\"><soap:Body></soap:Body></soap:Envelope>" ]
Set Field [ Curl_Test::XML ; $xml ]
Set Variable [ $action ; Value: "http://somedomain.com/partner/queryInfo" ]
#
# Setup transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; $url) ]
# Put SOAP action and XML data type in the headers
Set Variable [ $result ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml;
charset=utf-8"; "Expect: "; "SOAPAction: \"& $action & \"\") ]
# Set the payload for the second transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionPostFields"; $curl; $xml) ]
# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Curl_Test::Debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Curl_Test::Resultat ; $result ]
# Finally end curl session
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.43 CURL.GetDebugAsText 1866
- 62.121 CURL.GetResultAsText 1963
- 62.143 CURL.Perform 1992
- 62.149 CURL.Release 2011
- 62.191 CURL.SetOptionCookie 2080
- 62.192 CURL.SetOptionCookieFile 2082
- 62.233 CURL.SetOptionHTTPHeader 2139
- 62.273 CURL.SetOptionPost 2194
- 62.275 CURL.SetOptionPostFields 2199
- 62.373 CURL.SetOptionURL 2329

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

**62.42.1 Blog Entries**

- [Let CURL handle cookie list](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.43 CURL.GetDebugAsText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.GetDebugAsText"; curl { ; Encoding; preserveLineEndings } )
```

### Parameters

#### curl

The CURL session handle.

\$curl

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

#### preserveLineEndings

Optional

Whether to change line endings to CR for FileMaker. By default (0) we change the line endings to CR, so FileMaker has no trouble. Pass 1 to keep whatever line endings are there.

0

**Result** The headers as text.

### Description

You are responsible for detecting decoding.

Use CURL.SetOptionVerbose to enable debug messages.

Plugin version 5.2 and newer replace newlines automatically for you to match what FileMaker uses (Mac line endings).

See CURL.SetDebugWithData, CURL.SetDebugWithProgress and CURL.SetDebugWithTime to include data/time in the debug log.

### Examples

Get debug messages:

```
MBS("CURL.GetDebugAsText"; $curl)
```

### See also

- 62.59 CURL.GetHeaderAsText 1887
- 62.62 CURL.GetInputAsText 1891
- 62.121 CURL.GetResultAsText 1963
- 62.383 CURL.SetOptionWildCardMatch 2350

62.43. <i>CURL.GETDEBUGASTEXT</i>	1867
• 62.392 <i>CURL.UseSystemCertificates</i>	2371
• 82.7 <i>Folders.SystemTemporary</i>	4233
• 87.225 <i>GImage.Scale</i>	4690
• 88.2 <i>Hash.Digest</i>	4851
• 102.53 <i>JSON.GetPathItem</i>	5387
• 146.25 <i>SendMail.PrepareCURL</i>	7024

### Example Databases

- [CURL/CURL Check FileMaker Server](#)
- [CURL/CURL Download in Background](#)
- [CURL/CURL Download Picture](#)
- [CURL/CURL Download Text to file](#)
- [CURL/CURL Download zip file](#)
- [CURL/Download Async](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/FTP/CURL FTP Delete File](#)
- [CURL/FTP/CURL FTP Download all Files in Directory](#)
- [CURL/WebServices/Twitter OAuth](#)

### 62.43.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)
- [Debugging problems on FileMaker Cloud for AWS](#)
- [Let CURL handle cookie list](#)
- [Use root certificates included with FileMaker](#)
- [Upload email to Sent folder via IMAP](#)
- [Amazon S3 Upload with Mime Type and Permissions](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)
- [Sending emails in FileMaker with MBS Plugin](#)

**62.43.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 20
- Ausgabe 4/2016, Seite 19
- Ausgabe 4/2016, Seite 18
- Ausgabe 5/2014, Seite 26

Created 18th August 2014, last changed 16th July 2019.



**62.44 CURL.GetDebugLength**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetDebugLength"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Length in bytes.

**Description****Examples**

Query length. Shows 11 for "Hello World" above:

MBS("CURL.GetDebugLength"; \$curl)

**See also**

- 62.60 *CURL.GetHeaderLength* 1889
- 62.63 *CURL.GetInputLength* 1893
- 62.122 *CURL.GetResultLength* 1967

Created 18th August 2014, last changed 18th August 2014.

## 62.45 CURL.GetDebugWithData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetDebugWithData"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns 0, 1 or error.

### Description

By default we don't include all the data in the debug log and just the messages.

Returns 1 if data is included or 0 if not.

### See also

- [62.47 CURL.GetDebugWithTime](#) 1872
- [62.156 CURL.SetDebugWithData](#) 2022
- [62.158 CURL.SetDebugWithTime](#) 2026

### Example Databases

- [CURL/SFTP/CURL sFTP Upload File](#)

### 62.45.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 14th May 2016, last changed 15th June 2016.

## 62.46 **CURL.GetDebugWithProgress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetDebugWithProgress"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns 1, 0 or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- [62.157 CURL.SetDebugWithProgress](#)

2024

### 62.46.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 15th June 2016, last changed 15th June 2016.

## 62.47 CURL.GetDebugWithTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetDebugWithTime"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns 0, 1 or error.

### Description

By default this is off.

### See also

- 62.45 CURL.GetDebugWithData 1870
- 62.156 CURL.SetDebugWithData 2022
- 62.158 CURL.SetDebugWithTime 2026

### 62.47.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 14th May 2016, last changed 15th June 2016.

**62.48 CURL.GetEffectiveURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetEffectiveURL"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description****Examples**

Follow redirection and get effective URL:

```
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionFollowLocation"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionMaxRedirs"; $curl; 3) ]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::newURL; MBS("CURL.GetEffectiveURL"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.121 [CURL.GetResultAsText](#) 1963
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011
- 62.224 [CURL.SetOptionFollowLocation](#) 2127
- 62.260 [CURL.SetOptionMaxRedirs](#) 2174

- 62.373 `CURL.SetOptionURL`

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.49 **CURL.GetFTPEntryPath**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFTPEntryPath"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

That is the initial path libcurl ended up in when logging on to the remote FTP server. This stores a NULL as pointer if something is wrong.

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.50 CURL.GetFileTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFileTime"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

If you get an empty result, it can be because of many reasons (unknown, the server hides it or the server doesn't support the command that tells document time etc) and the time of the document is unknown. Note that you must tell the server to collect this information before the transfer is made, by using the `CURL.SetOptionFileTime` or you will unconditionally get an empty result back.

### See also

- [62.223 CURL.SetOptionFileTime](#) 2126

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.



## 62.51 **CURL.GetFinishedEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62.CURL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFinishedEvaluate"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

#### See also

- 62.52 [CURL.GetFinishedFileName](#) 1878
- 62.159 [CURL.SetFinishedEvaluate](#) 2028

### 62.51.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 6th September 2017.

**62.52 CURL.GetFinishedFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFinishedFileName"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns file name or error.

**Description****See also**

- 62.51 CURL.GetFinishedEvaluate 1877
- 62.53 CURL.GetFinishedScriptName 1879
- 62.159 CURL.SetFinishedEvaluate 2028

Created 12nd July 2015, last changed 12nd July 2015.

**62.53 CURL.GetFinishedScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFinishedScriptName"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns script name or error.

**Description****See also**

- 62.52 [CURL.GetFinishedFileName](#) 1878
- 62.160 [CURL.SetFinishedScript](#) 2030

Created 12nd July 2015, last changed 12nd July 2015.

## 62.54 CURL.GetFormData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetFormData"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

If you use functions like `CURL.FormAddKeyText`, you can check here how things would be sent.

### Examples

Build form data:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "firma"; Test::firma) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "name"; Test::name) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "strasse"; Test::strasse) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "plz"; Test::plz) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "ort"; Test::ort) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "land"; Test::land) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "telefon"; Test::telefon) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "email"; Test::email) ]
Set Variable [ $result ; Value: MBS("CURL.FormAddKeyValue"; $curl; "comment"; Test::comment) ]
Set Variable [ $result ; Value: MBS("CURL.FormFinish"; $curl) ]
Set Field [ Test::DebugMessages ; MBS("CURL.GetFormData"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

### See also

- 62.24 `CURL.FormAddKeyText` 1839
- 62.26 `CURL.FormAddKeyValue` 1843
- 62.29 `CURL.FormFinish` 1848
- 62.140 `CURL.New` 1985
- 62.149 `CURL.Release` 2011

### Example Databases

- [CURL/WebServices/AdobeSign WebService](#)

### **62.54.1 Blog Entries**

- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 8.2pr3](#)

Created 14th April 2018, last changed 19th April 2020.

## 62.55 CURL.GetHTTPOAuthAvail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHTTPOAuthAvail"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

The meaning of the bits is explained in CURL.SetOptionHTTPOAuth.

### See also

- 62.101 CURL.GetProxyAuthAvail 1931
- 62.231 CURL.SetOptionHTTPOAuth 2136

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.56 **CURL.GetHTTPConnectCode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHTTPConnectCode"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

### See also

- 62.111 [CURL.GetResponseCode](#)

1942

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.57 CURL.GetHTTPVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHTTPVersion"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

Created 15th April 2018, last changed 16th April 2018.



## 62.58 **CURL.GetHeaderAsJSON**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHeaderAsJSON"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns JSON or error.

### Description

This is for HTTP headers or headers in similar format.

We add to the JSON some special entries for the HTTP result line: HTTP-Version, HTTP-ResponseCode, and HTTP-ResponseMessage.

### Examples

Query headers as JSON:

MBS( "CURL.GetHeaderAsJSON"; \$curl )

```
Example result: {
  "HTTP-Version": "1.1",
  "HTTP-ResponseCode": "200",
  "HTTP-ResponseMessage": "OK",
  "Date": "Sat, 25 Apr 2020 10:37:35 GMT",
  "Server": "Apache/2.4.41",
  "Upgrade": "h2c",
  "Connection": "Upgrade",
  "Last-Modified": "Thu, 28 Feb 2013 16:43:55 GMT",
  "ETag": "\"726-4d6cb98aca8c0\"",
  "Accept-Ranges": "bytes",
  "Content-Length": "1830",
  "Content-Type": "text/plain",
  "Content-Language": "en"
}
```

### See also

- 62.59 *CURL.GetHeaderAsText*

1887

### 62.58.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)



**62.59 CURL.GetHeaderAsText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHeaderAsText"; curl { ; Encoding; preserveLineEndings } )

**Parameters****curl**

The CURL session handle.

\$curl

**Encoding**

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**preserveLineEndings**

Optional

Whether to change line endings to CR for FileMaker. By default (0) we change the line endings to CR, so FileMaker has no trouble. Pass 1 to keep whatever line endings are there.

0

**Result** The headers as text.

**Description**

You are responsible for detecting decoding.

Plugin version 5.2 and newer replace newlines automatically for you to match what FileMaker uses (Mac line endings).

**Examples**

Get header lines:

```
MBS("CURL.GetHeaderAsText"; $curl)
```

Get file name for container from header:

```
Set Variable [ $name ; Value: "" ]
```

```
Set Variable [ $headers ; Value: MBS( "CURL.GetHeaderAsText"; $curl; "UTF-8" ) ]
```

```
Set Variable [ $headers ; Value: MBS( "List.MatchesPrefix"; $headers; "Content-Disposition: attachment; filename=" ) ]
```

```
If [ Length($headers) >0 ]
```

```
Set Variable [ $name ; Value: Middle ( $headers ; 43 ; Length($headers) ) ]
```

```
End If
```

```
Set Field [ CURL Test::File ; MBS("CURL.GetResultAsContainer"; $curl; $name) ]
```

**See also**

- [62.14 CURL.CreateHeaderOutputFile](#) 1817
- [62.43 CURL.GetDebugAsText](#) 1866
- [62.58 CURL.GetHeaderAsJSON](#) 1885
- [62.61 CURL.GetHeaderSize](#) 1890
- [62.112 CURL.GetResultAsContainer](#) 1944
- [62.121 CURL.GetResultAsText](#) 1963
- [62.158 CURL.SetDebugWithTime](#) 2026
- [62.196 CURL.SetOptionCustomRequest](#) 2089
- [105.21 List.MatchesPrefix](#) 5521
- [146.25 SendMail.PrepareCURL](#) 7024

**Example Databases**

- [CURL/CURL Download in Background](#)
- [CURL/CURL Download on Server](#)
- [CURL/CURL Download PDF and add preview with DynaPDF](#)
- [CURL/CURL Download Picture](#)
- [CURL/CURL Download Text](#)
- [CURL/CURL Download with Progress](#)
- [CURL/CURL Download zip file](#)
- [CURL/CURL Send Form](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/WebServices/Twitter OAuth](#)

**62.59.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr6](#)
- [MBS FileMaker Plugin, version 5.2pr7](#)
- [MBS Filemaker Plugin, version 3.2pr3](#)

## 62.60 **CURL.GetHeaderLength**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHeaderLength"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Length in bytes.

### Description

### Examples

Query length. Shows 11 for "Hello World" above:

MBS("CURL.GetHeaderLength"; \$curl)

### See also

- 62.44 [CURL.GetDebugLength](#) 1869
- 62.122 [CURL.GetResultLength](#) 1967

Created 18th August 2014, last changed 18th August 2014.

## 62.61 CURL.GetHeaderSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetHeaderSize"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### See also

- 62.59 CURL.GetHeaderAsText 1887
- 62.110 CURL.GetRequestSize 1941

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.62 CURL.GetInputAsText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetInputAsText"; curl { ; Encoding; preserveLineEndings } )

**Parameters****curl**

The CURL session handle.

\$curl

**Encoding**

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**preserveLineEndings**

Optional

Whether to change line endings to CR for FileMaker. By default (0) we change the line endings to CR, so FileMaker has no trouble. Pass 1 to keep whatever line endings are there.

0

**Result** The input data as text.

**Description**

You are responsible for detecting decoding.

Plugin version 5.2 and newer replace newlines automatically for you to match what FileMaker uses (Mac line endings).

**Examples**

Write input to a text file:

```
Variable setzen [ $r ; Wert: MBS( "Text.WriteTextFile"; MBS( "CURL.GetInputAsText"; $curl; "UTF-8"; 1 ); "/tmp/test.txt" ) ]
```

**See also**

- 62.6 CURL.AddInputText 1806
- 62.43 CURL.GetDebugAsText 1866
- 62.121 CURL.GetResultAsText 1963
- 62.166 CURL.SetInputText 2043
- 167.68 Text.WriteTextFile 7999

**Example Databases**

- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

**62.62.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr6](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [MBS FileMaker Plugin, version 5.2pr7](#)
- [MBS Filemaker Plugin, version 3.2pr3](#)
- [MBS Filemaker Plugin, version 2.8pr10](#)

Created 18th August 2014, last changed 26th April 2020.



**62.63 CURL.GetInputLength**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetInputLength"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Length in bytes.

**Description****Examples**

Set Text:

MBS("CURL.SetInputText"; \$curl; "Hello World"; "utf8")

Query length. Shows 11 for "Hello World" above:

MBS("CURL.GetInputLength"; \$curl)

**See also**

- 62.44 *CURL.GetDebugLength* 1869
- 62.122 *CURL.GetResultLength* 1967
- 62.166 *CURL.SetInputText* 2043

Created 18th August 2014, last changed 18th August 2014.

**62.64 CURL.GetLastSocket**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetLastSocket"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns integer or error.

**Description****See also**

- 62.30 CURL.GetActiveSocket

1850

Created 15th April 2018, last changed 16th April 2018.

## 62.65 **CURL.GetLocalIP**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetLocalIP"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

This string may be IPv6 if that's enabled.

### See also

- 62.66 [CURL.GetLocalPort](#)

1896

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.66 CURL.GetLocalPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetLocalPort"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

### See also

- 62.65 CURL.GetLocalIP

1895

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.67 CURL.GetMultiOptionChunkLengthPenaltySize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionChunkLengthPenaltySize" )

**Result** Returns OK or error.

**Description**

A connection with a chunk length longer than this will not be considered for pipelining.

**See also**

- 62.68 *CURL.GetMultiOptionContentLengthPenaltySize* 1898
- 62.167 *CURL.SetMultiOptionChunkLengthPenaltySize* 2046
- 62.168 *CURL.SetMultiOptionContentLengthPenaltySize* 2047

Created 14th April 2018, last changed 14th April 2018.

## 62.68 CURL.GetMultiOptionContentLengthPenaltySize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionContentLengthPenaltySize" )

**Result** Returns OK or error.

### Description

A connection with a content-length longer than this will not be considered for pipelining.

### See also

- 62.67 CURL.GetMultiOptionChunkLengthPenaltySize 1897
- 62.167 CURL.SetMultiOptionChunkLengthPenaltySize 2046
- 62.168 CURL.SetMultiOptionContentLengthPenaltySize 2047

Created 14th April 2018, last changed 14th April 2018.

## 62.69 **CURL.GetMultiOptionMaxConcurrentStreams**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionMaxConcurrentStreams" )

**Result** Returns number or error.

**Description**

**See also**

- 62.169 [CURL.SetMultiOptionMaxConcurrentStreams](#) 2048

### 62.69.1 **Blog Entries**

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 13th November 2019, last changed 13th November 2019.

## 62.70 CURL.GetMultiOptionMaxConnects

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionMaxConnects" )

**Result** Returns OK or error.

### Description

Maximum number of entries in the connection cache.

### See also

- 62.71 CURL.GetMultiOptionMaxHostConnections 1901
- 62.73 CURL.GetMultiOptionMaxTotalConnections 1903
- 62.170 CURL.SetMultiOptionMaxConnects 2049
- 62.171 CURL.SetMultiOptionMaxHostConnections 2050
- 62.257 CURL.SetOptionMaxConnects 2171

Created 14th April 2018, last changed 14th April 2018.



**62.71 CURL.GetMultiOptionMaxHostConnections**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionMaxHostConnections" )

**Result** Returns OK or error.

**Description**

Maximum number of (pipelining) connections to one host.

**See also**

- 62.70 *CURL.GetMultiOptionMaxConnects* 1900
- 62.73 *CURL.GetMultiOptionMaxTotalConnections* 1903
- 62.170 *CURL.SetMultiOptionMaxConnects* 2049
- 62.171 *CURL.SetMultiOptionMaxHostConnections* 2050
- 62.173 *CURL.SetMultiOptionMaxTotalConnections* 2052

Created 14th April 2018, last changed 14th April 2018.

## 62.72 CURL.GetMultiOptionMaxPipelineLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionMaxPipelineLength" )

**Result** Returns OK or error.

### Description

Maximum number of requests in a pipeline.

### See also

- 62.74 CURL.GetMultiOptionPipelining 1904
- 62.172 CURL.SetMultiOptionMaxPipelineLength 2051

Created 14th April 2018, last changed 14th April 2018.

## 62.73 **CURL.GetMultiOptionMaxTotalConnections**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionMaxTotalConnections" )

**Result** Returns OK or error.

### **Description**

Maximum number of open connections in total.

### **See also**

- 62.70 *CURL.GetMultiOptionMaxConnects* 1900
- 62.71 *CURL.GetMultiOptionMaxHostConnections* 1901
- 62.171 *CURL.SetMultiOptionMaxHostConnections* 2050
- 62.173 *CURL.SetMultiOptionMaxTotalConnections* 2052

Created 14th April 2018, last changed 14th April 2018.

## 62.74 CURL.GetMultiOptionPipelining

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiOptionPipelining" )

**Result** Returns OK or error.

### Description

Is 1 to enable pipelining for this multi handle.

### See also

- 62.72 CURL.GetMultiOptionMaxPipelineLength 1902
- 62.174 CURL.SetMultiOptionPipelining 2053

Created 14th April 2018, last changed 14th April 2018.

## 62.75 **CURL.GetMultiRunningTransfers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetMultiRunningTransfers" )

**Result** Returns OK or error.

### **Description**

Only for asynchronous transfers with `CURL.PerformAsync`.

Value is -1 till initialized.

### **See also**

- 62.141 `CURL.NumberOfRunningTransfers` 1988
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001

Created 14th April 2018, last changed 14th April 2018.

## 62.76 CURL.GetNameLookupTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetNameLookupTime"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.77 **CURL.GetNumConnects**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetNumConnects"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

Combined with `CURL.SetOptionRedirectCount` you are able to know how many times libcurl successfully reused existing connection(s) or not.

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.78 CURL.GetOSErrNo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOSErrNo"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

Note that the value is only set on failure, it is not reset upon a successful operation.

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.



**62.79 CURL.GetOptionConnectTo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionConnectTo"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description****See also**

- 62.187 [CURL.SetOptionConnectOnly](#) 2073
- 62.189 [CURL.SetOptionConnectTo](#) 2077
- 62.257 [CURL.SetOptionMaxConnects](#) 2171

Created 16th April 2018, last changed 16th April 2018.

## 62.80 CURL.GetOptionHTTP200Aliases

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionHTTP200Aliases"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns list or error.

### Description

#### See also

- 62.230 CURL.SetOptionHTTP200Aliases

2135

Created 16th April 2018, last changed 16th April 2018.

**62.81 CURL.GetOptionHTTPHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionHTTPHeader"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description****Examples**

Set and get headers:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
```

```
Set Variable [ $r ; Value: MBS( "CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/json$Test: hello"; "Other: 1234" ) ]
```

```
Show Custom Dialog [ "Headers" ; MBS( "CURL.GetOptionHTTPHeader"; $curl ) ]
```

**See also**

- 62.85 [CURL.GetOptionProxyHeader](#) 1915
- 62.140 [CURL.New](#) 1985
- 62.238 [CURL.SetOptionHeader](#) 2147
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.236 [CURL.SetOptionHTTPVersion](#) 2145
- 62.286 [CURL.SetOptionProxyHeader](#) 2218

Created 16th April 2018, last changed 17th April 2018.

## 62.82 CURL.GetOptionMailRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionMailRecipients"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns list or error.

### Description

#### See also

- 62.255 CURL.SetOptionMailRecipients

2169

Created 16th April 2018, last changed 16th April 2018.

**62.83 CURL.GetOptionPostQuote**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionPostQuote"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description****See also**

- 62.84 [CURL.GetOptionPreQuote](#) 1914
- 62.86 [CURL.GetOptionQuote](#) 1916
- 62.276 [CURL.SetOptionPostQuote](#) 2203
- 62.277 [CURL.SetOptionPostRedir](#) 2205
- 62.279 [CURL.SetOptionPreQuote](#) 2208
- 62.309 [CURL.SetOptionQuote](#) 2244

Created 16th April 2018, last changed 16th April 2018.

## 62.84 CURL.GetOptionPreQuote

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionPreQuote"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns list or error.

### Description

#### See also

- 62.83 CURL.GetOptionPostQuote 1913
- 62.86 CURL.GetOptionQuote 1916
- 62.87 CURL.GetOptionResolve 1917
- 62.276 CURL.SetOptionPostQuote 2203
- 62.278 CURL.SetOptionPreProxy 2207
- 62.279 CURL.SetOptionPreQuote 2208
- 62.309 CURL.SetOptionQuote 2244
- 62.382 CURL.SetOptionVerbose 2348

Created 16th April 2018, last changed 16th April 2018.

**62.85 CURL.GetOptionProxyHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionProxyHeader"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description****See also**

- 62.81 [CURL.GetOptionHTTPHeader](#) 1911
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.283 [CURL.SetOptionProxyCAInfo](#) 2215
- 62.284 [CURL.SetOptionProxyCAPath](#) 2216
- 62.286 [CURL.SetOptionProxyHeader](#) 2218
- 62.291 [CURL.SetOptionProxySSLCert](#) 2223
- 62.294 [CURL.SetOptionProxySSLKey](#) 2226
- 62.306 [CURL.SetOptionProxyType](#) 2239
- 62.307 [CURL.SetOptionProxyUsername](#) 2241

Created 16th April 2018, last changed 16th April 2018.

## 62.86 CURL.GetOptionQuote

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionQuote"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns list or error.

### Description

#### See also

- 62.84 CURL.GetOptionPreQuote 1914
- 62.228 CURL.SetOptionGet 2132
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194
- 62.276 CURL.SetOptionPostQuote 2203
- 62.279 CURL.SetOptionPreQuote 2208
- 62.281 CURL.SetOptionProxy 2212
- 62.308 CURL.SetOptionPut 2242
- 62.309 CURL.SetOptionQuote 2244
- 62.317 CURL.SetOptionRange 2254

Created 16th April 2018, last changed 17th April 2018.



**62.87 CURL.GetOptionResolve**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionResolve"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns list or error.

**Description****See also**

- 62.84 [CURL.GetOptionPreQuote](#) 1914
- 62.86 [CURL.GetOptionQuote](#) 1916
- 62.185 [CURL.SetOptionCRLFile](#) 2069
- 62.240 [CURL.SetOptionIPResolve](#) 2149
- 62.319 [CURL.SetOptionReferer](#) 2258
- 62.321 [CURL.SetOptionResolve](#) 2260
- 62.382 [CURL.SetOptionVerbose](#) 2348

Created 16th April 2018, last changed 17th April 2018.

## 62.88 CURL.GetOptionTelnetOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetOptionTelnetOptions"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns list or error.

### Description

#### See also

- 62.239 CURL.SetOptionHeaderOptions 2148
- 62.250 CURL.SetOptionLoginOptions 2162
- 62.341 CURL.SetOptionSSLOptions 2290
- 62.366 CURL.SetOptionTelnetOptions 2321
- 62.361 CURL.SetOptionTFTPNoOptions 2316

Created 16th April 2018, last changed 17th April 2018.

**62.89 CURL.GetPreTransferTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetPreTransferTime"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

This includes all pre-transfer commands and negotiations that are specific to the particular protocol(s) involved. It does not involve the sending of the protocol- specific request that triggers a transfer.

**See also**

- 62.130 [CURL.GetStartTransferTime](#) 1975

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.90 CURL.GetPrimaryIP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetPrimaryIP"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

This string may be IPv6 if that's enabled.

### See also

- 62.91 CURL.GetPrimaryPort

1921

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.91 **CURL.GetPrimaryPort**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetPrimaryPort"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### See also

- 62.90 [CURL.GetPrimaryIP](#)

1920

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.92 CURL.GetProgressCurrentDownload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressCurrentDownload"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** The number of bytes already downloaded.

### Description

Only useful with CURL.PerformInBackground.

### Examples

Calculate percent uploaded

```
$percent = 100 * MBS( "CURL.GetProgressCurrentDownload"; $curl ) / MBS( "CURL.GetProgressTotal-Download"; $curl )
```

### See also

- 62.93 CURL.GetProgressCurrentUpload 1923
- 62.98 CURL.GetProgressTotalDownload 1928
- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001
- 62.145 CURL.PerformInBackground 2003

Created 18th August 2014, last changed 18th August 2014.

**62.93 CURL.GetProgressCurrentUpload**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressCurrentUpload"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** The number of bytes already uploaded.

**Description**

Only useful with CURL.PerformInBackground.

**Examples**

Calculate percent uploaded

```
$percent = 100 * MBS( "CURL.GetProgressCurrentUpload"; $curl ) / MBS( "CURL.GetProgressTotalUpload"; $curl )
```

**See also**

- 62.92 CURL.GetProgressCurrentDownload 1922
- 62.99 CURL.GetProgressTotalUpload 1929
- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001
- 62.145 CURL.PerformInBackground 2003

Created 18th August 2014, last changed 18th August 2014.

## 62.94 CURL.GetProgressEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressEvaluate"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

### See also

- 62.95 CURL.GetProgressFileName 1925
- 62.385 CURL.SetProgressEvaluate 2354

### 62.94.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.



## 62.95 **CURL.GetProgressFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressFileName"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns file name or error.

### Description

#### See also

- 62.94 [CURL.GetProgressEvaluate](#) 1924
- 62.97 [CURL.GetProgressScriptName](#) 1927
- 62.385 [CURL.SetProgressEvaluate](#) 2354

Created 12nd July 2015, last changed 12nd July 2015.

## 62.96 CURL.GetProgressPercent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressPercent"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

This is percent of upload/download of current transfer.

Range is 0 to 100.

### Examples

Update progress field in a progress script:

```
Set Variable [ $curl; Value:Get(ScriptParameter) ]
```

```
Set Variable [ $RecordID; Value:MBS("CURL.GetTag"; $curl) ]
```

```
Go to Record/Request/Page [ No dialog; $RecordID ]
```

```
Set Field [ Download Async::Progress; MBS("CURL.GetProgressPercent"; $curl) ]
```

```
Commit Records/Requests [ Skip data entry validation; No dialog ]
```

### See also

- [62.131 CURL.GetTag](#) 1976
- [62.386 CURL.SetProgressScript](#) 2355

### Example Databases

- [CURL/CURL Download in Background](#)
- [CURL/Download Async](#)

Created 12nd July 2015, last changed 12nd July 2015.

**62.97 CURL.GetProgressScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressScriptName"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns script name or error.

**Description****See also**

- 62.95 [CURL.GetProgressFileName](#) 1925
- 62.386 [CURL.SetProgressScript](#) 2355

Created 12nd July 2015, last changed 12nd July 2015.

## 62.98 CURL.GetProgressTotalDownload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressTotalDownload"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** The number of bytes to download.

### Description

Only useful with CURL.PerformInBackground.

### Examples

Calculate percent uploaded

```
$percent = 100 * MBS( "CURL.GetProgressCurrentDownload"; $curl ) / MBS( "CURL.GetProgressTotal-Download"; $curl )
```

### See also

- 62.92 CURL.GetProgressCurrentDownload 1922
- 62.99 CURL.GetProgressTotalUpload 1929
- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001
- 62.145 CURL.PerformInBackground 2003

Created 18th August 2014, last changed 18th August 2014.

**62.99 CURL.GetProgressTotalUpload**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProgressTotalUpload"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** The number of bytes to upload.

**Description**

Only useful with CURL.PerformInBackground.

**Examples**

Calculate percent uploaded

```
$percent = 100 * MBS( "CURL.GetProgressCurrentUpload"; $curl ) / MBS( "CURL.GetProgressTotalUpload"; $curl )
```

**See also**

- 62.93 CURL.GetProgressCurrentUpload 1923
- 62.98 CURL.GetProgressTotalDownload 1928
- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001
- 62.145 CURL.PerformInBackground 2003

Created 18th August 2014, last changed 18th August 2014.

## 62.100 CURL.GetProtocol

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProtocol"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

### See also

- 62.146 CURL.Protocols

2005

Created 15th April 2018, last changed 16th April 2018.

**62.101 CURL.GetProxyAuthAvail**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProxyAuthAvail"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

The meaning of the bits is explained in `CURL.SetOptionHTTPOAuth`.

**See also**

- 62.55 `CURL.GetHTTPOAuthAvail` 1882
- 62.231 `CURL.SetOptionHTTPOAuth` 2136

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.102 CURL.GetProxySSLVerifyResult

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetProxySSLVerifyResult"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

### See also

- 62.124 CURL.GetSSLVerifyResult

1969

Created 15th April 2018, last changed 16th April 2018.



## 62.103 **CURL.GetRTSPCSEQRecv**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRTSPCSEQRecv"; curl )

### **Parameters**

#### **curl**

The CURL session handle.

\$curl

**Result** Returns number or error.

### **Description**

Created 12nd July 2015, last changed 12nd July 2015.

**62.104 CURL.GetRTSPClientCSEQ**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRTSPClientCSEQ"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns number or error.

**Description****See also**

- 62.105 CURL.GetRTSPServerCSEQ

1935

Created 12nd July 2015, last changed 12nd July 2015.

## 62.105 **CURL.GetRTSPServerCSEQ**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRTSPServerCSEQ"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns number or error.

### Description

#### See also

- 62.104 *CURL.GetRTSPClientCSEQ*

1934

Created 12nd July 2015, last changed 12nd July 2015.

## 62.106 CURL.GetRTSPSessionID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRTSPSessionID"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

Created 12nd July 2015, last changed 12nd July 2015.

## 62.107 **CURL.GetRedirectCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRedirectCount"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### See also

- 62.108 [CURL.GetRedirectTime](#) 1938
- 62.109 [CURL.GetRedirectURL](#) 1939

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.108 CURL.GetRedirectTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRedirectTime"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

CURL.GetRedirectTime contains the complete execution time for multiple redirections.

### See also

- 62.38 CURL.GetConnectTime 1859
- 62.107 CURL.GetRedirectCount 1937
- 62.109 CURL.GetRedirectURL 1939

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.109 CURL.GetRedirectURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRedirectURL"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

This can come very handy if you think using the built-in libcurl redirect logic isn't good enough for you but you would still prefer to avoid implementing all the magic of figuring out the new URL.

**Examples**

Do not follow, but return redirect URL:

```
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# Set URL to load
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::newURL ; MBS("CURL.GetRedirectURL"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 *CURL.GetDebugAsText* 1866
- 62.107 *CURL.GetRedirectCount* 1937
- 62.108 *CURL.GetRedirectTime* 1938
- 62.121 *CURL.GetResultAsText* 1963
- 62.140 *CURL.New* 1985
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011

- 62.224 `CURL.SetOptionFollowLocation` 2127
- 62.373 `CURL.SetOptionURL` 2329

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 19th April 2020.



**62.110 CURL.GetRequestSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetRequestSize"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

This is so far only for HTTP requests. Note that this may be more than one request if `CURL.SetOption-FollowLocation` is true.

**See also**

- 62.61 `CURL.GetHeaderSize` 1890
- 62.224 `CURL.SetOptionFollowLocation` 2127

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.111 `CURL.GetResponseCode`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResponseCode"; curl )

### Parameters

#### `curl`

The CURL session handle.

`$curl`

**Result** Returns the requested value or nothing on error.

### Description

This will be zero if no server response code has been received. Note that a proxy's CONNECT response should be read with `CURL.GetHTTPConnectCode` and not this.

For HTTP this is the normal status code. e.g. 200 for OK and 404 for file not found.

### Examples

On success puts download in container, else shows failed:

```
Set Variable [ $errorCode; Value:MBS("CURL.ErrorCode"; $curl) ]
Set Variable [ $httpResult; Value:MBS("CURL.GetResponseCode"; $curl) ]
Set Field [ Download Async::Result; $errorCode ]
Set Field [ Download Async::DebugMessages; MBS("CURL.GetDebugAsText"; $curl) ]
If [ $errorCode = 0 and $httpResult = 200 ]
Set Field [ Download Async::Progress; "Done" ]
Set Field [ Download Async::Output; MBS("CURL.GetResultAsContainer"; $curl) ]
Else
Set Field [ Download Async::Progress; "Failed" ]
Set Field [ Download Async::Output; "" ]
End If
```

### See also

- 62.16 `CURL.ErrorCode` 1823
- 62.43 `CURL.GetDebugAsText` 1866
- 62.56 `CURL.GetHTTPConnectCode` 1883
- 62.112 `CURL.GetResultAsContainer` 1944
- 62.143 `CURL.Perform` 1992
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.390 `CURL.SetupOAuth` 2365

62.111. <i>CURL.GETRESPONSECODE</i>	1943
• 102.53 JSON.GetPathItem	5387
• 102.66 JSON.Parse	5406

### **Example Databases**

- [CURL/Amazon S3 Buckets](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Check FileMaker Server](#)
- [CURL/CURL Download Picture with Info](#)
- [CURL/WebServices/AdobeSign Webservice](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/magento older](#)
- [CURL/WebServices/Query IP and Country](#)

#### **62.111.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)

#### **62.111.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 20](#)

Created 18th August 2014, last changed 12nd July 2015.

## 62.112 `CURL.GetResultAsContainer`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.GetResultAsContainer"; curl { ; Filename; PluginDetect } )
```

### Parameters

#### **curl**

The CURL session handle.

`$curl`

#### **Filename**

Optional

The desired file name

`test.jpg`

#### **PluginDetect**

Optional

If 1 the plugin will do the file type detection. If not provided or 0 and the FileMaker version is 13.0 or newer, the FileMaker engine will decide on the type.

**Result** Returns OK or error.

### Description

The plugin will detect the type of data based on the file extension.

If no filename is provided, the plugin uses the filename from the URL.

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Load JPEG from URL to container:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://monkeybreadsoftware.com/filemaker/images/devcon2013.jpg") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as JPG and store in field:
Set Variable [ $Result; Value:MBS( "CURL.GetResultAsContainer"; $curl) ]
Set Field [ test::MyContainerField; $Result ]
# get debug messages:
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

Download picture and scale it down:

```

Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL"; $curl; MIX::URL) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionFollowLocation"; $curl; 1) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionMaxRedirs"; $curl; 3) ]
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
Set Variable [ $debug ; Value: MBS("CURL.GetDebugAsText"; $curl) ]
If [ $result = "OK" ]
Set Variable [ $Image ; Value: MBS("CURL.GetResultAsContainer"; $curl) ]
Set Variable [ $ImageRef ; Value: MBS("GImage.NewFromContainer"; $image) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS("GImage.Scale";$ImageRef; "256x256>") ]
Set Variable [ $ScaledImage ; Value: MBS("GImage.WriteToJPEGContainer"; $ImageRef) ]
If [ MBS("IsError") = 0 ]
Set Field [ MIX::Image ; $ScaledImage ]
End If
Set Variable [ $r ; Value: MBS("GImage.Release";$ImageRef) ]
End If
End If
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]

```

Get file name for container from header:

```

Set Variable [ $name ; Value: "" ]
Set Variable [ $headers ; Value: MBS("CURL.GetHeaderAsText"; $curl; "UTF-8") ]
Set Variable [ $headers ; Value: MBS("List.MatchesPrefix"; $headers; "Content-Disposition: attachment; filename=") ]
If [ Length($headers) >0 ]
Set Variable [ $name ; Value: Middle ( $headers ; 43 ; Length($headers) ) ]
End If
Set Field [ CURL Test::File ; MBS("CURL.GetResultAsContainer"; $curl; $name) ]

```

### See also

- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011
- 62.260 *CURL.SetOptionMaxRedirs* 2174
- 87.191 *GImage.New* 4642
- 87.193 *GImage.NewFromContainer* 4646
- 87.214 *GImage.Release* 4674
- 87.225 *GImage.Scale* 4690

- 87.338 GImage.WriteToJPEGContainer 4836
- 127.6 IsError 6374
- 105.21 List.MatchesPrefix 5521

### Example Databases

- [CURL/CURL Download to Container](#)
- [CURL/Download Async](#)

### 62.112.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr6](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)

Created 15th June 2015, last changed 19th April 2020.

**62.113 CURL.GetResultAsData**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsData"; curl; Type { ; Filename } )

**Parameters****curl**

The CURL session handle.

\$curl

**Type**

The type the new data should have for FileMaker. See container functions. Typically "PDF " for pdf files, "FILE" for normal binary files and special codes for pictures like "JPEG".

"FILE"

**Filename**

Optional

The desired file name

test.zip

**Result** A container value or empty on error.

**Description**

Make sure the data is in the format you tell FileMaker. FileMaker uses internally 4 letter codes to know what data is stored in containers and you need to pass a suitable type code.

Please note that types are always 4 characters long, "PDF " has a space on the end.

Version 5.2 and later can use the filename from URL if you don't provide one yourself.

**See also**

- 62.115 CURL.GetResultAsEmail 1951
- 62.116 CURL.GetResultAsGIF 1953
- 62.117 CURL.GetResultAsJPEG 1955
- 62.118 CURL.GetResultAsMime 1957
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.121 CURL.GetResultAsText 1963
- 62.122 CURL.GetResultLength 1967

**Example Databases**

- [CURL/CURL Download zip file](#)

### 62.113.1 Blog Entries

- [MBS Filemaker Plugin, version 2.5pr4](#)

Created 18th August 2014, last changed 5th July 2015.



**62.114 CURL.GetResultAsEMailList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsEMailList"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns JSON or error.

**Description**

Returns result as JSON with details for emails.

**Examples**

Query email list as JSON:

```
Go to Layout [ "IMAP Postbox" (IMAP Postbox) ; Animation: None ]
# get URL
Set Variable [ $URL ; Value: "imap://imap.monkeybreadsoftware.de/INBOX" ]
# query list of emails
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL"; $curl; $URL) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionUserName"; $curl; IMAP Postbox::Username) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionPassword"; $curl; IMAP Postbox::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUseSSL"; $curl; 3) // required ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSLVersion"; $curl; 6) // TLS v1.2 ]
# Set query for all emails by UID. Not all fields are needed. Only request those you need to make it quicker.
Set Variable [ $r ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "UID FETCH 1:* (FLAGS INTERNALDATE RFC822.SIZE BODY.PEEK [ HEADER.FIELDS (Message-Id DATE FROM SUBJECT TO SENDER REPLY-TO CC BCC) ] )") ]
# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# We show results for debugging
Set Variable [ $output ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $debug ; Value: MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $list ; Value: MBS( "JSON.Colorize";MBS("CURL.GetResultAsEMailList"; $curl)) ]
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]
Set Field [ IMAP Postbox::Log ; $debug ]
Set Field [ IMAP Postbox::JSON ; $list ]
```

**See also**

- 62.43 *CURL.GetDebugAsText*

- 62.115 `CURL.GetResultAsEmail` 1951
- 62.121 `CURL.GetResultAsText` 1963
- 62.140 `CURL.New` 1985
- 62.149 `CURL.Release` 2011
- 62.196 `CURL.SetOptionCustomRequest` 2089
- 62.268 `CURL.SetOptionPassword` 2186
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.381 `CURL.SetOptionUsername` 2346
- 102.16 `JSON.Colorize` 5334

### Example Databases

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)

### 62.114.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [New MBS FileMaker Plugin 9.0](#)
- [Neues MBS FileMaker Plugin 9.0](#)
- [MBS FileMaker Plugin, version 9.0pr9](#)
- [CURL change for email download via IMAP](#)
- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 21st December 2018, last changed 19th April 2020.

**62.115 CURL.GetResultAsEmail**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsEmail"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns email parser reference number or error.

**Description**

If the content is a valid email content, the email is parsed and you get back the reference number. Please use EmailParser.Free to free it later and release memory.

**See also**

- 62.113 CURL.GetResultAsData 1947
- 62.114 CURL.GetResultAsEMailList 1949
- 62.116 CURL.GetResultAsGIF 1953
- 62.117 CURL.GetResultAsJPEG 1955
- 62.118 CURL.GetResultAsMime 1957
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.121 CURL.GetResultAsText 1963
- 62.373 CURL.SetOptionURL 2329
- 73.6 EmailParser.Free 3466

**Example Databases**

- [CURL/Email/Email Client](#)
- [CURL/Email/IMAP Email](#)

**62.115.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr7](#)
- [MBS FileMaker Plugin, version 9.5pr1](#)

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 24th September 2015, last changed 12nd December 2019.

**62.116 CURL.GetResultAsGIF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsGIF"; curl { ; Filename } )

**Parameters****curl**

The CURL session handle.

\$curl

**Filename**

Optional

The desired file name.

test.gif

**Result** The result value which you can assign to a container field.

**Description**

Make sure the data is a GIF. The plugin does not verify whether result is a GIF file. But if it is one, it sets size properties so FileMaker can preview it.

Version 5.2 and later can use the filename from URL if you don't provide one yourself.

See also `CURL.GetResultAsContainer`.

**Examples**

Load GIF image from URL:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://monkeybreadsoftware.com/filemaker/images/dynapdf.gif") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as GIF and store in field:
Set Variable [ $Result; Value:MBS( "CURL.GetResultAsGIF"; $curl) ]
Set Field [ test::MyContainerField; $Result ]
# get debug messages:
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 `CURL.GetDebugAsText`

- 62.112 `CURL.GetResultAsContainer` 1944
- 62.115 `CURL.GetResultAsEmail` 1951
- 62.117 `CURL.GetResultAsJPEG` 1955
- 62.118 `CURL.GetResultAsMime` 1957
- 62.121 `CURL.GetResultAsText` 1963
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011
- 62.373 `CURL.SetOptionURL` 2329

### 62.116.1 **Blog Entries**

- [MBS Filemaker Plugin, version 3.1pr8](#)

Created 18th August 2014, last changed 19th April 2020.

**62.117 CURL.GetResultAsJPEG**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsJPEG"; curl { ; Filename } )

**Parameters****curl**

The CURL session handle.

\$curl

**Filename**

Optional

The desired file name.

test.jpg

**Result** The result value which you can assign to a container field.

**Description**

Make sure the data is a JPEG. The plugin does not verify whether result is a JPEG file. But if it is one, it sets size properties so FileMaker can preview it.

Version 5.2 and later can use the filename from URL if you don't provide one yourself.

See also *CURL.GetResultAsContainer*.

**Examples**

Load JPEG from URL and store in container field:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://monkeybreadsoftware.com/filemaker/images/devcon2013.jpg") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as JPG and store in field:
Set Variable [ $Result; Value:MBS( "CURL.GetResultAsJPEG"; $curl) ]
Set Field [ test::MyContainerField; $Result ]
# get debug messages:
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.113 *CURL.GetResultAsData*

• 62.115 <code>CURL.GetResultAsEmail</code>	1951
• 62.119 <code>CURL.GetResultAsPDF</code>	1959
• 62.120 <code>CURL.GetResultAsPNG</code>	1961
• 62.121 <code>CURL.GetResultAsText</code>	1963
• 62.140 <code>CURL.New</code>	1985
• 62.149 <code>CURL.Release</code>	2011
• 62.157 <code>CURL.SetDebugWithProgress</code>	2024
• 62.373 <code>CURL.SetOptionURL</code>	2329
• 62.382 <code>CURL.SetOptionVerbose</code>	2348

### Example Databases

- [CURL/Amazon S3 Download Picture](#)
- [CURL/CURL Download in Background](#)
- [CURL/CURL Download Picture with Info](#)
- [CURL/CURL Download Picture](#)
- [CURL/CURL Download with Progress](#)
- [CURL/WebView Download Images with CURL](#)

Created 18th August 2014, last changed 19th April 2020.



**62.118 CURL.GetResultAsMime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsMime"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns email parser reference number or error.

**Description**

If you got an answer from a web service with multi part mime output, this function will parse it with our mime parser (normally used for emails) and then return you the object reference.

Please use EmailParser.Free to free it later and release memory.

**Examples**

Get image objects:

```
Set Variable [ $email ; Value: MBS("CURL.GetResultAsMime"; $curl) ]
Set Field [ test::Part1 ; MBS( "EmailParser.Inline"; $email; 0; "container") ]
Set Field [ test::Image ; MBS( "EmailParser.Inline"; $email; 1; "container") ]
Set Variable [ $email ; Value: MBS("EmailParser.Free"; $email) ]
```

**See also**

- 62.113 CURL.GetResultAsData 1947
- 62.115 CURL.GetResultAsEmail 1951
- 62.116 CURL.GetResultAsGIF 1953
- 62.117 CURL.GetResultAsJPEG 1955
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.121 CURL.GetResultAsText 1963
- 73.6 EmailParser.Free 3466
- 73.14 EmailParser.Inline 3477

### 62.118.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)

Created 12nd December 2019, last changed 12nd December 2019.

**62.119 CURL.GetResultAsPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsPDF"; curl { ; Filename; DontRenderPreview } )

**Parameters****curl**

The CURL session handle.

\$curl

**Filename**

Optional

The desired file name.

test.png

**DontRenderPreview**

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** The result value which you can assign to a container field.

**Description**

Make sure the data is a PDF. The plugin does not verify whether result is a PDF file. But if it is one, it sets size properties and creates a preview JPEG so FileMaker can preview it (Preview is Mac only).

For Windows you can generate preview with DynaPDF.GeneratePreview function.

Version 5.2 and later can use the filename from URL if you don't provide one yourself.

See also `CURL.GetResultAsContainer`

If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit..

**Examples**

Load PDF from URL and store in container:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.com/file-maker/files/Installation.pdf") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as PDF and store in field:
Set Variable [ $Result; Value:MBS( "CURL.GetResultAsPDF"; $curl) ]
Set Field [ test::MyContainerField; $Result ]
```

```
# get debug messages:
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.112 [CURL.GetResultAsContainer](#) 1944
- 62.113 [CURL.GetResultAsData](#) 1947
- 62.115 [CURL.GetResultAsEmail](#) 1951
- 62.116 [CURL.GetResultAsGIF](#) 1953
- 62.118 [CURL.GetResultAsMime](#) 1957
- 62.120 [CURL.GetResultAsPNG](#) 1961
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011

### Example Databases

- [CURL/CURL Download PDF and add preview with DynaPDF](#)

#### 62.119.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.0pr2](#)

Created 18th August 2014, last changed 19th April 2020.

**62.120 CURL.GetResultAsPNG**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsPNG"; curl { ; Filename } )

**Parameters****curl**

The CURL session handle.

\$curl

**Filename**

Optional

The desired file name.

test.png

**Result** The result value which you can assign to a container field.

**Description**

Make sure the data is a PNG. The plugin does not verify whether result is a PNG file. But if it is one, it sets size properties and creates a preview JPEG so FileMaker can preview it.

Version 5.2 and later can use the filename from URL if you don't provide one yourself.

See also *CURL.GetResultAsContainer*.

**Examples**

Load a PNG file from URL into container:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.com/file-maker/images/devcon_14_banner_horz.png") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as PNG for field and debug messages:
Set Variable [ $Result; Value:MBS( "CURL.GetResultAsPNG"; $curl ) ]
Set Field [ test::MyContainerField; $Result ]
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl ) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 *CURL.GetDebugAsText* 1866
- 62.112 *CURL.GetResultAsContainer* 1944

- 62.113 `CURL.GetResultAsData` 1947
- 62.115 `CURL.GetResultAsEmail` 1951
- 62.116 `CURL.GetResultAsGIF` 1953
- 62.119 `CURL.GetResultAsPDF` 1959
- 62.121 `CURL.GetResultAsText` 1963
- 62.140 `CURL.New` 1985
- 62.149 `CURL.Release` 2011
- 62.373 `CURL.SetOptionURL` 2329

Created 18th August 2014, last changed 19th April 2020.

**62.121 CURL.GetResultAsText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultAsText"; curl { ; Encoding; preserveLineEndings } )

**Parameters****curl**

The CURL session handle.

\$curl

**Encoding**

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**preserveLineEndings**

Optional

Whether to change line endings to CR for FileMaker. By default (0) we change the line endings to CR, so FileMaker has no trouble. Pass 1 to keep whatever line endings are there.

0

**Result** The result as text.

**Description**

You are responsible for detecting decoding.

See also `CURL.GetResultAsContainer`.

Plugin version 5.2 and newer replace newlines automatically for you to match what FileMaker uses (Mac line endings).

**Examples**

Query result as UTF-8 text:

```
MBS("CURL.GetResultAsText"; $curl; "UTF-8")
```

Query result as Windows Ansi encoding:

```
MBS("CURL.GetResultAsText"; $curl; "windows")
```

Get result text and convert line endings for FileMaker:

```
MBS("Text.ReplaceNewline"; MBS("CURL.GetResultAsText"; $curl);1)
```

Download some text:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Download a text from URL:

```
# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.mbsplugins.eu/") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as text and debug messages:
Set Variable [ $TextResult; Value:MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $DebugMessages; Value:MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

Query webservice with JSON request:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://test.test/ws/v1/catalogo/get-modelos") ]
# pass JSON for query
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; " { \"brandId\" : \"1\", \"device\" : \"70\" } "; "UTF-8") ]
Set Field [ models::result; MBS("CURL.Perform"; $curl) ]
Set Field [ models::text; MBS("CURL.GetResultAsText"; $curl;"UTF8") ]
Set Field [ models::header; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 CURL.GetDebugAsText 1866
- 62.59 CURL.GetHeaderAsText 1887
- 62.113 CURL.GetResultAsData 1947
- 62.117 CURL.GetResultAsJPEG 1955
- 62.119 CURL.GetResultAsPDF 1959
- 62.120 CURL.GetResultAsPNG 1961
- 62.390 CURL.SetupOAuth 2365



62.121. <i>CURL.GETRESULTASTEXT</i>	1965
• 62.392 <i>CURL.UseSystemCertificates</i>	2371
• 102.66 <i>JSON.Parse</i>	5406
• 167.59 <i>Text.ReplaceNewline</i>	7985

## Example Databases

- [CURL/Amazon S3 Buckets](#)
- [CURL/CURL Check FileMaker Server](#)
- [CURL/CURL Download Text](#)
- [CURL/CURL Low Level Sockets](#)
- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/WebServices/Query IP and Country](#)
- [CURL/WebServices/Swiss Post Addresscheck V4-02-00](#)
- [CURL/WebServices/Twilio API Send SMS Json](#)

### 62.121.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)
- [Let CURL handle cookie list](#)
- [Use root certificates included with FileMaker](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)
- [Using NetVerify web service with FileMaker](#)
- [Swiss Post Webservice to verify addresses](#)
- [Using CURL with Rosette web service](#)
- [MBS FileMaker Plugin, version 5.2pr7](#)

**62.121.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 20
- Ausgabe 4/2016, Seite 19
- Ausgabe 4/2016, Seite 18

Created 18th August 2014, last changed 19th April 2020.

**62.122 CURL.GetResultLength**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetResultLength"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Length in bytes.

**Description****Examples**

Query length. Shows 11 for "Hello World" above:

MBS("CURL.GetResultLength"; \$curl)

**See also**

- 62.44 *CURL.GetDebugLength* 1869
- 62.60 *CURL.GetHeaderLength* 1889
- 62.63 *CURL.GetInputLength* 1893
- 62.113 *CURL.GetResultAsData* 1947

Created 18th August 2014, last changed 18th August 2014.

## 62.123 CURL.GetSSLEngines

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.GetSSLEngines"; curl )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

Note that engines are normally implemented in separate dynamic libraries. Hence not all the returned engines may be available at run-time.

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.124 CURL.GetSSLVerifyResult**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetSSLVerifyResult"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

If enabled with `CURL.SetOptionVerifyPeer`.

**See also**

- 62.102 `CURL.GetProxySSLVerifyResult`

1932

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.125 CURL.GetScheme

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetScheme"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

Created 15th April 2018, last changed 16th April 2018.

## 62.126 **CURL.GetSizeDownload**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetSizeDownload"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

The amount is only for the latest transfer and will be reset again for each new transfer.

### See also

- 62.127 [CURL.GetSizeUpload](#) 1972
- 62.128 [CURL.GetSpeedDownload](#) 1973

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.127 CURL.GetSizeUpload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetSizeUpload"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### See also

- 62.126 CURL.GetSizeDownload 1971
- 62.129 CURL.GetSpeedUpload 1974

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.



**62.128 CURL.GetSpeedDownload**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetSpeedDownload"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

**Description**

Measured in bytes/second.

**See also**

- 62.126 [CURL.GetSizeDownload](#) 1971
- 62.129 [CURL.GetSpeedUpload](#) 1974

**Example Databases**

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.129 CURL.GetSpeedUpload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetSpeedUpload"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

Measured in bytes/second.

### See also

- [62.127 CURL.GetSizeUpload](#) 1972
- [62.128 CURL.GetSpeedDownload](#) 1973

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.130 **CURL.GetStartTransferTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetStartTransferTime"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

This includes `CURL.GetPreTransferTime` and also the time the server needs to calculate the result.

### See also

- 62.89 `CURL.GetPreTransferTime`

1919

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.131 CURL.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetTag"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns text or error.

### Description

### Examples

Query record ID from tag in script:

```
Set Variable [ $curl; Value:Get(ScriptParameter) ]
Set Variable [ $RecordID; Value:MBS("CURL.GetTag"; $curl) ]
```

Test tag:

```
Set Variable [ $curl; Value:MBS( "CURL.New" ) ]
# Set Tag to some value
Set Variable [ $r; Value:MBS( "CURL.SetTag"; $curl; "Hello World" ) ]
# Later read back the value
Set Variable [ $tag; Value:MBS( "CURL.GetTag"; $curl) ]
```

### See also

- 62.96 CURL.GetProgressPercent 1926
- 62.140 CURL.New 1985
- 62.387 CURL.SetTag 2357

### Example Databases

- [CURL/Download Async](#)
- [CURL/Email/Batch Emailer](#)

Created 12nd July 2015, last changed 11st May 2016.

## 62.132 **CURL.GetTotalTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.GetTotalTime"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns the requested value or nothing on error.

### Description

#### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.133 CURL.Host**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Host" )

**Result** The host string.

**Description**

This is an ascii string showing what host information that this curl was built for.

**Examples**

Shows host:

Show Custom Dialog [ "Transfer error"; MBS( "CURL.Host" ) ]

**See also**

- [62.138 CURL.List](#)

1983

**Example Databases**

- [CURL/CURL Version and Protocols](#)

Created 18th August 2014, last changed 8th December 2016.

## 62.134 **CURL.IsRunning**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.IsRunning"; curl )

### Parameters

#### **curl**

The CURL session handle.

\$curl

**Result** Returns 1 if transfer is running or 0 if not.

### Description

This is useful if you started transfer with `CURL.PerformInBackground` and you want to know whether it has finished yet or not.

When perform is done in background, use `CURL.ErrorCode` and `CURL.ErrorMessage` to query result status.

### See also

- [62.16 CURL.ErrorCode](#) 1823
- [62.17 CURL.ErrorMessage](#) 1826
- [62.143 CURL.Perform](#) 1992
- [62.144 CURL.PerformAsync](#) 2001
- [62.145 CURL.PerformInBackground](#) 2003

### Example Databases

- [CURL/CURL Download in Background](#)
- [CURL/Email/Batch Emailer](#)

### 62.134.1 Blog Entries

- [Batch sending Emails in FileMaker via MBS Plugin](#)

Created 18th August 2014, last changed 12nd November 2014.

**62.135 CURL.LibIDNVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.LibIDNVersion" )

**Result** Returns text or error.

**Description****Examples**

Shows Lib IDN version used:

Show Custom Dialog [ "IDN Version"; MBS( "CURL.LibIDNVersion" ) ]

**See also**

- [62.136 CURL.LibSSHVersion](#) 1981
- [62.137 CURL.LibSSLVersion](#) 1982

**62.135.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr3](#)

Created 14th April 2018, last changed 14th April 2018.



**62.136 CURL.LibSSHVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.LibSSHVersion" )

**Result** Returns text or error.

**Description****Examples**

Shows LibSSH version used:

Show Custom Dialog [ "SSH Version"; MBS( "CURL.LibSSHVersion" ) ]

**See also**

- 62.135 CURL.LibIDNVersion 1980
- 62.137 CURL.LibSSLVersion 1982

**62.136.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 14th April 2018, last changed 14th April 2018.

**62.137 CURL.LibSSLVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.LibSSLVersion" )

(old name: CURL.SSLVersion)

**Result** SSL version string.

**Description****Examples**

Shows SSL Version:

Show Custom Dialog [ "SSL Version"; MBS( "CURL.LibSSLVersion" ) ]

**See also**

- 62.135 CURL.LibIDNVersion 1980
- 62.136 CURL.LibSSHVersion 1981

Created 18th August 2014, last changed 14th April 2018.

**62.138 CURL.List**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.List" )

**Result** Returns list or error.

**Description**

Returns IDs for all CURL objects in memory. If this list is growing, you may have forgotten to call `CURL.Release` in your scripts.

Normally after all scripts are done, this list should be empty unless there is an asynchron or background transfer still running.

**See also**

- 62.133 `CURL.Host` 1978
- 62.149 `CURL.Release` 2011

**62.138.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.4pr2](#)

Created 13th October 2015, last changed 19th April 2020.

## 62.139 CURL.LoadLibrary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.LoadLibrary"; Path )

### Parameters

#### Path

The native path to the library file. e.g. DLL for windows, dylib for MacOS and so for Linux.

Pass empty path to load internal library.

"/Users/cs/Desktop/libcurl.dylib"

**Result** Returns OK or error.

### Description

If you need a different CURL library, e.g. one supporting HTTP/2 or Keberos authentication, you can load the native library here.

### Examples

Load system CURL library on MacOS:

```
Show Custom Dialog [ "CURL Version before" ; MBS( "CURL.Version" ) ]
```

```
Set Variable [ $r ; Value: MBS( "CURL.LoadLibrary"; "/usr/lib/libcurl.4.dylib" ) ]
Show Custom Dialog [ "CURL loaded" ; $r ]
```

```
Show Custom Dialog [ "CURL Version after" ; MBS( "CURL.Version" ) ]
```

Load system CURL library on Linux:

```
Set Variable [ $r ; Value: MBS( "CURL.LoadLibrary"; "/usr/lib64/libcurl.so.4" ) ]
Show Custom Dialog [ "CURL loaded" ; $r ]
```

### See also

- 62.393 CURL.Version

2373

### 62.139.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 19th April 2020, last changed 20th April 2020.

**62.140 CURL.New**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.New" )
```

**Result** A new CURL handle.

**Description**

This function must be the first function to call, and it returns a CURL handle that you must use as input to other CURL functions. `CURL.New` initializes curl and this call **MUST** have a corresponding call to `CURL.Release` when the operation is complete. You can use one curl object for multiple transfers reusing same connection.

Result is a number greater than zero on success. Errors returned may be about low memory or too many CURL connections.

CURL reference numbers are starting at 16000 and counting up for each new session.

**Examples**

Initialize a CURL session and set URL:

```
$curl = MBS( "CURL.New" )
$r = MBS("CURL.SetOptionURL"; $curl; $URL)
```

Query a REST API:

```
# new session
Set Variable [ $curl; MBS( "CURL.New" ) ]
# set URL for this REST API
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "https://example.test/wc-api/v2/products" ) ]
# make a post with some data
Set Variable [ $r; MBS("CURL.SetOptionPost"; $curl; 1 ) ]
Set Variable [ $r; MBS("CURL.SetOptionPostFields"; $curl; " { product: { ... } } "; "UTF-8" ) ]
# set credentials
Set Variable [ $r; MBS("CURL.SetOptionUsername"; $curl; "consumer_key" ) ]
Set Variable [ $r; MBS("CURL.SetOptionPassword"; $curl; "consumer_secret" ) ]
# add header option
Set Variable [ $r; MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/json", "Expect:" ) ]
# disable security for this demo:
Set Variable [ $r; MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 0 ) ]
Set Variable [ $r; MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 0 ) ]
# with log messages
Set Variable [ $r; MBS( "CURL.SetOptionVerbose"; $curl; 1 ) ]
# run it!
Set Variable [ $Error; MBS( "CURL.Perform"; $curl ) ]
# check debug messages
```

```

Set Variable [ $Messages; MBS("CURL.GetDebugAsText"; $curl) ]
# check result
Set Variable [ $Output; MBS("CURL.GetResultAsText"; $curl) ]
# and cleanup
Set Variable [ $r; MBS( "CURL.Release"; $curl ) ]

```

Download a text from URL:

```

# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.mbsplugins.eu/") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as text and debug messages:
Set Variable [ $TextResult; Value:MBS( "CURL.GetResultAsText"; $curl) ]
Set Variable [ $DebugMessages; Value:MBS( "CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]

```

### See also

- [62.381 CURL.SetOptionUsername](#) 2346
- [62.383 CURL.SetOptionWildcardMatch](#) 2350
- [62.386 CURL.SetProgressScript](#) 2355
- [62.387 CURL.SetTag](#) 2357
- [62.390 CURL.SetupOAuth](#) 2365
- [62.392 CURL.UseSystemCertificates](#) 2371
- [88.2 Hash.Digest](#) 4851
- [102.53 JSON.GetPathItem](#) 5387
- [102.66 JSON.Parse](#) 5406
- [127.40 Plugin.SetFunctions](#) 6417

### Example Databases

- [CURL/Amazon S3 Download Picture](#)
- [CURL/CURL Download on Server](#)
- [CURL/CURL Download to Container](#)
- [CURL/CURL Download with Progress](#)

- [CURL/CURL with certificates included with FileMaker](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/FTP/CURL FTP Delete File](#)
- [CURL/WebServices/magento older](#)
- [CURL/WebServices/VAT Webservice Example/VAT Webservice Example](#)
- [Third Party/Google OAUTH 2 example](#)

### **62.140.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Let CURL handle cookie list](#)
- [Use root certificates included with FileMaker](#)
- [URLs without UserName and Password please](#)
- [Upload email to Sent folder via IMAP](#)
- [Amazon S3 Upload with Mime Type and Permissions](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)
- [Batch sending Emails in FileMaker via MBS Plugin](#)
- [Sending emails in FileMaker with MBS Plugin](#)

### **62.140.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 20](#)
- [Ausgabe 4/2016, Seite 19](#)
- [Ausgabe 4/2016, Seite 18](#)
- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 19th April 2020.

**62.141 CURL.NumberOfRunningTransfers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.NumberOfRunningTransfers" )

**Result** Returns number or error.

**Description**

Use CURL.RunningTransfers to get list of CURL handles for running transfers.

**See also**

- 62.75 CURL.GetMultiRunningTransfers 1905
- 62.152 CURL.RunningTransfers 2015

Created 12nd July 2015, last changed 12nd July 2015.



**62.142 CURL.OpenInputFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.OpenInputFile"; curl; Path { ; Offset; Length } )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

Native file path.

"C:\Documents\Test.Txt"

**Offset**

Optional

Available in MBS FileMaker Plugin 8.4 or newer.

Offset where to start reading relative to file start.

1024\*1024

**Length**

Optional

Available in MBS FileMaker Plugin 8.4 or newer.

Size of data to read from file.

1024\*1024\*10

**Result** Returns "OK" on success or error message.

**Description**

If you set input file, the data from CURL.SetInput\* functions is ignored.

Do not call this method while a transfer is running.

If you have data in container, please check CURL.SetInputFile.

You may need to use CURL.SetOptionUpload to make it an upload for FTP/SFTP.

If you specify offset and length, we only read that part of the file in memory.

Otherwise we stream from the file on request.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Set input from file on disk:

```
Set Variable [ $result ; Value: MBS( "CURL.OpenInputFile"; $curl; "/Users/cs/Desktop/test.zip" ) ]
```

Upload file via FTP:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]

# FTP URL with destination file name:
Set Variable [ $result; Value: MBS("CURL.SetOptionURL" ; $curl ; "ftp://12.34.56.78/AZ1677ZZ.jpg") ]
Set Variable [ $result; Value: MBS("CURL.SetOptionUpload" ; $curl ; 1) ]
Set Variable [ $result; Value: MBS("CURL.SetOptionPassword" ; $curl ; "xxx" ) ]
Set Variable [ $result; Value: MBS("CURL.SetOptionUsername" ; $curl ; "yyy" ) ]

# Pick file from desktop:
Set Variable [ $Desktop; Value: MBS("Folders.UserDesktop") ]
Set Variable [ $Path; Value: MBS("Path.AddPathComponent" ; $desktop; "AZ1677ZZ.jpg") ]
Set Variable [ $result; Value: MBS( "CURL.OpenInputFile" ; $curl ;$path ) ]

# Pick file from container:
// Set Variable [ $result; Value: MBS( "CURL.SetInputFile" ; $curl ; Test::ImageFileContainer ) ]

# Upload file
Set Field [ Test::PerformResult; MBS( "CURL.Perform" ; $curl ) ]
Set Field [ Test::DebugMessages; MBS( "CURL.GetDebugAsText" ; $curl ) ]
Set Variable [ $result; Value:MBS( "CURL.Release" ; $curl ) ]
```

### See also

- 62.11 CURL.CloseInputFile 1812
- 62.275 CURL.SetOptionPostFields 2199
- 62.329 CURL.SetOptionSSHPrivateKeyfile 2269
- 62.330 CURL.SetOptionSSHPublicKeyfile 2271
- 62.377 CURL.SetOptionUpload 2340
- 62.381 CURL.SetOptionUsername 2346
- 82.8 Folders.UserDesktop 4235
- 88.2 Hash.Digest 4851
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [CURL/Amazon S3 Upload File](#)

- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

### **62.142.1 Blog Entries**

- [Tip of the day: FTP File Upload](#)
- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS Filemaker Plugin, version 3.3pr1](#)
- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 19th April 2020.

**62.143 CURL.Perform**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Perform"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Error code. 0 means everything was ok, non-zero means an error occurred. The number may be followed by a text description.

**Description**

This function is called after the init and all the options are set, and will perform the transfer as described in the options. It must be called with the same handle as input as the CURL.New call returned.

You can do any amount of calls to CURL.Perform while using the same handle. If you intend to transfer more than one file, you are even encouraged to do so. CURL will then attempt to re-use the same connection for the following transfers, thus making the operations faster, less CPU intense and using less network resources. Just note that you will have to use the option functions between the invokes to set options for the following CURL.Perform.

You must never call this function simultaneously from two places using the same handle. Let the function return first before invoking it another time. If you want parallel transfers, you must use several curl handles.

While transfer is running, your FileMaker application is blocked. It's useful to show progress with using CURL.SetUpdateProgressDialog. Or you use CURL.PerformInBackground or CURL.PerformAsync to run the transfer in background.

Internal buffer for output, debug and header data is cleared before the perform.

This function returns error codes. If you get an error, please use CURL.GetDebugAsText to read the transcription of the transfer and look for error messages from server.

Typical error codes are 6 for a wrong domain name in the URL, 67 for wrong name/password combination, 60 for missing/bad SSL settings, 1 for an unsupported protocol.

In case of error 60, please decide what SSL policy you want and use our SSL options. e.g. use CURL.SetOptionSSLVerifyHost and CURL.SetOptionSSLVerifyPeer to disable SSL security or use CURL.SetOptionCAInfo to point CURL to a certificate.

No error means the data transfer was okay, but it doesn't tell you if for example a webserver reported an error. Please check `CURL.GetResponseCode` for HTTP requests to get the HTTP status code. e.g. 404 if file is not found.

The list of possible error codes:

With SFTP, you can get logged error "Upload failed: Operation failed (4/-31)" when upload uses path to folder instead of file in URL.

### Examples

Query a REST API:

```
# new session
Set Variable [ $curl; MBS( "CURL.New" ) ] ]
# set URL for this REST API
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "https://example.test/wc-api/v2/products") ]
# make a post with some data
Set Variable [ $r; MBS("CURL.SetOptionPost"; $curl; 1) ]
Set Variable [ $r; MBS("CURL.SetOptionPostFields"; $curl; " { product: { ... } } "; "UTF-8") ]
# set credentials
Set Variable [ $r; MBS("CURL.SetOptionUsername"; $curl; "consumer_key") ]
Set Variable [ $r; MBS("CURL.SetOptionPassword"; $curl; "consumer_secret") ]
# add header option
Set Variable [ $r; MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/json"; "Expect:" ) ]
# disable security for this demo:
Set Variable [ $r; MBS("CURL.SetOptionSSLVerifyHost"; $curl; 0 ) ]
Set Variable [ $r; MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 0 ) ]
# with log messages
Set Variable [ $r; MBS("CURL.SetOptionVerbose"; $curl; 1 ) ]
# run it!
Set Variable [ $Error; MBS("CURL.Perform"; $curl ) ]
# check debug messages
Set Variable [ $Messages; MBS("CURL.GetDebugAsText"; $curl) ]
# check result
Set Variable [ $Output; MBS("CURL.GetResultAsText"; $curl) ]
# and cleanup
Set Variable [ $r; MBS("CURL.Release"; $curl ) ]
```

Using Rosette web service:

```
# Start new CURL transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set options like Verbose Debug Messages
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
# the url of webservice
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://api.rosette.com/rest/v1/mor-
```

```

phology/parts-of-speech") ]
# the header info for tagging, API Key comes from a global field.
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "user_key: " & RosetteAPISettings::RosetteAPIKey; "Content-Type: application/json"; "Accept: application/json" ) ]
# We want a POST transfer:
Set Variable [ $result; Value:MBS("CURL.SetOptionPost"; $curl; 1 ) ]
# Build JSON using the plugin function to properly encode a string:
Set Variable [ $request; Value:" { \"content\": " & MBS("JSON.CreateString"; TextData::TextAsInput) & " } " ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $request) ]
# show our JSON in a field for debugging:
Set Field [ TextData::CURLInput; $request ]
# Run transfer
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
# Check result and debug messages
Set Field [ TextData::CurlDebug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ TextData::CurlOutput; MBS("CURL.GetResultAsText"; $curl) ]
# Cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]

```

Download a text from URL:

```

# start new transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set URL
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.mbsplugins.eu/") ]
# run transfer
Set Variable [ $ErrorCode; Value:MBS("CURL.Perform"; $curl) ]
# get result as text and debug messages:
Set Variable [ $TextResult; Value:MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $DebugMessages; Value:MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]

```

Charge with Stripe webservice:

```

# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://api.stripe.com/v1/charges") ]
# set user name
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "sk_test_ your id here") ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPost"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; "amount=400& currency=usd& description=Charge% 20for% 20test@example.com& source [ object ] =card& source [ number ] =4242424242424242& source [ exp_month ] =12& source [ exp_year ] =2017& source [ cvc ] =123") ]

```

```

# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Download URL to temp file:

```

Set Variable [ $curl; Value:MBS("CURL.New") ]
# this is URL to download
Set Variable [ $url; Value:"https://www.monkeybreadsoftware.com/filemaker/test.txt" ]
# get file name from URL
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $URL ) ]
# now make temp file path
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.SystemTemporary" ); $name
) ]
# set URL to download
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.com/file-
maker/test.txt") ]
# open destination file
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# close destination file
Set Variable [ $r; Value:MBS("CURL.CloseOutputFile"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Query IP via ipinfo.io:

```

Go to Layout [ "Table" ]
New Record/Request
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://ipinfo.io") ]
# RUN now
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Table::DebugLog; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ Table::Result; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
If [ $result = "OK" ]
# Check HTTP error code
Set Variable [ $response; Value:MBS("CURL.GetResponseCode"; $curl) ]

```

```

If [ $response = 200 ]
# Query values from JSON
Set Variable [ $json; Value:MBS( "JSON.Parse"; Table::Result ) ]
Set Field [ Table::IP; MBS("JSON.GetPathItem"; $json; "ip"; 1) ]
Set Field [ Table::Hostname; MBS("JSON.GetPathItem"; $json; "hostname"; 1) ]
Set Field [ Table::City; MBS("JSON.GetPathItem"; $json; "city"; 1) ]
Set Field [ Table::Region; MBS("JSON.GetPathItem"; $json; "region"; 1) ]
Set Field [ Table::Country; MBS("JSON.GetPathItem"; $json; "country"; 1) ]
Set Field [ Table::Location; MBS("JSON.GetPathItem"; $json; "loc"; 1) ]
Set Field [ Table::Company or Provider; MBS("JSON.GetPathItem"; $json; "org"; 1) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json ) ]
End If
End If
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
Commit Records/Requests [ No dialog ]

```

Query fedex for tracking status:

```

# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.fedex.com/trackingCal/track/v1/ship-
ments/trackingnumbers") ]
# set query content including the trackingNumber
Set Variable [ $result; Value: MBS("CURL.SetOptionPostFields"; $curl; " { \"TrackPackagesRequest\": {
\"appType\": \"WTRK\", \"appDeviceType\": \"WTRK\", \"uniqueKey\": \"\", \"processingParameters\": {
}, \"trackingInfoList\": [ { \"trackNumberInfo\": { \"trackingNumber\": \"\" & $trackingNumber & \"\", \"track-
ingQualifier\": \"\", \"trackingCarrier\": \"\" } } ] } } ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/json")
]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Send request to Apple's gsx webservice:

```

Set Variable [ $XMLRequest; Value:"" ]
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# URL for web service
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://gsxapiut.apple.com:443/gsx-
ws/services/emea/asp") ]

```



```

# Mark content as XML
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml; charset=UTF-8") ]
# Pass XML content for request
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $XMLRequest) ]
# Certificate and private key in one file
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/Users/cs/Keys/apple-cert+key.pem") ]
]
# Root certificates
Set Variable [ $result; Value:MBS("CURL.SetOptionCAInfo"; $curl; "/Users/cs/Keys/cacert.pem") ]
# SSL Key is in PEM Format
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
# Password for key file
Set Variable [ $result; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "xxx") ]
# SSL Verification on
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyHost"; $curl; 1) ]
# use TLS v1.2
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVersion"; $curl; 6) ]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Upload file from OS X to IBM Mainframe:

```

Set Variable [ $debug; Value:"" ]
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "xxx") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "yyy") ]
Set Variable [ $result; Value:MBS("CURL.OpenInputFile"; $curl; "/Users/gene/Desktop/MY.Logfile.txt") ]
]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://192.168.1.4:21/MY.LOGFILE1" ) ]
]
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionTransferText"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 0) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyHost"; $curl; 0) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionQuote"; $curl; "site RECFM=FB LRECL=1024") ]
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
Set Variable [ $debug; Value:MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Run a generic POST request for REST or SOAP web service:

```
# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://someURL/service") ]
# set user name and password if needed:
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "user name") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "password") ]
# set some additional headers, which may include custom authorization and content types:
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Authorization: Bearer a92eabb9-76f9-42ee-b280-bcd15cb2e9db"; "Content-Type: application/json" ) ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $json ) ]
# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.390 CURL.SetupOAuth 2365
- 62.392 CURL.UseSystemCertificates 2371
- 82.5 Folders.System 4231
- 82.7 Folders.SystemTemporary 4233
- 87.225 GImage.Scale 4690
- 88.2 Hash.Digest 4851
- 102.66 JSON.Parse 5406
- 124.5 Path.LastPathComponent 6252
- 127.40 Plugin.SetFunctions 6417
- 146.25 SendMail.PrepareCURL 7024

### Example Databases

- [CURL/CURL Download Picture to file](#)
- [CURL/CURL Download Picture](#)
- [CURL/CURL Download to Container](#)

- [CURL/CURL get and put/CURLS get and put](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/FTP/CURL FTP Download File](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Google Maps API/Google Maps API](#)

### 62.143.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Let CURL handle cookie list](#)
- [MBS FileMaker Plugin, version 8.6pr5](#)
- [Use root certificates included with FileMaker](#)
- [Upload email to Sent folder via IMAP](#)
- [Amazon S3 Upload with Mime Type and Permissions](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [Using NetVerify web service with FileMaker](#)

### 62.143.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 20](#)
- [Ausgabe 4/2016, Seite 19](#)
- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 19th April 2020.

Name	Number	Description
CURLE_OK	0	No error.
CURLE_UNSUPPORTED_PROTOCOL	1	Unsupported protocol.
CURLE_FAILED_INIT	2	Initialization failed or option not available.
CURLE_URL_MALFORMAT	3	URL has wrong format.
CURLE_COULDNT_RESOLVE_PROXY	5	DNS didn't return proxy IP.
CURLE_COULDNT_RESOLVE_HOST	6	DNS didn't return IP for host.
CURLE_COULDNT_CONNECT	7	Connection failed.
CURLE_FTP_WEIRD_SERVER_REPLY	8	FTP error.
CURLE_REMOTE_ACCESS_DENIED	9	A service was denied by the server due to lack of access when login fails this is not returned.
CURLE_FTP_WEIRD_PASS_REPLY	11	FTP error.
CURLE_FTP_WEIRD_PASV_REPLY	13	FTP error.
CURLE_FTP_WEIRD_227_FORMAT	14	FTP error.
CURLE_FTP_CANT_GET_HOST	15	FTP error.
CURLE_FTP_COULDNT_SET_TYPE	17	FTP set command failed.
CURLE_PARTIAL_FILE	18	Only a part of the file was downloaded.
CURLE_FTP_COULDNT_RETR_FILE	19	File not found.
CURLE_QUOTE_ERROR	21	quote command failure
CURLE_HTTP_RETURNED_ERROR	22	HTTP returned an error.
CURLE_WRITE_ERROR	23	Write error.
CURLE_UPLOAD_FAILED	25	failed upload "command"
CURLE_READ_ERROR	26	couldn't open/read from file
CURLE_OUT_OF_MEMORY	27	Out Of memory
CURLE_OPERATION_TIMEDOUT	28	the timeout time was reached
CURLE_FTP_PORT_FAILED	30	FTP PORT operation failed
CURLE_FTP_COULDNT_USE_REST	31	the REST command failed
CURLE_RANGE_ERROR	33	RANGE "command" didn't work
CURLE_HTTP_POST_ERROR	34	HTTP Post failed.
CURLE_SSL_CONNECT_ERROR	35	wrong when connecting with SSL
CURLE_BAD_DOWNLOAD_RESUME	36	couldn't resume download
CURLE_FILE_COULDNT_READ_FILE	37	Failed to read file.
CURLE_LDAP_CANNOT_BIND	38	LDAP can't connect.
CURLE_LDAP_SEARCH_FAILED	39	LDAP Search failed.
CURLE_FUNCTION_NOT_FOUND	41	Function not found.
CURLE_ABORTED_BY_CALLBACK	42	Transfer aborted with CURL.Cancel.
CURLE_BAD_FUNCTION_ARGUMENT	43	Bad parameters.
CURLE_INTERFACE_FAILED	45	CURL.OptionInterface failed
CURLE_TOO_MANY_REDIRECTS	47	catch endless re-direct loops
CURLE_UNKNOWN_TELNET_OPTION	48	User specified an unknown option
CURLE_TELNET_OPTION_SYNTAX	49	Malformed telnet option
CURLE_PEER_FAILED_VERIFICATION	51	peer's certificate or fingerprint wasn't verified fine
CURLE_GOT_NOTHING	52	when this is a specific error
CURLE_SSL_ENGINE_NOTFOUND	53	SSL crypto engine not found
CURLE_SSL_ENGINE_SETFAILED	54	can not set SSL crypto engine as default
CURLE_SEND_ERROR	55	failed sending network data
CURLE_RECV_ERROR	56	failure in receiving network data
CURLE_SSL_CERTPROBLEM	58	problem with the local certificate
CURLE_SSL_CIPHER	59	couldn't use specified cipher
CURLE_SSL_CACERT	60	problem with the CA cert (path?)
CURLE_BAD_CONTENT_ENCODING	61	Unrecognized transfer encoding
CURLE_LDAP_INVALID_URL	62	Invalid LDAP URL
CURLE_FILESIZE_EXCEEDED	63	Maximum file size exceeded
CURLE_USE_SSL_FAILED	64	Requested FTP SSL level failed
CURLE_SEND_FAIL_REWIND	65	Sending the data requires a rewind that failed
CURLE_SSL_ENGINE_INITFAILED	66	failed to initialise ENGINE
CURLE_LOGIN_DENIED	67	user, password or similar was not accepted and we failed to login
CURLE_TFTP_NOTFOUND	68	file not found on server
CURLE_TFTP_PERM	69	permission problem on server
CURLE_REMOTE_DISK_FULL	70	out of disk space on server
CURLE_TFTP_ILLEGAL	71	Illegal TFTP operation
CURLE_TFTP_UNKNOWNID	72	Unknown transfer ID
CURLE_REMOTE_FILE_EXISTS	73	File already exists
CURLE_TFTP_NOSUCHUSER	74	No such user
CURLE_CONV_FAILED	75	conversion failed
CURLE_CONV_REQD	76	caller must register conversion callbacks
CURLE_SSL_CACERT_BADFILE	77	could not load CACERT file, missing or wrong format
CURLE_REMOTE_FILE_NOT_FOUND	78	remote file not found
CURLE_SSH	79	error from the SSH layer, somewhat generic so the error message will be of interest when this has happened
CURLE_SSL_SHUTDOWN_FAILED	80	Failed to shut down the SSL connection
CURLE_AGAIN	81	socket is not ready for send/rcv, wait till it's ready and try again.
CURLE_SSL_CRL_BADFILE	82	could not load CRL file, missing or wrong format.
CURLE_SSL_ISSUER_ERROR	83	Issuer check failed.
CURLE_FTP_PRET_FAILED	84	a PRET command failed
CURLE_RTSP_CSEQ_ERROR	85	mismatch of RTSP CSeq numbers
CURLE_RTSP_SESSION_ERROR	86	mismatch of RTSP Session Identifiers

**62.144 CURL.PerformAsync**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	No	No	Yes

MBS( "CURL.PerformAsync"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns OK or error.

**Description**

The query is enqueued and run by the plugin in background.

When transfer is finished, a script is triggered if you set one with `CURL.SetFinishedScript` function.

This function is called after the init and all the options are set, and will perform the transfer as described in the options. It must be called with the same handle as input as the `CURL.New` call returned.

You can do any amount of calls to `CURL.Perform` while using the same handle. If you intend to transfer more than one file, you are even encouraged to do so. `CURL` will then attempt to re-use the same connection for the following transfers, thus making the operations faster, less CPU intense and using less network resources. Just note that you will have to use the option functions between the invokes to set options for the following `CURL.Perform`.

While transfer is running, your FileMaker application is not blocked. It's useful to show progress with using `CURL.SetUpdateProgressDialog`. Be aware that transfer runs in background and you should query status with functions like `CURL.IsRunning`, `CURL.GetProgressTotalDownload`, `CURL.GetProgressTotalUpload`, `CURL.GetProgressCurrentDownload` and `CURL.GetProgressCurrentUpload`.

Internal buffer for output, debug and header data is cleared before the perform.

**Examples**

Start a few transfers:

Go to Record/Request/Page [ First ]

Loop

Set Variable [ \$curl; Value:MBS("CURL.New") ]

Set Variable [ \$r; Value:MBS("CURL.SetFinishedScript"; \$curl; Get(FileName); "DownloadFinished") ]

Set Variable [ \$r; Value:MBS("CURL.SetProgressScript"; \$curl; Get(FileName); "ProgressScript") ]

Set Variable [ \$r; Value:MBS("CURL.SetOptionURL"; \$curl; Download Async::URL) ]

Set Variable [ \$r; Value:MBS("CURL.SetTag"; \$curl; Get(RecordID)) ]

Set Field [ Download Async::Progress; 0 ]

Set Field [ Download Async::CURL Handle; \$curl ]

Set Variable [ \$r; Value:MBS("CURL.PerformAsync"; \$curl) ]

```

If [ MBS("IsError") ]
Show Custom Dialog [ "CURL Error"; $r ]
End If
Commit Records/Requests [ Skip data entry validation; No dialog ]
Go to Record/Request/Page [ Next; Exit after last ]
End Loop

```

**See also**

- 62.167 [CURL.SetMultiOptionChunkLengthPenaltySize](#) 2046
- 62.168 [CURL.SetMultiOptionContentLengthPenaltySize](#) 2047
- 62.169 [CURL.SetMultiOptionMaxConcurrentStreams](#) 2048
- 62.171 [CURL.SetMultiOptionMaxHostConnections](#) 2050
- 62.172 [CURL.SetMultiOptionMaxPipelineLength](#) 2051
- 62.173 [CURL.SetMultiOptionMaxTotalConnections](#) 2052
- 62.174 [CURL.SetMultiOptionPipelining](#) 2053
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.386 [CURL.SetProgressScript](#) 2355
- 62.388 [CURL.SetUpdateProgressDialog](#) 2359

**Example Databases**

- [CURL/Download Async](#)

**62.144.1 Blog Entries**

- [MBS FileMaker Plugin 5.2 for OS X/Windows - More than 3200 Functions](#)

Created 12nd July 2015, last changed 26th December 2018.

**62.145 CURL.PerformInBackground**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.PerformInBackground"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Error code. 0 means everything was ok, non-zero means an error occurred.

**Description**

This function is called after the init and all the options are set, and will perform the transfer as described in the options. It must be called with the same handle as input as the CURL.New call returned.

You can do any amount of calls to PerformInBackground while using the same handle. If you intend to transfer more than one file, you are even encouraged to do so. CURL will then attempt to re-use the same connection for the following transfers, thus making the operations faster, less CPU intense and using less network resources. Just note that you will have to use the option functions between the invokes to set options for the following CURL.Perform.

You must never call this function simultaneously from two places using the same handle. Let the transfer finish first before invoking it another time. If you want parallel transfers, you must use several curl handles.

Internal buffer for output, debug and header data is cleared before the perform.

While transfer is running, your FileMaker application is not blocked. Be aware that transfer runs in background and you should query status with functions like CURL.IsRunning, CURL.GetProgressTotalDownload, CURL.GetProgressTotalUpload, CURL.GetProgressCurrentDownload and CURL.GetProgressCurrentUpload.

**See also**

- 62.7 CURL.Cancel 1808
- 62.92 CURL.GetProgressCurrentDownload 1922
- 62.93 CURL.GetProgressCurrentUpload 1923
- 62.98 CURL.GetProgressTotalDownload 1928
- 62.99 CURL.GetProgressTotalUpload 1929
- 62.134 CURL.IsRunning 1979

- 62.143 *CURL.Perform* 1992
- 62.159 *CURL.SetFinishedEvaluate* 2028
- 62.373 *CURL.SetOptionURL* 2329
- 62.388 *CURL.SetUpdateProgressDialog* 2359

### Example Databases

- [CURL/CURL Download in Background](#)
- [CURL/Email/Batch Emailer](#)

### 62.145.1 Blog Entries

- [Batch sending Emails in FileMaker via MBS Plugin](#)

Created 18th August 2014, last changed 18th August 2014.



**62.146 CURL.Protocols**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Protocols" )

**Result** The protocols as a string with comma for separator.

**Description****Examples**

Shows protocols:

Show Custom Dialog [ "Protocols"; MBS( "CURL.Protocols" ) ]

**See also**

- 62.100 CURL.GetProtocol 1930
- 62.373 CURL.SetOptionURL 2329

**Example Databases**

- [CURL/CURL Version and Protocols](#)

Created 18th August 2014, last changed 8th December 2016.

## 62.147 CURL.ReceiveData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.ReceiveData"; curl; BytesToRead { ; ResultType } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **BytesToRead**

Maximum number of bytes to read.

1000

#### **ResultType**

Optional

What type of data to return. Can be hex or base64. Default is hex.

"hex"

**Result** Returns OK or error.

### Description

This function receives raw data from the established connection. You may use it together with SendData to implement custom protocols using libcurl. This functionality can be particularly useful if you use proxies and/or SSL encryption: libcurl will take care of proxy negotiation and connection set-up.

BytesToRead is the maximum amount of data you want to read now. The function returns the text read, which can be less than requested.

To establish the connection, set OptionConnectOnly = true before calling Perform. Note that ReceiveData does not work on connections that were created without this option.

The call will return CURLE\_AGAIN if there is no data to read - the socket is used in non-blocking mode internally. When CURLE\_AGAIN is returned, wait for data to arrive.

Wait on the socket only if ReceiveData returns CURLE\_AGAIN. The reason for this is libcurl or the SSL library may internally cache some data, therefore you should call ReceiveData until all data is read which would include any cached data.

Furthermore if you wait on the socket and it tells you there is data to read, ReceiveData may return CURLE\_AGAIN if the only data that was read was for internal SSL processing, and no other data is available.

On success, sets error code to `CURLE_OK` (0) and returns the data.  
On failure, returns zero and error code is set to the appropriate error code.

The function may return `CURLE_AGAIN`. In this case, use your operating system facilities to wait until data can be read, and retry.

Reading exactly 0 bytes indicates a closed connection.

If there's no socket available to use from the previous transfer, this function returns `CURL_EUNSUPPORTED_PROTOCOL`.

Please use `CURL.ErrorCode` to query error after you used this function.

See also `CURL.SendData` function to send data and `CURL.SetOptionConnectOnly` to connect only and use these functions.

**See also**

- 62.16 `CURL.ErrorCode` 1823
- 62.148 `CURL.ReceiveText` 2008
- 62.153 `CURL.SendData` 2016
- 62.187 `CURL.SetOptionConnectOnly` 2073
- 157.44 `Socket.SSL.Connect` 7357
- 157.46 `Socket.SSL.Initialize` 7359

### 62.147.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 27th March 2017, last changed 11st May 2020.

## 62.148 CURL.ReceiveText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.ReceiveText"; curl; BytesToRead { ; Encoding } )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **BytesToRead**

Maximum number of bytes to read.

1000

#### **Encoding**

Optional

The text encoding for result. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

### Description

This function receives raw data from the established connection. You may use it together with SendData to implement custom protocols using libcurl. This functionality can be particularly useful if you use proxies and/or SSL encryption: libcurl will take care of proxy negotiation and connection set-up.

BytesToRead is the maximum amount of data you want to read now. The function returns the text read, which can be less than requested.

To establish the connection, set OptionConnectOnly = true before calling Perform. Note that ReceiveData does not work on connections that were created without this option.

The call will return CURLE\_AGAIN if there is no data to read - the socket is used in non-blocking mode internally. When CURLE\_AGAIN is returned, wait for data to arrive.

Wait on the socket only if ReceiveData returns CURLE\_AGAIN. The reason for this is libcurl or the SSL library may internally cache some data, therefore you should call ReceiveData until all data is read which would include any cached data.

Furthermore if you wait on the socket and it tells you there is data to read, ReceiveData may return CURLE\_AGAIN if the only data that was read was for internal SSL processing, and no other data is available.

On success, sets error code to `CURLE_OK` (0) and returns the text.  
 On failure, returns zero and error code is set to the appropriate error code.

The function may return `CURLE_AGAIN`. In this case, use your operating system facilities to wait until data can be read, and retry.

Reading exactly 0 bytes indicates a closed connection.

If there's no socket available to use from the previous transfer, this function returns `CURL_EUNSUPPORTED_PROTOCOL`.

Please use `CURL.ErrorCode` to query error after you used this function.

### Examples

Loop and read text from socket:

```
Set Variable [ $received; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $r; Value:MBS( "CURL.ReceiveText"; $curl; 10000; "UTF-8" ) ]
Set Variable [ $errorCode; Value:MBS( "CURL.ErrorCode"; $curl ) ]
If [ GetAsNumber ( $errorCode ) = 81 ]
# wait
Else If [ GetAsNumber ( $errorCode ) = 0 ]
# got some data
Set Variable [ $received; Value:$received & $r ]
Exit Loop If [ $r = "" ]
Else
# error
Exit Loop If [ 1 ]
End If
End Loop
Set Variable [ $received2; Value:MBS( "Text.ReplaceNewline"; $received; 1 ) ]
Set Field [ CURL Low Level Sockets::Data Received; $received2 ]
```

### See also

- 62.16 `CURL.ErrorCode` 1823
- 62.147 `CURL.ReceiveData` 2006
- 62.187 `CURL.SetOptionConnectOnly` 2073
- 157.44 `Socket.SSL.Connect` 7357
- 157.46 `Socket.SSL.Initialize` 7359
- 167.59 `Text.ReplaceNewline` 7985

**Example Databases**

- [CURL/CURL Low Level Sockets](#)

**62.148.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 27th March 2017, last changed 10th April 2017.

**62.149 CURL.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Release"; curl )

(old name: CURL.Cleanup)

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns "OK" on success or error on failure.

**Description**

This function must be the last function to call for a CURL session. It is the opposite of the CURL.New function and must be called with the same handle as input that the CURL.New call returned.

This will effectively close all connections this handle has used and possibly has kept open until now. Don't call this function if you intend to transfer more files.

Any uses of the handle after this function has been called and have returned, are illegal. This kills the handle and all memory associated with it!

Please don't try to close a running transfer.

Used to be named CURL.Cleanup, but we changed named to CURL.Release in version 10.2.

**Examples**

Cleanup session:

```
# for every New call
$curl = MBS( "CURL.New"
```

```
# work with $curl
```

```
# you need a release call on the end
MBS( "CURL.Release"; $curl )
```

Download URL to temp file:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
# this is URL to download
```

```
Set Variable [ $url; Value:"https://www.monkeybreadsoftware.com/filemaker/test.txt" ]
```

```
# get file name from URL
```

```
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $URL ) ]
```

```
# now make temp file path
```

```
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.SystemTemporary" ); $name ) ]
```

```

# set URL to download
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; $url) ]
# open destination file
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# close destination file
Set Variable [ $r; Value:MBS("CURL.CloseOutputFile"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

### See also

- 62.150 CURL.ReleaseAll 2013
- 62.383 CURL.SetOptionWildCardMatch 2350
- 62.389 CURL.SetupAWS 2361
- 62.390 CURL.SetupOAuth 2365
- 62.392 CURL.UseSystemCertificates 2371
- 82.5 Folders.System 4231
- 87.225 GImage.Scale 4690
- 102.53 JSON.GetPathItem 5387
- 102.66 JSON.Parse 5406
- 124.5 Path.LastPathComponent 6252

### 62.149.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th August 2014, last changed 19th April 2020.



**62.150 CURL.ReleaseAll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.ReleaseAll" )

**Result** Returns OK or error.

**Description**

Returns error if one transfer is still running.

**See also**

- 62.149 CURL.Release 2011
- 99.11 Java.ReleaseAll 5246
- 102.68 JSON.ReleaseAll 5411
- 114.24 Menu.ReleaseAll 5988
- 166.29 TAPI.ReleaseAll 7884
- 194.31 XML.ReleaseAll 9455

**62.150.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr8](#)
- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 19th April 2020, last changed 19th April 2020.

## 62.151 CURL.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Reset"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns OK or error.

### Description

You don't need to reset the CURL session after calling CURL.New. The new curl session has no options set which could be cleared.

### See also

- 62.140 CURL.New

1985

Created 8th July 2015, last changed 7th May 2016.

**62.152 CURL.RunningTransfers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.RunningTransfers" )

**Result** Returns list or error.

**Description**

This list is empty if no transfer is running.

See also `CURL.NumberOfRunningTransfers` for just the count.

**Examples**

Shows list of running transfers:

Show Custom Dialog [ "Transfers in progress"; MBS( "CURL.RunningTransfers" ) ]

**See also**

- 62.141 `CURL.NumberOfRunningTransfers`

1988

**62.152.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 12nd July 2015, last changed 15th April 2018.

**62.153** **CURL.SendData**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SendData"; curl; Data { ; DataType } )

**Parameters****curl**

The CURL session handle.

\$curl

**Data**

The data to send. Can be hex or base64 encoded text.

**DataType**

Optional

The data type to send. Can be Hex or Base64. Default is hex.

"hex"

**Result** Returns OK or error.

**Description**

This function sends arbitrary data over the established connection. You may use it together with Receive-Data to implement custom protocols using libcurl. This functionality can be particularly useful if you use proxies and/or SSL encryption: libcurl will take care of proxy negotiation and connection set-up.

Provide the data to send via parameter. We return the number of bytes sent.

To establish the connection, use `CURL.SetOptionConnectOnly` with value 1 before calling `CURL.Perform` function. Note that `SendData` will not work on connections that were created without this option.

The call will return empty and set error to `CURLE_AGAIN` (81) if it's not possible to send data right now - the socket is used in non-blocking mode internally. When `CURLE_AGAIN` is returned, please wait.

Furthermore if you wait on the socket and it tells you it's writable, `SendData` may return `CURLE_AGAIN` if the only data that was sent was for internal SSL processing, and no other data could be sent.

Please use `CURL.ErrorCode` to query error after you used this function.

See also `CURL.ReceiveData` function to receive data and `CURL.SetOptionConnectOnly` to connect only and use these functions.

**See also**

- 62.16 `CURL.ErrorCode` 1823
- 62.143 `CURL.Perform` 1992

<i>62.153. CURL.SENDDATA</i>	2017
• 62.147 CURL.ReceiveData	2006
• 62.187 CURL.SetOptionConnectOnly	2073
• 157.44 Socket.SSL.Connect	7357
• 157.46 Socket.SSL.Initialize	7359

### **62.153.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 27th March 2017, last changed 11st May 2020.

**62.154 CURL.SendText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SendText"; curl; Text { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Text**

The text to send.

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

**Description**

This function sends arbitrary data over the established connection. You may use it together with Receive-Data to implement custom protocols using libcurl. This functionality can be particularly useful if you use proxies and/or SSL encryption: libcurl will take care of proxy negotiation and connection set-up.

Provide the data to send via parameter. We return the number of bytes sent.

To establish the connection, use `CURL.SetOptionConnectOnly` with value 1 before calling `CURL.Perform` function. Note that `SendData` will not work on connections that were created without this option.

The call will return empty and set error to `CURLE_AGAIN` (81) if it's not possible to send data right now - the socket is used in non-blocking mode internally. When `CURLE_AGAIN` is returned, please wait.

Furthermore if you wait on the socket and it tells you it's writable, `SendData` may return `CURLE_AGAIN` if the only data that was sent was for internal SSL processing, and no other data could be sent.

Please use `CURL.ErrorCode` to query error after you used this function.

**Examples**

Send HTTP request:

```
Set Variable [ $request; Value:"GET / HTTP/1.1$Host: www.monkeybreadsoftware.de$$" // must end with two empty lines ]
```

```
Set Variable [ $request2; Value:MBS( "Text.ReplaceNewline"; $request; 3) ]
```

62.154. *CURL.SENDTEXT* 2019

Set Variable [ \$r; Value:MBS( "CURL.SendText"; \$curl; \$request2; "UTF-8") ]

#### See also

- 62.16 *CURL.ErrorCode* 1823
- 62.143 *CURL.Perform* 1992
- 62.187 *CURL.SetOptionConnectOnly* 2073
- 157.44 *Socket.SSL.Connect* 7357
- 157.46 *Socket.SSL.Initialize* 7359
- 167.59 *Text.ReplaceNewline* 7985

#### Example Databases

- [CURL/CURL Low Level Sockets](#)

#### 62.154.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 27th March 2017, last changed 10th April 2017.

## 62.155 `CURL.SetBatchDestinationPath`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetBatchDestinationPath"; curl; Path )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Path**

The path to destination folder.

"/Users/cs/Desktop/"

**Result** Returns OK or error.

### Description

See also `CURL.SetOptionWildcardMatch`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Download several files via FTP:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL with wildcard match
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
# Set folder where to put files
Set Variable [ $result; Value:MBS("CURL.SetBatchDestinationPath"; $curl; CURL Test::DestPath) ]
# credentials...
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
# enable wildcard match
Set Variable [ $result; Value:MBS("CURL.SetOptionWildcardMatch"; $curl; 1) ]
# download them all
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# check results
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ CURL Test::FileNames; MBS("CURL.GetBatchFileNames"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**



<i>62.155. CURL.SETBATCHDESTINATIONPATH</i>	2021
• 62.34 CURL.GetBatchDestinationPath	1854
• 62.35 CURL.GetBatchFileNames	1855
• 62.43 CURL.GetDebugAsText	1866
• 62.140 CURL.New	1985
• 62.149 CURL.Release	2011
• 62.268 CURL.SetOptionPassword	2186
• 62.373 CURL.SetOptionURL	2329
• 62.381 CURL.SetOptionUsername	2346
• 62.383 CURL.SetOptionWildCardMatch	2350
• 124.2 Path.FileMakerPathToNativePath	6247

### **Example Databases**

- [CURL/FTP/CURL FTP Download all Files in Directory](#)

### **62.155.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 19th December 2016, last changed 19th April 2020.

## 62.156 `CURL.SetDebugWithData`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetDebugWithData"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Pass 1 to include all data or 0 to disable.

1

**Result** Returns OK or error.

### Description

By default we don't include all the data in the debug log and just the messages.

This must be set before you call `CURL.Perform` function.

### Examples

Enable data in debug:

```
MBS( "CURL.SetDebugWithData"; $curl; 1 )
```

### See also

- [62.43 `CURL.GetDebugAsText`](#) 1866
- [62.45 `CURL.GetDebugWithData`](#) 1870
- [62.47 `CURL.GetDebugWithTime`](#) 1872
- [62.143 `CURL.Perform`](#) 1992
- [62.158 `CURL.SetDebugWithTime`](#) 2026
- [62.382 `CURL.SetOptionVerbose`](#) 2348
- [62.389 `CURL.SetupAWS`](#) 2361
- [62.390 `CURL.SetupOAuth`](#) 2365

### Example Databases

- [CURL/Amazon S3 Buckets](#)

- [CURL/Amazon S3 Download Picture](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Send Form](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [CURL/WebServices/AdobeSign Webservice](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Sales Force Test](#)
- [CURL/WebServices/Twitter OAuth](#)

### **62.156.1 Blog Entries**

- [Debugging problems on FileMaker Cloud for AWS](#)
- [MBS FileMaker Plugin, version 6.5pr5](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 14th May 2016, last changed 31st August 2016.

## 62.157 `CURL.SetDebugWithProgress`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetDebugWithProgress"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

By default we don't include progress messages in log.

### Examples

Download with debug log with full details:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.CreateDebugOutputFile"; $curl; "/tmp/curl.log") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://www.monkeybreadsoftware.de/images/mbs.jpg") ]
Set Variable [ $result; Value:MBS("CURL.SetDebugWithTime"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetDebugWithProgress"; $curl; 1) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::Image; MBS("CURL.GetResultAsJPEG"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.13 `CURL.CreateDebugOutputFile` 1815
- 62.43 `CURL.GetDebugAsText` 1866
- 62.46 `CURL.GetDebugWithProgress` 1871
- 62.117 `CURL.GetResultAsJPEG` 1955
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011

<i>62.157. CURL.SETDEBUGWITHPROGRESS</i>	2025
• 62.158 CURL.SetDebugWithTime	2026
• 62.373 CURL.SetOptionURL	2329
• 62.382 CURL.SetOptionVerbose	2348

### **Example Databases**

- [CURL/SFTP/CURL sFTP Upload File](#)

### **62.157.1 Blog Entries**

- [Debugging problems on FileMaker Cloud for AWS](#)
- [MBS FileMaker Plugin, version 8.3pr6](#)
- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 15th June 2016, last changed 19th April 2020.

**62.158 CURL.SetDebugWithTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetDebugWithTime"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Pass 1 to include times or 0 to not include them.

1

**Result** Returns OK or error.

**Description**

This allows you to monitor what happens when.

e.g. see if login takes 10 seconds instead of 0.1.

Default is off.

This must be set before you call CURL.Perform function.

**Examples**

Load text and log with times:

```
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.SetDebugWithTime"; $curl; 1) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetHeaderAsText"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 CURL.GetDebugAsText 1866
- 62.45 CURL.GetDebugWithData 1870

<i>62.158. CURL.SETDEBUGWITHTIME</i>	2027
• 62.47 CURL.GetDebugWithTime	1872
• 62.59 CURL.GetHeaderAsText	1887
• 62.140 CURL.New	1985
• 62.143 CURL.Perform	1992
• 62.149 CURL.Release	2011
• 62.157 CURL.SetDebugWithProgress	2024
• 62.373 CURL.SetOptionURL	2329
• 62.382 CURL.SetOptionVerbose	2348

### **Example Databases**

- [CURL/SFTP/CURL sFTP Upload File](#)

### **62.158.1 Blog Entries**

- [Debugging problems on FileMaker Cloud for AWS](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 14th May 2016, last changed 19th April 2020.

## 62.159 CURL.SetFinishedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetFinishedEvaluate"; curl; Expression )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

This only runs if you use CURL.PerformAsync.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the curl reference, so you can pass it to other functions if needed.

### Examples

Sets expression to run when transfer is done:

```
Set Variable [ $result ; Value: MBS( "CURL.SetFinishedEvaluate"; $curl; "Let ( $$Done = 1 ; 1 )" ) ]
```

Free curl session when done:

```
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
Set Variable [ $result ; Value: MBS( "CURL.SetFinishedEvaluate"; $curl; "MBS(\ "CURL.Release\"; $$ID$$" ) ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.PerformInBackground"; $curl) ]
```

### See also

- 62.51 CURL.GetFinishedEvaluate 1877
- 62.52 CURL.GetFinishedFileName 1878
- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992



<i>62.159. CURL.SETFINISHEDEVALUATE</i>	2029
• 62.144 CURL.PerformAsync	2001
• 62.145 CURL.PerformInBackground	2003
• 62.149 CURL.Release	2011
• 62.373 CURL.SetOptionURL	2329

### **62.159.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 6.1pr5](#)
- [Evaluate vs. Script Trigger](#)

Created 4th March 2016, last changed 19th April 2020.

## 62.160 `CURL.SetFinishedScript`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	No	No	Yes

MBS( "CURL.SetFinishedScript"; curl; Filename; ScriptName )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Filename**

The database file name where the script is located.

"test.fmp12"

#### **ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

This only runs if you use `CURL.PerformAsync`.

Does not work on server due to missing capability to trigger scripts in the plugin SDK with FileMaker Server.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Start a curl session and setup a few scripts:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetFinishedScript"; $curl; Get(FileName); "DownloadFinished") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetProgressScript"; $curl; Get(FileName); "ProgressScript") ]
```

### See also

- 62.53 `CURL.GetFinishedScriptName` 1879
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.386 `CURL.SetProgressScript` 2355

62.160. *CURL.SETFINISHEDSCRIPT*

2031

- 62.387 *CURL.SetTag*

2357

### **Example Databases**

- [CURL/Download Async](#)

Created 12nd July 2015, last changed 22nd December 2016.

## 62.161 `CURL.SetInputFile`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetInputFile"; curl; data )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **data**

The container value with the data to upload.

**Result** Returns "OK" on success.

### Description

Also sets input file length. You need to define input data for file uploads, http posts and http put operations.

To use a file from disk, please use `CURL.OpenInputFile`.

You may need to use `CURL.SetOptionUpload` to make it an upload for FTP/SFTP.

Using this function is not recommended for more than a 1 GB of data. If you need more, better stream the data with `CURL.OpenInputFile` from a file.

### Examples

Upload data from container to FTP Server:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.dat") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputFile"; $curl; CURL Test::MyContainer) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Upload file from container:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

# FTP URL with destination file name:

```
Set Variable [ $result; Value: MBS("CURL.SetOptionURL" ; $curl ; "ftp://12.34.56.78/AZ1677ZZ.jpg") ]
Set Variable [ $result; Value: MBS("CURL.SetOptionUpload" ; $curl ; 1) ]
Set Variable [ $result; Value: MBS("CURL.SetOptionPassword" ; $curl ; "xxx" ) ]
```

```

Set Variable [ $result; Value: MBS("CURL.SetOptionUsername" ; $curl ; "yyy" ) ]

# Pick file from desktop:
// Set Variable [ $Desktop; Value: MBS("Folders.UserDesktop" ) ]
// Set Variable [ $Path; Value: MBS("Path.AddPathComponent"; $desktop; "AZ1677ZZ.jpg" ) ]
// Set Variable [ $result; Value: MBS( "CURL.OpenInputFile" ; $curl ;$path ) ]

# Pick file from container:
Set Variable [ $result; Value: MBS( "CURL.SetInputFile" ; $curl ; Test::ImageFileContainer ) ]

# Upload file
Set Field [ Test::PerformResult; MBS( "CURL.Perform" ; $curl ) ]
Set Field [ Test::DebugMessages; MBS( "CURL.GetDebugAsText" ; $curl ) ]
Set Variable [ $result; Value:MBS( "CURL.Release" ; $curl ) ]

Do a POST request wiht input field:

Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL & CURL Test::file-
name) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "POST") ]
Set Variable [ $result ; Value: MBS("CURL.SetInputFile"; $curl; CURL Test::Image) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.1 CURL.AddInputFile 1799
- 62.11 CURL.CloseInputFile 1812
- 62.142 CURL.OpenInputFile 1989
- 62.162 CURL.SetInputGIF 2035
- 62.163 CURL.SetInputJPEG 2037
- 62.164 CURL.SetInputPDF 2039
- 62.165 CURL.SetInputPNG 2041
- 62.377 CURL.SetOptionUpload 2340
- 62.389 CURL.SetupAWS 2361

- 124.1 Path.AddPathComponent

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/Amazon S3 Upload Picture](#)
- [CURL/FTP/CURL FTP Upload multiple files](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/FTP/CURL FTP Upload](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

#### 62.161.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr6](#)
- [Amazon S3 Upload with Mime Type and Permissions](#)
- [Tip of the day: FTP File Upload](#)

Created 18th August 2014, last changed 19th April 2020.

**62.162 CURL.SetInputGIF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetInputGIF"; curl; data )

**Parameters****curl**

The CURL session handle.

\$curl

**data**

The container value with the data to upload.

**Result** Returns "OK" on success.

**Description**

Also sets input file length. You need to define input data for file uploads, http posts and http put operations.

**Examples**

Upload a GIF file to a FTP Server:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.gif") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputGIF"; $curl; CURL Test::MyImage) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.2 CURL.AddInputGIF 1801
- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992
- 62.161 CURL.SetInputFile 2032
- 62.163 CURL.SetInputJPEG 2037
- 62.164 CURL.SetInputPDF 2039
- 62.165 CURL.SetInputPNG 2041
- 62.166 CURL.SetInputText 2043

- 62.377 `CURL.SetOptionUpload` 2340
- 62.381 `CURL.SetOptionUsername` 2346

### 62.162.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr8](#)

Created 18th August 2014, last changed 19th April 2020.



**62.163 CURL.SetInputJPEG**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetInputJPEG"; curl; data )

**Parameters****curl**

The CURL session handle.

\$curl

**data**

The container value with the data to upload.

**Result** Returns "OK" on success.

**Description**

Also sets input file length. You need to define input data for file uploads, http posts and http put operations.

**Examples**

Upload a JPEG file to a FTP Server:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.jpg") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputJPEG"; $curl; CURL Test::MyImage) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 *CURL.GetDebugAsText* 1866
- 62.140 *CURL.New* 1985
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011
- 62.161 *CURL.SetInputFile* 2032
- 62.165 *CURL.SetInputPNG* 2041
- 62.166 *CURL.SetInputText* 2043
- 62.268 *CURL.SetOptionPassword* 2186

- 62.373 `CURL.SetOptionURL` 2329
- 62.381 `CURL.SetOptionUsername` 2346

**Example Databases**

- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/FTP/CURL FTP Upload](#)

Created 18th August 2014, last changed 19th April 2020.

**62.164 CURL.SetInputPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetInputPDF"; curl; data )

**Parameters****curl**

The CURL session handle.

\$curl

**data**

The container value with the data to upload.

\$pdfContainer

**Result** Returns "OK" on success.

**Description**

Also sets input file length. You need to define input data for file uploads, http posts and http put operations.

**Examples**

Upload a PDF file to a FTP Server:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.pdf") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputPDF"; $curl; CURL Test::MyPDF) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.4 CURL.AddInputPDF 1803
- 62.43 CURL.GetDebugAsText 1866
- 62.143 CURL.Perform 1992
- 62.161 CURL.SetInputFile 2032
- 62.162 CURL.SetInputGIF 2035
- 62.163 CURL.SetInputJPEG 2037
- 62.165 CURL.SetInputPNG 2041

- 62.166 `CURL.SetInputText` 2043
- 62.377 `CURL.SetOptionUpload` 2340
- 62.373 `CURL.SetOptionURL` 2329

### **62.164.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.0pr2](#)

Created 18th August 2014, last changed 19th April 2020.

**62.165 CURL.SetInputPNG**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetInputPNG"; curl; data )

**Parameters****curl**

The CURL session handle.

\$curl

**data**

The container value with the data to upload.

**Result** Returns "OK" on success.

**Description**

Also sets input file length. You need to define input data for file uploads, http posts and http put operations.

**Examples**

Upload some PNG image from container to FTP Server:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.png") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputPNG"; $curl; CURL Test::MyImage) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.5 CURL.AddInputPNG 1804
- 62.43 CURL.GetDebugAsText 1866
- 62.140 CURL.New 1985
- 62.149 CURL.Release 2011
- 62.161 CURL.SetInputFile 2032
- 62.166 CURL.SetInputText 2043
- 62.268 CURL.SetOptionPassword 2186
- 62.377 CURL.SetOptionUpload 2340

- 62.373 `CURL.SetOptionURL` 2329
- 62.381 `CURL.SetOptionUsername` 2346

Created 18th August 2014, last changed 19th April 2020.

**62.166 CURL.SetInputText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetInputText"; curl; text { ; Encoding } )
```

**Parameters****curl**

The CURL session handle.

\$curl

**text**

The text to send.

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8 for version 10.0 or newer and native encoding before. "UTF-8"

**Result** Returns "OK" on success.

**Description**

Also sets input file length. You need to define input data for file uploads, http posts and http put operations. Please make sure you choose the text encoding the other side expects.

To avoid chunked transfer to server, you can also use `CURL.SetOptionPostFields` instead for text input.

If you set `CURL.SetOptionHTTPHeader` with `Transfer-Encoding` and/or `Expect`, you can disable chunked transfer.

For HTTP POST, please use `CURL.SetOptionPost` with 1 and `CURL.SetOptionPostFields` with your POST content using web services and other things.

Using this function is not recommended for more than a few hundred MB of text. If you need more, better stream the data with `CURL.OpenInputFile` from a file.

**Examples**

Set Text:

```
MBS("CURL.SetInputText"; $curl; "Hello World"; "utf8")
```

Set Text and disable Transfer Encodings and Expect header:

```
MBS("CURL.SetInputText"; $curl; "Hello World")
```

```
MBS("CURL.SetOptionHTTPHeader"; $curl; "Transfer-Encoding: "; "Expect:")
```

FTP Upload some text into a file on server:

```

Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://test.test/test/hello.txt") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputText"; $curl; "This is content to upload") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Upload empty file with SFTP:

```

Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "sftp://127.0.0.1/Users/cs/Desktop/test.txt"
) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; "secret") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; "cs") ]
Set Variable [ $result ; Value: MBS("CURL.SetInputText"; $curl; "" ) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

### See also

- 62.62 [CURL.GetInputAsText](#) 1891
- 62.63 [CURL.GetInputLength](#) 1893
- 62.161 [CURL.SetInputFile](#) 2032
- 62.163 [CURL.SetInputJPEG](#) 2037
- 62.164 [CURL.SetInputPDF](#) 2039
- 62.165 [CURL.SetInputPNG](#) 2041
- 62.330 [CURL.SetOptionSSHPublicKeyfile](#) 2271
- 62.377 [CURL.SetOptionUpload](#) 2340
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.382 [CURL.SetOptionVerbose](#) 2348

### Example Databases

- [CURL/CURL get and put/CURLS get and put](#)



- [CURL/Email/IMAP Email Upload](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/FTP/CURL FTP Upload](#)
- [CURL/SFTP/CURL sFTP Operations](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [CURL/SFTP/CURL sFTP Upload](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/Magento2 REST API](#)

### **62.166.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Tip of the day: FTP File Upload](#)
- [MBS Filemaker Plugin, version 3.1pr10](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.167 `CURL.SetMultiOptionChunkLengthPenaltySize`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionChunkLengthPenaltySize"; Value )

### Parameters

#### Value

The new value.

**Result** Returns OK or error.

### Description

Only for asynchronous transfers with `CURL.PerformAsync`.

A connection with a chunk length longer than this will not be considered for pipelining.

### See also

- 62.67 `CURL.GetMultiOptionChunkLengthPenaltySize` 1897
- 62.68 `CURL.GetMultiOptionContentLengthPenaltySize` 1898
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.168 `CURL.SetMultiOptionContentLengthPenaltySize` 2047

Created 14th April 2018, last changed 14th April 2018.

**62.168 CURL.SetMultiOptionContentLengthPenaltySize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionContentLengthPenaltySize"; Value )

**Parameters****Value**

The new value.

**Result** Returns OK or error.

**Description**

Only for asynchronous transfers with `CURL.PerformAsync`.

A connection with a content-length longer than this will not be considered for pipelining.

**See also**

- 62.67 `CURL.GetMultiOptionChunkLengthPenaltySize` 1897
- 62.68 `CURL.GetMultiOptionContentLengthPenaltySize` 1898
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.167 `CURL.SetMultiOptionChunkLengthPenaltySize` 2046

Created 14th April 2018, last changed 14th April 2018.

## 62.169 CURL.SetMultiOptionMaxConcurrentStreams

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionMaxConcurrentStreams"; Value )

### Parameters

#### Value

The new value.

**Result** Returns OK or error.

### Description

Only for asynchronous transfers with CURL.PerformAsync.  
Maximum number of (pipelining) connections to one host.

#### See also

- 62.69 CURL.GetMultiOptionMaxConcurrentStreams 1899
- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001

### 62.169.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 13th November 2019, last changed 13th November 2019.

**62.170 CURL.SetMultiOptionMaxConnects**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionMaxConnects"; Value )

**Parameters****Value**

The new value.

**Result** Returns OK or error.

**Description**

Only for asynchronous transfers with `CURL.PerformAsync`.  
Maximum number of entries in the connection cache.  
Default is -1 for no limit.

**See also**

- 62.70 `CURL.GetMultiOptionMaxConnects` 1900
- 62.71 `CURL.GetMultiOptionMaxHostConnections` 1901
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.171 `CURL.SetMultiOptionMaxHostConnections` 2050
- 62.173 `CURL.SetMultiOptionMaxTotalConnections` 2052
- 62.257 `CURL.SetOptionMaxConnects` 2171

Created 14th April 2018, last changed 14th April 2018.

## 62.171 `CURL.SetMultiOptionMaxHostConnections`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionMaxHostConnections"; Value )

### Parameters

#### Value

The new value.

**Result** Returns OK or error.

### Description

Only for asynchronous transfers with `CURL.PerformAsync`.  
Maximum number of (pipelining) connections to one host.

#### See also

- 62.70 `CURL.GetMultiOptionMaxConnects` 1900
- 62.71 `CURL.GetMultiOptionMaxHostConnections` 1901
- 62.73 `CURL.GetMultiOptionMaxTotalConnections` 1903
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.170 `CURL.SetMultiOptionMaxConnects` 2049
- 62.173 `CURL.SetMultiOptionMaxTotalConnections` 2052

Created 14th April 2018, last changed 13th November 2019.

**62.172 CURL.SetMultiOptionMaxPipelineLength**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionMaxPipelineLength"; Value )

**Parameters****Value**

The new value.

**Result** Returns OK or error.

**Description**

Only for asynchronous transfers with `CURL.PerformAsync`.  
Maximum number of requests in a pipeline.  
Default is 5.

**See also**

- 62.72 `CURL.GetMultiOptionMaxPipelineLength` 1902
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.174 `CURL.SetMultiOptionPipelining` 2053

Created 14th April 2018, last changed 14th April 2018.

## 62.173 `CURL.SetMultiOptionMaxTotalConnections`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionMaxTotalConnections"; Value )

### Parameters

#### Value

The new value.

**Result** Returns OK or error.

### Description

Only for asynchronous transfers with `CURL.PerformAsync`.  
Maximum number of open connections in total.

### See also

- 62.71 `CURL.GetMultiOptionMaxHostConnections` 1901
- 62.73 `CURL.GetMultiOptionMaxTotalConnections` 1903
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.170 `CURL.SetMultiOptionMaxConnects` 2049
- 62.171 `CURL.SetMultiOptionMaxHostConnections` 2050

Created 14th April 2018, last changed 14th April 2018.



**62.174 CURL.SetMultiOptionPipelining**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetMultiOptionPipelining"; Value )

**Parameters****Value**

The new value.

**Result** Returns OK or error.

**Description**

Only for asynchronous transfers with `CURL.PerformAsync`.  
Set to 1 to enable pipelining for this multi handle.

**See also**

- 62.74 `CURL.GetMultiOptionPipelining` 1904
- 62.143 `CURL.Perform` 1992
- 62.144 `CURL.PerformAsync` 2001
- 62.172 `CURL.SetMultiOptionMaxPipelineLength` 2051

Created 14th April 2018, last changed 14th April 2018.

**62.175 CURL.SetOptionAbstractUnixSocket**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAbstractUnixSocket"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [ABSTRACT\\_UNIX\\_SOCKET](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

**62.176 CURL.SetOptionAcceptEncoding**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAcceptEncoding"; curl; Param )

**Parameters****curl**

The CURL session handle.

\$curl

**Param**

The new setting.

1

**Result** Returns OK or error.

**Description**

Sets the contents of the Accept-Encoding: header sent in a HTTP request, and enables decoding of a response when a Content-Encoding: header is received. Three encodings are supported: identity, meaning non-compressed, deflate which requests the server to compress its response using the zlib algorithm, and gzip which requests the gzip algorithm.

If a zero-length string is set like "", then an Accept-Encoding: header containing all built-in supported encodings is sent.

You can also opt to just include the Accept-Encoding: header in your request with CURL.SetOptionHTTPHeader but then there will be no automatic decompressing when receiving data.

This is a request, not an order; the server may or may not do it. This option must be set or else any unsolicited encoding done by the server is ignored.

Servers might respond with Content-Encoding even without getting a Accept-Encoding: in the request.

Servers might respond with a different Content-Encoding than what was asked for in the request.

The Content-Length: servers send for a compressed response is supposed to indicate the length of the compressed content so when auto decoding is enabled it may not match the sum of bytes reported by the output buffer (although, sending the length of the non-compressed content is a common server mistake).

See also [ACCEPT\\_ENCODING](#) option in CURL manual.

**Examples**

Request gzip compression:

```
MBS( "CURL.SetOptionAcceptEncoding"; $curl; "gzip" )
```

Download with compression:

```
# Start new session
```

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
```

```
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
```

```
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
```

```
Set Variable [ $result ; Value: MBS("CURL.SetOptionAcceptEncoding"; $curl; "gzip") ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.121 [CURL.GetResultAsText](#) 1963
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011
- 62.177 [CURL.SetOptionAcceptTimeoutMS](#) 2057
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.371 [CURL.SetOptionTransferEncoding](#) 2327
- 62.373 [CURL.SetOptionURL](#) 2329

### 62.176.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 27th November 2017, last changed 19th April 2020.

**62.177 CURL.SetOptionAcceptTimeoutMS**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAcceptTimeoutMS"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Time-out accept operations (currently for FTP only) after this amount of milliseconds.

See also [ACCEPTTIMEOUT\\_MS](#) option in CURL manual.

**See also**

- 62.176 [CURL.SetOptionAcceptEncoding](#) 2055
- 62.188 [CURL.SetOptionConnectTimeoutMS](#) 2076
- 62.208 [CURL.SetOptionExpect100TimeoutMS](#) 2107
- 62.370 [CURL.SetOptionTimeoutMS](#) 2326

Created 15th April 2018, last changed 16th April 2018.

## 62.178 CURL.SetOptionAddressScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAddressScope"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

New scope ID.

1234

**Result** Returns "OK" on success.

### Description

Pass a number specifying the scope\_id value to use when connecting to IPv6 link-local or site-local addresses. See also [ADDRESS\\_SCOPE](#) option in CURL manual.

Created 18th August 2014, last changed 12nd July 2015.

**62.179 CURL.SetOptionAppend**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAppend"; curl; Value )

(old name: CURL.SetOptionFTPAppend)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to append.

1

**Result** Returns "OK" on success.

**Description**

A parameter set to 1 tells the library to append to the remote file instead of overwrite it. This is only useful when uploading to an FTP site.

See also **APPEND** option in CURL manual.

**Examples**

Turns append on:

MBS( "CURL.SetOptionAppend"; \$curl; 1 )

Turns append off:

MBS( "CURL.SetOptionAppend"; \$curl; 0 )

**See also**

- 62.228 CURL.SetOptionGet 2132
- 62.377 CURL.SetOptionUpload 2340

Created 18th August 2014, last changed 8th December 2016.

## 62.180 `CURL.SetOptionAutoReferer`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionAutoReferer"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to automatically set referrer.

1

**Result** Returns "OK" on success.

### Description

Pass a parameter set to 1 to enable this. When enabled, libcurl will automatically set the Referer: field in requests where it follows a Location: redirect.

See also [AUTOREFERER](#) option in CURL manual.

### Examples

Turns referrer on:

```
MBS( "CURL.SetOptionAutoReferer"; $curl; 1 )
```

### See also

- [62.319 CURL.SetOptionReferer](#) 2258
- [62.384 CURL.SetOptionXOAuth2Bearer](#) 2353

Created 18th August 2014, last changed 8th December 2016.



**62.181 CURL.SetOptionBufferSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionBufferSize"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The buffer size.

50000

**Result** Returns "OK" on success.

**Description**

Pass a number specifying your preferred size (in bytes) for the receive buffer in libcurl. The main point of this would be that the write callback gets called more often and with smaller chunks. This is just treated as a request, not an order. You cannot be guaranteed to actually get the given size.

This buffer size is by default `CURL_MAX_WRITE_SIZE` (16kB). The maximum buffer size allowed to be set is `CURL_MAX_READ_SIZE` (512kB). The minimum buffer size allowed to be set is 1024.

For slow upload/downloads, it may be better to set buffer size to 1 MB with `CURL.SetOptionUploadBufferSize` or `CURL.SetOptionBufferSize` properties to make transfers faster. See also [BUFFERSIZE](#) option in CURL manual.

**Examples**

Sets buffer size:

MBS( "CURL.SetOptionBufferSize"; \$curl; 1024\*1024 )

**See also**

- 62.242 `CURL.SetOptionInFileSize` 2151
- 62.258 `CURL.SetOptionMaxFileSize` 2172
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.377 `CURL.SetOptionUpload` 2340
- 62.378 `CURL.SetOptionUploadBufferSize` 2342

**Example Databases**

- [CURL/SFTP/CURL sFTP Upload File](#)

Created 18th August 2014, last changed 3th October 2019.

**62.182 CURL.SetOptionCAINFO**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCAINFO"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The file path for the certificates.

"/test.pem"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string naming a file holding one or more certificates to verify the peer with. This makes sense only when used in combination with the `CURL.SetOptionVerifyPeer` option. If `CURL.SetOptionVerifyPeer` is zero, `CURL.SetOptionCAInfo` need not even indicate an accessible file.

This option is by default set to the system path where libCURL's cacert bundle is assumed to be stored, as established at build time.

When built against NSS, this is the directory that the NSS certificate database resides in.

see also

[http://www.mbsplugins.de/archive/2013-01-31/SSL\\_Security\\_with\\_CURL/monkeybreadsoftware\\_blog\\_archive](http://www.mbsplugins.de/archive/2013-01-31/SSL_Security_with_CURL/monkeybreadsoftware_blog_archive)

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also **CAINFO** option in CURL manual.

**Examples**

Enables verification and uses cacert.pem file for certificates:

```
MBS( "CURL.SetOptionCAInfo"; $curl; $cacertPath )
```

```
MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 2 )
```

```
MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 1 )
```

Use FileMaker's root file in CURL:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
#
If [ MBS("IsIOS") ]
# look for path to certificate file
Set Variable [ $path ; Value: Substitute(MBS("Folders.UserDocuments"); "/Documents"; "/Library/Application Support/FileMaker/iOS/1.0/root.pem") ]
If [ MBS("Files.FileExists"; $path) ]
# use in CURL
Set Variable [ $r ; Value: MBS( "CURL.SetOptionCAINFO"; $curl; $path) ]
Else
Show Custom Dialog [ "File not found." ; $path ]
End If
Else If [ MBS("IsMacOSX") ]
# look for path to certificate file
Set Variable [ $path ; Value: Substitute(MBS("Folders.UserDocuments"); "/Documents"; "/Library/Application Support/FileMaker/Shared/17.0/root.pem") ]
If [ MBS("Files.FileExists"; $path) ]
# use in CURL
Set Variable [ $r ; Value: MBS( "CURL.SetOptionCAINFO"; $curl; $path) ]
Else
Show Custom Dialog [ "File not found." ; $path ]
End If
Else If [ MBS("IsWindows") ]
# look for path to certificate file
Set Variable [ $path ; Value: Substitute(MBS("Folders.UserDocuments"); "\\Documents"; "\\AppData\\Local\\FileMaker\\FileMaker Pro Advanced\\17.0\\root.pem") ]
If [ MBS("Files.FileExists"; $path) ]
# use in CURL
Set Variable [ $r ; Value: MBS( "CURL.SetOptionCAINFO"; $curl; $path) ]
Else
Show Custom Dialog [ "File not found." ; $path ]
End If
Else If [ MBS("IsLinux") ]
# look for path to certificate file
Set Variable [ $path ; Value: "/FileMakerData/Extensions/OpenSSL/root.pem" ]
# use in CURL
Set Variable [ $r ; Value: MBS( "CURL.SetOptionCAINFO"; $curl; $path) ]
End If
```

### See also

- 62.140 CURL.New 1985
- 62.191 CURL.SetOptionCookie 2080

62.182. <i>CURL.SETOPTIONCAINFO</i>	2065
• 62.331 <i>CURL.SetOptionSSLCert</i>	2273
• 62.339 <i>CURL.SetOptionSSLKey</i>	2286
• 62.343 <i>CURL.SetOptionSSLVerifyHost</i>	2292
• 62.344 <i>CURL.SetOptionSSLVerifyPeer</i>	2295
• 82.9 <i>Folders.UserDocuments</i>	4237
• 127.7 <i>IsIOS</i>	6376
• 127.10 <i>IsLinux</i>	6379
• 127.16 <i>IsWindows</i>	6388

### **Example Databases**

- [CURL/CURL with certificates included with FileMaker](#)

### **62.182.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Use root certificates included with FileMaker](#)
- [Upload email to Sent folder via IMAP](#)
- [MBS FileMaker Plugin, version 7.6pr3](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Sending emails in FileMaker with MBS Plugin](#)

### **62.182.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 12nd March 2020.

## 62.183 `CURL.SetOptionCAPATH`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCAPATH"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The path to certificates directory.

"/data/MyCertificates"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

### Description

Pass a string naming a directory holding multiple CA certificates to verify the peer with. The certificate directory must be prepared using the openssl `c_rehash` utility. This makes sense only when used in combination with the `CURL.SetOptionVerifyPeer` option. If `CURL.SetOptionVerifyPeer` is zero, `CURL.SetOptionCAPATH` need not even indicate an accessible path. The `CURL.SetOptionCAPath` function apparently does not work in Windows due to some limitation in openssl. This option is OpenSSL-specific and does nothing if libcurl is built to use GnuTLS.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [CAPATH](#) option in CURL manual.

### See also

- 62.182 `CURL.SetOptionCAINFO` 2063
- 62.191 `CURL.SetOptionCookie` 2080
- 62.184 `CURL.SetOptionCRLF` 2068
- 62.272 `CURL.SetOptionPort` 2192
- 62.273 `CURL.SetOptionPost` 2194
- 62.308 `CURL.SetOptionPut` 2242

62.183. <i>CURL.SETOPTIONCAPATH</i>	2067
• 62.324 <i>CURL.SetOptionSASLIR</i>	2263
• 62.344 <i>CURL.SetOptionSSLVerifyPeer</i>	2295

### **62.183.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 12nd December 2017.

**62.184 CURL.SetOptionCRLF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCRLF"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to convert newline characters.

1

**Result** Returns "OK" on success.

**Description**

If the value is set to 1 (one), libcurl converts Unix newlines to CRLF newlines on transfers. Disable this option again by setting the value to 0 (zero).

This is a legacy option of questionable use.

See also [CRLF](#) option in CURL manual.

**See also**

- 62.185 CURL.SetOptionCRLFFile 2069
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194
- 62.281 CURL.SetOptionProxy 2212
- 62.308 CURL.SetOptionPut 2242
- 62.309 CURL.SetOptionQuote 2244
- 62.317 CURL.SetOptionRange 2254
- 62.324 CURL.SetOptionSASLIR 2263
- 62.339 CURL.SetOptionSSLKey 2286
- 62.373 CURL.SetOptionURL 2329

Created 18th August 2014, last changed 29th June 2017.



**62.185 CURL.SetOptionCRLFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCRLFile"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new file path.

"C:\FileMaker\Stuff\test.pem"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string naming a file with the concatenation of CRL (in PEM format) to use in the certificate validation that occurs during the SSL exchange.

When curl is built to use NSS or GnuTLS, there is no way to influence the use of CRL passed to help in the verification process. When libcurl is built with OpenSSL support, X509\_V\_FLAG\_CRL\_CHECK and X509\_V\_FLAG\_CRL\_CHECK\_ALL are both set, requiring CRL check against all the elements of the certificate chain if a CRL file is passed.

This option makes sense only when used in combination with the `CURL.SetOptionVerifyPeer` option.

A specific error code (`CURLE_SSL_CRL_BADFILE`) is defined with the option. It is returned when the SSL exchange fails because the CRL file cannot be loaded. A failure in certificate verification due to a revocation information found in the CRL does not trigger this specific error.

See also [CRLFILE](#) option in CURL manual.

**See also**

- 62.184 `CURL.SetOptionCRLF` 2068
- 62.262 `CURL.SetOptionNETRCFile` 2177
- 62.316 `CURL.SetOptionRandomFile` 2253

- 62.317 `CURL.SetOptionRange` 2254
- 62.319 `CURL.SetOptionReferer` 2258
- 62.321 `CURL.SetOptionResolve` 2260
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.336 `CURL.SetOptionSSEngine` 2283
- 62.373 `CURL.SetOptionURL` 2329
- 62.382 `CURL.SetOptionVerbose` 2348

Created 18th August 2014, last changed 29th April 2016.

**62.186 CURL.SetOptionCertInfo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCertInfo"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to collect certificate information.

1

**Result** Returns "OK" on success.

**Description**

Pass a long set to 1 to enable libcurl's certificate chain info gatherer. With this enabled, libcurl (if built with OpenSSL) will extract lots of information and data about the certificates in the certificate chain used in the SSL connection. This data is then possible to extract after a transfer using `CURL.GetCertInfo`. See also **CERTINFO** option in CURL manual.

**Examples**

Query certificate information for MBS website:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.de/") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionCertInfo"; $curl; 1) ]
```

```
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
```

```
Set Field [ CURL Test::Text; MBS("CURL.GetCertInfo"; $curl) ]
```

```
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.36 `CURL.GetCertInfo` 1856
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011
- 62.373 `CURL.SetOptionURL` 2329
- 62.382 `CURL.SetOptionVerbose` 2348

**Example Databases**

- [CURL/CURL Certificate Pinning](#)
- [CURL/CURL with certificates included with FileMaker](#)

**62.186.1 Blog Entries**

- [Using pinned certificates with our CURL plugin functions](#)
- [Use root certificates included with FileMaker](#)

Created 18th August 2014, last changed 19th April 2020.

**62.187 CURL.SetOptionConnectOnly**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionConnectOnly"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

A 1 tells the library to perform any required proxy authentication and connection setup, but no data transfer.

Use this option to tell CURL to connect only and then send/receive data with your own protocol.

See [CURL.SendData](#), [CURL.SendText](#), [CURL.ReceiveText](#) and [CURL.ReceiveData](#).

See also [CONNECT\\_ONLY](#) option in CURL manual.

**Examples**

Download website and handle protocol ourself:

```
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionConnectOnly"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Low Level Sockets::URL) ]
Set Variable [ $request; Value:"GET / HTTP/1.1$Host: www.monkeybreadsoftware.de$$" // must end with
two empty lines ]
Set Variable [ $request2; Value:MBS( "Text.ReplaceNewline"; $request; 3) ]
# RUN now
Set Field [ CURL Low Level Sockets::Connect Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Low Level Sockets::Data Received; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Low Level Sockets::Debug Messages; MBS("CURL.GetDebugAsText"; $curl) ]
If [ CURL Low Level Sockets::Connect Result = "OK" ]
Set Variable [ $r; Value:MBS( "CURL.SendText"; $curl; $request2; "UTF-8") ]
Set Field [ CURL Low Level Sockets::Data Sent; $request ]
Set Variable [ $received; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
```

```

Set Variable [ $r; Value:MBS( "CURL.ReceiveText"; $curl; 10000; "UTF-8" ) ]
Set Variable [ $errorCode; Value:MBS( "CURL.ErrorCode"; $curl ) ]
If [ GetAsNumber ( $errorCode ) = 81 ]
# wait
Else If [ GetAsNumber ( $errorCode ) = 0 ]
# got some data
Set Variable [ $received; Value:$received & $r ]
Exit Loop If [ $r = "" ]
Else
# error
Exit Loop If [ 1 ]
End If
End Loop
Set Variable [ $received2; Value:MBS( "Text.ReplaceNewline"; $received; 1 ) ]
Set Field [ CURL Low Level Sockets::Debug Messages; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ CURL Low Level Sockets::Data Received; $received2 ]
End If
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Check if SMB (port 445) is open on a given IP in network:

```

Let ( [
curl = MBS("CURL.New");
a = MBS( "CURL.SetOptionConnectOnly"; curl; 1 );
b = MBS( "CURL.SetOptionURL"; curl; "192.168.2.117" );
c = MBS( "CURL.SetOptionConnectionTimeout"; curl; 1 );
d = MBS( "CURL.SetOptionPort"; curl; 445 );
r = MBS( "CURL.Perform"; curl );
x = MBS( "CURL.Release"; curl )
]; r )
// returns either
// OK
// or
// 28: Connection timed out after 1000 milliseconds

```

### See also

- 62.79 `CURL.GetOptionConnectTo` 1909
- 62.147 `CURL.ReceiveData` 2006
- 62.154 `CURL.SendText` 2018
- 62.190 `CURL.SetOptionConnectionTimeout` 2078
- 62.189 `CURL.SetOptionConnectTo` 2077
- 62.205 `CURL.SetOptionDirListOnly` 2103

<i>62.187. CURL.SETOPTIONCONNECTONLY</i>	2075
• 62.257 CURL.SetOptionMaxConnects	2171
• 157.44 Socket.SSL.Connect	7357
• 157.46 Socket.SSL.Initialize	7359
• 167.59 Text.ReplaceNewline	7985

### **Example Databases**

- [CURL/CURL Low Level Sockets](#)

Created 27th March 2017, last changed 19th April 2020.

## 62.188 `CURL.SetOptionConnectTimeoutMS`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionConnectTimeoutMS"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The connection timeout time in milliseconds.

300000

**Result** Returns "OK" on success.

### Description

Like `CURL.SetOptionConnectionTimeout` but takes the number of milliseconds instead. If libcurl is built to use the standard system name resolver, that portion of the connect will still use full-second resolution for timeouts with a minimum timeout allowed of one second.

See also [CONNECTTIMEOUT\\_MS](#) option in CURL manual.

### See also

- 62.177 `CURL.SetOptionAcceptTimeoutMS` 2057
- 62.190 `CURL.SetOptionConnectionTimeout` 2078
- 62.208 `CURL.SetOptionExpect100TimeoutMS` 2107

Created 18th August 2014, last changed 18th August 2014.



**62.189 CURL.SetOptionConnectTo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionConnectTo"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Sets list of host:port:connect-to-host:connect-to-port, overrides the URL's host:port (only for the network layer)

See also [CONNECT\\_TO](#) option in CURL manual.

**See also**

- 62.79 [CURL.GetOptionConnectTo](#) 1909
- 62.187 [CURL.SetOptionConnectOnly](#) 2073
- 62.257 [CURL.SetOptionMaxConnects](#) 2171

Created 15th April 2018, last changed 16th April 2018.

## 62.190 `CURL.SetOptionConnectionTimeout`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionConnectionTimeout"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The connection timeout time in seconds.

300

**Result** Returns "OK" on success.

### Description

Pass the maximum time in seconds that you allow the connection to the server to take. This only limits the connection phase, once it has connected, this option is of no more use. Set to zero to switch to the default built-in connection timeout - 300 seconds. See also the `CURL.SetOptionTimeout` option.

See also [CONNECTTIMEOUT](#) option in CURL manual.

### Examples

Set timeout to 30 seconds:

```
MBS( "CURL.SetOptionConnectionTimeout"; $curl; 30 )
```

Check if SMB (port 445) is open on a given IP in network:

```
Let ( [
curl = MBS("CURL.New");
a = MBS( "CURL.SetOptionConnectOnly"; curl; 1 );
b = MBS( "CURL.SetOptionURL"; curl; "192.168.2.117" );
c = MBS( "CURL.SetOptionConnectionTimeout"; curl; 1 );
d = MBS( "CURL.SetOptionPort"; curl; 445 );
r = MBS( "CURL.Perform"; curl );
x = MBS( "CURL.Release"; curl)
]; r )
// returns either
// OK
// or
// 28: Connection timed out after 1000 milliseconds
```

**See also**

<i>62.190. CURL.SETOPTIONCONNECTIONTIMEOUT</i>	2079
• 62.140 CURL.New	1985
• 62.143 CURL.Perform	1992
• 62.149 CURL.Release	2011
• 62.187 CURL.SetOptionConnectOnly	2073
• 62.188 CURL.SetOptionConnectTimeoutMS	2076
• 62.214 CURL.SetOptionFTPResponseTimeout	2116
• 62.330 CURL.SetOptionSSHPublicKeyfile	2271
• 62.346 CURL.SetOptionSSLVersion	2299
• 62.368 CURL.SetOptionTimeOut	2323
• 62.373 CURL.SetOptionURL	2329

### **Example Databases**

- [CURL/CURL Check FileMaker Server](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)

### **62.190.1 Blog Entries**

- [Tip of the day: FTP File Upload](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.191 `CURL.SetOptionCookie`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCookie"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The cookie string.

""

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

### Description

Pass a cookie string. It will be used to set a cookie in the http request. The format of the string should be NAME=CONTENTS, where NAME is the cookie name and CONTENTS is what the cookie should contain.

If you need to set multiple cookies, you need to set them all using a single option and thus you need to concatenate them all in one single string. Set multiple cookies in one string like this: "name1=content1; name2=content2;" etc.

This option sets the cookie header explicitly in the outgoing request(s). If multiple requests are done due to authentication, followed redirections or similar, they will all get this cookie passed on.

Using this option multiple times will only make the latest string override the previous ones.

Cookie format is explained here:

<https://humanwhocodes.com/blog/2009/05/05/http-cookies-explained/>

See also **COOKIE** option in CURL manual.

### Examples

Pass 4 cookies together:

```
MBS( "CURL.SetOptionCookie"; $curl; "ORA_WX_SESSION="32230CEE0E940BDF8157FEF3EB58E9CBD8A5699-3# 1"; ObSSOCookie=VPAEWqhsUTbSXpHB0% 3BqRDXNegpZBgeCgR1GJ3Ysou0A5% 3FyUdO0ffMSHU17fN0mg4cVonl
```

```
mjnakVdoYpnigAR4mAeWUMk6sLw% 3BqwSCmY1bCfxhdWcoOS4NhaifxRazpYpEywzdqQ3kRkNwRpECd-
BrwWdcFBCo6TROhgEufbykS% 3FSYU% 3FwJT% 3FP95WgkCRMBkJBE2LSk% 3B1F2BtBjBGDa42jFR8gK7bE0ewJ%
3B1MM6vzq93scwL9NO% 3BbCixrvJlGYL8fQWG% 3BwewaIRrf4i3lcThDQBhg% 2D% 2D; JSESSIONID=EPQSs-
bjcndhPqEtvW8MQS8sQCGWta7QQQM8k6eiT_EcoNB_YOqL!-166722973; ObSSOCookie=ktizpHi8mrSLizEe-
jydmRivWZu% 3Bhr99% 3BVh% 3FTLFhIMRweTbStBfibTYNPa% 3FpMErio42eAQ30r1SVrTmuTLbI9Cyh3KPAqR5x%
3BPs6rQQbRfZrpThhgSuPzZRx7NI9S9gKQYmeWAKkIRETUR9XZKuU1l7GwK4Ci0QFSwON2sU12EPvns9Y8RFN-
WHNsdFdpNXn4qdfDvOhP8VnnYNMjvZnq% 3Fofg% 3Fxd3QfOZnL2Z86riaRz4gq5IeKolxN7iWM4% 3FI-
cYk2nMeEx4A9iRtftPFyGEBWpxxtMG6UsE2RMhLqMpV4Lg% 2D"; "UTF-8" )
```

**See also**

- 62.42 *CURL.GetCookieList* 1863
- 62.193 *CURL.SetOptionCookieJar* 2085
- 62.233 *CURL.SetOptionHTTPHeader* 2139
- 62.266 *CURL.SetOptionNoBody* 2182
- 62.272 *CURL.SetOptionPort* 2192
- 62.273 *CURL.SetOptionPost* 2194
- 62.281 *CURL.SetOptionProxy* 2212
- 62.309 *CURL.SetOptionQuote* 2244
- 62.317 *CURL.SetOptionRange* 2254
- 62.321 *CURL.SetOptionResolve* 2260

Created 18th August 2014, last changed 27th February 2019.

## 62.192 `CURL.SetOptionCookieFile`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCookieFile"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The file path to the cookie file.

"/tmp/cookies.txt"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

Pass a file path for the cookie file. It should contain the name of your file holding cookie data to read. The cookie data may be in Netscape / Mozilla cookie data format or just regular HTTP-style headers dumped to a file.

Given an empty or non-existing file or by passing the empty string (""), this option will enable cookies for this curl handle, making it understand and parse received cookies and then use matching cookies in future requests.

If you use this option multiple times, you just add more files to read. Subsequent files will add more cookies.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [COOKIEFILE](#) option in CURL manual.

### Examples

Activate cookie engine without cookie file:

```
MBS( "CURL.SetOptionCookieFile"; $curl; "" )
```

Perform SOAP service with login and use cookies in second request:

```

# The URL of the service
Set Variable [ $url ; Value: "http://somedomain.com/PartnerService17.asmx" ]
# Build XML for SOAP Login request, e.g. with MBS XML functions or simply substitute()
Set Variable [ $xml ; Value: "<?xml version=\`1.0\` encoding=\`utf-8\`?><soap:Envelope xmlns:xsi=\`http://www.w3.org
instance\` xmlns:xsd=\`http://www.w3.org/2001/XMLSchema\` xmlns:soap=\`http://schemas.xmlsoap.org/soap/en-
velope/\`"><soap:Body></soap:Body>..." ]
Set Field [ Curl_Test::XML ; $xml ]
# The SOAP action to use
Set Variable [ $action ; Value: "http://somedomain.com/partner/loginWithLicenceUnlockInfo" ]
#
# Setup transfer
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; $url) ]
# Put SOAP action and XML data type in the headers
Set Variable [ $result ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml;
charset=utf-8"; "Expect: "; "SOAPAction: \`" & $action & "\`" ) ]
# Ask CURL to manage cookies
Set Variable [ $result ; Value: MBS("CURL.SetOptionCookieFile"; $curl; "" ) ]
# Set the payload for the login transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionPostFields"; $curl; $xml) ]
# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# Let's take a look on the cookie list
Set Variable [ $$cookie ; Value: MBS("CURL.GetCookieList"; $curl) ]
Set Field [ Curl_Test::Cookie ; $$cookie ]
# Check result
Set Field [ Curl_Test::Debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Curl_Test::Resultat ; $result ]
#
# Reuse same $curl for second request reusing existing cookies
#
# Make new XML for second request
Set Variable [ $npk ; Value: "103" ]
# Build XML for SOAP Login request, e.g. with MBS XML functions or simply substitute()
Set Variable [ $xml ; Value: "<soap:Envelope xmlns:xsi=\`http://www.w3.org/2001/XMLSchema-instance\`
xmlns:xsd=\`http://www.w3.org/2001/XMLSchema\` xmlns:soap=\`http://schemas.xmlsoap.org/soap/en-
velope/\`"><soap:Body></soap:Body></soap:Envelope>" ]
Set Field [ Curl_Test::XML ; $xml ]
Set Variable [ $action ; Value: "http://somedomain.com/partner/queryInfo" ]
#
# Setup transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; $url) ]
# Put SOAP action and XML data type in the headers
Set Variable [ $result ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml;
charset=utf-8"; "Expect: "; "SOAPAction: \`" & $action & "\`" ) ]
# Set the payload for the second transfer
Set Variable [ $result ; Value: MBS("CURL.SetOptionPostFields"; $curl; $xml) ]

```

```

# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Curl_Test::Debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Curl_Test::Resultat ; $result ]
# Finally end curl session
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]

```

### See also

- 62.191 [CURL.SetOptionCookie](#) 2080
- 62.193 [CURL.SetOptionCookieJar](#) 2085
- 62.194 [CURL.SetOptionCookieList](#) 2087
- 62.195 [CURL.SetOptionCookieSession](#) 2088
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.262 [CURL.SetOptionNETRCFile](#) 2177
- 62.275 [CURL.SetOptionPostFields](#) 2199
- 62.285 [CURL.SetOptionProxyCRLFFile](#) 2217
- 62.316 [CURL.SetOptionRandomFile](#) 2253
- 62.373 [CURL.SetOptionURL](#) 2329

### 62.192.1 Blog Entries

- [Let CURL handle cookie list](#)
- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 19th April 2020.



**62.193 CURL.SetOptionCookieJar**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCookieJar"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The file path.

"/tmp/cookies.txt"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

Pass a file name as string. This will make libcurl write all internally known cookies to the specified file when CURL.Release is called. If no cookies are known, no file will be created. Specify "-" to instead have the cookies written to stdout. Using this option also enables cookies for this session, so if you for example follow a location it will make matching cookies get sent accordingly.

If the cookie jar file can't be created or written to (when the CURL.Release is called), libcurl will not and cannot report an error for this. Using CURL.SetOptionVerbose or using Debug output will get a warning to display, but that is the only visible feedback you get about this possibly lethal situation.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [COOKIEJAR](#) option in CURL manual.

**Examples**

Activate cookie engine without cookie file:

MBS( "CURL.SetOptionCookieFile"; \$curl; "" )

**See also**

- 62.149 CURL.Release

- 62.191 `CURL.SetOptionCookie` 2080
- 62.192 `CURL.SetOptionCookieFile` 2082
- 62.194 `CURL.SetOptionCookieList` 2087
- 62.277 `CURL.SetOptionPostRedir` 2205
- 62.382 `CURL.SetOptionVerbose` 2348

### **62.193.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 19th April 2020.

**62.194 CURL.SetOptionCookieList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCookieList"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The cookie string.

"Set-Cookie: value = ..."

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Cookie can be either in Netscape / Mozilla format or just regular HTTP-style header (Set-Cookie: ...) format. If cURL cookie engine was not enabled it will enable its cookie engine. Passing a magic string "ALL" will erase all cookies known by cURL. Passing the special string "SESS" will only erase all session cookies known by cURL. Passing the special string "FLUSH" will write all cookies known by cURL to the file specified by CURL.SetOptionCookieJar.

See also [COOKIELIST](#) option in CURL manual.

**See also**

- 62.191 CURL.SetOptionCookie 2080
- 62.192 CURL.SetOptionCookieFile 2082
- 62.193 CURL.SetOptionCookieJar 2085
- 62.195 CURL.SetOptionCookieSession 2088
- 62.275 CURL.SetOptionPostFields 2199
- 62.333 CURL.SetOptionSSLCipherList 2279

Created 18th August 2014, last changed 5th July 2015.

## 62.195 `CURL.SetOptionCookieSession`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "`CURL.SetOptionCookieSession`"; `curl`; Value )

### Parameters

#### `curl`

The CURL session handle.

`$curl`

#### Value

Whether this is a new cookie session.

1

**Result** Returns "OK" on success.

### Description

It will force libcurl to ignore all cookies it is about to load that are "session cookies" from the previous session. By default, libcurl always stores and loads all cookies, independent if they are session cookies or not. Session cookies are cookies without expiry date and they are meant to be alive and existing for this "session" only.

See also [COOKIESESSION](#) option in CURL manual.

### See also

- [62.192 `CURL.SetOptionCookieFile`](#) 2082
- [62.194 `CURL.SetOptionCookieList`](#) 2087
- [62.299 `CURL.SetOptionProxySSLVersion`](#) 2231
- [62.313 `CURL.SetOptionRTSPSessionID`](#) 2250
- [62.326 `CURL.SetOptionSSHCompression`](#) 2266

Created 18th August 2014, last changed 18th August 2014.

**62.196 CURL.SetOptionCustomRequest**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionCustomRequest"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The custom request string.

"PUT"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

Pass a text string as parameter. It will be used instead of GET or HEAD when doing an HTTP request, or instead of LIST or NLST when doing a FTP directory listing. This is useful for doing DELETE or other more or less obscure HTTP requests. Don't do this at will, make sure your server supports the command first.

When you change the request method by setting `CURL.SetOptionCustomRequest` to something, you don't actually change how libcurl behaves or acts in regards to the particular request method, it will only change the actual string sent in the request.

For example: if you tell libcurl to do a HEAD request, but then change the request to a "GET" with `CURL.SetOptionCustomRequest` you'll still see libcurl act as if it sent a HEAD even when it does send a GET.

To switch to a proper HEAD, use `CURL.SetOptionNoBody`, to switch to a proper POST, use `CURL.SetOptionPost` and `CURL.SetOptionPostFields`.

Restore to the internal default by setting this to "".

Many people have wrongly used this option to replace the entire request with their own, including multiple headers and POST contents. While that might work in many cases, it will cause libcurl to send invalid requests and it could possibly confuse the remote server badly. Use `CURL.SetOptionPost` and `CURL.SetOptionPostFields` to set POST data. Use `CURL.SetOptionHTTPHeader` to replace or extend the set of

headers sent by libcurl. Use `CURL.SetOptionHTTPVersion` to change HTTP version.  
See also **CUSTOMREQUEST** option in CURL manual.

### Examples

Sets request POST:

```
MBS( "CURL.SetOptionPost"; $curl; 1 )
```

Advanced file listing for FTP:

```
MBS( "CURL.SetOptionCustomRequest"; $curl; "MLSD" )
```

Set delete request:

```
MBS( "CURL.SetOptionCustomRequest"; $curl; "DELETE" )
```

Fetch email flags for IMAP:

```
MBS( "CURL.SetOptionCustomRequest"; $curl; "FETCH 1:* FLAGS" )
```

Sets custom request PATCH:

```
MBS( "CURL.SetOptionCustomRequest"; $curl; "PATCH" )
```

IMAP fetch all email list with MessageID included:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionCustomRequest"; $curl; "FETCH 1:* (FLAGS BODY.PEEK  
[ HEADER.FIELDS (Message-Id) ] )" ) ]
```

Mark email to be deleted via IMAP:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionCustomRequest"; $curl; "STORE " & $EmailID & " +FLAGS  
(\DELETED)" ) ]
```

Delete emails via IMAP:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionCustomRequest"; $curl; "EXPUNGE" ) ]
```

Delete email via POP3:

```
# Start new session  
Set Variable [ $curl; Value:MBS("CURL.New" ) ]  
# You can specify the message either in the URL or DELE command  
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "pop3://pop.monkeybreadsoftware.de/1")  
]
```

```

# put credentials in place
Set Variable [ $result; Value:MBS("CURL.SetOptionUserName"; $curl; "xxx@macsw.de") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "xxx") ]
# Set the DELE command
Set Variable [ $result; Value:MBS("CURL.SetOptionCustomRequest"; $curl; "DELE") ]
# Do not perform a transfer as DELE returns no data
Set Variable [ $result; Value:MBS("CURL.SetOptionNoBody"; $curl; 1) ]
# Perform the custom request
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Set deleted flag for email with IMAP:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionCustomRequest"; $curl; "STORE 123 +Flags \\Deleted") ]
```

Query POP3 capabilities with UIDL request:

```

// This is a simple example using CURL's POP3 capabilities to list the contents of a mailbox.
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionCustomRequest"; $curl; "UIDL") ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionPassword"; $curl; "xxx") ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionUsername"; $curl; "yyy") ]
# Run transfer
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header ; MBS("CURL.GetHeaderAsText"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

Query headers of first email via POP3:

```

# TOP x y
# x = ID of email, starting at 1
# y = number of lines, default all.
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionCustomRequest"; $curl; "TOP 1 0") ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionPassword"; $curl; "xxx") ]
Set Field [ CURL Test::Result ; MBS("CURL.SetOptionUsername"; $curl; "yyy") ]
# Run transfer

```

```

Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header ; MBS("CURL.GetHeaderAsText"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

IMAP Email moving.

```

Set Variable [ $URL ; Value: "imap://" & EmailClient::Server & "/INBOX" ]
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL"; $curl; $URL) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionUserName"; $curl; EmailClient::Username) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionPassword"; $curl; EmailClient::Password) ]
# Move email 1 to folder test
Set Variable [ $r ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "MOVE 1 INBOX.test") ]
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
Set Variable [ $output ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $debug ; Value: MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ EmailClient::ErrorLog ; $debug ]
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]

```

Create folder via WebDAV:

```
Set Variable [ $r ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "MKCOL") ]
```

Query quota details for IMAP:

```
MBS( "CURL.SetOptionCustomRequest"; $curl; "GETQUOTA" )
```

### See also

- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992
- 62.149 CURL.Release 2011
- 62.161 CURL.SetInputFile 2032
- 62.228 CURL.SetOptionGet 2132
- 62.233 CURL.SetOptionHTTPHeader 2139
- 62.236 CURL.SetOptionHTTPVersion 2145
- 62.268 CURL.SetOptionPassword 2186
- 62.311 CURL.SetOptionRTSPRequest 2248



62.196. *CURL.SETOPTIONCUSTOMREQUEST*

2093

- 62.381 *CURL.SetOptionUsername*

2346

### **Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/Email Client](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [CURL/FTP/CURL FTP Directory Listing](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/Twitter OAuth](#)

### **62.196.1 Blog Entries**

- [Translate PHP script with CURL to FileMaker Script](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.197 `CURL.SetOptionDNSSCacheTimeout`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSSCacheTimeout"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new timeout in seconds.

60

**Result** Returns "OK" on success.

### Description

Name resolves will be kept in memory for this number of seconds. Set to zero to completely disable caching, or set to -1 to make the cached entries remain forever. By default, libcurl caches this info for 60 seconds.

The name resolve functions of various libc implementations don't re-read name server information unless explicitly told so (for example, by calling `res_init(3)`). This may cause libcurl to keep using the older server even if DHCP has updated the server info, and this may look like a DNS cache issue to the casual libcurl-app user.

See also [DNS\\_CACHE\\_TIMEOUT](#) option in CURL manual.

### See also

- 62.202 `CURL.SetOptionDNSShuffleAddresses` 2099

Created 18th August 2014, last changed 18th August 2014.

**62.198 CURL.SetOptionDNSInterface**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSInterface"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new interface name.

"en0"

**Result** Returns OK or error.

**Description**

This must be an interface name (not an address).

Set this option to "" to use the default setting (don't bind to a specific interface).

See also [DNS\\_INTERFACE](#) option in CURL manual.

**See also**

- 62.201 CURL.SetOptionDNSServers 2098
- 62.243 CURL.SetOptionInterface 2153

Created 8th July 2015, last changed 9th July 2015.

## 62.199 `CURL.SetOptionDNSLocalIPv4`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSLocalIPv4"; curl; IP )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **IP**

The new IP to use.

""

**Result** Returns OK or error.

### Description

The argument should be of string and contain a single numerical IPv4 address as a string.

Set this option to "" to use the default setting (don't bind to a specific IP address).

See also [DNS\\_LOCAL\\_IP4](#) option in CURL manual.

### See also

- 62.200 `CURL.SetOptionDNSLocalIPv6`

2097

Created 8th July 2015, last changed 9th July 2015.

**62.200 CURL.SetOptionDNSLocalIPv6**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSLocalIPv6"; curl; IP )

**Parameters****curl**

The CURL session handle.

\$curl

**IP**

The new IP to use.

""

**Result** Returns OK or error.

**Description**

The argument should be a text and contain a single IPv6 address as a string.

Set this option to "" to use the default setting (don't bind to a specific IP address).

See also [DNS\\_LOCAL\\_IP6](#) option in CURL manual.

**See also**

- 62.199 CURL.SetOptionDNSLocalIPv4

Created 8th July 2015, last changed 9th July 2015.

## 62.201 CURL.SetOptionDNSServers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSServers"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The option value.

**Result** Returns OK or error.

### Description

See also [DNS\\_SERVERS](#) option in CURL manual.

### See also

- 62.198 CURL.SetOptionDNSInterface 2095
- 62.244 CURL.SetOptionIssuerCert 2154
- 62.319 CURL.SetOptionReferer 2258
- 62.312 CURL.SetOptionRTSPServerCSEQ 2249
- 62.331 CURL.SetOptionSSLCert 2273

Created 15th April 2018, last changed 16th April 2018.

**62.202 CURL.SetOptionDNSShuffleAddresses**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDNSShuffleAddresses"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new setting, 1 or 0

1

**Result** Returns OK or error.

**Description**

When a name is resolved and more than one IP address is returned, shuffle the order of all returned addresses so that they will be used in a random order. This is similar to the ordering behavior of gethostbyname which is no longer used on most platforms.

Addresses will not be reshuffled if a name resolution is completed using the DNS cache. `CURL.SetOptionDNSShuffleAddresses` can be used together with this option to reduce DNS cache timeout or disable caching entirely if frequent reshuffling is needed.

Since the addresses returned will be reordered randomly, their order will not be in accordance with RFC 3484 or any other deterministic order that may be generated by the system's name resolution implementation. This may have performance impacts and may cause IPv4 to be used before IPv6 or vice versa.

Default is 0.

See also [DNS\\_SHUFFLE\\_ADDRESSES](#) option in CURL manual.

**See also**

- 62.197 `CURL.SetOptionDNSShuffleAddresses`

2094

**62.202.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 16th May 2018, last changed 16th May 2018.

## 62.203 CURL.SetOptionDOHURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDOHURL"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The new URL.

**Result** Returns OK or error.

### Description

Pass in a string to a URL for the DOH server to use for name resolving. The parameter should be URL-encoded in the following format: "https://host:port/path". It MUST specify a HTTPS URL.

libcurl doesn't validate the syntax or use this variable until the transfer is issued. Even if you set a crazy value here, CURL.SetOptionDOHURL will still return OK.

curl sends POST requests to the given DNS-over-HTTPS URL.

To find the DOH server itself, which might be specified using a name, libcurl will use the default name lookup function. You can bootstrap that by providing the address for the DOH server with CURL.SetOptionResolve.

Disable DOH use again by setting this option to "".

See also [DOH\\_URL](#) option in CURL manual.

### See also

- 62.184 CURL.SetOptionCRLF 2068
- 62.263 CURL.SetOptionNetRC 2178
- 62.321 CURL.SetOptionResolve 2260
- 62.373 CURL.SetOptionURL 2329
- 62.379 CURL.SetOptionUseSSL 2343



### 62.203.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr5](#)

Created 31st October 2018, last changed 31st October 2018.

## 62.204 CURL.SetOptionDefaultProtocol

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDefaultProtocol"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The option value.

**Result** Returns OK or error.

### Description

See also [DEFAULT\\_PROTOCOL](#) option in CURL manual.

### See also

- 62.229 CURL.SetOptionHAProxyProtocol 2134
- 62.318 CURL.SetOptionRedirProtocols 2256

Created 15th April 2018, last changed 16th April 2018.

**62.205 CURL.SetOptionDirListOnly**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDirListOnly"; curl; Value )

(old name: CURL.SetOptionFTPListOnly)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to limit directory listing to names only.

1

**Result** Returns "OK" on success.

**Description**

A parameter set to 1 tells the library to just list the names of files in a directory, instead of doing a full directory listing that would include file sizes, dates etc. This works for FTP and SFTP URLs.

This causes an FTP NLST command to be sent on an FTP server. Beware that some FTP servers list only files in their response to NLST; they might not include subdirectories and symbolic links.

See also **DIRLISTONLY** option in CURL manual.

**Examples**

List only file names:

```
MBS( "CURL.SetOptionDirListOnly"; $curl; 1 )
```

Full listing:

```
MBS( "CURL.SetOptionDirListOnly"; $curl; 0 )
```

Query list of files in FTP/SFTP folder:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set download URL, e.g. sftp://monkeybreadsoftware.net/
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; SFTP Download::URL ) ]
# set credentials
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; SFTP Download::UserName ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; SFTP Download::Password ) ]
# login only via password
```

```

Set Variable [ $result; Value:MBS( "CURL.SetOptionSSHAAuthTypes"; $curl; 2+8 ) ]
# only get list of file/dir names
Set Variable [ $result; Value:MBS("CURL.SetOptionDirListOnly"; $curl; 1) ]
# run transfer
Set Field [ SFTP Download::ErrorCode; MBS("CURL.Perform"; $curl) ]
# check debug log for errors
Set Field [ SFTP Download::Debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ SFTP Download::FileList; MBS("CURL.GetResultAsText"; $curl) ]
# free CURL session
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.121 [CURL.GetResultAsText](#) 1963
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011
- 62.187 [CURL.SetOptionConnectOnly](#) 2073
- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.325 [CURL.SetOptionSSHAAuthTypes](#) 2264
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.381 [CURL.SetOptionUsername](#) 2346

**Example Databases**

- [CURL/FTP/CURL FTP Download all Files in Directory](#)

Created 18th August 2014, last changed 19th April 2020.

**62.206 CURL.SetOptionDisallowUserNameInURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionDisallowUserNameInURL"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value. Can be 1 to disable or 0 to enable.

1

**Result** Returns OK or error.

**Description**

The value 1 tells the library to not allow URLs that include an username.

Having password and username in the URL is a bad idea as you tell every proxy server your secret and the URLs appear on all proxy and the final web server right in the log files.

See also [DISALLOW\\_USERNAME\\_IN\\_URL](#) option in CURL manual.

**Examples**

Enable passwords in the URL:

MBS( "CURL.SetOptionDisallowUserNameInURL"; \$curl; 1 )

**62.206.1 Blog Entries**

- [URLs without UserName and Password please](#)
- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 11st July 2018, last changed 5th October 2018.

## 62.207 `CURL.SetOptionEGDSocket`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionEGDSocket"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The path to the socket.

""

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

It will be used to seed the random engine for SSL.

See also **EGDSOCKET** option in CURL manual.

Created 18th August 2014, last changed 5th July 2015.

**62.208 CURL.SetOptionExpect100TimeoutMS**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionExpect100TimeoutMS"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Time to wait in milliseconds for a response to a HTTP request containing an Expect: 100-continue header before sending the data anyway.

See also [EXPECT\\_100\\_TIMEOUT\\_MS](#) option in CURL manual.

**See also**

- 62.177 [CURL.SetOptionAcceptTimeoutMS](#) 2057
- 62.190 [CURL.SetOptionConnectionTimeout](#) 2078
- 62.188 [CURL.SetOptionConnectTimeoutMS](#) 2076

Created 15th April 2018, last changed 16th April 2018.

## 62.209 `CURL.SetOptionFTPAccount`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPAccount"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The account name.

"test"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

When an FTP server asks for "account data" after user name and password has been provided, this data is sent off using the ACCT command.

See also [FTP\\_ACCOUNT](#) option in CURL manual.

### See also

- 62.213 `CURL.SetOptionFTPPort` 2114
- 62.215 `CURL.SetOptionFTPSSLAAuth` 2117
- 62.218 `CURL.SetOptionFTPUseEPRT` 2121
- 62.219 `CURL.SetOptionFTPUseEPSV` 2122
- 62.220 `CURL.SetOptionFTPUsePret` 2123

Created 18th August 2014, last changed 5th July 2015.



**62.210 CURL.SetOptionFTPAlternativeToUser**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPAlternativeToUser"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use alternative user command.

1

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string which will be used to authenticate if the usual FTP "USER user" and "PASS password" negotiation fails. This is currently only known to be required when connecting to Tumbleweed's Secure Transport FTPS server using client certificates for authentication.

See also [FTP\\_ALTERNATIVE\\_TO\\_USER](#) option in CURL manual.

Created 18th August 2014, last changed 5th July 2015.

## 62.211 `CURL.SetOptionFTPCreateMissingDirs`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPCreateMissingDirs"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Whether to create missing directories. (1, 2 or 0)

2

**Result** Returns "OK" on success.

### Description

Pass a number. If the value is 1, curl will attempt to create any remote directory that it fails to CWD into. CWD is the command that changes working directory.

This setting also applies to SFTP-connections. curl will attempt to create the remote directory if it can't obtain a handle to the target-location. The creation will fail if a file of the same name as the directory to create already exists or lack of permissions prevents creation.

Starting with 7.19.4, you can also set this value to 2, which will make libcurl retry the CWD command again if the subsequent MKD command fails. This is especially useful if you're doing many simultaneous connections against the same server and they all have this option enabled, as then CWD may first fail but then another connection does MKD before this connection and thus MKD fails but trying CWD works!

See also [FTP\\_CREATE\\_MISSING\\_DIRS](#) option in CURL manual.

### Examples

Upload via FTP with creation of missing folders:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "ftp://ftp.monkeybreadsoftware.net/missingFolder/hello.txt") ]
# create any missing folders when uploading
Set Variable [ $result ; Value: MBS("CURL.SetOptionFTPCreateMissingDirs"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
# we upload some text here.
Set Variable [ $result ; Value: MBS("CURL.SetInputText"; $curl; "Hello World!") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
# Run transfer
```

```
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check debug messages for errors
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

Upload via SFTP and create missing directories:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "sftp://ftp.monkeybreadsoftware.net/missingFolder/hello.txt") ]
# create any missing folders when uploading
Set Variable [ $result ; Value: MBS("CURL.SetOptionFTPCreateMissingDirs"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSHAuthTypes"; $curl; 2+8 ) ]
# we upload some text here.
Set Variable [ $result ; Value: MBS("CURL.SetInputText"; $curl; "Hello World!") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
# Run transfer
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check debug messages for errors
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 *CURL.GetDebugAsText* 1866
- 62.140 *CURL.New* 1985
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011
- 62.166 *CURL.SetInputText* 2043
- 62.268 *CURL.SetOptionPassword* 2186
- 62.325 *CURL.SetOptionSSHAuthTypes* 2264
- 62.377 *CURL.SetOptionUpload* 2340
- 62.373 *CURL.SetOptionURL* 2329
- 62.381 *CURL.SetOptionUsername* 2346

### Example Databases

- [CURL/SFTP/CURL sFTP Upload File](#)

### 62.211.1 Blog Entries

- [Tip of the day: FTP File Upload](#)

Created 18th August 2014, last changed 19th April 2020.

**62.212 CURL.SetOptionFTPFileMethod**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPFileMethod"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Which CWD command to use.

0

**Result** Returns "OK" on success.

**Description**

Pass a long that should have one of the following values. This option controls what method libcurl should use to reach a file on a FTP(S) server. The argument should be one of the following alternatives:

Default	0	default
Multi CWD	1	libcurl does a single CWD operation for each path part in the given URL. For deep hierarchies this means many commands. This is how RFC 1738 says it should be done. This is the default but the slowest behavior.
No CWD	2	libcurl does no CWD at all. libcurl will do SIZE, RETR, STOR etc and give a full path to the server for all these commands. This is the fastest behavior.
Single CWD	3	libcurl does one CWD with the full target directory and then operates on the file "normally" (like in the multicwd case). This is somewhat more standards compliant than 'nocwd' but without the full penalty of 'multicwd'.

See also [FTP\\_FILEMETHOD](#) option in CURL manual.

**Examples**

Use single CWD command:

MBS( "CURL.SetOptionFTPFileMethod"; \$curl; 3 )

Created 18th August 2014, last changed 16th November 2017.

## 62.213 `CURL.SetOptionFTPPort`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetOptionFTPPort"; curl; Value { ; Encoding } )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The port string.

""

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF-8"

**Result** Returns "OK" on success.

### Description

It will be used to get the IP address to use for the FTP PORT instruction. The PORT instruction tells the remote server to connect to our specified IP address. The string may be a plain IP address, a host name, a network interface name (under Unix) or just a '-' symbol to let the library use your system's default IP address. Default FTP operations are passive, and thus won't use PORT.

The address can be followed by a ':' to specify a port, optionally followed by a '-' to specify a port range. If the port specified is 0, the operating system will pick a free port. If a range is provided and all ports in the range are not available, libcurl will report `CURLE_FTP_PORT_FAILED` for the handle. Invalid port/range settings are ignored. IPv6 addresses followed by a port or portrange have to be in brackets. IPv6 addresses without port/range specifier can be in brackets.

Examples with specified ports:

```
eth0:0 192.168.1.2:32000-33000 curl.se:32123 [ ::1 ] :1234-4567
```

You disable PORT again and go back to using the passive version by setting this option to empty string.

See also `CURL.SetOptionPort`.

See also **FTPPORT** option in CURL manual.

### Examples

Sets to use default port:

62.213. *CURL.SETOPTIONFTPPORT* 2115  
MBS( "CURL.SetOptionFTPPort"; \$curl; "-")

**See also**

- 62.268 *CURL.SetOptionPassword* 2186
- 62.272 *CURL.SetOptionPort* 2192
- 62.273 *CURL.SetOptionPost* 2194
- 62.278 *CURL.SetOptionPreProxy* 2207
- 62.281 *CURL.SetOptionProxy* 2212
- 62.290 *CURL.SetOptionProxyPort* 2222
- 62.308 *CURL.SetOptionPut* 2242
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.368 *CURL.SetOptionTimeOut* 2323
- 62.382 *CURL.SetOptionVerbose* 2348

Created 18th August 2014, last changed 19th June 2019.

## 62.214 CURL.SetOptionFTPResponseTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPResponseTimeout"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The timeout value in seconds.

60

**Result** Returns "OK" on success.

### Description

Sets timeout period (in seconds) on the amount of time that the server is allowed to take in order to generate a response message for a command before the session is considered hung.

While curl is waiting for a response, this value overrides CURL.SetOptionTimeout. It is recommended that if used in conjunction with CURL.SetOptionTimeout, you set CURL.SetOptionFTPResponseTimeout to a value smaller than CURL.SetOptionTimeout.

See also [FTP\\_RESPONSE\\_TIMEOUT](#) option in CURL manual.

### See also

- 62.190 CURL.SetOptionConnectionTimeout 2078
- 62.368 CURL.SetOptionTimeOut 2323

Created 18th August 2014, last changed 18th August 2014.



**62.215 CURL.SetOptionFTPSSLAuth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPSSLAuth"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Sets the SSL mode.

2

**Result** Returns "OK" on success.

**Description**

Pass a long using one of the values from below, to alter how libcurl issues "AUTH TLS" or "AUTH SSL" when FTP over SSL is activated (see `CURLOPT_USE_SSL`).

<code>CURLFTPAUTH_DEFAULT</code>	0	Allow libcurl to decide.
<code>CURLFTPAUTH_SSL</code>	1	Try "AUTH SSL" first, and only if that fails try "AUTH TLS".
<code>CURLFTPAUTH_TLS</code>	2	Try "AUTH TLS" first, and only if that fails try "AUTH SSL".

See also [FTPSSLAUTH](#) option in CURL manual.

**See also**

- 62.213 [CURL.SetOptionFTPSPort](#) 2114
- 62.216 [CURL.SetOptionFTPSSLCCC](#) 2119
- 62.218 [CURL.SetOptionFTPUseEPRT](#) 2121
- 62.219 [CURL.SetOptionFTPUseEPSV](#) 2122
- 62.220 [CURL.SetOptionFTPUsePret](#) 2123
- 62.231 [CURL.SetOptionHTTPAuth](#) 2136
- 62.253 [CURL.SetOptionMailAuth](#) 2166
- 62.282 [CURL.SetOptionProxyAuth](#) 2214
- 62.323 [CURL.SetOptionSASLAUTHZID](#) 2262
- 62.348 [CURL.SetOptionSocks5Auth](#) 2303



**62.216 CURL.SetOptionFTPSSLCCC**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPSSLCCC"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use CCC command.

2

**Result** Returns "OK" on success.

**Description**

It shuts down the SSL/TLS layer after authenticating. The rest of the control channel communication will be unencrypted. This allows NAT routers to follow the FTP transaction. Pass a number using one of the values below. (Added in 7.16.1)

CURLFTPSSL_CCC_NONE	0	Don't attempt to use CCC.
CURLFTPSSL_CCC_PASSIVE	1	Do not initiate the shutdown, but wait for the server to do it. Do not send a reply.
CURLFTPSSL_CCC_ACTIVE	2	Initiate the shutdown and wait for a reply.

See also [FTP\\_SSL\\_CCC](#) option in CURL manual.

**See also**

- 62.213 [CURL.SetOptionFTPSPort](#) 2114
- 62.215 [CURL.SetOptionFTPSSLAAuth](#) 2117
- 62.331 [CURL.SetOptionSSLCert](#) 2273

Created 18th August 2014, last changed 18th August 2014.

## 62.217 `CURL.SetOptionFTPSkipPasvIP`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPSkipPasvIP"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to skip suggested IP.

1

**Result** Returns "OK" on success.

### Description

Pass a long. If set to 1, it instructs CURL to not use the IP address the server suggests in its 227-response to CURL's PASV command when CURL connects the data connection. Instead libcurl will re-use the same IP address it already uses for the control connection. But it will use the port number from the 227-response. This option has no effect if PORT, EPRT or EPSV is used instead of PASV.

See also [FTP\\_SKIP\\_PASV\\_IP](#) option in CURL manual.

Created 18th August 2014, last changed 2nd August 2018.

**62.218 CURL.SetOptionFTPUseEPRT**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPUseEPRT"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use EPRT command: 1 for EPRT, 0 for no EPRT.

1

**Result** Returns "OK" on success.

**Description**

If the value is 1, it tells curl to use the EPRT (and LPRT) command when doing active FTP downloads (which is enabled by `CURL.SetOptionFTPSPort`). Using EPRT means that it will first attempt to use EPRT and then LPRT before using PORT, but if you pass zero to this option, it will not try using EPRT or LPRT, only plain PORT.

If the server is an IPv6 host, this option will have no effect.

See also [FTP\\_USE\\_EPRT](#) option in CURL manual.

**See also**

- 62.209 `CURL.SetOptionFTPAccount` 2108
- 62.213 `CURL.SetOptionFTPSPort` 2114
- 62.215 `CURL.SetOptionFTPSSLAAuth` 2117
- 62.219 `CURL.SetOptionFTPUseEPSV` 2122
- 62.220 `CURL.SetOptionFTPUsePret` 2123

Created 18th August 2014, last changed 18th August 2014.

**62.219 CURL.SetOptionFTPUseEPSV**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPUseEPSV"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use EPSV command or PASV. Pass 1 for EPSV or 0 for PASV.

1

**Result** Returns "OK" on success.

**Description**

If the value is 1, it tells curl to use the EPSV command when doing passive FTP downloads (which it always does by default). Using EPSV means that it will first attempt to use EPSV before using PASV, but if you pass zero to this option, it will not try using EPSV, only plain PASV.

If the server is an IPv6 host, this option will have no effect as of 7.12.3.

See also [FTP\\_USE\\_EPSV](#) option in CURL manual.

**See also**

- 62.209 CURL.SetOptionFTPAccount 2108
- 62.215 CURL.SetOptionFTPSSLAAuth 2117
- 62.218 CURL.SetOptionFTPUseEPRT 2121
- 62.220 CURL.SetOptionFTPUsePret 2123

Created 18th August 2014, last changed 18th August 2014.

**62.220 CURL.SetOptionFTPUsePret**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFTPUsePret"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use PRET command: 1 for PRET, 0 for no PRET.

1

**Result** Returns "OK" on success.

**Description**

If the value is 1, it tells curl to send a PRET command before PASV (and EPSV). Certain FTP servers, mainly drftpd, require this non-standard command for directory listings as well as up and downloads in PASV mode. Has no effect when using the active FTP transfers mode.

See also [FTP\\_USE\\_PRET](#) option in CURL manual.

**See also**

- 62.209 [CURL.SetOptionFTPAccount](#) 2108
- 62.213 [CURL.SetOptionFTPPort](#) 2114
- 62.215 [CURL.SetOptionFTPSSLAAuth](#) 2117
- 62.218 [CURL.SetOptionFTPUseEPRT](#) 2121
- 62.219 [CURL.SetOptionFTPUseEPSV](#) 2122
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.311 [CURL.SetOptionRTSPRequest](#) 2248

Created 18th August 2014, last changed 18th August 2014.

**62.221 CURL.SetOptionFailOnError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFailOnError"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to fail on http errors.

0

**Result** Returns "OK" on success.

**Description**

A parameter set to 1 tells the library to fail silently if the HTTP code returned is equal to or larger than 400. The default action would be to return the page normally, ignoring that code.

This method is not fail-safe and there are occasions where non-successful response codes will slip through, especially when authentication is involved (response codes 401 and 407).

You might get some amounts of headers transferred before this situation is detected, like when a "100-continue" is received as a response to a POST/PUT and a 401 or 407 is received immediately afterwards. See also **FAILONERROR** option in CURL manual.

**See also**

- 62.222 CURL.SetOptionFileOnlyMode 2125
- 62.254 CURL.SetOptionMailFrom 2168

Created 18th August 2014, last changed 18th August 2014.



**62.222 CURL.SetOptionFileOnlyMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFileOnlyMode"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to write data to files only and avoid storing data in memory.

1

**Result** Returns "OK" on success or error message.

**Description**

If you create file with `CURL.CreateOutputFile` you may want to have data only in file and avoid filling memory with data for the result functions.

Do not call this method while a transfer is running.

**Examples**

Write data only to file:

```
MBS( "CURL.SetOptionFileOnlyMode"; $curl; 1 )
```

```
MBS( "CURL.CreateOutputFile"; $curl; "/tmp/download.dat" )
```

**See also**

- 62.15 `CURL.CreateOutputFile` 1819
- 62.221 `CURL.SetOptionFailOnError` 2124

**62.222.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.223 `CURL.SetOptionFileTime`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFileTime"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to query file time.

1

**Result** Returns "OK" on success.

### Description

Pass a number. If it is 1, libcurl will attempt to get the modification date of the remote document in this operation. This requires that the remote server sends the time or replies to a time querying command. The `CURL.GetFileTime` function can be used after a transfer to extract the received time (if any).

See also [FILETIME](#) option in CURL manual.

### See also

- [62.50 CURL.GetFileTime](#) 1876
- [62.185 CURL.SetOptionCRLFFile](#) 2069
- [62.242 CURL.SetOptionInFileSize](#) 2151
- [62.254 CURL.SetOptionMailFrom](#) 2168
- [62.258 CURL.SetOptionMaxFileSize](#) 2172
- [62.271 CURL.SetOptionPipeWait](#) 2191
- [62.368 CURL.SetOptionTimeOut](#) 2323
- [62.369 CURL.SetOptionTimeValue](#) 2325
- [62.381 CURL.SetOptionUsername](#) 2346

### Example Databases

- [CURL/CURL Download Picture with Info](#)

Created 18th August 2014, last changed 18th August 2014.

**62.224 CURL.SetOptionFollowLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFollowLocation"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to follow locations.

1

**Result** Returns "OK" on success.

**Description**

A parameter set to 1 tells the library to follow any Location: header that the server sends as part of an HTTP header.

This means that the library will re-send the same request on the new location and follow new Location: headers all the way until no more such headers are returned. `CURL.SetOptionMaxRedirs` can be used to limit the number of redirects libcurl will follow.

CURL can limit what protocols it will automatically follow. The accepted protocols are set with `CURL.SetOptionRedirProtocols` and it excludes the FILE protocol by default.

See also [FOLLOWLOCATION](#) option in CURL manual.

**Examples**

Allow up to three redirects:

```
Set Variable [ $result; Value: MBS("CURL.SetOptionFollowLocation"; $curl; 1) ]
```

```
Set Variable [ $result; Value: MBS("CURL.SetOptionMaxRedirs"; $curl; 3) ]
```

**See also**

- 62.48 `CURL.GetEffectiveURL` 1873
- 62.109 `CURL.GetRedirectURL` 1939
- 62.110 `CURL.GetRequestSize` 1941
- 62.112 `CURL.GetResultAsContainer` 1944
- 62.260 `CURL.SetOptionMaxRedirs` 2174

- 62.277 `CURL.SetOptionPostRedir` 2205
- 62.318 `CURL.SetOptionRedirProtocols` 2256
- 62.375 `CURL.SetOptionUnrestrictedAuth` 2338
- 87.225 `GImage.Scale` 4690

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Download Picture with Info](#)
- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/Twitter OAuth](#)

Created 18th August 2014, last changed 12nd May 2016.

**62.225 CURL.SetOptionForbidReuse**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionForbidReuse"; curl; Value )

(old name: CURL.SetOptionForbitReuse)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to disallow reusing connections.

0

**Result** Returns "OK" on success.

**Description**

Set to 1 to make the next transfer explicitly close the connection when done. Normally, libcurl keeps all connections alive when done with one transfer in case a succeeding one follows that can re-use them. This option should be used with caution and only if you understand what it does. Set to 0 to have libcurl keep the connection open for possible later re-use (default behavior).

see also [CURL.SetOptionFreshConnect](#).

See also [FORBID\\_REUSE](#) option in CURL manual.

**Examples**

Forbit reusing connection:

```
MBS( "CURL.SetOptionForbitReuse"; $curl; 1 )
```

Forbit reuse and make fresh connection:

```
Set Variable [ $EmailID; Value: MBS( "CURL.SetOptionForbitReuse"; $curl; 1 ) ]
```

```
Set Variable [ $EmailID; Value: MBS( "CURL.SetOptionFreshConnect"; $curl; 1 ) ]
```

**See also**

- [62.226 CURL.SetOptionFreshConnect](#)

## 62.226 `CURL.SetOptionFreshConnect`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionFreshConnect"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to not reuse old connection for next transfer.

0

**Result** Returns "OK" on success.

### Description

Set to 1 to make the next transfer use a new (fresh) connection by force. If the connection cache is full before this connection, one of the existing connections will be closed as according to the selected or default policy. This option should be used with caution and only if you understand what it does. Set this to 0 to have libcurl attempt re-using an existing connection (default behavior).

see also `CURL.SetOptionForbidReuse`.

See also [FRESH\\_CONNECT](#) option in CURL manual.

### Examples

Request a fresh connection:

```
MBS( "CURL.SetOptionFreshConnect"; $curl; 1 )
```

Forbid reuse and make fresh connection:

```
Set Variable [ $EmailID; Value: MBS( "CURL.SetOptionForbidReuse"; $curl; 1 ) ]
```

```
Set Variable [ $EmailID; Value: MBS( "CURL.SetOptionFreshConnect"; $curl; 1 ) ]
```

### See also

- [62.225 `CURL.SetOptionForbidReuse`](#) 2129
- [62.257 `CURL.SetOptionMaxConnects`](#) 2171

### Example Databases

- [CURL/Email/Batch Emailer](#)

Created 18th August 2014, last changed 21st June 2016.

**62.227 CURL.SetOptionGSSAPIDelegation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionGSSAPIDelegation"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [GSSAPI\\_DELEGATION](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

## 62.228 CURL.SetOptionGet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionGet"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Whether to do a GET transfer.

1

**Result** Returns "OK" on success.

### Description

Pass a number. If the number is 1, this forces the HTTP request to get back to GET. Usable if a POST, HEAD, PUT, or a custom request has been used previously using the same curl handle.

When setting value to 1, it will automatically set CURL.SetOptionNoBody to 0.

If you need POST, please use CURL.SetOptionPost. If you need DELETE, PATCH or others, please use CURL.SetOptionCustomRequest function.

### Examples

Turns get on:

```
MBS( "CURL.SetOptionGet"; $curl; 1 )
```

### See also

- 62.196 CURL.SetOptionCustomRequest 2089
- 62.263 CURL.SetOptionNetRC 2178
- 62.266 CURL.SetOptionNoBody 2182
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194
- 62.317 CURL.SetOptionRange 2254
- 62.331 CURL.SetOptionSSLCert 2273
- 62.339 CURL.SetOptionSSLKey 2286



62.228. <i>CURL.SETOPTIONGET</i>	2133
• 62.368 CURL.SetOptionTimeOut	2323
• 62.379 CURL.SetOptionUseSSL	2343

### **Example Databases**

- [CURL/WebServices/Magento2 REST API](#)

Created 18th August 2014, last changed 19th June 2019.

## 62.229 `CURL.SetOptionHAProxyProtocol`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHAProxyProtocol"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new setting, 1 or 0

1

**Result** Returns OK or error.

### Description

A value 1 tells the library to send an HAProxy PROXY protocol header at beginning of the connection. The default action is not to send this header.

This option is primarily useful when sending test requests to a service that expects this header.

Most applications do not need this option.

Default 0, do not send HAProxy PROXY protocol header.

See also [HAPROXYPROTOCOL](#) option in CURL manual.

### See also

- [62.204 `CURL.SetOptionDefaultProtocol`](#) 2102
- [62.318 `CURL.SetOptionRedirProtocols`](#) 2256

### 62.229.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 16th May 2018, last changed 28th November 2019.

**62.230 CURL.SetOptionHTTP200Aliases**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTP200Aliases"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

List of aliases.

"ICY 200 OK"

**Result** Returns "OK" on success.

**Description**

Some servers respond with a custom header response line. For example, IceCast servers respond with "ICY 200 OK". By including this string in your list of aliases, the response will be treated as a valid HTTP header line such as "HTTP/1.0 200 OK".

The alias itself is not parsed for any version strings. Before libcurl 7.16.3, Libcurl used the value set by option `CURL.SetOptionHTTPVersion`, but starting with 7.16.3 the protocol is assumed to match HTTP 1.0 when an alias matched.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values. See also [HTTP200ALIASES](#) option in CURL manual.

**Examples**

Call with three parameters:

MBS( "CURL.SetOptionHTTP200Aliases"; handle; \$value1; \$value2; \$value3 )

**See also**

- 62.80 `CURL.GetOptionHTTP200Aliases` 1910
- 62.236 `CURL.SetOptionHTTPVersion` 2145

Created 18th August 2014, last changed 18th August 2014.

## 62.231 `CURL.SetOptionHTTPAuth`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPAuth"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Which http authentication to use.

15

**Result** Returns "OK" on success.

### Description

Pass a number as parameter, which is set to a bitmask, to tell libcurl which authentication method(s) you want it to use. The available bits are listed below. If more than one bit is set, libcurl will first query the site to see which authentication methods it supports and then pick the best one you allow it to use. For some methods, this will induce an extra network round-trip. Set the actual name and password with the `CURL.SetOptionUsername` and the `CURL.SetOptionPassword` options.

See also [HTTPAUTH](#) option in CURL manual.

### Examples

Request GSS-Negotiate:

```
MBS( "CURL.SetOptionHTTPAuth"; $curl; 4 )
```

Use BASIC or Digest authorization:

```
MBS( "CURL.SetOptionHTTPAuth"; $curl; 1+2+16 )
```

### See also

- 62.55 `CURL.GetHTTPAuthAvail` 1882
- 62.101 `CURL.GetProxyAuthAvail` 1931
- 62.213 `CURL.SetOptionFTPPort` 2114
- 62.215 `CURL.SetOptionFTPSSLAuth` 2117
- 62.233 `CURL.SetOptionHTTPHeader` 2139

<code>CURLAUTH_BASIC</code>	1	HTTP Basic authentication. This is the default choice, and the only method that is in wide-spread use and supported virtually everywhere. This sends the user name and password over the network in plain text, easily captured by others.
<code>CURLAUTH_DIGEST</code>	2	HTTP Digest authentication. Digest authentication is defined in RFC 2617 and is a more secure way to do authentication over public networks than the regular old-fashioned Basic method.
<code>CURLAUTH_DIGEST_IE</code>	16	HTTP Digest authentication with an IE flavor. Digest authentication is defined in RFC 2617 and is a more secure way to do authentication over public networks than the regular old-fashioned Basic method. The IE flavor is simply that libcurl will use a special "quirk" that IE is known to have used before version 7 and that some servers require the client to use. (This define was added in 7.19.3)
<code>CURLAUTH_GSSNEGOTIATE</code>	4	HTTP GSS-Negotiate authentication. The GSS-Negotiate (also known as plain "Negotiate") method was designed by Microsoft and is used in their web applications. It is primarily meant as a support for Kerberos5 authentication but may also be used along with other authentication methods. For more information see IETF draft draft-brezak-spnego-http-04.txt. You need to build libcurl with a suitable GSS-API library for this to work.
<code>CURLAUTH_NTLM</code>	8	HTTP NTLM authentication. A proprietary protocol invented and used by Microsoft. It uses a challenge-response and hash concept similar to Digest, to prevent the password from being eavesdropped. You need to build libcurl with OpenSSL support for this option to work, or build libcurl on Windows.
<code>CURLAUTH_ANY</code>	15	This is a convenience macro that sets all bits and thus makes libcurl pick any it finds suitable. libcurl will automatically select the one it finds most secure.
<code>CURLAUTH_ANYSAFE</code>	14	This is a convenience macro that sets all bits except Basic and thus makes libcurl pick any it finds suitable. libcurl will automatically select the one it finds most secure.

- 62.253 `CURL.SetOptionMailAuth` 2166
- 62.268 `CURL.SetOptionPassword` 2186
- 62.282 `CURL.SetOptionProxyAuth` 2214
- 62.348 `CURL.SetOptionSocks5Auth` 2303
- 62.381 `CURL.SetOptionUsername` 2346

## 62.232 `CURL.SetOptionHTTPContentDecoding`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPContentDecoding"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to do content decoding.

1

**Result** Returns "OK" on success.

### Description

If set to zero, content decoding will be disabled. If set to 1 it is enabled. Libcurl has no default content decoding but requires you to use `CURLOPT_ENCODING` for that.

See also [HTTP\\_CONTENT\\_DECODING](#) option in CURL manual.

### See also

- 62.235 `CURL.SetOptionHTTPTransferDecoding`

2144

Created 18th August 2014, last changed 18th August 2014.

**62.233 CURL.SetOptionHTTPHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPHeader"; curl; Values )

**Parameters****curl**

The CURL session handle.

\$curl

**Values**

Header values

"Content-Type: text/xml"

**Result** Returns "OK" on success.

**Description**

Pass a list of HTTP headers to pass to the server in your HTTP request. If you add a header that is otherwise generated and used by libcurl internally, your added one will be used instead. If you add a header with no content as in 'Accept:' (no data on the right side of the colon), the internally used header will get disabled. Thus, using this option you can add new headers, replace internal headers and remove internal headers. To add a header with no content, make the content be two quotes: "". The headers included in the linked list must not be CRLF-terminated, because curl adds CRLF after each header item. Failure to comply with this will result in strange bugs because the server will most likely ignore part of the headers you specified.

The first line in a request (containing the method, usually a GET or POST) is not a header and cannot be replaced using this option. Only the lines following the request-line are headers. Adding this method line in this list of headers will only cause your request to send an invalid header.

Pass a no parameters to this to reset back to no custom headers.

The most commonly replaced headers have "shortcuts" in the options `CURL.SetOptionCookie`, `CURL.SetOptionUserAgent` and `CURL.SetOptionReferer`.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values.

Do not pass special headers like Content-Length as this is set based on the given input via `CURL.SetOptionPostFields`. Do not set Content-Encoding as that is controlled by `CURL.SetOptionAcceptEncoding`. See also [HTTPHEADER](#) option in CURL manual.

**Examples**

Set text/xml content type:

```
MBS( "CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml" )
```

Set two custom headers:

```
MBS( "CURL.SetOptionHTTPHeader"; $curl; "MyHeader1: hello"; "MyHeader2: world" )
```

Call with three parameters:

```
MBS( "CURL.SetOptionHTTPHeader"; handle; $value1; $value2; $value3 )
```

For SOAP, set content type and disable Expect header:

```
MBS("CURL.SetOptionHTTPHeader"; $curl; "Expect:"; "Content-Type: text/xml")
```

Set content type including a soap action:

```
MBS( "CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/soap+xml;charset=UTF-8;action=\urn:sap-com:document:sap:soap:functions:mc-style:ZMF_WS_00:ZmfWs00Request\" )
```

Request no cached copy:

```
MBS("CURL.SetOptionHTTPHeader"; $curl; "Cache-Control: no-cache")
```

Set content type for URL encoded form data:

```
MBS( "CURL.SetOptionHTTPHeader"; $curl; "Content-Type: application/x-www-form-urlencoded" )
```

Using a bearer for a webservice:

```
MBS( "CURL.SetOptionHTTPHeader"; $curl; "Authorization: Bearer a92eabb9-76f9-42ee-b280-bcd15cb2e9db";
"Content-Type: application/json")
```

Set SOAP Action and Content-Type for webservice:

```
MBS("CURL.SetOptionHTTPHeader"; $curl;
"Content-Type: text/xml;charset=\utf-8\"";
"SOAPAction: \" & $SoapRequestName & \"\")
```

Query current account for Dropbox:

```
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "https://api.dropboxapi.com/2/users/get_cur-
```



```

rent_account") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "POST") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Accept: */*"; "Authorization: Bearer xxx"; "Cache-Control: no-cache"; "accept-encoding: gzip, deflate"; "cache-control: no-cache"; "content-length:") ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.81 *CURL.GetOptionHTTPHeader* 1911
- 62.85 *CURL.GetOptionProxyHeader* 1915
- 62.220 *CURL.SetOptionFTPUsePret* 2123
- 62.236 *CURL.SetOptionHTTPVersion* 2145
- 62.275 *CURL.SetOptionPostFields* 2199
- 62.286 *CURL.SetOptionProxyHeader* 2218
- 62.319 *CURL.SetOptionReferer* 2258
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.339 *CURL.SetOptionSSLKey* 2286
- 62.380 *CURL.SetOptionUserAgent* 2345

**Example Databases**

- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/Sales Force Test](#)
- [CURL/WebServices/Swiss Post Addresscheck V4-02-00](#)
- [CURL/WebServices/Swiss Post Addresscheck](#)
- [CURL/WebServices/TinyURL](#)
- [CURL/WebServices/Twitter oAuth](#)

### 62.233.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Let CURL handle cookie list](#)
- [MBS FileMaker Plugin, version 8.2pr3](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Using NetVerify web service with FileMaker](#)
- [Swiss Post Webservice to verify addresses](#)
- [Using CURL with Rosette web service](#)
- [Translate PHP script with CURL to FileMaker Script](#)

### 62.233.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 20](#)
- [Ausgabe 4/2016, Seite 19](#)

Created 18th August 2014, last changed 30th April 2020.

**62.234 CURL.SetOptionHTTPProxyTunnel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPProxyTunnel"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to tunnel or not. (1 to tunnel, 0 to not tunnel)

1

**Result** Returns "OK" on success.

**Description**

There is a big difference between using a proxy and to tunnel through it. If you don't know what this means, you probably don't want this tunneling option.

See also [HTTPPROXYTUNNEL](#) option in CURL manual.

**See also**

- 62.281 CURL.SetOptionProxy

2212

Created 18th August 2014, last changed 18th August 2014.

## 62.235 `CURL.SetOptionHTTPTransferDecoding`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPTransferDecoding"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to decode.

1

**Result** Returns "OK" on success.

### Description

If set to zero, transfer decoding will be disabled, if set to 1 it is enabled (default). libcurl does chunked transfer decoding by default unless this option is set to zero.

See also [HTTP\\_TRANSFER\\_DECODING](#) option in CURL manual.

### See also

- 62.232 `CURL.SetOptionHTTPContentDecoding` 2138
- 62.371 `CURL.SetOptionTransferEncoding` 2327

Created 18th August 2014, last changed 18th August 2014.

**62.236 CURL.SetOptionHTTPVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHTTPVersion"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Sets the HTTP Version.

2

**Result** Returns "OK" on success.

**Description**

This is not sensible to do unless you have a good reason.

CURL_HTTP_VERSION_NONE	0	We don't care about what version the library uses. libcurl will use whatever it thinks fit.
CURL_HTTP_VERSION_1_0	1	Enforce HTTP 1.0 requests.
CURL_HTTP_VERSION_1_1	2	Enforce HTTP 1.1 requests.
CURL_HTTP_VERSION_2_0	3	please use HTTP 2 in the request
CURL_HTTP_VERSION_2TLS	4	use version 2 for HTTPS, version 1.1 for HTTP
CURL_HTTP_VERSION_2_PRIOR_KNOWLEDGE	5	please use HTTP 2 without HTTP/1.1 Upgrade

See also [HTTP\\_VERSION](#) option in CURL manual.

**See also**

- 62.81 [CURL.GetOptionHTTPHeader](#) 1911
- 62.196 [CURL.SetOptionCustomRequest](#) 2089
- 62.230 [CURL.SetOptionHTTP200Aliases](#) 2135
- 62.233 [CURL.SetOptionHTTPHeader](#) 2139
- 62.306 [CURL.SetOptionProxyType](#) 2239
- 62.313 [CURL.SetOptionRTSPSessionID](#) 2250
- 62.346 [CURL.SetOptionSSLVersion](#) 2299

Created 18th August 2014, last changed 29th April 2017.

## 62.237 `CURL.SetOptionHappyEyeballsTimeOutMS`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHappyEyeballsTimeOutMS"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Head start in milliseconds to give happy eyeballs.

See also [HAPPY\\_EYEBALLS\\_TIMEOUT\\_MS](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

**62.238 CURL.SetOptionHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHeader"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

0 to disable or 1 to enable

1

**Result** Returns "OK" on success.

**Description**

A parameter set to 1 tells curl to include the header in the body output.

This is only relevant for protocols that actually have headers preceding the data (like HTTP).

For HTTP headers, please use `CURL.SetOptionHTTPHeader` function.

See also **HEADER** option in CURL manual.

**See also**

- 62.81 `CURL.GetOptionHTTPHeader` 1911
- 62.228 `CURL.SetOptionGet` 2132
- 62.233 `CURL.SetOptionHTTPHeader` 2139
- 62.263 `CURL.SetOptionNetRC` 2178
- 62.286 `CURL.SetOptionProxyHeader` 2218
- 62.309 `CURL.SetOptionQuote` 2244
- 62.317 `CURL.SetOptionRange` 2254
- 62.319 `CURL.SetOptionReferer` 2258
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.339 `CURL.SetOptionSSLKey` 2286

Created 18th August 2014, last changed 21st June 2019.

## 62.239 `CURL.SetOptionHeaderOptions`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionHeaderOptions"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [HEADEROPT](#) option in CURL manual.

### See also

- 62.88 `CURL.GetOptionTelnetOptions` 1918
- 62.250 `CURL.SetOptionLoginOptions` 2162
- 62.296 `CURL.SetOptionProxySSLOptions` 2228
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.366 `CURL.SetOptionTelnetOptions` 2321
- 62.361 `CURL.SetOptionTFTPNoOptions` 2316

Created 15th April 2018, last changed 16th April 2018.



**62.240 CURL.SetOptionIPResolve**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionIPResolve"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to use IPv4 and/or IPv6.

2

**Result** Returns "OK" on success.

**Description**

This is only interesting when using host names that resolve addresses using more than one version of IP. The allowed values are:

IP Resolve Default	0	Default, resolves addresses to all IP versions that your system allows.
IP Resolve v4	1	Resolve to IPv4 addresses.
IP Resolve v6	2	Resolve to IPv6 addresses.

See also [IPRESOLVE](#) option in CURL manual.

**See also**

- 62.87 [CURL.GetOptionResolve](#) 1917
- 62.185 [CURL.SetOptionCRLFile](#) 2069
- 62.243 [CURL.SetOptionInterface](#) 2153
- 62.279 [CURL.SetOptionPreQuote](#) 2208
- 62.321 [CURL.SetOptionResolve](#) 2260
- 62.369 [CURL.SetOptionTimeValue](#) 2325

Created 18th August 2014, last changed 25th November 2017.

## 62.241 `CURL.SetOptionIgnoreContentLength`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionIgnoreContentLength"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to ignore content length. 1 to ignore and 0 to not ignore.

1

**Result** Returns "OK" on success.

### Description

This is useful for Apache 1.x (and similar servers) which will report incorrect content length for files over 2 gigabytes. If this option is used, curl will not be able to accurately report progress, and will simply stop the download when the server ends the connection.

See also [IGNORE\\_CONTENT\\_LENGTH](#) option in CURL manual.

Created 18th August 2014, last changed 18th August 2014.

**62.242 CURL.SetOptionInFileSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionInFileSize"; curl; Value )

(old name: CURL.SetOptionInFileLarge)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The input size.

1234

**Result** Returns "OK" on success.

**Description**

When uploading a file to a remote site, this option should be used to tell libcurl what the expected size of the infile is. This value should be passed as a long. See also `CURL.SetOptionInFileLarge`.

For uploading using SCP, this option is mandatory.

When sending emails using SMTP, this command can be used to specify the optional SIZE parameter for the MAIL FROM command.

This option does not limit how much data libcurl will actually send, as that is controlled entirely by what the input data.

Our `CURL.SetInputText` and other input functions also set the file size.

See also [INFILESIZE](#) option in CURL manual.

**Examples**

Sets size of input:

MBS( "CURL.SetOptionInFileSize"; \$curl; \$size )

**See also**

- 62.166 `CURL.SetInputText` 2043
- 62.181 `CURL.SetOptionBufferSize` 2061
- 62.192 `CURL.SetOptionCookieFile` 2082
- 62.223 `CURL.SetOptionFileTime` 2126

- 62.258 `CURL.SetOptionMaxFileSize` 2172
- 62.274 `CURL.SetOptionPostFieldSize` 2198

Created 18th August 2014, last changed 8th December 2016.

**62.243 CURL.SetOptionInterface**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionInterface"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Interface name.

en0

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

The name can be an interface name, an IP address, or a host name.

See also **INTERFACE** option in CURL manual.

**See also**

- 62.198 CURL.SetOptionDNSInterface 2095
- 62.240 CURL.SetOptionIPResolve 2149
- 62.248 CURL.SetOptionLocalPort 2160
- 62.381 CURL.SetOptionUsername 2346
- 62.382 CURL.SetOptionVerbose 2348

Created 18th August 2014, last changed 5th July 2015.

## 62.244 CURL.SetOptionIssuerCert

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionIssuerCert"; curl; Value { ; Encoding } )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The CA certificate file path.

"/tmp/cert.pem"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

If the option is set, an additional check against the peer certificate is performed to verify the issuer is indeed the one associated with the certificate provided by the option. This additional check is useful in multi-level PKI where one needs to enforce that the peer certificate is from a specific branch of the tree.

This option makes sense only when used in combination with the `CURL.SetOptionSSLVerifyPeer` option. Otherwise, the result of the check is not considered as failure.

A specific error code (`CURLE_SSL_ISSUER_ERROR`) is defined with the option, which is returned if the setup of the SSL/TLS session has failed due to a mismatch with the issuer of peer certificate (`CURL.SetOptionSSLVerifyPeer` has to be set too for the check to fail).

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [ISSUERCERT](#) option in CURL manual.

### See also

- 62.201 `CURL.SetOptionDNSServers` 2098
- 62.319 `CURL.SetOptionReferer` 2258
- 62.331 `CURL.SetOptionSSLCert` 2273

<i>62.244. CURL.SETOPTIONISSUERCERT</i>	2155
• 62.344 CURL.SetOptionSSLVerifyPeer	2295
• 62.372 CURL.SetOptionTransferText	2328
• 62.380 CURL.SetOptionUserAgent	2345

### **62.244.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 12nd December 2017.

## 62.245 `CURL.SetOptionKRBLevel`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionKRBLevel"; curl; Value { ; Encoding } )

(old name: `CURL.SetOptionKRB4Level`)

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new security level.

"safe"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

This also enables kerberos awareness. This is a string, 'clear', 'safe', 'confidential' or 'private'. If the string is set but doesn't match one of these, 'private' will be used. Set the string to empty value to disable kerberos support for FTP.

See also [KRBLEVEL](#) option in CURL manual.

### See also

- 62.185 `CURL.SetOptionCRLFile` 2069
- 62.319 `CURL.SetOptionReferer` 2258
- 62.321 `CURL.SetOptionResolve` 2260

Created 18th August 2014, last changed 18th April 2016.



**62.246 CURL.SetOptionKeepSendingOnError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionKeepSendingOnError"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Continue to send data if the server responds early with an HTTP status code  $\geq 300$ .

See also [KEEP\\_SENDING\\_ON\\_ERROR](#) option in CURL manual.

Created 15th April 2018, last changed 28th November 2019.

**62.247** `CURL.SetOptionKeyPassword`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionKeyPassword"; curl; Value { ; Encoding } )

(old name: `CURL.SetOptionSSLCertPassword`) (old name: `CURL.SetOptionSSLKeyPassword`)

**Parameters****curl**

The CURL session handle.

`$curl`

**Value**

The password text.

`"hello"`

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

`"UTF8"`

**Result** Returns "OK" on success.

**Description**

Pass a string as parameter. It will be used as the password required to use the `CURL.SetOptionSSLKey` private key. You never needed a pass phrase to load a certificate but you need one to load your private key. See also **KEYPASSWD** option in CURL manual.

**Examples**

Set a client SSL certificate:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/some/certfile.pem") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "secret") ]
```

**See also**

- 62.143 `CURL.Perform` 1992
- 62.268 `CURL.SetOptionPassword` 2186
- 62.287 `CURL.SetOptionProxyKeyPassword` 2219
- 62.288 `CURL.SetOptionProxyPassword` 2220
- 62.329 `CURL.SetOptionSSHPrivateKeyfile` 2269

<i>62.247. CURL.SETOPTIONKEYPASSWORD</i>	2159
• 62.331 CURL.SetOptionSSLCert	2273
• 62.332 CURL.SetOptionSSLCertType	2277
• 62.339 CURL.SetOptionSSLKey	2286
• 62.363 CURL.SetOptionTLSAuthPassword	2318

### **62.247.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)

Created 18th August 2014, last changed 18th April 2016.

## 62.248 CURL.SetOptionLocalPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionLocalPort"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The port number (1-65535)

8000

**Result** Returns "OK" on success.

### Description

This can be used in combination with `CURL.SetOptionInterface` and you are recommended to use `CURL.SetOptionLocalPortRange` as well when this is set. Valid port numbers are 1 - 65535.

Local ports <1024 usually need admin/root permissions to be used.

To set port to connect to, please use `CURL.SetOptionPort` instead.

See also [LOCALPORT](#) option in CURL manual.

### See also

- 62.213 `CURL.SetOptionFTPPort` 2114
- 62.243 `CURL.SetOptionInterface` 2153
- 62.249 `CURL.SetOptionLocalPortRange` 2161
- 62.272 `CURL.SetOptionPort` 2192
- 62.290 `CURL.SetOptionProxyPort` 2222

Created 18th August 2014, last changed 8th February 2019.

**62.249 CURL.SetOptionLocalPortRange**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionLocalPortRange"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The local port number attempts.

1

**Result** Returns "OK" on success.

**Description**

It starts with the given `CURL.SetOptionLocalPort` and adds one to the number for each retry. Setting this to 1 or below will make libcurl do only one try for the exact port number. Port numbers by nature are scarce resources that will be busy at times so setting this value to something too low might cause unnecessary connection setup failures.

See also [LOCALPORTRANGE](#) option in CURL manual.

**See also**

- 62.248 `CURL.SetOptionLocalPort`

2160

Created 18th August 2014, last changed 18th August 2014.

## 62.250 `CURL.SetOptionLoginOptions`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionLoginOptions"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The options string.

""

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns OK or error.

### Description

For more information about the login options please see RFC 2384, RFC5092 and IETF draft draft-earhart-url-smtp-00.txt

`OptionLoginOptions` can be used to set protocol specific login options, such as the preferred authentication mechanism via "AUTH=NTLM" or "AUTH=\*", and should be used in conjunction with the `CURL.SetOptionUserName` option.

Only IMAP, POP3 and SMTP support login options.

See also [LOGIN\\_OPTIONS](#) option in CURL manual.

### Examples

Use plain authentication:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionLoginOptions"; $curl; "AUTH=PLAIN") ]
```

Use CRAM MD5 authentication:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionLoginOptions"; $curl; "AUTH=CRAM-MD5") ]
```

Use LOGIN with username and password:

```
MBS("CURL.SetOptionLoginOptions"; $curl; "AUTH=LOGIN")
```

62.250. *CURL.SETOPTIONLOGINOPTIONS* 2163

**See also**

- 62.88 *CURL.GetOptionTelnetOptions* 1918
- 62.239 *CURL.SetOptionHeaderOptions* 2148
- 62.296 *CURL.SetOptionProxySSLOptions* 2228
- 62.341 *CURL.SetOptionSSLOptions* 2290
- 62.366 *CURL.SetOptionTelnetOptions* 2321
- 62.361 *CURL.SetOptionTFTPNoOptions* 2316
- 62.381 *CURL.SetOptionUsername* 2346

Created 22nd November 2015, last changed 20th July 2018.

## 62.251 CURL.SetOptionLowSpeedLimit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionLowSpeedLimit"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The low speed limit in bytes second.

1000

**Result** Returns "OK" on success.

### Description

It contains the transfer speed in bytes per second that the transfer should be below during CURL.SetOptionLowSpeedTime seconds for the library to consider it too slow and abort.

See also [LOW\\_SPEED\\_LIMIT](#) option in CURL manual.

### See also

- 62.252 CURL.SetOptionLowSpeedTime

2165

Created 18th August 2014, last changed 18th August 2014.



**62.252 CURL.SetOptionLowSpeedTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionLowSpeedTime"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The slow time.

100

**Result** Returns "OK" on success.

**Description**

Pass time in seconds that the transfer should be below the `CURL.SetOptionLowSpeedLimit` for the library to consider it too slow and abort.

See also [LOW\\_SPEED\\_TIME](#) option in CURL manual.

**See also**

- 62.251 `CURL.SetOptionLowSpeedLimit`

2164

Created 18th August 2014, last changed 18th August 2014.

## 62.253 `CURL.SetOptionMailAuth`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMailAuth"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new options.

""

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

This string will be used to specify the authentication address (identity) of a submitted message that is being relayed to another server.

This optional parameter allows co-operating agents in a trusted environment to communicate the authentication of individual messages and should only be used by the application program, using libcurl, if the application is itself a mail server acting in such an environment. If the application is operating as such and the AUTH address is not known or is invalid, then an empty string should be used for this parameter.

Unlike `CURL.SetOptionMailRecipients`, the address should not be specified within a pair of angled brackets (<>). However, if an empty string is used then a pair of brackets will be sent by libcurl as required by RFC 2554.

See also [MAIL\\_AUTH](#) option in CURL manual.

### Examples

Set mail auth address:

MBS( "CURL.SetOptionMailAuth"; \$curl; "<secret@cave>" )

### See also

- 62.215 `CURL.SetOptionFTPSSLAAuth` 2117
- 62.231 `CURL.SetOptionHTTPAAuth` 2136
- 62.254 `CURL.SetOptionMailFrom` 2168

<i>62.253. CURL.SETOPTIONMAILAUTH</i>	2167
• 62.255 CURL.SetOptionMailRecipients	2169
• 62.269 CURL.SetOptionPathAsIs	2189
• 62.282 CURL.SetOptionProxyAuth	2214
• 62.348 CURL.SetOptionSocks5Auth	2303
• 62.368 CURL.SetOptionTimeOut	2323

Created 18th August 2014, last changed 8th February 2018.

## 62.254 CURL.SetOptionMailFrom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMailFrom"; curl; Value { ; Encoding } )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The from address.

"someone@macsw.de"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

It will be used to specify the sender address in a mail when sending an SMTP mail with libcurl.

An originator email address in SMTP lingo is specified within angle brackets (<>) which libcurl will not add for you before version 7.21.4. Failing to provide such brackets may cause the server to reject your mail. See also [MAIL\\_FROM](#) option in CURL manual.

### See also

- 62.221 CURL.SetOptionFailOnError 2124
- 62.223 CURL.SetOptionFileTime 2126
- 62.253 CURL.SetOptionMailAuth 2166
- 62.268 CURL.SetOptionPassword 2186
- 62.322 CURL.SetOptionResumeFrom 2261

### 62.254.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 5th July 2015.

**62.255 CURL.SetOptionMailRecipients**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMailRecipients"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

First email address.

"someone@macsw.de"

**Result** Returns "OK" on success.

**Description**

Pass a list of recipients to pass to the server in your SMTP mail request. For passing several recipients, simply add more parameters to the function call.

Each recipient in SMTP lingo is specified with angle brackets (<>), but should you not use an angle bracket as first letter libcurl will assume you provide a single email address only and enclose that with angle brackets for you.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values. See also [MAIL\\_RCPT](#) option in CURL manual.

**Examples**

Set three recipients:

MBS( "CURL.SetOptionMailRecipients"; \$curl; \$email1; \$email2; \$email3 )

**See also**

- 62.82 [CURL.GetOptionMailRecipients](#) 1912
- 62.253 [CURL.SetOptionMailAuth](#) 2166

Created 18th August 2014, last changed 5th April 2017.

## 62.256 `CURL.SetOptionMaxAgeConn`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxAgeConn"; curl; Age )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Age**

The age in seconds.

180

**Result** Returns OK or error.

### Description

The maximum age the connection should have in seconds.

Older connections are not reused, but discarded.

See also [MAXAGE\\_CONN](#) option in CURL manual.

### See also

- [62.257 CURL.SetOptionMaxConnects](#) 2171
- [62.258 CURL.SetOptionMaxFileSize](#) 2172
- [62.260 CURL.SetOptionMaxRedirs](#) 2174

### 62.256.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr1](#)

Created 22nd May 2019, last changed 23th May 2019.

**62.257 CURL.SetOptionMaxConnects**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxConnects"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new limit.

5

**Result** Returns "OK" on success.

**Description**

The set amount will be the maximum amount of simultaneously open connections that libcurl may cache in this easy handle. Default is 5, and there isn't much point in changing this value unless you are perfectly aware of how this works and changes libcurl's behaviour. This concerns connections using any of the protocols that support persistent connections.

When reaching the maximum limit, curl closes the oldest one in the cache to prevent increasing the number of open connections.

If you already have performed transfers with this curl handle, setting a smaller MaxConnects than before may cause open connections to get closed unnecessarily.

See also [MAXCONNECTS](#) option in CURL manual.

**See also**

- 62.70 [CURL.GetMultiOptionMaxConnects](#) 1900
- 62.79 [CURL.GetOptionConnectTo](#) 1909
- 62.170 [CURL.SetMultiOptionMaxConnects](#) 2049
- 62.187 [CURL.SetOptionConnectOnly](#) 2073
- 62.189 [CURL.SetOptionConnectTo](#) 2077
- 62.226 [CURL.SetOptionFreshConnect](#) 2130
- 62.256 [CURL.SetOptionMaxAgeConn](#) 2170

Created 18th August 2014, last changed 18th August 2014.

## 62.258 `CURL.SetOptionMaxFileSize`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxFileSize"; curl; Value )

(old name: `CURL.SetOptionMaxFileSizeLarge`)

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new maximum file size.

1000000

**Result** Returns "OK" on success.

### Description

Pass a number as parameter. This allows you to specify the maximum size (in bytes) of a file to download. If the file requested is larger than this value, the transfer will not start and `CURLE_FILESIZE_EXCEEDED` will be returned.

The file size is not always known prior to download, and for such files this option has no effect even if the file transfer ends up being larger than this given limit. This concerns both FTP and HTTP transfers.

See also [MAXFILESIZE](#) option in CURL manual.

### See also

- 62.181 `CURL.SetOptionBufferSize` 2061
- 62.192 `CURL.SetOptionCookieFile` 2082
- 62.223 `CURL.SetOptionFileTime` 2126
- 62.242 `CURL.SetOptionInFileSize` 2151
- 62.256 `CURL.SetOptionMaxAgeConn` 2170
- 62.259 `CURL.SetOptionMaxRecvSpeed` 2173
- 62.260 `CURL.SetOptionMaxRedirs` 2174
- 62.261 `CURL.SetOptionMaxSendSpeed` 2176
- 62.274 `CURL.SetOptionPostFieldSize` 2198

Created 18th August 2014, last changed 18th April 2016.



**62.259 CURL.SetOptionMaxRecvSpeed**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxRecvSpeed"; curl; Value )

(old name: CURL.SetOptionMaxRecvSpeedLarge)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The maximum download speed in bytes per second.

50000

**Result** Returns "OK" on success.

**Description**

If a download exceeds this speed (counted in bytes per second) on cumulative average during the transfer, the transfer will pause to keep the average rate less than or equal to the parameter value. Defaults to unlimited speed.

See also [MAX\\_RECV\\_SPEED](#) option in CURL manual.

**See also**

- 62.258 CURL.SetOptionMaxFileSize 2172
- 62.261 CURL.SetOptionMaxSendSpeed 2176

Created 18th August 2014, last changed 20th April 2018.

## 62.260 `CURL.SetOptionMaxRedirs`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxRedirs"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Maximum number of redirects.

-1

**Result** Returns "OK" on success.

### Description

If that many redirections have been followed, the next redirect will cause an error (`CURLE_TOO_MANY_REDIRECTS`). This option only makes sense if the `CURL.SetOptionFollowLocation` is used at the same time.

Added in 7.15.1: Setting the limit to 0 will make CURL refuse any redirect. Set it to -1 for an infinite number of redirects (which is the default)

See also [MAXREDIRS](#) option in CURL manual.

### Examples

Allow up to three redirects:

```
Set Variable [ $result; Value: MBS("CURL.SetOptionFollowLocation"; $curl; 1) ]
```

```
Set Variable [ $result; Value: MBS("CURL.SetOptionMaxRedirs"; $curl; 3) ]
```

### See also

- 62.48 `CURL.GetEffectiveURL` 1873
- 62.112 `CURL.GetResultAsContainer` 1944
- 62.224 `CURL.SetOptionFollowLocation` 2127
- 62.256 `CURL.SetOptionMaxAgeConn` 2170
- 62.258 `CURL.SetOptionMaxFileSize` 2172
- 62.277 `CURL.SetOptionPostRedir` 2205
- 87.225 `GImage.Scale` 4690

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/Twitter OAuth](#)

Created 18th August 2014, last changed 12nd May 2016.

## 62.261 `CURL.SetOptionMaxSendSpeed`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionMaxSendSpeed"; curl; Value )

(old name: `CURL.SetOptionMaxSendSpeedLarge`)

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Maximum sending speed in bytes per second.

50000

**Result** Returns "OK" on success.

### Description

If an upload exceeds this speed (counted in bytes per second) on cumulative average during the transfer, the transfer will pause to keep the average rate less than or equal to the parameter value. Defaults to unlimited speed.

Useful if you have a limited pipe and you'd like your transfer not to use your entire bandwidth.

Slowing down the transfer speed is also useful for lowering CPU consumption during transfers.

See also [MAX\\_SEND\\_SPEED](#) option in CURL manual.

### See also

- 62.258 `CURL.SetOptionMaxFileSize` 2172
- 62.259 `CURL.SetOptionMaxRecvSpeed` 2173

Created 18th August 2014, last changed 20th April 2018.

**62.262 CURL.SetOptionNETRCFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNETRCFile"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The file path.

\$path

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a text string containing the full path name to the file you want libcurl to use as .netrc file. If this option is omitted, and CURL.SetOptionNetRC is set, libcurl will attempt to find a .netrc file in the current user's home directory.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [NETRC\\_FILE](#) option in CURL manual.

**See also**

- 62.192 CURL.SetOptionCookieFile 2082
- 62.185 CURL.SetOptionCRLFile 2069
- 62.263 CURL.SetOptionNetRC 2178
- 62.316 CURL.SetOptionRandomFile 2253

**62.262.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 12nd December 2017.

**62.263 CURL.SetOptionNetRC**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNetRC"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The netrc preference.

0

**Result** Returns "OK" on success.

**Description**

This parameter controls the preference of libcurl between using user names and passwords from your ~/.netrc file, relative to user names and passwords in the URL supplied with CURLOPT\_URL.

libcurl uses a user name (and supplied or prompted password) supplied with CURL.SetOptionUsername in preference to any of the options controlled by this parameter.

Pass a long, set to one of the values described below.

CURL\_NETRC\_OPTIONAL 1 The use of your ~/.netrc file is optional, and information in the URL is to be preferred. The file will be scanned for the host and user name (to find the password only) or for the host only, to find the first user name and password after that machine, which ever information is not specified in the URL. Undefined values of the option will have this effect.  
CURL\_NETRC\_IGNORED 0 The library will ignore the file and use only the information in the URL. This is the default.  
CURL\_NETRC\_REQUIRED 2 This value tells the library that use of the file is required, to ignore the information in the URL, and to search the file for the host only.

Only machine name, user name and password are taken into account (init macros and similar things aren't supported).

libcurl does not verify that the file has the correct properties set (as the standard Unix ftp client does). It should only be readable by user.

See also **NETRC** option in CURL manual.

**See also**

- 62.262 CURL.SetOptionNETRCFile 2177
- 62.266 CURL.SetOptionNoBody 2182
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194

<i>62.263. CURL.SETOPTIONNETRC</i>	2179
• 62.281 CURL.SetOptionProxy	2212
• 62.308 CURL.SetOptionPut	2242
• 62.317 CURL.SetOptionRange	2254
• 62.373 CURL.SetOptionURL	2329
• 62.381 CURL.SetOptionUsername	2346
• 62.379 CURL.SetOptionUseSSL	2343

Created 18th August 2014, last changed 5th July 2015.

## 62.264 CURL.SetOptionNewDirectoryPerms

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNewDirectoryPerms"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The permissions value. (octal value!)

7\*8\*8+5\*8+5

**Result** Returns "OK" on success.

### Description

Pass a number as a parameter, containing the value of the permissions that will be assigned to newly created directories on the remote server. The default value is 0755, but any valid value can be used. The only protocols that can use this are sftp://, scp://, and file://.

See also [NEW\\_DIRECTORY\\_PERMS](#) option in CURL manual.

### See also

- 62.265 CURL.SetOptionNewFilePerms

2181

Created 18th August 2014, last changed 18th August 2014.



**62.265 CURL.SetOptionNewFilePerms**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNewFilePerms"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The permissions value. (octal value!)

8\*8\*6+4+8+4

**Result** Returns "OK" on success.

**Description**

Pass a number as parameter, containing the value of the permissions that will be assigned to newly created files on the remote server. The default value is 0644, but any valid value can be used. The only protocols that can use this are sftp://, scp://, and file://.

Values are specified in octal, so octal 755 is decimal 493. Octal 644 is 420 (6\*8\*8+4\*8+4).

See also [NEW\\_FILE\\_PERMS](#) option in CURL manual.

**See also**

- 62.264 CURL.SetOptionNewDirectoryPerms

2180

Created 18th August 2014, last changed 18th August 2014.

## 62.266 `CURL.SetOptionNoBody`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNoBody"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to ignore body.

1

**Result** Returns "OK" on success.

### Description

Set to 1 tells the library to not include the body-part in the output. This is only relevant for protocols that have separate header and body parts. On HTTP(S) servers, this will make libcurl do a HEAD request.

To change request to GET, you should use `CURL.SetOptionGet`. Change request to POST with `CURL.SetOptionPost` etc.

See also **NOBODY** option in CURL manual.

### Examples

Get only the headers:

MBS( "CURL.SetOptionNoBody"; \$curl; 1 )

### See also

- 62.191 `CURL.SetOptionCookie` 2080
- 62.196 `CURL.SetOptionCustomRequest` 2089
- 62.228 `CURL.SetOptionGet` 2132
- 62.263 `CURL.SetOptionNetRC` 2178
- 62.267 `CURL.SetOptionNoProxy` 2184
- 62.273 `CURL.SetOptionPost` 2194
- 62.279 `CURL.SetOptionPreQuote` 2208
- 62.281 `CURL.SetOptionProxy` 2212

62.266. <i>CURL.SETOPTIONNOBODY</i>	2183
• 62.339 <i>CURL.SetOptionSSLKey</i>	2286
• 62.377 <i>CURL.SetOptionUpload</i>	2340

### **Example Databases**

- [CURL/CURL Certificate Pinning](#)
- [CURL/SFTP/CURL sFTP Operations](#)

Created 18th August 2014, last changed 18th August 2014.

## 62.267 `CURL.SetOptionNoProxy`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionNoProxy"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The list of hosts which use no proxy.

"local.com,mbsplugins.com"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

This text should be a comma separated list of hosts which do not use a proxy, if one is specified.

The only wildcard is a single \* character, which matches all hosts, and effectively disables the proxy. Each name in this list is matched as either a domain which contains the hostname, or the hostname itself. For example, local.com would match local.com, local.com:80, and www.local.com, but not www.notlocal.com.

See also **NOPROXY** option in CURL manual.

### See also

- 62.213 `CURL.SetOptionFTPPort` 2114
- 62.266 `CURL.SetOptionNoBody` 2182
- 62.272 `CURL.SetOptionPort` 2192
- 62.273 `CURL.SetOptionPost` 2194
- 62.278 `CURL.SetOptionPreProxy` 2207
- 62.281 `CURL.SetOptionProxy` 2212
- 62.282 `CURL.SetOptionProxyAuth` 2214
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.382 `CURL.SetOptionVerbose` 2348

62.267. *CURL.SETOPTIONNOPROXY*

2185

Created 18th August 2014, last changed 5th July 2015.

## 62.268 `CURL.SetOptionPassword`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetOptionPassword"; curl; Value { ; Encoding } )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The password text.

"test123"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

The `CURL.SetOptionPassword` option should be used in conjunction with the `CURL.SetOptionUsername` option.

See also [PASSWORD](#) option in CURL manual.

### Examples

Set login credentials:

```
Set Variable [ $result ; Wert: MBS("CURL.SetOptionUserName"; $curl; Logins::Username) ]
Set Variable [ $result ; Wert: MBS("CURL.SetOptionPassword"; $curl; Logins::Password) ]
```

Use netverify.com to check a driver license:

```
# Setup transfer
Set Variable [ $r; Value:MBS("Trace") ]
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://netverify.com/api/netverify/v2/fast-fill") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUserName"; $curl; "25D63FB16966473DA2416454FD468BBD") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "4356789038498914948018924658901622") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
```

```

Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Accept: application/json"; "Expect:") ]
Set Variable [ $metadata; Value:" { \"type\": \"DRIVING_LICENSE\", \"country\": \"USA\" } " ]
Set Variable [ $r; Value:MBS("CURL.FormAddKeyValue";$curl; "metadata"; $metadata) ]
Set Variable [ $r; Value:MBS("CURL.FormAddKeyContainerContentType";$curl; "backsideImage"; "test.jpg"; Donor Docs::DocPDF; "image/jpeg") ]
Set Variable [ $r; Value:MBS("CURL.FormFinish";$curl) ]
# Run transfer
Set Field [ Donor Docs::ResultCodePost; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Donor Docs::DebugTextPost; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Field [ Donor Docs::ResultTextPost; $result ]
Set Variable [ $r; Value:MBS("CURL.Release";$curl) ]

```

Download file via SFTP to file on disk:

```

Set Variable [ $curl; Value:MBS("CURL.New") ]
# set download URL, e.g. sftp://monkeybreadsoftware.net/test.jpg
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; SFTP Download::URL ) ]
# build file path on disk and open output file
Set Variable [ $name; Value:GetValue(SFTP Download::FileName; 1) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; SFTP Download::FolderPath; $name ) ]
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# login only via password
Set Variable [ $result; Value:MBS( "CURL.SetOptionSSHAuthTypes"; $curl; 2+8 ) ]
# set credentials
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; SFTP Download::UserName ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; SFTP Download::Password ) ]
# run transfer
Set Field [ SFTP Download::ErrorCode; MBS("CURL.Perform"; $curl) ]
# check debug log for errors
Set Field [ SFTP Download::Debug; MBS("CURL.GetDebugAsText"; $curl) ]
# free CURL session
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

### See also

- 62.213 *CURL.SetOptionFTPPort* 2114
- 62.254 *CURL.SetOptionMailFrom* 2168
- 62.269 *CURL.SetOptionPathAsIs* 2189
- 62.272 *CURL.SetOptionPort* 2192
- 62.276 *CURL.SetOptionPostQuote* 2203
- 62.278 *CURL.SetOptionPreProxy* 2207

- 62.288 CURL.SetOptionProxyPassword 2220
- 62.290 CURL.SetOptionProxyPort 2222
- 124.1 Path.AddPathComponent 6243
- 146.33 SendMail.SetSMTPPassword 7037

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/FTP/CURL FTP Download File](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [CURL/SFTP/CURL sFTP Upload](#)
- [CURL/WebServices/Twilio API Send SMS Json](#)

### 62.268.1 Blog Entries

- [URLs without UserName and Password please](#)
- [Upload email to Sent folder via IMAP](#)
- [Batch sending Emails in FileMaker via MBS Plugin](#)
- [Using NetVerify web service with FileMaker](#)
- [Tip of the day: FTP File Upload](#)
- [Swiss Post Webservice to verify addresses](#)

### 62.268.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 20](#)
- [Ausgabe 4/2016, Seite 19](#)
- [Ausgabe 4/2016, Seite 18](#)



**62.269 CURL.SetOptionPathAsIs**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPathAsIs"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Do not squash dot-dot sequences if set to 1.

See also [PATH\\_AS\\_IS](#) option in CURL manual.

**See also**

- 62.253 [CURL.SetOptionMailAuth](#) 2166
- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.280 [CURL.SetOptionProtocols](#) 2210

Created 15th April 2018, last changed 16th April 2018.

## 62.270 `CURL.SetOptionPinnedPublicKey`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPinnedPublicKey"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Native path to key file.

This option is used only if `SSLVerifyPeer` is true.

See also [PINNEDPUBLICKEY](#) option in CURL manual.

### See also

- [62.289 `CURL.SetOptionProxyPinnedPublicKey`](#)

2221

### Example Databases

- [CURL/CURL Certificate Pinning](#)

Created 15th April 2018, last changed 16th April 2018.

**62.271 CURL.SetOptionPipeWait**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPipeWait"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PIPEWAIT](#) option in CURL manual.

**See also**

- 62.223 [CURL.SetOptionFileTime](#) 2126
- 62.279 [CURL.SetOptionPreQuote](#) 2208
- 62.368 [CURL.SetOptionTimeOut](#) 2323
- 62.369 [CURL.SetOptionTimeValue](#) 2325

Created 15th April 2018, last changed 16th April 2018.

## 62.272 CURL.SetOptionPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPort"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The new port number.

8000

**Result** Returns "OK" on success.

### Description

Specify what remote port number to connect to, instead of the one specified in the URL or the default port for the used protocol.

See also CURL.SetOptionFTPPort.

Protocols	Common Ports
http	80, 443 with SSL
ftp	20 and 21
sftp	22
smtp	25, 465 with SSL, 587
pop3	110, 995 with SSL
imap	143, 993 with TLS

See also **PORT** option in CURL manual.

### Examples

Use Port 25 for smtp:

```
MBS( "CURL.SetOptionPort"; $curl; 25 )
# alternative 587 or with SSL 465.
```

Use Port 8080 for http:

```
MBS( "CURL.SetOptionPort"; $curl; 8080 )
```

62.272. *CURL.SETOPTIONPORT* 2193

**See also**

- 62.190 *CURL.SetOptionConnectionTimeout* 2078
- 62.228 *CURL.SetOptionGet* 2132
- 62.248 *CURL.SetOptionLocalPort* 2160
- 62.273 *CURL.SetOptionPost* 2194
- 62.281 *CURL.SetOptionProxy* 2212
- 62.309 *CURL.SetOptionQuote* 2244
- 62.317 *CURL.SetOptionRange* 2254
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.373 *CURL.SetOptionURL* 2329
- 146.34 *SendMail.SetSMTPServer* 7039

**Example Databases**

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/IMAP Email](#)
- [CURL/Email/List IMAP folders](#)

**62.272.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [Tip of the day: FTP File Upload](#)

**62.272.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 24th November 2016.

## 62.273 `CURL.SetOptionPost`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPost"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether this is a POST request.

1

**Result** Returns "OK" on success.

### Description

A parameter set to 1 tells the library to do a regular HTTP post. This will also make the library use a "Content-Type: application/x-www-form-urlencoded" header. (This is by far the most commonly used POST method).

Use one of `CURL.SetOptionPostFields` options to specify what data to post and `CURL.SetOptionPostFieldSize` to set the data size.

Optionally, you can provide data to POST using the `CURL.SetInput*` functions but then you must make sure to not set `CURL.SetOptionPostFields` to anything but "". When providing data with a callback, you must transmit it using chunked transfer-encoding or you must set the size of the data with the `SetOptionPostFieldSize` or `CURL.SetOptionPostFieldSizeLarge` option. To enable chunked encoding, you simply pass in the appropriate Transfer-Encoding header.

You can override the default POST Content-Type: header by setting your own with `CURL.SetOptionHTTPHeader`.

Using POST with HTTP 1.1 implies the use of a "Expect: 100-continue" header. You can disable this header with `CURL.SetOptionHTTPHeader` as usual.

If you use POST to a HTTP 1.1 server, you can send data without knowing the size before starting the POST if you use chunked encoding. You enable this by adding a header like "Transfer-Encoding: chunked" with `CURL.SetOptionHTTPHeader`. With HTTP 1.0 or without chunked transfer, you must specify the size in the request.

When setting `CURL.SetOptionPost` to 1, it will automatically set `CURL.SetOptionNoBody` to 0 (since

7.14.1).

If you issue a POST request and then want to make a HEAD or GET using the same re-used handle, you must explicitly set the new request type using `CURL.SetOptionNoBody` or `CURL.SetOptionGet` or similar.

For debugging, the website <https://www.posttestserver.com> is very useful. It allows you to see what is received on the other end for a post operation.

If you need GET, please use `CURL.SetOptionGet`. If you need DELETE, PATCH or others, please use `CURL.SetOptionCustomRequest` function.

See also **POST** option in CURL manual.

### Examples

Enables POST option:

```
MBS( "CURL.SetOptionPost"; $curl; 1 )
```

Using Rosette web service:

```
# Start new CURL transfer
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set options like Verbose Debug Messages
Set Variable [ $result; Value:MBS("CURL.SetOptionVerbose"; $curl; 1) ]
# the url of webservice
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://api.rosette.com/rest/v1/morphology/parts-of-speech") ]
# the header info for tagging, API Key comes from a global field.
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "user_key: " & RosetteAPISettings::RosetteAPIKey; "Content-Type: application/json"; "Accept: application/json" ) ]
# We want a POST transfer:
Set Variable [ $result; Value:MBS("CURL.SetOptionPost"; $curl; 1 ) ]
# Build JSON using the plugin function to properly encode a string:
Set Variable [ $request; Value:" { \"content\": " & MBS("JSON.CreateString"; TextData::TextAsInput) & " } " ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $request) ]
# show our JSON in a field for debugging:
Set Field [ TextData::CURLInput; $request ]
# Run transfer
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
# Check result and debug messages
Set Field [ TextData::CurlDebug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ TextData::CurlOutput; MBS("CURL.GetResultAsText"; $curl) ]
# Cleanup
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
```

Charge with Stripe webservice:

```
# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://api.stripe.com/v1/charges") ]
# set user name
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "sk_test_ your id here") ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPost"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; "amount=400& currency=usd& de-
scription=Charge% 20for% 20test@example.com& source [ object ] =card& source [ number ] =4242424242424242&
source [ exp_month ] =12& source [ exp_year ] =2017& source [ cvc ] =123" ) ]
# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Run a generic POST request for REST or SOAP web service:

```
# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://someURL/service") ]
# set user name and password if needed:
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "user name") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "password") ]
# set some additional headers, which may include custom authorization and content types:
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Authorization: Bearer a92eabb9-
76f9-42ee-b280-bcd15cb2e9db"; "Content-Type: application/json" ) ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $json ) ]
# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.228 `CURL.SetOptionGet` 2132
- 62.277 `CURL.SetOptionPostRedir` 2205



62.273. <i>CURL.SETOPTIONPOST</i>	2197
• 62.308 <i>CURL.SetOptionPut</i>	2242
• 62.309 <i>CURL.SetOptionQuote</i>	2244
• 62.317 <i>CURL.SetOptionRange</i>	2254
• 62.331 <i>CURL.SetOptionSSLCert</i>	2273
• 62.339 <i>CURL.SetOptionSSLKey</i>	2286
• 62.381 <i>CURL.SetOptionUsername</i>	2346
• 62.382 <i>CURL.SetOptionVerbose</i>	2348
• 102.29 <i>JSON.CreateString</i>	5354

### **Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Send Form](#)
- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/TinyURL](#)
- [Third Party/Google OAUTH 2 example](#)

#### **62.273.1 Blog Entries**

- [Using CURL with Rosette web service](#)
- [Translate PHP script with CURL to FileMaker Script](#)

#### **62.273.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 20](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.274 CURL.SetOptionPostFieldSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPostFieldSize"; curl; Value )

(old name: CURL.SetOptionPostFieldSizeLarge)

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The post fields data size in bytes.

1234

**Result** Returns "OK" on success.

### Description

If you want to post data to the server without letting libcurl do a string length() to measure the data size, this option must be used. When this option is used you can post fully binary data, which otherwise is likely to fail. If this size is set to -1, the library will use strlen() to get the size.

See also [POSTFIELDSIZE](#) option in CURL manual.

### See also

- 62.242 CURL.SetOptionInFileSize 2151
- 62.258 CURL.SetOptionMaxFileSize 2172
- 62.273 CURL.SetOptionPost 2194
- 62.275 CURL.SetOptionPostFields 2199
- 62.277 CURL.SetOptionPostRedir 2205

Created 18th August 2014, last changed 18th July 2019.

**62.275 CURL.SetOptionPostFields**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPostFields"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The post data.

””

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

”UTF8”

**Result** Returns ”OK” on success.

**Description**

Pass a text, which should be the full data to post in an HTTP POST operation.

The plugin sets the size for you. You can overwrite it with `CURL.SetOptionPostFieldSize` function.

If you plan to pass a form, maybe check functions like `CURL.FormAddKeyValue` instead of building post fields yourself.

You can use `CURL.SetOptionHTTPHeader` to set the content type and other headers.

Using this function is not recommended for more than a few hundred MB of text. If you need more, better stream the data with `CURL.OpenInputFile` from a file.

See also [COPYPOSTFIELDS](#) option in CURL manual.

**Examples**

Set post field with some XML for SOAP Webservice:

```
MBS("CURL.SetOptionPostFields"; $curl; "<xml>....</xml>"; "UTF-8")
```

Set post fields:

```
MBS("CURL.SetOptionPostFields"; $curl; "first=John& last=Smith"; "UTF-8")
```

Build form:

```
MBS( "CURL.FormAddKeyValue"; $curl; "login"; "testuser" )
MBS( "CURL.FormAddKeyValue"; $curl; "password"; "xxx" )
MBS( "CURL.FormFinish"; $curl )
```

Charge with Stripe webservice:

```
# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://api.stripe.com/v1/charges") ]
# set user name
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "sk_test__ your id here") ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPost"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; "amount=400& currency=usd& de-
scription=Charge% 20for% 20test@example.com& source [ object ] =card& source [ number ] =4242424242424242&
source [ exp_month ] =12& source [ exp_year ] =2017& source [ cvc ] =123" ) ]
# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Run a generic POST request for REST or SOAP web service:

```
# new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# use stripe charge API
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://someURL/service") ]
# set user name and password if needed:
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; "user name") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; "password") ]
# set some additional headers, which may include custom authorization and content types:
Set Variable [ $result; Value:MBS( "CURL.SetOptionHTTPHeader"; $curl; "Authorization: Bearer a92eabb9-
76f9-42ee-b280-bcd15cb2e9db"; "Content-Type: application/json" ) ]
# make a post with given content:
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $json ) ]
# perform
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# now check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::header; MBS("CURL.GetDebugAsText"; $curl) ]
# cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

62.275. *CURL.SETOPTIONPOSTFIELDS* 2201

### See also

- 62.192 *CURL.SetOptionCookieFile* 2082
- 62.194 *CURL.SetOptionCookieList* 2087
- 62.196 *CURL.SetOptionCustomRequest* 2089
- 62.233 *CURL.SetOptionHTTPHeader* 2139
- 62.268 *CURL.SetOptionPassword* 2186
- 62.273 *CURL.SetOptionPost* 2194
- 62.274 *CURL.SetOptionPostFieldSize* 2198
- 62.277 *CURL.SetOptionPostRedir* 2205
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.390 *CURL.SetupOAuth* 2365

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/WebServices/AdobeSign Webservice](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/magento older](#)
- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/Sales Force Test](#)
- [CURL/WebServices/Swiss Post Addresscheck V4-02-00](#)
- [CURL/WebServices/Swiss Post Addresscheck](#)
- [CURL/WebServices/Twilio API Send SMS Json](#)

### 62.275.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Let CURL handle cookie list](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Swiss Post Webservice to verify addresses](#)
- [Using CURL with Rosette web service](#)
- [Translate PHP script with CURL to FileMaker Script](#)

### **62.275.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 20
- Ausgabe 4/2016, Seite 19

Created 18th August 2014, last changed 19th April 2020.

**62.276 CURL.SetOptionPostQuote**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPostQuote"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The ftp commands.

""

**Result** Returns "OK" on success.

**Description**

The commands will only be run if no error occurred. Disable this operation again by passing no value to this function.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values. If you want to do a ftp operation instead of download/upload/directory listing, please use `CURL.SetOptionQuote`.

See also `CURL.SetOptionQuote` and `CURL.SetOptionPreQuote`.

File names may be passed with quotes to include spaces in file names.

See also **POSTQUOTE** option in CURL manual.

**Examples**

Create folder:

```
MBS( "CURL.SetOptionPostQuote"; $curl; "MKD testfolder" )
```

Rename file using two FTP commands:

```
MBS( "CURL.SetOptionPostQuote" ; $curl ; "RNFR foo.txt"; "RNTO bar.txt" )
```

Delete file after upload:

```
MBS( "CURL.SetOptionPostQuote"; $curl; "DELE test.txt" )
```

Delete folder after upload:

```
MBS( "CURL.SetOptionPostQuote"; $curl; "RMD testfolder" )
```

Set file permissions:

```
MBS( "CURL.SetOptionPostQuote" ; $curl ; "SITE CHMOD 777 testfile")
```

Call with three parameters:

```
MBS( "CURL.SetOptionPostQuote"; handle; $value1; $value2; $value3 )
```

Rename file for SFTP commands:

```
MBS( "CURL.SetOptionPostQuote" ; $curl ; "rename \"old name.txt\" \"new name.txt\"")
```

Create folder with SFTP:

```
Set Variable [ $result ; Value: MBS( "CURL.SetOptionPostQuote"; $curl; "mkdir testPost" ) ]
```

### See also

- 62.83 CURL.GetOptionPostQuote 1913
- 62.84 CURL.GetOptionPreQuote 1914
- 62.268 CURL.SetOptionPassword 2186
- 62.273 CURL.SetOptionPost 2194
- 62.275 CURL.SetOptionPostFields 2199
- 62.277 CURL.SetOptionPostRedir 2205
- 62.279 CURL.SetOptionPreQuote 2208
- 62.280 CURL.SetOptionProtocols 2210
- 62.282 CURL.SetOptionProxyAuth 2214
- 62.309 CURL.SetOptionQuote 2244

Created 18th August 2014, last changed 8th November 2017.



**62.277 CURL.SetOptionPostRedir**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPostRedir"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new bitmask for redirections.

3

**Result** Returns "OK" on success.

**Description**

Pass a bitmask to control how libcurl acts on redirects after POSTs that get a 301 or 302 response back. A parameter with bit 0 set (value `CURL_REDIR_POST_301`) tells the library to respect RFC 2616/10.3.2 and not convert POST requests into GET requests when following a 301 redirection. Setting bit 1 (value `CURL_REDIR_POST_302`) makes libcurl maintain the request method after a 302 redirect. `CURL_REDIR_POST_ALL` is a convenience define that sets both bits.

The non-RFC behaviour is ubiquitous in web browsers, so the library does the conversion by default to maintain consistency. However, a server may require a POST to remain a POST after such a redirection. This option is meaningful only when setting `CURL.SetOptionFollowLocation`. (This option was known as `CURLOPT_POST301` up to 7.19.0 as it only supported the 301 way before then)

<code>CURL_REDIR_POST_301</code>	1
<code>CURL_REDIR_POST_302</code>	2
<code>CURL_REDIR_POST_ALL</code>	3

See also [POSTREDIR](#) option in CURL manual.

**See also**

- 62.83 `CURL.GetOptionPostQuote` 1913
- 62.193 `CURL.SetOptionCookieJar` 2085
- 62.224 `CURL.SetOptionFollowLocation` 2127
- 62.260 `CURL.SetOptionMaxRedirs` 2174

- 62.273 `CURL.SetOptionPost` 2194
- 62.275 `CURL.SetOptionPostFields` 2199
- 62.274 `CURL.SetOptionPostFieldSize` 2198
- 62.276 `CURL.SetOptionPostQuote` 2203
- 62.286 `CURL.SetOptionProxyHeader` 2218

Created 18th August 2014, last changed 18th August 2014.

**62.278 CURL.SetOptionPreProxy**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPreProxy"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PRE\\_PROXY](#) option in CURL manual.

**See also**

- 62.84 [CURL.GetOptionPreQuote](#) 1914
- 62.213 [CURL.SetOptionFTPPort](#) 2114
- 62.267 [CURL.SetOptionNoProxy](#) 2184
- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.279 [CURL.SetOptionPreQuote](#) 2208
- 62.280 [CURL.SetOptionProtocols](#) 2210
- 62.281 [CURL.SetOptionProxy](#) 2212
- 62.290 [CURL.SetOptionProxyPort](#) 2222
- 62.382 [CURL.SetOptionVerbose](#) 2348

Created 15th April 2018, last changed 16th April 2018.

## 62.279 `CURL.SetOptionPreQuote`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetOptionPreQuote"; curl; Value )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The ftp commands.

""

**Result** Returns "OK" on success.

### Description

Disable this operation again by passing no value to this function. Before version 7.15.6, if you also set `CURL.SetOptionNoBody` to 1, this option didn't work.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values.

See also `CURL.SetOptionQuote` and `CURL.SetOptionPostQuote`.

File names may be passed with quotes to include spaces in file names.

See also **PREQUOTE** option in CURL manual.

### Examples

Create folder before upload:

```
MBS( "CURL.SetOptionPreQuote"; $curl; "MKD testfolder" )
```

Rename file before uploading using two FTP commands:

```
MBS( "CURL.SetOptionPreQuote" ; $curl ; "RNFR foo.txt"; "RNTO bar.txt" )
```

Delete file before upload:

```
MBS( "CURL.SetOptionPreQuote"; $curl; "DELE test.txt" )
```

Delete folder before upload:

```
MBS( "CURL.SetOptionPreQuote"; $curl; "RMD testfolder" )
```

Set file permissions:

```
MBS( "CURL.SetOptionPreQuote" ; $curl ; "SITE CHMOD 777 testfile")
```

Call with three parameters:

```
MBS( "CURL.SetOptionPreQuote"; handle; $value1; $value2; $value3 )
```

**See also**

- 62.84 *CURL.GetOptionPreQuote* 1914
- 62.273 *CURL.SetOptionPost* 2194
- 62.276 *CURL.SetOptionPostQuote* 2203
- 62.278 *CURL.SetOptionPreProxy* 2207
- 62.308 *CURL.SetOptionPut* 2242
- 62.309 *CURL.SetOptionQuote* 2244
- 62.321 *CURL.SetOptionResolve* 2260
- 62.368 *CURL.SetOptionTimeOut* 2323
- 62.381 *CURL.SetOptionUsername* 2346
- 62.382 *CURL.SetOptionVerbose* 2348

Created 18th August 2014, last changed 6th November 2017.

## 62.280 `CURL.SetOptionProtocols`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProtocols"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The bitmask defining which protocols to use.

1

**Result** Returns "OK" on success.

### Description

Pass a number that holds a bitmask of protocol values (See below). If used, this bitmask limits what protocols libcurl may use in the transfer. This allows us to have a plugin built to support a wide range of protocols but still limit specific transfers to only be allowed to use a subset of them. By default libcurl will accept all protocols it supports. See also `CURL.SetOptionRedirProtocols`.

HTTP 1

HTTPS2

See also [PROTOCOLS](#) option in CURL manual.

### See also

- 62.269 `CURL.SetOptionPathAsIs` 2189
- 62.275 `CURL.SetOptionPostFields` 2199
- 62.276 `CURL.SetOptionPostQuote` 2203
- 62.278 `CURL.SetOptionPreProxy` 2207
- 62.279 `CURL.SetOptionPreQuote` 2208
- 62.282 `CURL.SetOptionProxyAuth` 2214
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.306 `CURL.SetOptionProxyType` 2239

FTP	4
FTPS	8
SCP	16
SFTP	32
TELNET	64
LDAP	128
LDAPS	256
DICT	512
FILE	1024
TFTP	2048
IMAP	4096
IMAPS	8192
POP3	16384
POP3S	32768
SMTP	65536
SMTPS	131072
RTSP	262144
ALL	-1

- 62.318 *CURL.SetOptionRedirProtocols*

Created 18th August 2014, last changed 18th August 2014.

## 62.281 `CURL.SetOptionProxy`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetOptionProxy"; curl; Value { ; Encoding } )
```

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The proxy string

"http://cache.local.com/:8000"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

### Description

The parameter should be a text string holding the host name or dotted IP address. To specify port number in this string, append : [ port ] to the end of the host name. The proxy string may be prefixed with [ protocol ] :// since any such prefix will be ignored. The proxy's port number may optionally be specified with the separate option. If not specified, libcurl will default to using port 1080 for proxies. see also `CURL.SetOptionProxyPort`.

When you tell the library to use an HTTP proxy, libcurl will transparently convert operations to HTTP even if you specify an FTP URL etc. This may have an impact on what other features of the library you can use, such as `CURL.SetOptionQuote` and similar FTP specifics that don't work unless you tunnel through the HTTP proxy. Such tunneling is activated with `CURL.SetOptionHTTPProxyTunnel`.

libcurl respects the environment variables `http_proxy`, `ftp_proxy`, `all_proxy` etc, if any of those are set. The `CURL.SetOptionProxy` option does however override any possibly set environment variables.

Setting the proxy string to "" (an empty string) will explicitly disable the use of a proxy, even if there is an environment variable set for it.

Since 7.14.1, the proxy host string given in environment variables can be specified the exact same way as the proxy can be set with `CURL.SetOptionProxy`, include protocol prefix (`http://`) and embedded user + password.



Since 7.21.7, the proxy string may be specified with a protocol:// prefix to specify alternative proxy protocols. Use socks4://, socks4a://, socks5:// or socks5h:// (the last one to enable socks5 and asking the proxy to do the resolving, also known as `CURLPROXY_SOCKS5_HOSTNAME` type) to request the specific SOCKS version to be used. No protocol specified, http:// and all others will be treated as HTTP proxies.

Setting the property and getting back OK does just mean that the plugin passed the value. It does not confirm that the proxy is working or used.

See also **PROXY** option in `CURL` manual.

### Examples

Set a proxy:

```
MBS( "CURL.SetOptionProxy"; $curl; "http://cache.local.com/:8000")
```

### See also

- 62.267 `CURL.SetOptionNoProxy` 2184
- 62.272 `CURL.SetOptionPort` 2192
- 62.278 `CURL.SetOptionPreProxy` 2207
- 62.289 `CURL.SetOptionProxyPinnedPublicKey` 2221
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.309 `CURL.SetOptionQuote` 2244
- 62.317 `CURL.SetOptionRange` 2254
- 62.377 `CURL.SetOptionUpload` 2340
- 62.373 `CURL.SetOptionURL` 2329

Created 18th August 2014, last changed 5th December 2016.

## 62.282 `CURL.SetOptionProxyAuth`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyAuth"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The bitmask of allowed authentication methods. 15

**Result** Returns "OK" on success.

### Description

Pass a number as parameter, which is set to a bitmask, to tell libcurl which authentication method(s) you want it to use for your proxy authentication. If more than one bit is set, libcurl will first query the site to see what authentication methods it supports and then pick the best one you allow it to use. For some methods, this will induce an extra network round-trip. Set the actual name and password with the `CURL.SetOptionProxyUsername` option. The bitmask can be constructed by or'ing together the bits listed above for the `CURL.SetOptionHTTPAuth` option. As of this writing, only Basic, Digest and NTLM work. See also [PROXYAUTH](#) option in CURL manual.

### See also

- 62.279 `CURL.SetOptionPreQuote` 2208
- 62.280 `CURL.SetOptionProtocols` 2210
- 62.281 `CURL.SetOptionProxy` 2212
- 62.283 `CURL.SetOptionProxyCAInfo` 2215
- 62.284 `CURL.SetOptionProxyCAPath` 2216
- 62.286 `CURL.SetOptionProxyHeader` 2218
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.348 `CURL.SetOptionSocks5Auth` 2303

Created 18th August 2014, last changed 18th August 2014.

**62.283 CURL.SetOptionProxyCAInfo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyCAInfo"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

The native file path.

**Result** Returns OK or error.

**Description**

This option is used only if `CURL.SetOptionProxySSLVerifyPeer` is true

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_CAINFO](#) option in CURL manual.

**See also**

- 62.281 `CURL.SetOptionProxy` 2212
- 62.282 `CURL.SetOptionProxyAuth` 2214
- 62.285 `CURL.SetOptionProxyCRLFile` 2217
- 62.288 `CURL.SetOptionProxyPassword` 2220
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.298 `CURL.SetOptionProxySSLVerifyPeer` 2230
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.307 `CURL.SetOptionProxyUsername` 2241

Created 15th April 2018, last changed 16th April 2018.

## 62.284 `CURL.SetOptionProxyCAPath`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyCAPath"; curl; Path )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Path**

The native file path.

**Result** Returns OK or error.

### Description

This option is used only if `CURL.SetOptionProxySSLVerifyPeer` is true

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_CAPATH](#) option in CURL manual.

### See also

- 62.282 `CURL.SetOptionProxyAuth` 2214
- 62.283 `CURL.SetOptionProxyCAInfo` 2215
- 62.285 `CURL.SetOptionProxyCRLFile` 2217
- 62.286 `CURL.SetOptionProxyHeader` 2218
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.298 `CURL.SetOptionProxySSLVerifyPeer` 2230
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.307 `CURL.SetOptionProxyUsername` 2241

Created 15th April 2018, last changed 16th April 2018.

**62.285 CURL.SetOptionProxyCRLFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyCRLFile"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

The native file path to the file.

**Result** Returns OK or error.

**Description**

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_CRLFILE](#) option in CURL manual.

**See also**

- 62.192 CURL.SetOptionCookieFile 2082
- 62.185 CURL.SetOptionCRLFile 2069
- 62.283 CURL.SetOptionProxyCAInfo 2215
- 62.284 CURL.SetOptionProxyCAPath 2216
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.306 CURL.SetOptionProxyType 2239
- 62.307 CURL.SetOptionProxyUsername 2241
- 124.2 Path.FileMakerPathToNativePath 6247

Created 15th April 2018, last changed 16th April 2018.

## 62.286 `CURL.SetOptionProxyHeader`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyHeader"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [PROXYHEADER](#) option in CURL manual.

### See also

- 62.85 `CURL.GetOptionProxyHeader` 1915
- 62.283 `CURL.SetOptionProxyCAInfo` 2215
- 62.284 `CURL.SetOptionProxyCAPath` 2216
- 62.285 `CURL.SetOptionProxyCRLFile` 2217
- 62.288 `CURL.SetOptionProxyPassword` 2220
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.307 `CURL.SetOptionProxyUsername` 2241

Created 15th April 2018, last changed 16th April 2018.

**62.287 CURL.SetOptionProxyKeyPassword**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyKeyPassword"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PROXY\\_KEYPASSWD](#) option in CURL manual.

**See also**

- 62.247 [CURL.SetOptionKeyPassword](#) 2158
- 62.288 [CURL.SetOptionProxyPassword](#) 2220
- 62.302 [CURL.SetOptionProxyTLSAuthPassword](#) 2235
- 62.363 [CURL.SetOptionTLSAuthPassword](#) 2318

Created 15th April 2018, last changed 16th April 2018.

## 62.288 `CURL.SetOptionProxyPassword`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyPassword"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The password text.

"pass123"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

Please use `CURL.SetOptionProxyUsername` to set username.

See also [PROXYPASSWORD](#) option in CURL manual.

### See also

- 62.247 `CURL.SetOptionKeyPassword` 2158
- 62.283 `CURL.SetOptionProxyCAInfo` 2215
- 62.286 `CURL.SetOptionProxyHeader` 2218
- 62.287 `CURL.SetOptionProxyKeyPassword` 2219
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.302 `CURL.SetOptionProxyTLSAuthPassword` 2235
- 62.305 `CURL.SetOptionProxyTransferMode` 2238
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.363 `CURL.SetOptionTLSAuthPassword` 2318

Created 18th August 2014, last changed 5th July 2015.



**62.289 CURL.SetOptionProxyPinnedPublicKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyPinnedPublicKey"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

The file path.

**Result** Returns OK or error.

**Description**

The public key in DER form used to validate the proxy public key.  
This option is used only if `CURL.SetOptionProxySSLVerifyPeer` is true.  
Please path native file path to key file.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_PINNEDPUBLICKEY](#) option in CURL manual.

**See also**

- 62.270 `CURL.SetOptionPinnedPublicKey` 2190
- 62.281 `CURL.SetOptionProxy` 2212
- 62.298 `CURL.SetOptionProxySSLVerifyPeer` 2230
- 124.2 `Path.FileMakerPathToNativePath` 6247

Created 15th April 2018, last changed 16th April 2018.

## 62.290 CURL.SetOptionProxyPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyPort"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The new port value.

8080

**Result** Returns "OK" on success.

### Description

See also [PROXYPORT](#) option in CURL manual.

### Examples

Set proxy with explicit port:

```
Set Variable [ $r; MBS( "CURL.SetOptionProxy"; $curl; "http://cache.local.com/" ) ]
```

```
Set Variable [ $r; MBS( "CURL.SetOptionProxyPort"; $curl; 8000 ) ]
```

### See also

- 62.280 CURL.SetOptionProtocols 2210
- 62.281 CURL.SetOptionProxy 2212
- 62.282 CURL.SetOptionProxyAuth 2214
- 62.283 CURL.SetOptionProxyCAInfo 2215
- 62.284 CURL.SetOptionProxyCAPath 2216
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.306 CURL.SetOptionProxyType 2239

Created 18th August 2014, last changed 4th February 2016.

**62.291 CURL.SetOptionProxySSLCert**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLCert"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

The native file path.

**Result** Returns OK or error.

**Description**

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_SSLCERT](#) option in CURL manual.

**See also**

- 62.290 CURL.SetOptionProxyPort 2222
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.296 CURL.SetOptionProxySSLOptions 2228
- 62.297 CURL.SetOptionProxySSLVerifyHost 2229
- 62.299 CURL.SetOptionProxySSLVersion 2231
- 62.306 CURL.SetOptionProxyType 2239
- 62.331 CURL.SetOptionSSLCert 2273
- 124.2 Path.FileMakerPathToNativePath 6247

Created 15th April 2018, last changed 16th April 2018.

## 62.292 `CURL.SetOptionProxySSLCertType`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLCertType"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Value can be "DER", "PEM" or "ENG".

See also [PROXY\\_SSLCERTTYPE](#) option in CURL manual.

### See also

- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.295 `CURL.SetOptionProxySSLKeyType` 2227
- 62.296 `CURL.SetOptionProxySSLOptions` 2228
- 62.297 `CURL.SetOptionProxySSLVerifyHost` 2229
- 62.298 `CURL.SetOptionProxySSLVerifyPeer` 2230
- 62.299 `CURL.SetOptionProxySSLVersion` 2231
- 62.303 `CURL.SetOptionProxyTLSAuthType` 2236
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.332 `CURL.SetOptionSSLCertType` 2277

Created 15th April 2018, last changed 16th April 2018.

**62.293 CURL.SetOptionProxySSLCipherList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLCipherList"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PROXY\\_SSL\\_CIPHER\\_LIST](#) option in CURL manual.

**See also**

- 62.291 [CURL.SetOptionProxySSLCert](#) 2223
- 62.292 [CURL.SetOptionProxySSLCertType](#) 2224
- 62.296 [CURL.SetOptionProxySSLOptions](#) 2228
- 62.297 [CURL.SetOptionProxySSLVerifyHost](#) 2229
- 62.299 [CURL.SetOptionProxySSLVersion](#) 2231
- 62.301 [CURL.SetOptionProxyTLS13Ciphers](#) 2234
- 62.333 [CURL.SetOptionSSLCipherList](#) 2279

Created 15th April 2018, last changed 16th April 2018.

## 62.294 `CURL.SetOptionProxySSLKey`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLKey"; curl; Path )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Path**

The native file path to the key file.

**Result** Returns OK or error.

### Description

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [PROXY\\_SSLKEY](#) option in CURL manual.

### See also

- 62.285 `CURL.SetOptionProxyCRLFFile` 2217
- 62.286 `CURL.SetOptionProxyHeader` 2218
- 62.290 `CURL.SetOptionProxyPort` 2222
- 62.292 `CURL.SetOptionProxySSLCertType` 2224
- 62.295 `CURL.SetOptionProxySSLKeyType` 2227
- 62.296 `CURL.SetOptionProxySSLOptions` 2228
- 62.299 `CURL.SetOptionProxySSLVersion` 2231
- 62.306 `CURL.SetOptionProxyType` 2239
- 62.339 `CURL.SetOptionSSLKey` 2286
- 124.2 `Path.FileMakerPathToNativePath` 6247

Created 15th April 2018, last changed 16th April 2018.

**62.295 CURL.SetOptionProxySSLKeyType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLKeyType"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Value is DER, PEM or ENG.

See also [PROXY\\_SSLKEYTYPE](#) option in CURL manual.

**See also**

- 62.292 *CURL.SetOptionProxySSLCertType* 2224
- 62.294 *CURL.SetOptionProxySSLKey* 2226
- 62.296 *CURL.SetOptionProxySSLOptions* 2228
- 62.297 *CURL.SetOptionProxySSLVerifyHost* 2229
- 62.298 *CURL.SetOptionProxySSLVerifyPeer* 2230
- 62.299 *CURL.SetOptionProxySSLVersion* 2231
- 62.303 *CURL.SetOptionProxyTLSEAuthType* 2236
- 62.306 *CURL.SetOptionProxyType* 2239
- 62.307 *CURL.SetOptionProxyUsername* 2241
- 62.340 *CURL.SetOptionSSLKeyType* 2288

Created 15th April 2018, last changed 16th April 2018.

## 62.296 `CURL.SetOptionProxySSLOptions`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLOptions"; curl; Value )

### Parameters

#### `curl`

The CURL session handle.

\$curl

#### Value

The option value.

**Result** Returns OK or error.

### Description

See also [PROXY\\_SSL\\_OPTIONS](#) option in CURL manual.

### See also

- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.292 `CURL.SetOptionProxySSLCertType` 2224
- 62.293 `CURL.SetOptionProxySSLCipherList` 2225
- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.295 `CURL.SetOptionProxySSLKeyType` 2227
- 62.297 `CURL.SetOptionProxySSLVerifyHost` 2229
- 62.299 `CURL.SetOptionProxySSLVersion` 2231
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.366 `CURL.SetOptionTelnetOptions` 2321
- 62.361 `CURL.SetOptionTFTPNoOptions` 2316

Created 15th April 2018, last changed 16th April 2018.



**62.297 CURL.SetOptionProxySSLVerifyHost**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLVerifyHost"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Set if we should verify the Common name from the proxy certificate in ssl handshake, set 1 to check existence, 2 to ensure that it matches the provided hostname.

See also [PROXY\\_SSL\\_VERIFYHOST](#) option in CURL manual.

**See also**

- 62.291 [CURL.SetOptionProxySSLCert](#) 2223
- 62.292 [CURL.SetOptionProxySSLCertType](#) 2224
- 62.293 [CURL.SetOptionProxySSLCipherList](#) 2225
- 62.295 [CURL.SetOptionProxySSLKeyType](#) 2227
- 62.296 [CURL.SetOptionProxySSLOptions](#) 2228
- 62.298 [CURL.SetOptionProxySSLVerifyPeer](#) 2230
- 62.299 [CURL.SetOptionProxySSLVersion](#) 2231
- 62.343 [CURL.SetOptionSSLVerifyHost](#) 2292

Created 15th April 2018, last changed 16th April 2018.

**62.298 CURL.SetOptionProxySSLVerifyPeer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLVerifyPeer"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Set 1 to verify.

See also [PROXY\\_SSL\\_VERIFYPEER](#) option in CURL manual.

**See also**

- 62.283 CURL.SetOptionProxyCAInfo 2215
- 62.284 CURL.SetOptionProxyCAPath 2216
- 62.289 CURL.SetOptionProxyPinnedPublicKey 2221
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.297 CURL.SetOptionProxySSLVerifyHost 2229
- 62.299 CURL.SetOptionProxySSLVersion 2231
- 62.344 CURL.SetOptionSSLVerifyPeer 2295

Created 15th April 2018, last changed 16th April 2018.

**62.299 CURL.SetOptionProxySSLVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxySSLVersion"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

The SSL and TLS versions have typically developed from the most insecure version to be more and more secure in this order through history: SSL v2, SSLv3, TLS v1.0, TLS v1.1, TLS v1.2 and the most recent TLS v1.3.

Use one of the available defines for this purpose. The available options are:

Default	0	The default acceptable version range. The minimum acceptable version is by default TLS v1.0 since 7.39.0 (unless the TLS library has a stricter rule).
TLSv1	1	TLS v1.0 or later
SSLv2	2	SSL v2 (but not SSLv3)
SSLv3	3	SSL v3 (but not SSLv2)
TLSv1.0	4	TLS v1.0 or later (Added in 7.34.0)
TLSv1.1	5	TLS v1.1 or later (Added in 7.34.0)
TLSv1.2	6	TLS v1.2 or later (Added in 7.34.0)
TLSv1.3	7	TLS v1.3 or later (Added in 7.52.0)

See also kSSLVersion\* constants.

The maximum TLS version can be set by using one of the `CURL_SSLVERSION_MAX_` macros below. It is also possible to OR one of the `CURL_SSLVERSION_` macros with one of the `CURL_SSLVERSION_MAX_` macros.

Please note that MBS Plugin does not yet support TLS v1.3 now, but may in future. See also [PROXY\\_SSLVERSION](#) option in CURL manual.

Default	65536	The flag defines the maximum supported TLS version by libcurl, or the default value from the SSL library is used. libcurl will use a sensible default maximum, which was TLS v1.2 up to before 7.61.0 and is TLS v1.3 since then - assuming the TLS library support it. (Added in 7.54.0)
Max TLSv1.0	262144	The flag defines maximum supported TLS version as TLS v1.0. (Added in 7.54.0)
Max TLSv1.1	327680	The flag defines maximum supported TLS version as TLS v1.1. (Added in 7.54.0)
Max TLSv1.2	393216	The flag defines maximum supported TLS version as TLS v1.2. (Added in 7.54.0)
Max TLSv1.3	458752	The flag defines maximum supported TLS version as TLS v1.3. (Added in 7.54.0)

### See also

- 62.291 CURL.SetOptionProxySSLCert 2223
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.293 CURL.SetOptionProxySSLCipherList 2225
- 62.294 CURL.SetOptionProxySSLKey 2226
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.296 CURL.SetOptionProxySSLOptions 2228
- 62.297 CURL.SetOptionProxySSLVerifyHost 2229
- 62.298 CURL.SetOptionProxySSLVerifyPeer 2230
- 62.307 CURL.SetOptionProxyUsername 2241
- 62.346 CURL.SetOptionSSLVersion 2299

**62.300 CURL.SetOptionProxyServiceName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyServiceName"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PROXY\\_SERVICE\\_NAME](#) option in CURL manual.

**See also**

- 62.307 CURL.SetOptionProxyUsername 2241
- 62.347 CURL.SetOptionServiceName 2302

Created 15th April 2018, last changed 16th April 2018.

## 62.301 `CURL.SetOptionProxyTLS13Ciphers`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyTLS13Ciphers"; curl; Ciphers )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Ciphers**

The list of ciphers.

**Result** Returns OK or error.

### Description

The list of cipher suites to use for the TLS 1.3 connection to a proxy. The list must be syntactically correct, it consists of one or more cipher suite strings separated by colons.

You'll find more details about cipher lists on this URL:

<https://curl.haxx.se/docs/ssl-ciphers.html>

The application does not have to keep the string around after setting this option.

See also [PROXY\\_TLS13\\_CIPHERS](#) option in CURL manual.

### See also

- 62.293 `CURL.SetOptionProxySSLCipherList` 2225
- 62.362 `CURL.SetOptionTLS13Ciphers` 2317

### 62.301.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 11st July 2018, last changed 11st July 2018.

**62.302 CURL.SetOptionProxyTLSAuthPassword**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyTLSAuthPassword"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PROXY\\_TLSAUTH\\_PASSWORD](#) option in CURL manual.

**See also**

- 62.287 [CURL.SetOptionProxyKeyPassword](#) 2219
- 62.288 [CURL.SetOptionProxyPassword](#) 2220
- 62.303 [CURL.SetOptionProxyTLSAuthType](#) 2236
- 62.304 [CURL.SetOptionProxyTLSAuthUsername](#) 2237
- 62.363 [CURL.SetOptionTLSAuthPassword](#) 2318

Created 15th April 2018, last changed 16th April 2018.

## 62.303 `CURL.SetOptionProxyTLSAuthType`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyTLSAuthType"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [PROXY\\_TLSAUTH\\_TYPE](#) option in CURL manual.

### See also

- 62.292 `CURL.SetOptionProxySSLCertType` 2224
- 62.295 `CURL.SetOptionProxySSLKeyType` 2227
- 62.302 `CURL.SetOptionProxyTLSAuthPassword` 2235
- 62.304 `CURL.SetOptionProxyTLSAuthUsername` 2237
- 62.364 `CURL.SetOptionTLSAuthType` 2319

Created 15th April 2018, last changed 16th April 2018.



**62.304 CURL.SetOptionProxyTLSAuthUsername**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyTLSAuthUsername"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [PROXY\\_TLSAUTH\\_USERNAME](#) option in CURL manual.

**See also**

- 62.302 CURL.SetOptionProxyTLSAuthPassword 2235
- 62.303 CURL.SetOptionProxyTLSAuthType 2236
- 62.307 CURL.SetOptionProxyUsername 2241
- 62.365 CURL.SetOptionTLSAuthUsername 2320

Created 15th April 2018, last changed 16th April 2018.

## 62.305 `CURL.SetOptionProxyTransferMode`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyTransferMode"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to pass transfer mode to proxy.

1

**Result** Returns "OK" on success.

### Description

If the value is set to 1 (one), it tells libcurl to set the transfer mode (binary or ASCII) for FTP transfers done via an HTTP proxy, by appending ;type=a or ;type=i to the URL. Without this setting, or it being set to 0 (zero, the default), `CURL.SetOptionTransferText` has no effect when doing FTP via a proxy. Beware that not all proxies support this feature.

See also [PROXY\\_TRANSFER\\_MODE](#) option in CURL manual.

### See also

- 62.288 `CURL.SetOptionProxyPassword` 2220
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.372 `CURL.SetOptionTransferText` 2328

Created 18th August 2014, last changed 28th November 2019.

**62.306 CURL.SetOptionProxyType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyType"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The proxy type. Pass number listed below, e.g. 1 for CURLPROXY\_HTTP\_1\_0.

1

**Result** Returns "OK" on success.

**Description**

Available options for this are CURLPROXY\_HTTP (0), CURLPROXY\_HTTP\_1\_0 (1), CURLPROXY SOCKS4 (4), CURLPROXY SOCKS5 (5), CURLPROXY SOCKS4A (6) and CURLPROXY SOCKS5\_HOST-NAME (7). The HTTP type is default.

If you set proxy type to CURLPROXY\_HTTP\_1\_0 (0), it will only affect how libcurl speaks to a proxy when CONNECT is used. The HTTP version used for "regular" HTTP requests is instead controlled with CURL.SetOptionHTTPVersion.

See also **PROXYTYPE** option in CURL manual.

**Examples**

Set Socks 5 proxy:

MBS( "CURL.SetOptionProxyType"; \$curl; 5 )

**See also**

- 62.236 CURL.SetOptionHTTPVersion 2145
- 62.281 CURL.SetOptionProxy 2212
- 62.282 CURL.SetOptionProxyAuth 2214
- 62.283 CURL.SetOptionProxyCAInfo 2215
- 62.285 CURL.SetOptionProxyCRLFile 2217
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.290 CURL.SetOptionProxyPort 2222

- 62.294 `CURL.SetOptionProxySSLKey` 2226
- 62.295 `CURL.SetOptionProxySSLKeyType` 2227
- 62.340 `CURL.SetOptionSSLKeyType` 2288

Created 18th August 2014, last changed 4th February 2016.

**62.307 CURL.SetOptionProxyUsername**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionProxyUsername"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The user name.

"testuser"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

In order to specify the password to be used in conjunction with the user name use the CURL.SetOptionProxyPassword option.

See also [PROXYUSERNAME](#) option in CURL manual.

**See also**

- 62.282 CURL.SetOptionProxyAuth 2214
- 62.286 CURL.SetOptionProxyHeader 2218
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.300 CURL.SetOptionProxyServiceName 2233
- 62.292 CURL.SetOptionProxySSLCertType 2224
- 62.295 CURL.SetOptionProxySSLKeyType 2227
- 62.304 CURL.SetOptionProxyTLSAuthUsername 2237
- 62.305 CURL.SetOptionProxyTransferMode 2238
- 62.365 CURL.SetOptionTLSAuthUsername 2320
- 62.381 CURL.SetOptionUsername 2346

Created 18th August 2014, last changed 5th July 2015.

## 62.308 CURL.SetOptionPut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionPut"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Whether this is a PUT request.

1

**Result** Returns "OK" on success.

### Description

A parameter set to 1 tells the library to use HTTP PUT to transfer data. The data should be set with `CURL.SetInputText` or other functions.

This option is deprecated and starting with version 7.12.1 you should instead use `CURL.SetOptionUpload`. See also **PUT** option in CURL manual.

### Examples

Turns put on:

```
MBS( "CURL.SetOptionPut"; $curl; 1 )
```

Make request with PUT:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://test.test/test/hello.txt") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPut"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
Set Variable [ $result; Value:MBS("CURL.SetInputText"; $curl; "This is content to upload") ]
# run
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# check results
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

62.308. <i>CURL.SETOPTIONPUT</i>	2243
• 62.166 <i>CURL.SetInputText</i>	2043
• 62.272 <i>CURL.SetOptionPort</i>	2192
• 62.273 <i>CURL.SetOptionPost</i>	2194
• 62.279 <i>CURL.SetOptionPreQuote</i>	2208
• 62.281 <i>CURL.SetOptionProxy</i>	2212
• 62.317 <i>CURL.SetOptionRange</i>	2254
• 62.368 <i>CURL.SetOptionTimeOut</i>	2323
• 62.377 <i>CURL.SetOptionUpload</i>	2340
• 62.373 <i>CURL.SetOptionURL</i>	2329
• 62.381 <i>CURL.SetOptionUsername</i>	2346

### **Example Databases**

- [CURL/CURL get and put/CURLS get and put](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.309 CURL.SetOptionQuote

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionQuote"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The ftp commands.

"mkdir testfolder"

**Result** Returns "OK" on success.

### Description

This will be done before any other commands are issued (even before the CWD command for FTP). Disable this operation again by passing no value to this function. When speaking to a FTP (or SFTP) server, prefix the command with an asterisk (\*) to make libcurl continue even if the command fails as by default libcurl will stop at first failure.

The set of valid FTP commands depends on the server (see RFC 959 for a list of mandatory commands).

The valid SFTP commands are: chgrp, chmod, chown, ln, mkdir, pwd, rename, rm, rmdir, symlink.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values.

See also CURL.SetOptionPreQuote and CURL.SetOptionPostQuote.

Here is list of raw FTP commands:

[http://en.wikipedia.org/wiki/List\\_of\\_FTP\\_commands](http://en.wikipedia.org/wiki/List_of_FTP_commands)

File names may be passed with quotes to include spaces in file names.

See also **QUOTE** option in CURL manual.

### Examples

Delete file only:

MBS( "CURL.SetOptionQuote"; \$curl; "DELE test.txt" )



Delete folder:

```
MBS( "CURL.SetOptionQuote"; $curl; "RMD testfolder" )
```

Create folder with FTP:

```
MBS( "CURL.SetOptionQuote"; $curl; "MKD testfolder" )
```

Rename file using two FTP commands:

```
MBS( "CURL.SetOptionQuote" ; $curl ; "RNFR foo.txt"; "RNT0 bar.txt" )
```

Set file permissions for FTP:

```
MBS( "CURL.SetOptionQuote" ; $curl ; "SITE CHMOD 777 testfile")
```

Call with three parameters:

```
MBS( "CURL.SetOptionQuote"; handle; $value1; $value2; $value3 )
```

List all files:

```
MBS( "CURL.SetOptionQuote" ; $curl ; "NLST -all" )
```

Connect to FTP server and delete a file:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# this is URL to ftp server
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "ftp://www.monkeybreadsoftware.de/") ]
# set user name
Set Variable [ $r; Value:MBS("CURL.SetOptionUserName"; $curl; "xxx") ]
# set password
Set Variable [ $r; Value:MBS("CURL.SetOptionPassword"; $curl; "xxx") ]
# set delete command of file "test.jpg" in folder "images"
Set Variable [ $r; Value:MBS("CURL.SetOptionQuote"; $curl; "DELE images/test.jpg") ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Move file on SFTP in done folder with variables and quotes:

```
MBS("CURL.SetOptionQuote"; $curl; "rename " & "\" & $Path & $folder & "/" & $$FileName & "\"
& " " & "\" & $Path & $folder & "Done/"
```

```
& $$FileName & "\")
```

Change file permissions via SFTP:

```
# set permissions to 777, so everyone can read/write/execute the file.
Set Variable [ $result ; Value: MBS( "CURL.SetOptionQuote"; $curl; "chmod 777 /Users/cs/Pictures/test.jpg"
) ]
```

Change file owner group via SFTP:

```
# change group to group 20
Set Variable [ $result ; Value: MBS( "CURL.SetOptionQuote"; $curl; "chgrp 20 /Users/cs/Pictures/test.jpg"
) ]
```

Change file owner via SFTP:

```
# change owner to user 501
Set Variable [ $result ; Value: MBS( "CURL.SetOptionQuote"; $curl; "chown 501 /Users/cs/Pictures/test.jpg"
) ]
```

### See also

- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.273 [CURL.SetOptionPost](#) 2194
- 62.279 [CURL.SetOptionPreQuote](#) 2208
- 62.281 [CURL.SetOptionProxy](#) 2212
- 62.308 [CURL.SetOptionPut](#) 2242
- 62.321 [CURL.SetOptionResolve](#) 2260
- 62.377 [CURL.SetOptionUpload](#) 2340
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.381 [CURL.SetOptionUsername](#) 2346
- 62.382 [CURL.SetOptionVerbose](#) 2348

### Example Databases

- [CURL/FTP/CURL FTP Delete File](#)
- [CURL/SFTP/CURL sFTP Operations](#)

Created 18th August 2014, last changed 19th April 2020.

**62.310 CURL.SetOptionRTSPClientCSEQ**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPClientCSEQ"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [RTSP\\_CLIENT\\_CSEQ](#) option in CURL manual.

**See also**

- 62.312 [CURL.SetOptionRTSPServerCSEQ](#)

## 62.311 `CURL.SetOptionRTSPRequest`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPRequest"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [RTSP\\_REQUEST](#) option in CURL manual.

### See also

- 62.196 `CURL.SetOptionCustomRequest` 2089
- 62.220 `CURL.SetOptionFTPUsePret` 2123
- 62.233 `CURL.SetOptionHTTPHeader` 2139

Created 15th April 2018, last changed 16th April 2018.

**62.312 CURL.SetOptionRTSPServerCSEQ**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPServerCSEQ"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [RTSP\\_SERVER\\_CSEQ](#) option in CURL manual.

**See also**

- 62.201 [CURL.SetOptionDNSServers](#) 2098
- 62.310 [CURL.SetOptionRTSPClientCSEQ](#) 2247
- 62.313 [CURL.SetOptionRTSPSessionID](#) 2250
- 62.314 [CURL.SetOptionRTSPStreamURI](#) 2251

Created 15th April 2018, last changed 16th April 2018.

## 62.313 `CURL.SetOptionRTSPSessionID`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPSessionID"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [RTSP\\_SESSION\\_ID](#) option in CURL manual.

### See also

- 62.195 `CURL.SetOptionCookieSession` 2088
- 62.236 `CURL.SetOptionHTTPVersion` 2145
- 62.312 `CURL.SetOptionRTSPServerCSEQ` 2249
- 62.314 `CURL.SetOptionRTSPStreamURI` 2251
- 62.315 `CURL.SetOptionRTSPTransport` 2252
- 62.342 `CURL.SetOptionSSLSessionIDCache` 2291
- 62.346 `CURL.SetOptionSSLVersion` 2299

Created 15th April 2018, last changed 16th April 2018.

**62.314 CURL.SetOptionRTSPStreamURI**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPStreamURI"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [RTSP\\_STREAM\\_URI](#) option in CURL manual.

**See also**

- 62.312 [CURL.SetOptionRTSPServerCSEQ](#) 2249
- 62.313 [CURL.SetOptionRTSPSessionID](#) 2250

Created 15th April 2018, last changed 16th April 2018.

## 62.315 `CURL.SetOptionRTSPTransport`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRTSPTransport"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [RTSP\\_TRANSPORT](#) option in CURL manual.

### See also

- 62.313 `CURL.SetOptionRTSPSessionID`

2250

Created 15th April 2018, last changed 16th April 2018.



**62.316 CURL.SetOptionRandomFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRandomFile"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

File path for SSL engine.

"/tmp/test.txt"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

Pass a file path. The file will be used to read from to seed the random engine for SSL. The more random the specified file is, the more secure the SSL connection will become.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also [RANDOM\\_FILE](#) option in CURL manual.

**See also**

- 62.192 [CURL.SetOptionCookieFile](#) 2082
- 62.185 [CURL.SetOptionCRLFile](#) 2069
- 62.262 [CURL.SetOptionNETRCFile](#) 2177

**62.316.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 12nd December 2017.

## 62.317 CURL.SetOptionRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRange"; curl; Value { ; Encoding } )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Range string.

"1000-2000"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

### Description

Pass a text as parameter, which should contain the specified range you want. It should be in the format "X-Y", where X or Y may be left out. HTTP transfers also support several intervals, separated with commas as in "X-Y,N-M". Using this kind of multiple intervals will cause the HTTP server to send the response document in pieces (using standard MIME separation techniques). For RTSP, the formatting of a range should follow RFC 2326 Section 12.29. For RTSP, byte ranges are not permitted. Instead, ranges should be given in npt, utc, or smpte formats.

Pass an empty string to this option to disable the use of ranges.

Ranges work on HTTP, FTP, FILE (since 7.18.0), and RTSP (since 7.20.0) transfers only.

See also [RANGE](#) option in CURL manual.

### See also

- 62.263 CURL.SetOptionNetRC 2178
- 62.272 CURL.SetOptionPort 2192
- 62.273 CURL.SetOptionPost 2194
- 62.281 CURL.SetOptionProxy 2212
- 62.308 CURL.SetOptionPut 2242

<i>62.317. CURL.SETOPTIONRANGE</i>	2255
• 62.309 CURL.SetOptionQuote	2244
• 62.319 CURL.SetOptionReferer	2258
• 62.321 CURL.SetOptionResolve	2260
• 62.339 CURL.SetOptionSSLKey	2286
• 62.373 CURL.SetOptionURL	2329

Created 18th August 2014, last changed 5th July 2015.

## 62.318 CURL.SetOptionRedirProtocols

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRedirProtocols"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The bitmask defining which protocols to use.

1

**Result** Returns "OK" on success.

### Description

Pass a number that holds a bitmask of protocol values (see below). If used, this bitmask limits what protocols libcurl may use in a transfer that it follows to in a redirect when `CURL.SetOptionFollowLocation` is enabled. This allows you to limit specific transfers to only be allowed to use a subset of protocols in redirections. By default libcurl will allow all protocols except for FILE and SCP.

HTTP 1

HTTPS2

See also [REDIR\\_PROTOCOLS](#) option in CURL manual.

### See also

- 62.204 `CURL.SetOptionDefaultProtocol` 2102
- 62.224 `CURL.SetOptionFollowLocation` 2127
- 62.229 `CURL.SetOptionHAProxyProtocol` 2134
- 62.280 `CURL.SetOptionProtocols` 2210

Created 18th August 2014, last changed 18th August 2014.

FTP	4
FTPS	8
SCP	16
SFTP	32
TELNET	64
LDAP	128
LDAPS	256
DICT	512
FILE	1024
TFTP	2048
IMAP	4096
IMAPS	8192
POP3	16384
POP3S	32768
SMTP	65536
SMTPS	131072
RTSP	262144
ALL	-1

## 62.319 `CURL.SetOptionReferer`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionReferer"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new referrer string.

"https://www.mbsplugins.de/"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

### Description

This string will be used to set the Referer: header in the http request sent to the remote server. This can be used to fool servers or scripts. You can also set any custom header with `CURL.SetOptionHTTPHeader`. See also [REFERER](#) option in CURL manual.

### See also

- 62.180 `CURL.SetOptionAutoReferer` 2060
- 62.238 `CURL.SetOptionHeader` 2147
- 62.233 `CURL.SetOptionHTTPHeader` 2139
- 62.244 `CURL.SetOptionIssuerCert` 2154
- 62.245 `CURL.SetOptionKRBLevel` 2156
- 62.321 `CURL.SetOptionResolve` 2260
- 62.322 `CURL.SetOptionResumeFrom` 2261
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.368 `CURL.SetOptionTimeOut` 2323
- 62.382 `CURL.SetOptionVerbose` 2348

Created 18th August 2014, last changed 5th July 2015.

**62.320 CURL.SetOptionRequestTarget**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionRequestTarget"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [REQUEST\\_TARGET](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

## 62.321 `CURL.SetOptionResolve`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionResolve"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Provide custom host name to IP address resolves.

See also [RESOLVE](#) option in CURL manual.

### See also

- 62.87 `CURL.GetOptionResolve` 1917
- 62.203 `CURL.SetOptionDOHURL` 2100
- 62.240 `CURL.SetOptionIPResolve` 2149
- 62.245 `CURL.SetOptionKRBLevel` 2156
- 62.279 `CURL.SetOptionPreQuote` 2208
- 62.309 `CURL.SetOptionQuote` 2244
- 62.319 `CURL.SetOptionReferer` 2258
- 62.369 `CURL.SetOptionTimeValue` 2325
- 62.381 `CURL.SetOptionUsername` 2346
- 62.382 `CURL.SetOptionVerbose` 2348

Created 15th April 2018, last changed 15th April 2018.



**62.322 CURL.SetOptionResumeFrom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionResumeFrom"; curl; Value )

(old name: CURL.SetOptionResumeFromLarge)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The offset to start at.

1000

**Result** Returns "OK" on success.

**Description**

Pass a number as parameter. It contains the offset in number of bytes that you want the transfer to start from. Set this option to 0 to make the transfer start from the beginning (effectively disabling resume). For FTP, set this option to -1 to make the transfer start from the end of the target file (useful to continue an interrupted upload).

When doing uploads with FTP, the resume position is where in the local/source file libcurl should try to resume the upload from and it will then append the source file to the remote target file.

See also [RESUME\\_FROM](#) option in CURL manual.

**See also**

- 62.254 CURL.SetOptionMailFrom 2168
- 62.319 CURL.SetOptionReferer 2258

Created 18th August 2014, last changed 18th April 2016.

## 62.323 `CURL.SetOptionSASLAUTHZID`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSASLAUTHZID"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new authorisation identity.

**Result** Returns OK or error.

### Description

Pass a text as parameter, which should be pointing to the authorisation identity (authzid) for the transfer. Only applicable to the PLAIN SASL authentication mechanism where it is optional.

When not specified only the authentication identity (authcid) as specified by the username will be sent to the server, along with the password. The server will derive a authzid from the authcid when not provided, which it will then uses internally.

When the authzid is specified, the use of which is server dependent, it can be used to access another user's inbox, that the user has been granted access to, or a shared mailbox for example.

See also [SASL\\_AUTHZID](#) option in CURL manual.

### See also

- [62.215 CURL.SetOptionFTPSSLAUTH](#) 2117
- [62.325 CURL.SetOptionSSHAUTHTYPES](#) 2264
- [62.341 CURL.SetOptionSSLOPTIONS](#) 2290
- [62.364 CURL.SetOptionTLSAUTHTYPE](#) 2319

### 62.323.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 11st September 2019, last changed 11st September 2019.

**62.324 CURL.SetOptionSASLIR**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSASLIR"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [SASL\\_IR](#) option in CURL manual.

**See also**

- 62.182 CURL.SetOptionCAINFO 2063
- 62.183 CURL.SetOptionCAPATH 2066
- 62.184 CURL.SetOptionCRLF 2068
- 62.331 CURL.SetOptionSSLCert 2273
- 62.339 CURL.SetOptionSSLKey 2286
- 62.373 CURL.SetOptionURL 2329

Created 15th April 2018, last changed 16th April 2018.

## 62.325 `CURL.SetOptionSSHAuthTypes`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHAuthTypes"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

The new types.

3

**Result** Returns "OK" on success.

### Description

Pass a number set to a bitmask consisting of one or more of `CURLSSH_AUTH_PUBLICKEY`, `CURLSSH_AUTH_PASSWORD`, `CURLSSH_AUTH_HOST`, `CURLSSH_AUTH_KEYBOARD`. Set `CURLSSH_AUTH_ANY` to let libcurl pick one.

<code>CURLSSH_AUTH_ANY</code>	-1	all types supported by the server.
<code>CURLSSH_AUTH_NONE</code>	0	none allowed, silly but complete.
<code>CURLSSH_AUTH_PUBLICKEY</code>	1	public/private key files.
<code>CURLSSH_AUTH_PASSWORD</code>	2	password.
<code>CURLSSH_AUTH_HOST</code>	4	host key files.
<code>CURLSSH_AUTH_KEYBOARD</code>	8	keyboard interactive.
<code>CURLSSH_AUTH_DEFAULT</code>	-1	default.

See also [SSH\\_AUTH\\_TYPES](#) option in CURL manual.

### Examples

Use password, no private key:

```
MBS( "CURL.SetOptionSSHAuthTypes"; $curl; 2+8 )
```

Download file via SFTP to file on disk:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# set download URL, e.g. sftp://monkeybreadsoftware.net/test.jpg
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; SFTP Download::URL ) ]
# build file path on disk and open output file
Set Variable [ $name; Value:GetValue(SFTP Download::FileName; 1) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; SFTP Download::FolderPath; $name ) ]
```

```

Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# login only via password
Set Variable [ $result; Value:MBS( "CURL.SetOptionSSHAuthTypes"; $curl; 2+8 ) ]
# set credentials
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; SFTP Download::UserName ) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; SFTP Download::Password ) ]
# run transfer
Set Field [ SFTP Download::ErrorCode; MBS("CURL.Perform"; $curl) ]
# check debug log for errors
Set Field [ SFTP Download::Debug; MBS("CURL.GetDebugAsText"; $curl) ]
# free CURL session
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.43 *CURL.GetDebugAsText* 1866
- 62.143 *CURL.Perform* 1992
- 62.149 *CURL.Release* 2011
- 62.205 *CURL.SetOptionDirListOnly* 2103
- 62.211 *CURL.SetOptionFTPCreateMissingDirs* 2110
- 62.323 *CURL.SetOptionSASLAuthZID* 2262
- 62.332 *CURL.SetOptionSSLCertType* 2277
- 62.340 *CURL.SetOptionSSLKeyType* 2288
- 62.373 *CURL.SetOptionURL* 2329
- 62.381 *CURL.SetOptionUsername* 2346

Created 18th August 2014, last changed 19th April 2020.

## 62.326 `CURL.SetOptionSSHCompression`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHCompression"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value. Pass 1 to enable or 0 to disable.

**Result** Returns OK or error.

### Description

See also [SSH\\_COMPRESSION](#) option in CURL manual.

### See also

- 62.195 `CURL.SetOptionCookieSession` 2088
- 62.333 `CURL.SetOptionSSLCipherList` 2279
- 62.346 `CURL.SetOptionSSLVersion` 2299

Created 15th April 2018, last changed 16th April 2018.

**62.327 CURL.SetOptionSSHHostPublicKeyMD5**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHHostPublicKeyMD5"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new MD5 hash.

"8B1A9953C4611296A827ABF8C47804D7"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string containing 32 hexadecimal digits. The string should be the 128 bit MD5 checksum of the remote host's public key, and libcurl will reject the connection to the host unless the md5sums match. This option is only for SCP and SFTP transfers.

See also [SSH\\_HOST\\_PUBLIC\\_KEY\\_MD5](#) option in CURL manual.

**See also**

- 62.330 CURL.SetOptionSSHPublicKeyfile

2271

Created 18th August 2014, last changed 5th July 2015.

## 62.328 `CURL.SetOptionSSHKnownHosts`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHKnownHosts"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The known hosts file path.

"/tmp/knownhosts.txt"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

The `known_hosts` file should use the OpenSSH file format as supported by libssh2. If this file is specified, libcurl will only accept connections with hosts that are known and present in that file, with a matching public key.

See also [SSH\\_KNOWNHOSTS](#) option in CURL manual.

### See also

- 62.343 `CURL.SetOptionSSLVerifyHost`

2292

Created 18th August 2014, last changed 5th July 2015.



**62.329 CURL.SetOptionSSHPrivateKeyfile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHPrivateKeyfile"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new file path.

"c:\myprivatekey"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

If not used, libcurl defaults to using ~/.ssh/id\_dsa. If the file is password-protected, set the password with `CURL.SetOptionKeyPassword`.

For a SFTP transfer (= file transfer over SSH), you would tell the plugin your public and private keys, so the plugin can login.

See also [SSH\\_PRIVATE\\_KEYFILE](#) option in CURL manual.

**Examples**

Login via SSH with public key:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "sftp://test.com:1222/test.fmp12" ) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionConnectionTimeout"; $curl; 10) ]
#
# specify paths to keys, public key optional as it is usually included in private key file:
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSHPrivateKeyfile"; $curl; "/Users/jameykey/.ssh/id_rsa")
]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSHPublicKeyfile"; $curl; "/Users/jameykey/.ssh/id_rsa.pub")
]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
#
```

```

# no password with private key!
// Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
#
# upload text or open a file path
Set Variable [ $d ; Value: "Just a little bit text. Have fun!" ]
Set Variable [ $result ; Value: MBS("CURL.SetInputText"; $curl; $d) ]
// Set Variable [ $result ; Value: MBS("CURL.OpenInputFile"; $curl; "/Users/test/Desktop/test.fmp12") ]
#
# do it!
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

### See also

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.142 [CURL.OpenInputFile](#) 1989
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011
- 62.166 [CURL.SetInputText](#) 2043
- 62.190 [CURL.SetOptionConnectionTimeout](#) 2078
- 62.247 [CURL.SetOptionKeyPassword](#) 2158
- 62.268 [CURL.SetOptionPassword](#) 2186
- 62.377 [CURL.SetOptionUpload](#) 2340
- 62.381 [CURL.SetOptionUsername](#) 2346

### 62.329.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 19th April 2020.

**62.330 CURL.SetOptionSSHPublicKeyfile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSHPublicKeyfile"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new public key file path.

"c:\mykey.pub"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

If not used, libcurl defaults to using ~/.ssh/id\_dsa.pub.

For a SFTP transfer (= file transfer over SSH), you would tell the plugin your public and private keys, so the plugin can login.

See also [SSH\\_PUBLIC\\_KEYFILE](#) option in CURL manual.

**Examples**

Login via SSH with public key:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "sftp://test.com:1222/test.fmp12" ) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUpload"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionConnectionTimeout"; $curl; 10) ]
#
# specify paths to keys, public key optional as it is usually included in private key file:
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSHPrivateKeyfile"; $curl; "/Users/jameykey/.ssh/id_rsa")
]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSHPublicKeyfile"; $curl; "/Users/jameykey/.ssh/id_rsa.pub")
]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
#
# no password with private key!
```

```
// Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
#
# upload text or open a file path
Set Variable [ $d ; Value: "Just a little bit text. Have fun!" ]
Set Variable [ $result ; Value: MBS("CURL.SetInputText"; $curl; $d) ]
// Set Variable [ $result ; Value: MBS("CURL.OpenInputFile"; $curl; "/Users/test/Desktop/test.fmp12") ]
#
# do it!
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.166 [CURL.SetInputText](#) 2043
- 62.190 [CURL.SetOptionConnectionTimeout](#) 2078
- 62.329 [CURL.SetOptionSSHPrivateKeyfile](#) 2269
- 62.377 [CURL.SetOptionUpload](#) 2340
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.381 [CURL.SetOptionUsername](#) 2346
- 62.382 [CURL.SetOptionVerbose](#) 2348

### 62.330.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 19th April 2020.

**62.331 CURL.SetOptionSSLCert**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLCert"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The file path to the certificate.

"/tmp/test.pem"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

Pass a text string as parameter. The string should be the file name of your certificate. The default format is "PEM" and can be changed with `CURL.SetOptionSSLCertType`.

With NSS this can also be the nickname of the certificate you wish to authenticate with. If you want to use a file from the current directory, please precede it with "/" prefix, in order to avoid confusion with a nickname.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

For the GSX example, apple-cert+key.pem in our case is a text file containing the key and certificate:

```
—BEGIN RSA PRIVATE KEY—
```

```
Proc-Type: 4,ENCRYPTED
```

```
DEK-Info: AES-256-CBC,B8DCBDA00BFB07EB3CE3901334FC7028
```

```
lKa9vkyhSkx1N8PS+0gUsDLa5Ki36z9wuw9IdVQAeNuGYwPvpPwGzYiUWXE7p8H1
```

```
...
```

```
WHhQqB/FACH0XbOWWUtHInNlNVHFcKKtJdg/JllkMQfvSD3XnSNLgLvOpr10L85Z
```

```
—END RSA PRIVATE KEY—
```

```
—BEGIN CERTIFICATE—
```

```
MIIEuTCCA6GgAwIBAgIIVbEoCG6/FTIwDQYJKoZIhvcNAQELBQAwezE1MDMGA1UE
```

```
....
AYf7yNIM0btoU2ymPrzwn02AKxnk6QRMqVkirDHSWew/mQfxlOg2HN2HJ1MQR9wC
3bxbgvJL1EFq9AAK5g==
—END CERTIFICATE—
```

You can normally just copy the files together with a text editor.  
See also **SSLCERT** option in CURL manual.

### Examples

Set a client SSL certificate:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/some/certfile.pem") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "secret") ]
```

Send request to Apple's gsx webservice:

```
Set Variable [ $XMLRequest; Value:"" ]
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# URL for web service
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://gsxapiut.apple.com:443/gsx-
ws/services/emea/asp") ]
# Mark content as XML
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml; charset=UTF-
8") ]
# Pass XML content for request
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $XMLRequest) ]
# Certificate and private key in one file
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/Users/cs/Keys/apple-cert+key.pem")
]
# Root certificates
Set Variable [ $result; Value:MBS("CURL.SetOptionCAInfo"; $curl; "/Users/cs/Keys/cacert.pem") ]
# SSL Key is in PEM Format
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
# Password for key file
Set Variable [ $result; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "xxx") ]
# SSL Verification on
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyHost"; $curl; 1) ]
# use TLS v1.2
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVersion"; $curl; 6) ]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
```

```
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Talk to Apple's global service exchange webservice:

```
# Various parameters
Set Variable [ $userid ; Value: "???" ]
Set Variable [ $serviceAccountNo ; Value: "???" ]
Set Variable [ $PrivateKeyPassword ; Value: "???" ]

# Build XML with our values:
Set Variable [ $xml ; Value: Tabelle::Login XML Template ]
Set Variable [ $xml ; Value: Substitute($xml; "$userid$"; MBS("Text.EncodeToXML"; $userid)) ]
Set Variable [ $xml ; Value: Substitute($xml; "$serviceAccountNo$"; MBS("Text.EncodeToXML"; $serviceAccountNo)) ]

# Start CURL
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL";$curl; "https://gsxapi.apple.com/gsx-ws/services/emea/asp") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionKeyPassword"; $curl; $PrivateKeyPassword) ]
# pem file with private key and certificate from Apple
Set Variable [ $r ; Value: MBS("CURL.SetOptionSSLCert"; $curl; "/Users/test/Desktop/test.pem") ]
# some root certificates
Set Variable [ $r ; Value: MBS("CURL.SetOptionCAINFO"; $curl; "/Users/test/Desktop/cacert.pem") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionSSLVersion"; $curl; 6) // TLS v1.2 ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionTimeOut"; $curl; 10) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml; charset=UTF-8") ]
# run the login query
Set Variable [ $r ; Value: MBS("CURL.Perform"; $curl) ]
# check result
Set Variable [ $httpResponse ; Value: MBS( "CURL.GetResponseCode"; $curl ) ]
Set Field [ Tabelle::CURL Result ; $r ]
Set Field [ Tabelle::CURL Input ; $xml ]
Set Field [ Tabelle::CURL Debug ; MBS("CURL.GetDebugAsText"; $curl; "UTF8") ]
Set Field [ Tabelle::CURL Output ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
# here we extract session
Set Field [ Tabelle::SessionID ; MBS("Text.FindBetween"; Tabelle::CURL Output; "<userSessionId>"; "</userSessionId>") ]
Wenn [ $r = "OK" UND $httpResponse = 200 ]
# OK
Ende (wenn)
Set Variable [ $r ; Value: MBS("CURL.Release") ]
```

**See also**

- 62.291 `CURL.SetOptionProxySSLCert` 2223
- 62.319 `CURL.SetOptionReferer` 2258
- 62.324 `CURL.SetOptionSASLIR` 2263
- 62.332 `CURL.SetOptionSSLCertType` 2277
- 62.333 `CURL.SetOptionSSLCipherList` 2279
- 62.336 `CURL.SetOptionSSLEngine` 2283
- 62.339 `CURL.SetOptionSSLKey` 2286
- 62.340 `CURL.SetOptionSSLKeyType` 2288
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 167.39 `Text.FindBetween` 7959

**62.331.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [MBS FileMaker Plugin, version 7.6pr3](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)

Created 18th August 2014, last changed 19th April 2020.



**62.332 CURL.SetOptionSSLCertType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLCertType"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The type string.

"PEM"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string as parameter. The string should be the format of your certificate. Supported formats are "PEM", "DER" and "P12" for PKCS# 12-encoded files.

Due to a bug the P12 format was not working in 7.4 or earlier. This was fixed in 7.5.  
See also [SSLCERTTYPE](#) option in CURL manual.

**Examples**

Set a client SSL certificate:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/some/certfile.pem") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "secret") ]
```

Use P12 certificate with pfx file:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/some/certfile.pfx") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "P12") ]
Set Variable [ $r; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "secret") ]
```

**See also**

- 62.143 CURL.Perform

- 62.292 `CURL.SetOptionProxySSLCertType` 2224
- 62.325 `CURL.SetOptionSSHAuthTypes` 2264
- 62.339 `CURL.SetOptionSSLKey` 2286
- 62.340 `CURL.SetOptionSSLKeyType` 2288
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.343 `CURL.SetOptionSSLVerifyHost` 2292
- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.364 `CURL.SetOptionTLSAuthType` 2319

### **62.332.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)

Created 18th August 2014, last changed 19th April 2018.

**62.333 CURL.SetOptionSSLCipherList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLCipherList"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new text string with list of ciphers.

"RC4-SHA:SHA1+DES"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

The list must be syntactically correct, it consists of one or more cipher strings separated by colons. Commas or spaces are also acceptable separators but colons are normally used, !, - and + can be used as operators.

For OpenSSL and GnuTLS valid examples of cipher lists include 'RC4-SHA', 'SHA1+DES', 'TLSv1' and 'DEFAULT'. The default list is normally set when you compile OpenSSL.

You'll find more details about cipher lists on this URL: <http://www.openssl.org/docs/apps/ciphers.html>

For NSS, valid examples of cipher lists include 'rsa\_rc4\_128\_md5', 'rsa\_aes\_128\_sha', etc. With NSS you don't add/remove ciphers. If one uses this option then all known ciphers are disabled and only those passed in are enabled.

You'll find more details about the NSS cipher lists on this URL: [http://directory.fedora.redhat.com/docs/mod\\_nss.html#](http://directory.fedora.redhat.com/docs/mod_nss.html#Directives)

Directives

See also [SSL\\_CIPHER\\_LIST](#) option in CURL manual.

**See also**

- 62.194 [CURL.SetOptionCookieList](#) 2087
- 62.293 [CURL.SetOptionProxySSLCipherList](#) 2225

- 62.326 `CURL.SetOptionSSHCompression` 2266
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.338 `CURL.SetOptionSSLFalseStart` 2285
- 62.343 `CURL.SetOptionSSLVerifyHost` 2292
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.362 `CURL.SetOptionTLS13Ciphers` 2317

Created 18th August 2014, last changed 5th July 2015.

**62.334 CURL.SetOptionSSLEnableALPN**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLEnableALPN"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

http2 over ssl might fail without.

See also [SSL\\_ENABLE\\_ALPN](#) option in CURL manual.

**See also**

- 62.335 CURL.SetOptionSSLEnableNPN

**62.335** **CURL.SetOptionSSLEnableNPN**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLEnableNPN"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [SSL\\_ENABLE\\_NPN](#) option in CURL manual.

**See also**

- 62.334 CURL.SetOptionSSLEnableALPN 2281
- 62.336 CURL.SetOptionSSLEngine 2283

Created 15th April 2018, last changed 16th April 2018.

**62.336 CURL.SetOptionSSLEngine**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLEngine"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The name of the crypto engine.

""

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

Pass a string as parameter. It will be used as the identifier for the crypto engine you want to use for your private key.

If the crypto device cannot be loaded, `CURLE_SSL_ENGINE_NOTFOUND` is returned.

See also **SSLENGINE** option in CURL manual.

**See also**

- 62.185 `CURL.SetOptionCRLFile` 2069
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.335 `CURL.SetOptionSSLEnableNPN` 2282
- 62.340 `CURL.SetOptionSSLKeyType` 2288
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.346 `CURL.SetOptionSSLVersion` 2299

Created 18th August 2014, last changed 5th July 2015.

## 62.337 `CURL.SetOptionSSLEngineDefault`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLEngineDefault"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Pass always 1.

1

**Result** Returns "OK" on success.

### Description

If the crypto device cannot be set, `CURLE_SSL_ENGINE_SETFAILED` is returned.

See also [SSLENGINE\\_DEFAULT](#) option in CURL manual.

Created 18th August 2014, last changed 18th August 2014.



**62.338 CURL.SetOptionSSLFalseStart**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLFalseStart"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Pass 1 to enable.

See also [SSL\\_FALSESTART](#) option in CURL manual.

**See also**

- 62.333 [CURL.SetOptionSSLCipherList](#)

2279

Created 15th April 2018, last changed 16th April 2018.

**62.339** **CURL.SetOptionSSLKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "CURL.SetOptionSSLKey"; curl; Value { ; Encoding } )
```

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The private key file path.

"/tmp/test.pem"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

Pass a string as parameter. The string should be the file name of your private key. The default format is "PEM" and can be changed with `CURL.SetOptionSSLKeyType`.

Starting with version 8.0 the plugin will always use UTF-8 encoding for file path on Linux and macOS. For macOS we also do the unicode character normalization for file names for you.

See also **SSLKEY** option in CURL manual.

**Examples**

Set private key:

```
MBS( "CURL.SetOptionSSLKey"; $curl; $cacertPath )
```

Send request to Apple's gsx webservice:

```
Set Variable [ $XMLRequest; Value:"" ]
```

```
# Start new session
```

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
# URL for web service
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "https://gsxapiut.apple.com:443/gsx-  
ws/services/emea/asp") ]
```

```
# Mark content as XML
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionHTTPHeader"; $curl; "Content-Type: text/xml; charset=UTF-  
8") ]
```

```

# Pass XML content for request
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; $XMLRequest) ]
# Certificate and private key in one file
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCert"; $curl; "/Users/cs/Keys/apple-cert+key.pem")
]
# Root certificates
Set Variable [ $result; Value:MBS("CURL.SetOptionCAInfo"; $curl; "/Users/cs/Keys/cacert.pem") ]
# SSL Key is in PEM Format
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLCertType"; $curl; "PEM") ]
# Password for key file
Set Variable [ $result; Value:MBS("CURL.SetOptionKeyPassword"; $curl; "xxx") ]
# SSL Verification on
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyHost"; $curl; 1) ]
# use TLS v1.2
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVersion"; $curl; 6) ]
# RUN now
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.266 *CURL.SetOptionNoBody* 2182
- 62.281 *CURL.SetOptionProxy* 2212
- 62.294 *CURL.SetOptionProxySSLKey* 2226
- 62.317 *CURL.SetOptionRange* 2254
- 62.324 *CURL.SetOptionSASLIR* 2263
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.340 *CURL.SetOptionSSLKeyType* 2288
- 62.343 *CURL.SetOptionSSLVerifyHost* 2292
- 62.346 *CURL.SetOptionSSLVersion* 2299
- 62.373 *CURL.SetOptionURL* 2329

**62.339.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.340 `CURL.SetOptionSSLKeyType`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLKeyType"; curl; Value { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The key type.

"PEM"

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

### Description

Pass a string as parameter. The string should be the format of your private key. Supported formats are "PEM", "DER" and "ENG".

The format "ENG" enables you to load the private key from a crypto engine. In this case `CURL.SetOptionSSLKey` is used as an identifier passed to the engine. You have to set the crypto engine with `CURL.SetOptionSSLEngine`. "DER" format key file currently does not work because of a bug in OpenSSL.

See also [SSLKEYTYPE](#) option in CURL manual.

### See also

- 62.306 `CURL.SetOptionProxyType` 2239
- 62.325 `CURL.SetOptionSSHAAuthTypes` 2264
- 62.331 `CURL.SetOptionSSLCert` 2273
- 62.332 `CURL.SetOptionSSLCertType` 2277
- 62.336 `CURL.SetOptionSSLEngine` 2283
- 62.339 `CURL.SetOptionSSLKey` 2286
- 62.341 `CURL.SetOptionSSLOptions` 2290
- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295

<i>62.340. CURL.SETOPTIONSSLKEYTYPE</i>	2289
• 62.346 CURL.SetOptionSSLVersion	2299
• 62.364 CURL.SetOptionTLSAuthType	2319

Created 18th August 2014, last changed 5th July 2015.

## 62.341 `CURL.SetOptionSSLOptions`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLOptions"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [SSL\\_OPTIONS](#) option in CURL manual.

### See also

- 62.239 `CURL.SetOptionHeaderOptions` 2148
- 62.250 `CURL.SetOptionLoginOptions` 2162
- 62.296 `CURL.SetOptionProxySSLOptions` 2228
- 62.323 `CURL.SetOptionSASLAUTHZID` 2262
- 62.332 `CURL.SetOptionSSLCertType` 2277
- 62.336 `CURL.SetOptionSSLEngine` 2283
- 62.340 `CURL.SetOptionSSLKeyType` 2288
- 62.346 `CURL.SetOptionSSLVersion` 2299
- 62.366 `CURL.SetOptionTelnetOptions` 2321
- 62.361 `CURL.SetOptionTFTPNoOptions` 2316

Created 15th April 2018, last changed 16th April 2018.

**62.342 CURL.SetOptionSSLSessionIDCache**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLSessionIDCache"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to cache session IDs.

1

**Result** Returns "OK" on success.

**Description**

Set to 0 to disable cache. Set this to 1 to enable it. By default all transfers are done using the cache. While nothing ever should get hurt by attempting to reuse SSL session-IDs, there seem to be broken SSL implementations in the wild that may require you to disable this in order for you to succeed. See also [SSL\\_SESSIONID\\_CACHE](#) option in CURL manual.

**See also**

- 62.313 [CURL.SetOptionRTSPSessionID](#)

2250

Created 18th August 2014, last changed 18th August 2014.

## 62.343 `CURL.SetOptionSSLVerifyHost`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLVerifyHost"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to verify host.

1

**Result** Returns "OK" on success.

### Description

This option determines whether libcurl verifies that the server cert is for the server it is known as.

When negotiating a SSL connection, the server sends a certificate indicating its identity.

When value is 2, that certificate must indicate that the server is the server to which you meant to connect, or the connection fails.

Curl considers the server the intended one when the Common Name field or a Subject Alternate Name field in the certificate matches the host name in the URL to which you told Curl to connect.

When the value is 1, the certificate must contain a Common Name field, but it doesn't matter what name it says. (This is not ordinarily a useful setting).

When the value is 0, the connection succeeds regardless of the names in the certificate.

The default, since 7.10, is 2.

This option controls checking the server's claimed identity. The server could be lying. To control lying, see `CURL SetOptionSSLVerifyPeer`.

see also

[http://www.mbsplugins.de/archive/2013-01-31/SSL\\_Security\\_with\\_CURL/monkeybreadsoftware\\_blog\\_archive](http://www.mbsplugins.de/archive/2013-01-31/SSL_Security_with_CURL/monkeybreadsoftware_blog_archive)



When you don't set the options for certificate path or load system certificates, the MBS Plugin will disable the verify step to let the transfer run.

See also [SSL\\_VERIFYHOST](#) option in CURL manual.

### Examples

Disable SSL Verification:

```
MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 0 )
```

```
MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 0 )
```

Enables verification and uses cacert.pem file for certificates:

```
MBS( "CURL.SetOptionCAInfo"; $curl; $cacertPath )
```

```
MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 2 )
```

```
MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 1 )
```

### See also

- [62.140 CURL.New](#) 1985
- [62.143 CURL.Perform](#) 1992
- [62.182 CURL.SetOptionCAINFO](#) 2063
- [62.331 CURL.SetOptionSSLCert](#) 2273
- [62.332 CURL.SetOptionSSLCertType](#) 2277
- [62.333 CURL.SetOptionSSLCipherList](#) 2279
- [62.339 CURL.SetOptionSSLKey](#) 2286
- [62.344 CURL.SetOptionSSLVerifyPeer](#) 2295
- [62.345 CURL.SetOptionSSLVerifyStatus](#) 2298
- [62.392 CURL.UseSystemCertificates](#) 2371

### Example Databases

- [CURL/CURL Download Picture to file](#)
- [CURL/CURL Send Form](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/WebServices/AdobeSign WebService](#)

- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/Twilio API Send SMS Json](#)
- [CURL/WebServices/Twitter oAuth](#)
- [Third Party/Google OAUTH 2 example](#)

### **62.343.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [Translate PHP script with CURL to FileMaker Script](#)

### **62.343.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 15th November 2019.

**62.344 CURL.SetOptionSSLVerifyPeer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLVerifyPeer"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Whether to verify peer.

1

**Result** Returns "OK" on success.

**Description**

Pass a number as parameter. By default, curl assumes a value of 1.

This option determines whether curl verifies the authenticity of the peer's certificate. A value of 1 means curl verifies; 0 (zero) means it doesn't.

When negotiating an SSL connection, the server sends a certificate indicating its identity. Curl verifies whether the certificate is authentic, i.e. that you can trust that the server is who the certificate says it is. This trust is based on a chain of digital signatures, rooted in certification authority (CA) certificates you supply. curl uses a default bundle of CA certificates (the path for that is determined at build time) and you can specify alternate certificates with the `CURL.SetOptionCAINFO` option or the `CURL.SetOptionCAPATH` option.

When `CURL.SetOptionSSLVerifyPeer` is nonzero, and the verification fails to prove that the certificate is authentic, the connection fails. When the option is zero, the peer certificate verification succeeds regardless.

Authenticating the certificate is not by itself very useful. You typically want to ensure that the server, as authentically identified by its certificate, is the server you mean to be talking to. Use `CURL.SetOptionSSLVerifyHost` to control that. The check that the host name in the certificate is valid for the host name you're connecting to is done independently of the `CURL.SetOptionSSLVerifyPeer` option.

see also

[http://www.mbsplugins.de/archive/2013-01-31/SSL\\_Security\\_with\\_CURL/monkeybreadsoftware\\_blog\\_archive](http://www.mbsplugins.de/archive/2013-01-31/SSL_Security_with_CURL/monkeybreadsoftware_blog_archive)

When you don't set the options for certificate path or load system certificates, the MBS Plugin will disable the verify step to let the transfer run.

See also [SSL\\_VERIFYPEER](#) option in CURL manual.

### Examples

Disable SSL Verification:

```
MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 0 )
MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 0 )
```

Enables verification and uses cacert.pem file for certificates:

```
MBS( "CURL.SetOptionCAInfo"; $curl; $cacertPath )
MBS( "CURL.SetOptionSSLVerifyHost"; $curl; 2 )
MBS( "CURL.SetOptionSSLVerifyPeer"; $curl; 1 )
```

### See also

- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.182 [CURL.SetOptionCAINFO](#) 2063
- 62.183 [CURL.SetOptionCAPATH](#) 2066
- 62.244 [CURL.SetOptionIssuerCert](#) 2154
- 62.298 [CURL.SetOptionProxySSLVerifyPeer](#) 2230
- 62.331 [CURL.SetOptionSSLCert](#) 2273
- 62.339 [CURL.SetOptionSSLKey](#) 2286
- 62.343 [CURL.SetOptionSSLVerifyHost](#) 2292
- 62.345 [CURL.SetOptionSSLVerifyStatus](#) 2298

### Example Databases

- [CURL/CURL Download Picture to file](#)
- [CURL/CURL Send Form](#)
- [CURL/Email/Batch Emailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/Magento2 REST API](#)

- [CURL/WebServices/Twilio API Send SMS Json](#)
- [CURL/WebServices/Twitter OAuth](#)
- [Third Party/Google OAUTH 2 example](#)

#### **62.344.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)
- [Translate PHP script with CURL to FileMaker Script](#)

#### **62.344.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 26](#)

Created 18th August 2014, last changed 15th November 2019.

## 62.345 `CURL.SetOptionSSLVerifyStatus`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLVerifyStatus"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Pass 1 to enable.

See also [SSL\\_VERIFYSTATUS](#) option in CURL manual.

### See also

- 62.343 `CURL.SetOptionSSLVerifyHost` 2292
- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295

Created 15th April 2018, last changed 16th April 2018.

**62.346 CURL.SetOptionSSLVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSSLVersion"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Pass number from 0 to 7.

0

**Result** Returns "OK" on success.

**Description**

The SSL and TLS versions have typically developed from the most insecure version to be more and more secure in this order through history: SSL v2, SSLv3, TLS v1.0, TLS v1.1, TLS v1.2 and the most recent TLS v1.3.

Use one of the available defines for this purpose. The available options are:

Default	0	The default acceptable version range. The minimum acceptable version is by default TLS v1.0 since 7.39.0 (unless the TLS library has a stricter rule).
TLSv1	1	TLS v1.0 or later
SSLv2	2	SSL v2 (but not SSLv3)
SSLv3	3	SSL v3 (but not SSLv2)
TLSv1.0	4	TLS v1.0 or later (Added in 7.34.0)
TLSv1.1	5	TLS v1.1 or later (Added in 7.34.0)
TLSv1.2	6	TLS v1.2 or later (Added in 7.34.0)
TLSv1.3	7	TLS v1.3 or later (Added in 7.52.0)

See also kSSLVersion\* constants.

The maximum TLS version can be set by using one of the `CURL_SSLVERSION_MAX_` macros below. It is also possible to OR one of the `CURL_SSLVERSION_` macros with one of the `CURL_SSLVERSION_MAX_` macros.

Please note that MBS Plugin does not yet support TLS v1.3 now, but may in future.

See also [SSLVERSION](#) option in CURL manual.

Default	65536	The flag defines the maximum supported TLS version by libcurl, or the default value from the SSL library is used. libcurl will use a sensible default maximum, which was TLS v1.2 up to before 7.61.0 and is TLS v1.3 since then - assuming the TLS library support it. (Added in 7.54.0)
Max TLSv1.0	262144	The flag defines maximum supported TLS version as TLS v1.0. (Added in 7.54.0)
Max TLSv1.1	327680	The flag defines maximum supported TLS version as TLS v1.1. (Added in 7.54.0)
Max TLSv1.2	393216	The flag defines maximum supported TLS version as TLS v1.2. (Added in 7.54.0)
Max TLSv1.3	458752	The flag defines maximum supported TLS version as TLS v1.3. (Added in 7.54.0)

### Examples

SMTP via SSL without TLS:

```
$r = MBS( "CURL.SetOptionSSLVersion"; $curl; 3 )
$r = MBS( "CURL.SetOptionPort"; $curl; 25 )
```

Set to use TLSv1.2:

```
Set Variable [ $r; MBS( "CURL.SetOptionUseSSL"; $curl; 3 ) ]
Set Variable [ $r; MBS( "CURL.SetOptionSSLVersion"; $curl; 6 ) ]
```

Do FTPS by using FTP and upgrade to TLS:

```
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; "ftp://ftp.christians-software.de/") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUsername"; $curl; "12144-test") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPassword"; $curl; "qr"8km3% Eu\7") ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionConnectionTimeout"; $curl; 10) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSLVersion"; $curl; 1) // want TLS v1.0 or better ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUseSSL"; $curl; 3) // require SSL ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```



62.346. *CURL.SETOPTIONSSLVERSION* 2301

**See also**

- 62.236 *CURL.SetOptionHTTPVersion* 2145
- 62.272 *CURL.SetOptionPort* 2192
- 62.331 *CURL.SetOptionSSLCert* 2273
- 62.332 *CURL.SetOptionSSLCertType* 2277
- 62.336 *CURL.SetOptionSSLEngine* 2283
- 62.339 *CURL.SetOptionSSLKey* 2286
- 62.341 *CURL.SetOptionSSLOptions* 2290
- 62.343 *CURL.SetOptionSSLVerifyHost* 2292
- 62.381 *CURL.SetOptionUsername* 2346
- 62.379 *CURL.SetOptionUseSSL* 2343

**Example Databases**

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/IMAP Email](#)
- [CURL/Email/List IMAP folders](#)

**62.346.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Upload email to Sent folder via IMAP](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Sending emails in FileMaker with MBS Plugin](#)

Created 18th August 2014, last changed 19th April 2020.

**62.347 CURL.SetOptionServiceName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionServiceName"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [SERVICE\\_NAME](#) option in CURL manual.

**See also**

- 62.300 CURL.SetOptionProxyServiceName

2233

Created 15th April 2018, last changed 16th April 2018.

**62.348 CURL.SetOptionSocks5Auth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSocks5Auth"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Bitmask of allowed auth methods for connections to SOCKS 5 proxies.

See also [SOCKS5\\_AUTH](#) option in CURL manual.

**See also**

- 62.215 [CURL.SetOptionFTPSSLAUTH](#) 2117
- 62.231 [CURL.SetOptionHTTPAUTH](#) 2136
- 62.253 [CURL.SetOptionMailAuth](#) 2166
- 62.282 [CURL.SetOptionProxyAuth](#) 2214

Created 15th April 2018, last changed 16th April 2018.

**62.349** `CURL.SetOptionSocks5GSSAPINec`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSocks5GSSAPINec"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The setting.

1

**Result** Returns "OK" on success.

**Description**

Pass a long set to 1 to enable or 0 to disable. As part of the gssapi negotiation a protection mode is negotiated. The rfc1961 says in section 4.3/4.4 it should be protected, but the NEC reference implementation does not. If enabled, this option allows the unprotected exchange of the protection mode negotiation.

See also [SOCKS5\\_GSSAPI\\_NEC](#) option in CURL manual.

**See also**

- 62.350 `CURL.SetOptionSocks5GSSAPIService`

2305

Created 18th August 2014, last changed 18th August 2014.

**62.350 CURL.SetOptionSocks5GSSAPIService**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSocks5GSSAPIService"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The service name.

""

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

The default service name for a SOCKS5 server is rcmd/server-fqdn. This option allows you to change it.

See also [SOCKS5\\_GSSAPI\\_SERVICE](#) option in CURL manual.

**See also**

- 62.349 CURL.SetOptionSocks5GSSAPINec

2304

Created 18th August 2014, last changed 5th July 2015.

**62.351 CURL.SetOptionStreamDepends**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionStreamDepends"; curl; OtherCURL )

**Parameters****curl**

The CURL session handle.

\$curl

**OtherCURL**

The second CURL session handle.

\$curl2

**Result** Returns OK or error.

**Description**

See also [STREAM\\_DEPENDS](#) option in CURL manual.

**See also**

- 62.352 CURL.SetOptionStreamDependsE 2307
- 62.353 CURL.SetOptionStreamWeight 2308

Created 15th April 2018, last changed 16th April 2018.

**62.352 CURL.SetOptionStreamDependsE**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionStreamDependsE"; curl; OtherCURL )

**Parameters****curl**

The CURL session handle.

\$curl

**OtherCURL**

The second CURL session handle.

\$curl2

**Result** Returns OK or error.

**Description**

See also [STREAM\\_DEPENDS\\_E](#) option in CURL manual.

**See also**

- 62.351 CURL.SetOptionStreamDepends 2306
- 62.353 CURL.SetOptionStreamWeight 2308

Created 15th April 2018, last changed 16th April 2018.

## 62.353 `CURL.SetOptionStreamWeight`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionStreamWeight"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

Default is 16.

See also [STREAM\\_WEIGHT](#) option in CURL manual.

### See also

- 62.351 `CURL.SetOptionStreamDepends` 2306
- 62.352 `CURL.SetOptionStreamDependsE` 2307

Created 15th April 2018, last changed 16th April 2018.



**62.354 CURL.SetOptionSuppressConnectHeaders**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionSuppressConnectHeaders"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

Pass 1 to suppress or 0 if not.

See also [SUPPRESS\\_CONNECT\\_HEADERS](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

## 62.355 `CURL.SetOptionTCPFastOpen`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTCPFastOpen"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The option value.

**Result** Returns OK or error.

### Description

See also [TCP\\_FASTOPEN](#) option in CURL manual.

Created 15th April 2018, last changed 16th April 2018.

**62.356 CURL.SetOptionTCPKeepAlive**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTCPKeepAlive"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new setting. 1 = on and 0 = off.

1

**Result** Returns OK or error.

**Description**

If set to 1, TCP keep alive probes will be sent to avoid TCP/IP timeouts. The delay and frequency of these probes can be controlled by the `CURL.SetOptionTCPKeepIdle` and `CURL.SetOptionTCPKeepInterval` options, provided the operating system supports them. Set to 0 (default behavior) to disable keep alive probes. See also [TCP\\_KEEPALIVE](#) option in CURL manual.

**Examples**

Configure keep alive:

```
# Enable TCP keep-alive for this transfer
Set Variable [ $r; Value:MBS( "CURL.SetOptionTCPKeepAlive"; $curl; 1 ) ]
# keep-alive idle time to 120 seconds
Set Variable [ $r; Value:MBS( "CURL.SetOptionTCPKeepIdle"; $curl; 120 ) ]
# interval time between keep-alive probes: 60 seconds
Set Variable [ $r; Value:MBS( "CURL.SetOptionTCPKeepInterval"; $curl; 60 ) ]
```

**See also**

- 62.357 `CURL.SetOptionTCPKeepIdle` 2312
- 62.358 `CURL.SetOptionTCPKeepInterval` 2313

Created 8th July 2015, last changed 11st March 2020.

## 62.357 `CURL.SetOptionTCPKeepIdle`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTCPKeepIdle"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new setting.

120

**Result** Returns OK or error.

### Description

Sets the delay, in seconds, that the operating system will wait while the connection is idle before sending keepalive probes. Not all operating systems support this option.

See also [TCP\\_KEEPIDLE](#) option in CURL manual.

### See also

- 62.356 `CURL.SetOptionTCPKeepAlive` 2311
- 62.358 `CURL.SetOptionTCPKeepInterval` 2313

Created 8th July 2015, last changed 9th July 2015.

**62.358 CURL.SetOptionTCPKeepInterval**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTCPKeepInterval"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new value.

60

**Result** Returns OK or error.

**Description**

Sets the interval, in seconds, that the operating system will wait between sending keepalive probes. Not all operating systems support this option.

See also [TCP\\_KEEPINTVL](#) option in CURL manual.

**See also**

- 62.356 CURL.SetOptionTCPKeepAlive 2311
- 62.357 CURL.SetOptionTCPKeepIdle 2312
- 62.376 CURL.SetOptionUpkeepIntervalMS 2339

Created 8th July 2015, last changed 9th July 2015.

**62.359** **CURL.SetOptionTCPNoDelay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTCPNoDelay"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new setting.

1

**Result** Returns "OK" on success.

**Description**

Pass a number specifying whether the `TCP_NODELAY` option should be set or cleared (1 = set, 0 = clear). The option is cleared by default. This will have no effect after the connection has been established.

Setting this option will disable TCP's Nagle algorithm. The purpose of this algorithm is to try to minimize the number of small packets on the network (where "small packets" means TCP segments less than the Maximum Segment Size (MSS) for the network).

Maximizing the amount of data sent per TCP segment is good because it amortizes the overhead of the send. However, in some cases (most notably telnet or rlogin) small segments may need to be sent without delay. This is less efficient than sending larger amounts of data at a time, and can contribute to congestion on the network if overdone.

See also [TCP\\_NODELAY](#) option in CURL manual.

Created 18th August 2014, last changed 18th August 2014.

**62.360 CURL.SetOptionTFTPBlockSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTFTPBlockSize"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Block size for TFTP

512

**Result** Returns "OK" on success.

**Description**

Valid range as per RFC 2348 is 8-65464 bytes. The default of 512 bytes will be used if this option is not specified. The specified block size will only be used pending support by the remote server. If the server does not return an option acknowledgement or returns an option acknowledgement with no blksize, the default of 512 bytes will be used.

See also [TFTP\\_BLKSIZE](#) option in CURL manual.

**See also**

- 62.361 [CURL.SetOptionTFTPNoOptions](#)

2316

Created 18th August 2014, last changed 18th August 2014.

**62.361 CURL.SetOptionTFTPNoOptions**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTFTPNoOptions"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

See also [TFTP\\_NO\\_OPTIONS](#) option in CURL manual.

**See also**

- 62.88 CURL.GetOptionTelnetOptions 1918
- 62.239 CURL.SetOptionHeaderOptions 2148
- 62.250 CURL.SetOptionLoginOptions 2162
- 62.296 CURL.SetOptionProxySSLOptions 2228
- 62.341 CURL.SetOptionSSLOptions 2290
- 62.366 CURL.SetOptionTelnetOptions 2321
- 62.360 CURL.SetOptionTFTPBlockSize 2315
- 62.367 CURL.SetOptionTimeCondition 2322

Created 15th April 2018, last changed 16th April 2018.



**62.362 CURL.SetOptionTLS13Ciphers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTLS13Ciphers"; curl; Ciphers )

**Parameters****curl**

The CURL session handle.

\$curl

**Ciphers**

The list of ciphers.

**Result** Returns OK or error.

**Description**

The list of cipher suites to use for the TLS 1.3 connection. The list must be syntactically correct, it consists of one or more cipher suite strings separated by colons.

You'll find more details about cipher lists on this URL:

<https://curl.haxx.se/docs/ssl-ciphers.html>

The application does not have to keep the string around after setting this option.

See also [TLS13\\_CIPHERS](#) option in CURL manual.

**See also**

- 62.301 [CURL.SetOptionProxyTLS13Ciphers](#) 2234
- 62.333 [CURL.SetOptionSSLCipherList](#) 2279

**62.362.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 11st July 2018, last changed 11st July 2018.

**62.363 CURL.SetOptionTLSAuthPassword**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTLSAuthPassword"; curl; Password { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Password**

The password.

\$Password

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

**Description**

Please also set OptionTLSAuthType.

See also [TLSAUTH\\_PASSWORD](#) option in CURL manual.

**See also**

- 62.247 CURL.SetOptionKeyPassword 2158
- 62.287 CURL.SetOptionProxyKeyPassword 2219
- 62.288 CURL.SetOptionProxyPassword 2220
- 62.302 CURL.SetOptionProxyTLSAuthPassword 2235
- 62.365 CURL.SetOptionTLSAuthUsername 2320

Created 18th August 2014, last changed 5th July 2015.

**62.364 CURL.SetOptionTLSAuthType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTLSAuthType"; curl; Type { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Type**

the TLS authentication type.

"SRP"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

**Description**

Please also set username and password.

You can set this to "SRP" to use Secure Remote Password authentication.

See also [TLSAUTH\\_TYPE](#) option in CURL manual.

**See also**

- 62.303 [CURL.SetOptionProxyTLSAuthType](#) 2236
- 62.323 [CURL.SetOptionSASLAuthZID](#) 2262
- 62.325 [CURL.SetOptionSSHAAuthTypes](#) 2264
- 62.332 [CURL.SetOptionSSLCertType](#) 2277
- 62.340 [CURL.SetOptionSSLKeyType](#) 2288
- 62.365 [CURL.SetOptionTLSAuthUsername](#) 2320

Created 18th August 2014, last changed 5th July 2015.

## 62.365 `CURL.SetOptionTLSAuthUsername`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTLSAuthUsername"; curl; Username { ; Encoding } )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Username**

The user name.

\$Username

#### **Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

### Description

Please also set `OptionTLSAuthType`.

See also [TLSAUTH\\_USERNAME](#) option in CURL manual.

### See also

- 62.304 `CURL.SetOptionProxyTLSAuthUsername` 2237
- 62.307 `CURL.SetOptionProxyUsername` 2241
- 62.363 `CURL.SetOptionTLSAuthPassword` 2318
- 62.364 `CURL.SetOptionTLSAuthType` 2319

Created 18th August 2014, last changed 5th July 2015.

**62.366 CURL.SetOptionTelnetOptions**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTelnetOptions"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new options.

””

**Result** Returns "OK" on success.

**Description**

Provide a list with variables to pass to the telnet negotiations. The variables should be in the format <option=value>. libcurl supports the options 'TTYTYPE', 'XDISPLOC' and 'NEW\_ENV'. See the TELNET standard for details.

This option takes a list of items. So this function takes a variable number of arguments. If you call function with 2 parameters, you set an empty list. If you call it with 5 parameters, you set a list with 3 values. See also [TELNETOPTIONS](#) option in CURL manual.

**Examples**

Call with three parameters:

MBS( "CURL.SetOptionTelnetOptions"; handle; \$value1; \$value2; \$value3 )

**See also**

- 62.88 [CURL.GetOptionTelnetOptions](#) 1918
- 62.239 [CURL.SetOptionHeaderOptions](#) 2148
- 62.250 [CURL.SetOptionLoginOptions](#) 2162
- 62.296 [CURL.SetOptionProxySSLOptions](#) 2228
- 62.341 [CURL.SetOptionSSLOptions](#) 2290
- 62.361 [CURL.SetOptionTFTPNoOptions](#) 2316

Created 18th August 2014, last changed 18th August 2014.

## 62.367 `CURL.SetOptionTimeCondition`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTimeCondition"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The time condition. Pass 0 for none, 1 for If Modified since, 2 for If not modified since.

2

**Result** Returns "OK" on success.

### Description

Pass a number as parameter. This defines how the `CURL.SetOptionTimeValue` time value is treated. You can set this parameter to `CURL_TIMECOND_IFMODSINCE` (1) or `CURL_TIMECOND_IFUNMODSINCE` (2). This feature applies to HTTP, FTP, RTSP, and FILE.

The last modification time of a file is not always known and in such instances this feature will have no effect even if the given time condition would not have been met. `CURL.GetConditionUnmet` can be used after a transfer to learn if a zero-byte successful "transfer" was due to this condition not matching.

See also [TIMECONDITION](#) option in CURL manual.

### See also

- [62.37 `CURL.GetConditionUnmet`](#) 1858
- [62.361 `CURL.SetOptionTFTPNoOptions`](#) 2316
- [62.369 `CURL.SetOptionTimeValue`](#) 2325

Created 18th August 2014, last changed 18th August 2014.

**62.368 CURL.SetOptionTimeout**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTimeout"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Timeout in seconds.

60

**Result** Returns "OK" on success.

**Description**

Normally, name lookups can take a considerable time and limiting operations to less than a few minutes risk aborting perfectly normal operations. This option will cause curl to use the SIGALRM to enable time-outing system calls.

See also **TIMEOUT** option in CURL manual.

**Examples**

Sets timeout to one minute:

MBS( "CURL.SetOptionTimeout"; \$curl; 60 )

**See also**

- 62.190 CURL.SetOptionConnectionTimeout 2078
- 62.214 CURL.SetOptionFTPResponseTimeout 2116
- 62.228 CURL.SetOptionGet 2132
- 62.231 CURL.SetOptionHTTPAuth 2136
- 62.253 CURL.SetOptionMailAuth 2166
- 62.271 CURL.SetOptionPipeWait 2191
- 62.308 CURL.SetOptionPut 2242
- 62.331 CURL.SetOptionSSLCert 2273
- 62.370 CURL.SetOptionTimeoutMS 2326
- 62.369 CURL.SetOptionTimeValue 2325

**62.368.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Translate PHP script with CURL to FileMaker Script](#)

Created 18th August 2014, last changed 8th December 2016.



**62.369 CURL.SetOptionTimeValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTimeValue"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new time value.

123456789

**Result** Returns "OK" on success.

**Description**

This should be the time in seconds since 1 Jan 1970, and the time will be used in a condition as specified with `CURL.SetOptionTimeCondition`.

See also [TIMEVALUE](#) option in CURL manual.

**See also**

- 62.223 `CURL.SetOptionFileTime` 2126
- 62.240 `CURL.SetOptionIPResolve` 2149
- 62.271 `CURL.SetOptionPipeWait` 2191
- 62.321 `CURL.SetOptionResolve` 2260
- 62.367 `CURL.SetOptionTimeCondition` 2322
- 62.368 `CURL.SetOptionTimeOut` 2323
- 62.370 `CURL.SetOptionTimeoutMS` 2326

Created 18th August 2014, last changed 18th August 2014.

## 62.370 CURL.SetOptionTimeoutMS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTimeoutMS"; curl; Value )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Value

Timeout value in milliseconds.

60000

**Result** Returns "OK" on success.

### Description

Like `CURL.SetOptionTimeout` but takes number of milliseconds instead. If libcurl is built to use the standard system name resolver, that portion of the transfer will still use full-second resolution for timeouts with a minimum timeout allowed of one second.

See also [TIMEOUT\\_MS](#) option in `CURL` manual.

### Examples

Sets timeout to half second:

```
MBS( "CURL.SetOptionTimeOutMS"; $curl; 500 )
```

### See also

- [62.177 CURL.SetOptionAcceptTimeoutMS](#) 2057
- [62.368 CURL.SetOptionTimeOut](#) 2323
- [62.369 CURL.SetOptionTimeValue](#) 2325

Created 18th August 2014, last changed 8th December 2016.

**62.371 CURL.SetOptionTransferEncoding**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTransferEncoding"; curl; Param )

**Parameters****curl**

The CURL session handle.

\$curl

**Param**

The new setting.

1

**Result** Returns OK or error.

**Description**

Pass 1 to enable or 0 to disable.

Adds a request for compressed Transfer Encoding in the outgoing HTTP request. If the server supports this and so desires, it can respond with the HTTP response sent using a compressed Transfer-Encoding that will be automatically uncompressed by libcurl on reception.

Transfer-Encoding differs slightly from the Content-Encoding you ask for with `CURL.SetOptionAcceptEncoding` in that a Transfer-Encoding is strictly meant to be for the transfer and thus **MUST** be decoded before the data arrives in the client. Traditionally, Transfer-Encoding has been much less used and supported by both HTTP clients and HTTP servers.

See also [TRANSFER\\_ENCODING](#) option in CURL manual.

**Examples**

Enable transfer encoding:

MBS( "CURL.SetOptionTransferEncoding"; \$curl; 1 )

**See also**

- 62.176 `CURL.SetOptionAcceptEncoding` 2055
- 62.235 `CURL.SetOptionHTTPTransferDecoding` 2144

Created 8th July 2015, last changed 8th December 2016.

## 62.372 `CURL.SetOptionTransferText`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionTransferText"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to use ASCII mode.

1

**Result** Returns "OK" on success.

### Description

A parameter set to 1 tells the library to use ASCII mode for FTP transfers, instead of the default binary transfer. For win32 systems it does not set the stdout to binary mode. This option can be usable when transferring text data between systems with different views on certain characters, such as newlines or similar.

libcurl does not do a complete ASCII conversion when doing ASCII transfers over FTP. This is a known limitation/ flaw that nobody has rectified. libcurl simply sets the mode to ASCII and performs a standard transfer.

See also [TRANSFERTEXT](#) option in CURL manual.

### Examples

Set transfer mode to binary data:

```
MBS( "CURL.SetOptionTransferText"; $curl; 0 )
```

Set transfer mode to text:

```
MBS( "CURL.SetOptionTransferText"; $curl; 1 )
```

### See also

- 62.143 `CURL.Perform` 1992
- 62.244 `CURL.SetOptionIssuerCert` 2154
- 62.305 `CURL.SetOptionProxyTransferMode` 2238

Created 18th August 2014, last changed 7th December 2016.

**62.373 CURL.SetOptionURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionURL"; curl; URL { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**URL**

The URL you want to use.

"http://www.mbsplugins.de/"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"utf8"

**Result** Returns "OK" on success.

**Description**

If you want to include password and username, please use `CURL.SetOptionUsername` and `CURL.SetOptionPassword` instead of including them in the URL.

The parameter should be a text string which must be URL-encoded in the following format:

scheme://host:port/path

For a greater explanation of the format please see RFC 3986 (<http://curl.haxx.se/rfc/rfc3986.txt>).

If the given URL lacks the scheme, or protocol, part ("http://" or "ftp://" etc), libcurl will attempt to resolve which protocol to use based on the given host name. If the protocol is not supported, libcurl will return (`CURLE_UNSUPPORTED_PROTOCOL`) when you call `CURL.Perform` or `CURL.PerformInBackground`. Use `CURL.Protocols` for detailed information on which protocols are supported.

The host part of the URL contains the address of the server that you want to connect to. This can be the fully qualified domain name of the server, the local network name of the machine on your network or the IP address of the server or machine represented by either an IPv4 or IPv6 address. For example:

<http://www.example.com/>

`http://hostname/`

`http://192.168.0.1/`

`http:// [ 2001:1890:1112:1::20 ] /`

It is also possible to specify the user name and password as part of the host, for some protocols, when connecting to servers that require authentication.

For example the following types of authentication support this:

`http://user:password@www.domain.com ftp://user:password@ftp.domain.com pop3://user:password@mail.domain.com`

The port is optional and when not specified libcurl will use the default port based on the determined or specified protocol: 80 for http, 21 for ftp and 25 for smtp, etc. The following examples show how to specify the port:

`http://www.weirdserver.com:8080/` - This will connect to a web server using port 8080.

`smtp://mail.domain.com:587/` - This will connect to a smtp server on the alternative mail port.

The path part of the URL is protocol specific and whilst some examples are given below this list is not conclusive:

## HTTP

The path part of a HTTP request specifies the file to retrieve and from what directory. If the directory is not specified then the web server's root directory is used. If the file is omitted then the default document will be retrieved for either the directory specified or the root directory. The exact resource returned for each URL is entirely dependent on the server's configuration.

`http://www.netscape.com` - This gets the main page (index.html in this example) from Netscape's web server.

`http://www.netscape.com/index.html` - This returns the main page from Netscape by specifying the page to get.

`http://www.netscape.com/contactus/` - This returns the default document from the contactus directory.

## FTP

The path part of an FTP request specifies the file to retrieve and from what directory. If the file part is omitted then libcurl downloads the directory listing for the directory specified. If the directory is omitted then the directory listing for the root / home directory will be returned.

`ftp://cool.haxx.se` - This retrieves the directory listing for our FTP server.

`ftp://cool.haxx.se/readme.txt` - This downloads the file `readme.txt` from the root directory.

`ftp://cool.haxx.se/libcurl/readme.txt` - This downloads `readme.txt` from the `libcurl` directory.

`ftp://user:password@my.example.com/readme.txt` - This retrieves the `readme.txt` file from the user's home directory. When a username and password is specified, everything that is specified in the path part is relative to the user's home directory. To retrieve files from the root directory or a directory underneath the root directory then the absolute path must be specified by prepending an additional forward slash to the beginning of the path.

`ftp://user:password@my.example.com//readme.txt` - This retrieves the `readme.txt` from the root directory when logging in as a specified user.

## SMTP

The path part of a SMTP request specifies the host name to present during communication with the mail server. If the path is omitted then libcurl will attempt to resolve the local computer's host name. However, this may not return the fully qualified domain name that is required by some mail servers and specifying this path allows you to set an alternative name, such as your machine's fully qualified domain name, which you might have obtained from an external function such as `gethostname` or `getaddrinfo`.

`smtp://mail.domain.com` - This connects to the mail server at `domain.com` and sends your local computer's host name in the HELO / EHLO command.

`smtp://mail.domain.com/client.domain.com` - This will send `client.domain.com` in the HELO / EHLO command to the mail server at `domain.com`.

## POP3

The path part of a POP3 request specifies the mailbox (message) to retrieve. If the mailbox is not specified then a list of waiting messages is returned instead.

pop3://user:password@mail.domain.com - This lists the available messages  
pop3://user:password@mail.domain.com/1 - This retrieves the first message

## SCP

The path part of an SCP request specifies the file to retrieve and from what directory. The file part may not be omitted. The file is taken as an absolute path from the root directory on the server. To specify a path relative to the user's home directory on the server, prepend ~/ to the path portion. If the user name is not embedded in the URL, it can be set with the `CURL.SetOptionUsername` option.

scp://user@example.com/etc/issue - This specifies the file `/etc/issue`

scp://example.com/~my-file - This specifies the file `my-file` in the user's home directory on the server

## SFTP

The path part of an SFTP request specifies the file to retrieve and from what directory. If the file part is omitted then libcurl downloads the directory listing for the directory specified. If the path ends in a / then a directory listing is returned instead of a file. If the path is omitted entirely then the directory listing for the root / home directory will be returned. If the user name is not embedded in the URL, it can be set with the `SetOptionUsername` option.

sftp://user:password@example.com/etc/issue - This specifies the file `/etc/issue`

sftp://user@example.com/~my-file - This specifies the file `my-file` in the user's home directory

sftp://ssh.example.com/~Documents/ - This requests a directory listing of the `Documents` directory under the user's home directory

## NOTES

Starting with version 7.20.0, the fragment part of the URI will not be sent as part of the path, which was previously the case.

`CURLOPT_URL` is the only option that must be set before `CURL.Preform` or `CURL.PerformInBackground` is called.

`CURLOPT_PROTOCOLS` can be used to limit what protocols libcurl will use for this transfer, independent of what libcurl has been compiled to support. That may be useful if you accept the URL from an external source and want to limit the accessibility.



For file uploads or downloads, please include the file name in the URL.

Please do never include username and passwords in URLs, as those get often written to log files and would reveal your credentials!

Instead use `OptionUsername` and `OptionPassword`.

See also [URL](#) option in [CURL manual](#).

### Examples

Set URL for FTP:

```
MBS( "CURL.SetOptionURL"; $curl; "ftp://user:password@my.example.com/readme.txt" )
```

Set URL for a REST API:

```
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "https://example.com/wc-api/v2/products" ) ]
```

Query webservice with JSON request:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://test.test/ws/v1/catalogo/get-modelos" ) ]
# pass JSON for query
Set Variable [ $result; Value:MBS("CURL.SetOptionPostFields"; $curl; " { \"brandId\" : \"1\", \"device\" : \"70\" } "; "UTF-8" ) ]
Set Field [ models::result; MBS("CURL.Perform"; $curl) ]
Set Field [ models::text; MBS("CURL.GetResultAsText"; $curl;"UTF8" ) ]
Set Field [ models::header; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Set URL for a POP3 email download:

```
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "pop3://example.test" ) ]
```

Set URL for a IMAP email download:

```
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "imap://example.test" ) ]
# connect unencrypted and ask for TLS upgrade
Set Variable [ $r; MBS("CURL.SetOptionUseSSL"; $curl; 3) ]
```

Set URL for Gmail imap server:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "imaps://imap.gmail.com/INBOX" ) ]
Set Variable [ $r; Value:MBS("CURL.SetOptionUseSSL"; $curl; 6) ]
Set Variable [ $r; Value:MBS("CURL.SetOptionPort"; $curl; 993) ]
```

Set URL for a IMAP email download via SSL:

```
# connect with SSLv3 directly:
Set Variable [ $r; MBS("CURL.SetOptionURL"; $curl; "imaps://example.test") ]
```

Load email list from gmail:

```
Go to Layout [ "IMAP Postbox" (IMAP Postbox) ; Animation: None ]
# get URL
Set Variable [ $URL ; Value: "imaps://imap.gmail.com/INBOX" ]
# query list of emails
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL"; $curl; $URL) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionUserName"; $curl; IMAP Postbox::Username) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionPassword"; $curl; IMAP Postbox::Password) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionUseSSL"; $curl; 3) // required ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionSSLVersion"; $curl; 6) // TLS v1.2 ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPort"; $curl; 993) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionConnectionTimeout"; $curl; 10) ]
# Set query for all emails by UID. Not all fields are needed. Only request those you need to make it quicker.
Set Variable [ $r ; Value: MBS("CURL.SetOptionCustomRequest"; $curl; "UID FETCH 1:* (FLAGS INTERNALDATE RFC822.SIZE BODY.PEEK [ HEADER.FIELDS (Message-Id DATE FROM SUBJECT TO SENDER REPLY-TO CC BCC) ] )") ]
# Run transfer
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
# We show results for debugging
Set Variable [ $output ; Value: MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $debug ; Value: MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $list ; Value: MBS( "JSON.Colorize";MBS("CURL.GetResultAsEMailList"; $curl)) ]
Set Variable [ $r ; Value: MBS("CURL.Release"; $curl) ]
Set Field [ IMAP Postbox::Log ; $debug ]
Set Field [ IMAP Postbox::JSON ; $list ]
```

Set URL for SFTP upload with file name in the URL:

```
MBS( "CURL.SetOptionURL"; $curl; "sftp://server.com/path/readme.txt" )
```

### See also

- 62.184 `CURL.SetOptionCRLF` 2068
- 62.308 `CURL.SetOptionPut` 2242
- 62.309 `CURL.SetOptionQuote` 2244
- 62.317 `CURL.SetOptionRange` 2254

62.373. <i>CURL.SETOPTIONURL</i>	2335
• 62.324 <i>CURL.SetOptionSASLIR</i>	2263
• 62.379 <i>CURL.SetOptionUseSSL</i>	2343
• 87.225 <i>GImage.Scale</i>	4690
• 102.16 <i>JSON.Colorize</i>	5334
• 102.66 <i>JSON.Parse</i>	5406
• 146.34 <i>SendMail.SetSMTPServer</i>	7039

## Example Databases

- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/FTP/CURL FTP Delete File](#)
- [CURL/FTP/CURL FTP Directory Listing](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/FTP/CURL FTP Upload multiple files](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/Google Maps API/Google Maps API](#)
- [Third Party/Google OAUTH 2 example](#)

### 62.373.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Let CURL handle cookie list](#)
- [Use root certificates included with FileMaker](#)
- [URLs without UserName and Password please](#)
- [Upload email to Sent folder via IMAP](#)
- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)
- [Batch sending Emails in FileMaker via MBS Plugin](#)
- [Using NetVerify web service with FileMaker](#)
- [Tip of the day: FTP File Upload](#)

**62.373.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 20
- Ausgabe 4/2016, Seite 19
- Ausgabe 4/2016, Seite 18

Created 18th August 2014, last changed 6th May 2020.

**62.374 CURL.SetOptionUnixSocketPath**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUnixSocketPath"; curl; Path )

**Parameters****curl**

The CURL session handle.

\$curl

**Path**

Native unix socket path.

**Result** Returns OK or error.

**Description**

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [UNIX\\_SOCKET\\_PATH](#) option in CURL manual.

**See also**

- 124.2 Path.FileMakerPathToNativePath

6247

Created 15th April 2018, last changed 16th April 2018.

## 62.375 `CURL.SetOptionUnrestrictedAuth`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUnrestrictedAuth"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to follow with authentication.

0

**Result** Returns "OK" on success.

### Description

A parameter set to 1 tells the library it can continue to send authentication (user+password) when following locations, even when hostname changed. This option is meaningful only when setting `CURL.SetOptionFollowLocation`.

See also [UNRESTRICTED\\_AUTH](#) option in CURL manual.

### See also

- 62.224 `CURL.SetOptionFollowLocation`

2127

Created 18th August 2014, last changed 28th November 2019.

**62.376 CURL.SetOptionUpkeepIntervalMS**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUpkeepIntervalMS"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new interval.

**Result** Returns OK or error.

**Description**

Some protocols have "connection upkeep" mechanisms. These mechanisms usually send some traffic on existing connections in order to keep them alive; this can prevent connections from being closed due to overzealous firewalls, for example.

The user needs to explicitly call Upkeep in order to perform the upkeep work.

Currently the only protocol with a connection upkeep mechanism is HTTP/2: when the connection upkeep interval is exceeded and Upkeep is called, an HTTP/2 PING frame is sent on the connection. See also [UPKEEP\\_INTERVAL\\_MS](#) option in CURL manual.

**See also**

- 62.358 [CURL.SetOptionTCPKeepInterval](#) 2313
- 62.391 [CURL.Upkeep](#) 2370

**62.376.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr5](#)

Created 31st October 2018, last changed 31st October 2018.

## 62.377 `CURL.SetOptionUpload`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUpload"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

Whether to do an upload.

1

**Result** Returns "OK" on success.

### Description

A parameter set to 1 tells the library to prepare for an upload. With the `CURL.SetInput` functions you can define the upload data. If the protocol is HTTP, uploading means using the PUT request unless you tell curl otherwise.

Using PUT with HTTP 1.1 implies the use of a "Expect: 100-continue" header. You can disable this header with `CURL.SetOptionHTTPHeader` as usual.

If you use PUT to a HTTP 1.1 server, you can upload data without knowing the size before starting the transfer if you use chunked encoding. You enable this by adding a header like "Transfer-Encoding: chunked" with `CURL.SetOptionHTTPHeader`. With HTTP 1.0 or without chunked transfer, you must specify the size.

See also `CURL.SetOptionPost`.

See also **UPLOAD** option in CURL manual.

### Examples

Set CURL session to be upload:

```
MBS( "CURL.SetOptionUpload"; $curl; 1 )
```

### See also

- 62.179 `CURL.SetOptionAppend` 2059
- 62.266 `CURL.SetOptionNoBody` 2182
- 62.272 `CURL.SetOptionPort` 2192



<i>62.377. CURL.SETOPTIONUPLOAD</i>	2341
• 62.273 CURL.SetOptionPost	2194
• 62.281 CURL.SetOptionProxy	2212
• 62.308 CURL.SetOptionPut	2242
• 62.329 CURL.SetOptionSSHPrivateKeyfile	2269
• 62.330 CURL.SetOptionSSHPrivateKeyfile	2271
• 62.378 CURL.SetOptionUploadBufferSize	2342
• 62.379 CURL.SetOptionUseSSL	2343

### **Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL get and put/CURLS get and put](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/FTP/CURL FTP Upload multiple files](#)
- [CURL/SFTP/CURL sFTP Operations](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/Magento2 REST API](#)

### **62.377.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Tip of the day: FTP File Upload](#)

Created 18th August 2014, last changed 24th February 2016.

## 62.378 `CURL.SetOptionUploadBufferSize`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUploadBufferSize"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new buffer size.

**Result** Returns OK or error.

### Description

Pass an integer specifying your preferred size (in bytes) for the upload buffer in libcurl. It makes libcurl use a larger buffer that gets passed to the next layer in the stack to get sent off. In some setups and for some protocols, there's a huge performance benefit of having a larger upload buffer.

This is just treated as a request, not an order. You cannot be guaranteed to actually get the given size.

The upload buffer size is by default 64 kilobytes. The maximum buffer size allowed to be set is 2 megabytes. The minimum buffer size allowed to be set is 16 kilobytes.

Since curl 7.61.1 the upload buffer is allocated on-demand - so if the handle isn't used for upload, this buffer will not be allocated at all.

For slow upload/downloads, it may be better to set buffer size to 1 MB with `CURL.SetOptionUploadBufferSize` or `CURL.SetOptionBufferSize` properties to make transfers faster.

See also [UPLOAD\\_BUFFER\\_SIZE](#) option in CURL manual.

### See also

- 62.181 `CURL.SetOptionBufferSize` 2061
- 62.377 `CURL.SetOptionUpload` 2340

### 62.378.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr5](#)

Created 31st October 2018, last changed 3th October 2019.

**62.379 CURL.SetOptionUseSSL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUseSSL"; curl; Value )

(old name: CURL.SetOptionFTPSSL)

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The new SSL setting.

3

**Result** Returns "OK" on success.

**Description**

Pass a number using one of the values from below, to make libcurl use your desired level of SSL for the FTP transfer.

None	0	Don't attempt to use SSL.
Try	1	Try using SSL, proceed as normal otherwise.
Control	2	Require SSL for the control connection or fail with CURLE_USE_SSL_FAILED.
All	3	Require SSL for all communication or fail with CURLE_USE_SSL_FAILED.

Even as this function has FTP in name, we also use it for email sending. So the email upload starts unencrypted and we use TLS to upgrade to an SSL connection.

See also [USE\\_SSL](#) option in CURL manual.

**Examples**

Set to use SSL:

```
$r = MBS( "CURL.SetOptionUseSSL"; $curl; 3 )
```

Set to use TLSv1.2:

```
Set Variable [ $r; MBS( "CURL.SetOptionUseSSL"; $curl; 3 ) ]
Set Variable [ $r; MBS( "CURL.SetOptionSSLVersion"; $curl; 6 ) ]
```

Set URL for Gmail imap server:

```
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "imaps://imap.gmail.com/INBOX") ]  
Set Variable [ $r; Value:MBS("CURL.SetOptionUseSSL"; $curl; 3) ]
```

### See also

- 62.114 [CURL.GetResultAsEMailList](#) 1949
- 62.203 [CURL.SetOptionDOHURL](#) 2100
- 62.228 [CURL.SetOptionGet](#) 2132
- 62.263 [CURL.SetOptionNetRC](#) 2178
- 62.346 [CURL.SetOptionSSLVersion](#) 2299
- 62.377 [CURL.SetOptionUpload](#) 2340
- 62.373 [CURL.SetOptionURL](#) 2329
- 62.381 [CURL.SetOptionUsername](#) 2346

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/IMAP Email](#)
- [CURL/Email/List IMAP folders](#)

#### 62.379.1 Blog Entries

- [Upload email to Sent folder via IMAP](#)
- [Sending emails in FileMaker with MBS Plugin](#)

Created 18th August 2014, last changed 5th February 2017.

**62.380 CURL.SetOptionUserAgent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUserAgent"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The user agent string.

"Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.0)"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

It will be used for the user agent Header in the http request sent to the remote server. This can be used to fool servers or scripts. You can also set any custom header with `CURL.SetOptionHTTPHeader`.

See also **USERAGENT** option in CURL manual.

**Examples**

Set IE 6 user agent:

```
MBS( "CURL.SetOptionUserAgent"; $curl; "Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.0)" )
```

Set Safari as user agent:

```
MBS( "CURL.SetOptionUserAgent"; $curl; "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_14_6) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/13.0.4 Safari/605.1.15" )
```

**See also**

- 62.233 `CURL.SetOptionHTTPHeader` 2139
- 62.244 `CURL.SetOptionIssuerCert` 2154
- 62.381 `CURL.SetOptionUsername` 2346

Created 18th August 2014, last changed 29th January 2020.

**62.381 CURL.SetOptionUsername**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionUsername"; curl; Value { ; Encoding } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The user name

"cs"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns "OK" on success.

**Description**

In order to specify the password to be used in conjunction with the user name use the CURL.SetOption-Password option.

See also [USERNAME](#) option in CURL manual.

**Examples**

Set login credentials:

```
Set Variable [ $result ; Wert: MBS("CURL.SetOptionUserName"; $curl; Logins::Username) ]
```

```
Set Variable [ $result ; Wert: MBS("CURL.SetOptionPassword"; $curl; Logins::Password) ]
```

**See also**

- 62.243 CURL.SetOptionInterface 2153
- 62.279 CURL.SetOptionPreQuote 2208
- 62.307 CURL.SetOptionProxyUsername 2241
- 62.321 CURL.SetOptionResolve 2260
- 62.329 CURL.SetOptionSSHPrivateKeyfile 2269
- 62.330 CURL.SetOptionSSHPublicKeyfile 2271
- 62.346 CURL.SetOptionSSLVersion 2299

62.381. <i>CURL.SETOPTIONUSERNAME</i>	2347
• 62.373 <i>CURL.SetOptionURL</i>	2329
• 62.379 <i>CURL.SetOptionUseSSL</i>	2343
• 146.35 <i>SendMail.SetSMTPUserName</i>	7041

## Example Databases

- [CURL/Email/IMAP Email Upload](#)
- [CURL/Email/List IMAP folders](#)
- [CURL/FTP/CURL FTP Directory Listing](#)
- [CURL/FTP/CURL FTP Download all Files in Directory](#)
- [CURL/FTP/CURL FTP Download File](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/SFTP/CURL sFTP Upload](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Twilio API Send SMS Json](#)

### 62.381.1 Blog Entries

- [URLs without UserName and Password please](#)
- [Upload email to Sent folder via IMAP](#)
- [Batch sending Emails in FileMaker via MBS Plugin](#)
- [Using NetVerify web service with FileMaker](#)
- [Tip of the day: FTP File Upload](#)
- [Swiss Post Webservice to verify addresses](#)

### 62.381.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 20](#)
- [Ausgabe 4/2016, Seite 19](#)

Created 18th August 2014, last changed 12nd November 2015.

## 62.382 `CURL.SetOptionVerbose`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionVerbose"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

0 to disable or 1 to enable

1

**Result** Returns "OK" on success.

### Description

Set the parameter to 1 to get curl to display a lot of verbose information about its operations.

Very useful protocol debugging and understanding. You can get the debug messages with `CURL.GetDebugAsText`.

Since version 5.2 of our plugin, this is on by default.

See `CURL.SetDebugWithData`, `CURL.SetDebugWithProgress` and `CURL.SetDebugWithTime` to include data/time in the debug log.

See also **VERBOSE** option in CURL manual.

### Examples

Set verbose mode:

```
Set Variable [ $result ; Wert: MBS("CURL.SetOptionVerbose"; $curl; 1) ]
```

Download with debug log with full details:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $result; Value:MBS("CURL.CreateDebugOutputFile"; $curl; "/tmp/curl.log") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://www.monkeybreadsoftware.de/images/mbs.jpg") ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetDebugWithTime"; $curl; 1) ]
```

```
Set Variable [ $result; Value:MBS("CURL.SetDebugWithProgress"; $curl; 1) ]
```

```
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
```

```
Set Field [ CURL Test::Image; MBS("CURL.GetResultAsJPEG"; $curl) ]
```

```
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
```

```
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```



62.382. *CURL.SETOPTIONVERBOSE* 2349

**See also**

- 62.193 *CURL.SetOptionCookieJar* 2085
- 62.243 *CURL.SetOptionInterface* 2153
- 62.267 *CURL.SetOptionNoProxy* 2184
- 62.268 *CURL.SetOptionPassword* 2186
- 62.278 *CURL.SetOptionPreProxy* 2207
- 62.309 *CURL.SetOptionQuote* 2244
- 62.319 *CURL.SetOptionReferer* 2258
- 62.321 *CURL.SetOptionResolve* 2260
- 62.373 *CURL.SetOptionURL* 2329
- 62.381 *CURL.SetOptionUsername* 2346

**Example Databases**

- [CURL/CURL Check FileMaker Server](#)
- [CURL/CURL Download on Server](#)
- [CURL/CURL Send Form](#)
- [CURL/FTP/CURL FTP Directory Listing](#)
- [CURL/FTP/CURL FTP Upload File](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/FTP/CURL FTP Upload](#)
- [CURL/WebServices/AdobeSign WebService](#)
- [CURL/WebServices/Magento2 REST API](#)
- [CURL/WebServices/Twitter OAuth](#)

**62.382.1 Blog Entries**

- [Upload email to Sent folder via IMAP](#)
- [Using NetVerify web service with FileMaker](#)
- [Using CURL with Rosette web service](#)
- [Translate PHP script with CURL to FileMaker Script](#)

Created 18th August 2014, last changed 19th April 2020.

## 62.383 `CURL.SetOptionWildcardMatch`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionWildcardMatch"; curl; Value )

### Parameters

#### **curl**

The CURL session handle.

\$curl

#### **Value**

The new setting. Can be 1 (on) or 0 (off).

1

**Result** Returns OK or error.

### Description

Set parameter to 1 if you want to transfer multiple files according to a file name pattern. The pattern can be specified as part of the `OptionURL` option, using an `fnmatch`-like pattern (Shell Pattern Matching) in the last part of URL (file name).

By default, `libcurl` uses its internal wildcard matching implementation.

A brief introduction of its syntax follows:

- - ASTERISK

`ftp://example.com/some/path/*.txt` (for all `txt`'s from the root directory)

? - QUESTION MARK

Question mark matches any (exactly one) character.

`ftp://example.com/some/path/photo?.jpeg`

[ - BRACKET EXPRESSION

The left bracket opens a bracket expression. The question mark and asterisk have no special meaning in a bracket expression. Each bracket expression ends by the right bracket and matches exactly one character.

Some examples follow:

```
[ a-zA-Z0-9 ] or [ f-gF-G ] - character interval
[ abc ] - character enumeration
[ ^abc ] or [ !abc ] - negation
[ [ :name: ] ] class expression. Supported classes are alnum,lower, space, alpha, digit, print, upper, blank, graph, xdigit.
[ ] [ -!^ ] - special case - matches only '-', ' ', ' ', '!', or '^'. These characters have no special purpose.
[ \[ \] \\ ] - escape syntax. Matches ' ', ' ' or ' '.
```

Using the rules above, a file name pattern can be constructed:

```
ftp://example.com/some/path/ [ a-z [ :upper: ] \\ ] .jpeg
```

This feature is only supported for FTP download.  
See also **WILDCARDMATCH** option in **CURL** manual.

### Examples

Enable wildcard match:

```
MBS( "CURL.SetOptionWildCardMatch"; $curl; 1 )
```

Download several files via FTP:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL with wildcard match
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
# Set folder where to put files
Set Variable [ $result; Value:MBS("CURL.SetBatchDestinationPath"; $curl; CURL Test::DestPath) ]
# credentials...
Set Variable [ $result; Value:MBS("CURL.SetOptionPassword"; $curl; CURL Test::Password) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionUsername"; $curl; CURL Test::Name) ]
# enable wildcard match
Set Variable [ $result; Value:MBS("CURL.SetOptionWildCardMatch"; $curl; 1) ]
# download them all
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# check results
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ CURL Test::FileNames; MBS("CURL.GetBatchFileNames"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

### See also

- 62.19 **CURL.FileInfos**

- 62.35 `CURL.GetBatchFileNames` 1855
- 62.43 `CURL.GetDebugAsText` 1866
- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011
- 62.155 `CURL.SetBatchDestinationPath` 2020
- 62.268 `CURL.SetOptionPassword` 2186
- 62.373 `CURL.SetOptionURL` 2329
- 62.381 `CURL.SetOptionUsername` 2346

### Example Databases

- [CURL/FTP/CURL FTP Directory Listing](#)
- [CURL/FTP/CURL FTP Download all Files in Directory](#)

Created 8th July 2015, last changed 19th April 2020.

**62.384 CURL.SetOptionXOAuth2Bearer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetOptionXOAuth2Bearer"; curl; Value )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

The option value.

**Result** Returns OK or error.

**Description**

For open authentication used with web services.

No Bearer prefix please.

Use e.g. with google mail.

See also [XOAUTH2\\_BEARER](#) option in CURL manual.

**Examples**

Setup OAuth for SMTP with user name, bearer and no password:

```
Set Variable [ $r ; Value: MBS("SendMail.SetSMTPUsername"; $EmailID; "test@gmail.com") ]
```

```
Set Variable [ $r ; Value: MBS("SendMail.SetSMTPPassword"; $EmailID; "" // empty ) ]
```

```
# ...
```

```
Set Variable [ $r ; Value: MBS("CURL.SetOptionXOAuth2Bearer"; $curl; "dXNlcj1zb21...") ]
```

**See also**

- [62.180 CURL.SetOptionAutoReferer](#) 2060
- [146.33 SendMail.SetSMTPPassword](#) 7037
- [146.35 SendMail.SetSMTPUserName](#) 7041

**Example Databases**

- [CURL/WebServices/ebay webservice/ebay Webservice](#)

Created 15th April 2018, last changed 23th April 2020.

## 62.385 CURL.SetProgressEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetProgressEvaluate"; curl; Expression )

### Parameters

#### curl

The CURL session handle.

\$curl

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the curl reference, so you can pass it to other functions if needed.

### See also

- 62.94 CURL.GetProgressEvaluate 1924
- 62.95 CURL.GetProgressFileName 1925

### 62.385.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)
- [Evaluate vs. Script Trigger](#)

Created 4th March 2016, last changed 4th April 2018.

**62.386 CURL.SetProgressScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	No	No	Yes

MBS( "CURL.SetProgressScript"; curl; Filename; ScriptName )

**Parameters****curl**

The CURL session handle.

\$curl

**Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

This script is called for asynchronous transfers when percent value changed.

So you can update progress user interface.

Does not work on server due to missing capability to trigger scripts in the plugin SDK with FileMaker Server.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**Examples**

Start a curl session and setup a few scripts:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetFinishedScript"; $curl; Get(FileName); "DownloadFinished") ]
```

```
Set Variable [ $r; Value:MBS("CURL.SetProgressScript"; $curl; Get(FileName); "ProgressScript") ]
```

**See also**

- 62.96 *CURL.GetProgressPercent* 1926
- 62.97 *CURL.GetProgressScriptName* 1927
- 62.140 *CURL.New* 1985
- 62.144 *CURL.PerformAsync* 2001

- 62.160 `CURL.SetFinishedScript`

### **Example Databases**

- [CURL/CURL Download in Background](#)
- [CURL/CURL Download with Progress](#)
- [CURL/Download Async](#)

Created 12nd July 2015, last changed 22nd December 2016.



**62.387 CURL.SetTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetTag"; curl { ; Value } )

**Parameters****curl**

The CURL session handle.

\$curl

**Value**

Optional

The new tag value.

Get(RecordID)

**Result** Returns OK or error.

**Description**

The tag value allows you to store any value related to the CURL transfer here like a RecordID in FileMaker.

In the finished script, you can then use the CURL handle passed as parameter to query your tag value.

See also *CURL.SetFinishedScript* and *CURL.PerformAsync*.

**Examples**

Sets tag to be record ID:

```
Set Variable [ $r; Value:MBS("CURL.SetTag"; $curl; Get(RecordID)) ]
```

Test tag:

```
Set Variable [ $curl; Value:MBS( "CURL.New" ) ]
```

```
# Set Tag to some value
```

```
Set Variable [ $r; Value:MBS( "CURL.SetTag"; $curl; "Hello World" ) ]
```

```
# Later read back the value
```

```
Set Variable [ $tag; Value:MBS( "CURL.GetTag"; $curl ) ]
```

**See also**

- 62.131 *CURL.GetTag* 1976
- 62.140 *CURL.New* 1985
- 62.143 *CURL.Perform* 1992
- 62.144 *CURL.PerformAsync* 2001
- 62.160 *CURL.SetFinishedScript* 2030

**Example Databases**

- [CURL/Download Async](#)
- [CURL/Email/Batch Emailer](#)

Created 12nd July 2015, last changed 12nd March 2020.

**62.388 CURL.SetUpdateProgressDialog**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetUpdateProgressDialog"; curl; value )

**Parameters****curl**

The CURL session handle.

\$curl

**value**

0 to disable updates or 1 to enable updates

1

**Result** Returns "OK" on success.

**Description**

You can setup a progress dialog with our ProgressDialog functions. If you enable updates, the plugin will automatically update the progress bar with percentage of upload or download done.

Does not work with CURL.PerformInBackground.

**Examples**

Enable updates

```
MBS( "CURL.SetUpdateProgressDialog"; $curl; 1 )
```

Use progress dialog with upload or download:

```
# setup progress dialog
Set Variable [ $result; Value:MBS("ProgressDialog.SetCancel"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetProgress"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetTopText"; "Sending email...") ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetShowButton"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.Show") ]
# Tell plugin to move bar for us automatically.
Set Variable [ $result; Value:MBS("CURL.SetUpdateProgressDialog"; $curl; 1) ]
# Run the transfer
Set Variable [ $r; Value:MBS("CURL.Perform"; $curl) ]
# hide progress dialog
Set Variable [ $result; Value:MBS("ProgressDialog.Hide") ]
```

**See also**

- 62.143 CURL.Perform 1992
- 62.144 CURL.PerformAsync 2001

- 62.145 CURL.PerformInBackground 2003
- 64.47 Dialog.SetTop 2431
- 133.14 ProgressDialog.Hide 6618
- 133.18 ProgressDialog.SetCancel 6625
- 133.25 ProgressDialog.SetProgress 6635
- 133.26 ProgressDialog.SetShowButton 6637
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Download in Background](#)
- [CURL/CURL Download with Progress](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

### 62.388.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr7](#)

Created 18th August 2014, last changed 11st April 2017.

**62.389 CURL.SetupAWS**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetupAWS"; curl; AWSAccessKeyId; AWSSecretAccessKey; Region; Service; Path; Domain; Verb { ; HashedPayload; Headers; QueryParameters } )

**Parameters****curl**

The CURL session handle.

\$curl

**AWSAccessKeyId**

Your access key for AWS.

**AWSSecretAccessKey**

Your secret.

**Region**

The region to use.

"eu-central-1"

**Service**

The service to use.

"s3"

**Path**

The path for the URL. Should always start with "/".

"/bucketname/test.jpg"

**Domain**

Optional the domain to use. By default we just build it from region and service.

"s3.eu-central-1.amazonaws.com" or "s3-ap-southeast-2.amazonaws.com"

**Verb**

The HTTP Operation to do. Can be POST, PUT, GET or DELETE.

"PUT"

**HashedPayload**

Optional

The hashed payload. If empty, we calculate it automatically from input data or postfields. This is a lowercase hex SHA256.

**Headers**

Optional

Extra HTTP headers to include. Here you can specify various headers to include in signature and request.

"x-amz-acl: public-read"

**QueryParameters**

Optional

Available in MBS FileMaker Plugin 8.4 or newer.

List of query parameters to include. Keys and values must be URL encoded.

"id=123&test=abc"

**Result** Returns OK or error.

### Description

This implements AWS4-HMAC-SHA256 signature for credentials, sets authentication, URL, HTTP Headers and other parameters.

For upload or post, please set input parameters first.

When using `CURL.OpenInputFile` to stream data, you need to calculate the payload hash yourself and pass it here as parameter.

### Examples

Download via S3:

```
Set Variable [ $AWSAccessKeyId; Value:"xxx" ]
Set Variable [ $AWSSecretAccessKey; Value:"yyy" ]
Set Variable [ $Region; Value:"eu-central-1" ]
Set Variable [ $Bucketname; Value:"zzz" ]
Set Variable [ $Filename; Value:"test.jpg" ]
Set Variable [ $Verb; Value:"GET" ]
Set Variable [ $Service; Value:"s3" ]
# Keep those empty for default
Set Variable [ $Domain; Value:"" ]
Set Variable [ $HashedPayload; Value:"" ]
# Build a path
Set Variable [ $Path; Value:"/" & $BucketName & "/" & $Filename ]
#
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $result; Value:MBS("CURL.SetupAWS"; $curl; $AWSAccessKeyId; $AWSSecretAccessKey;
$Region; $Service; $Path; $Domain; $Verb) ]
Set Variable [ $result; Value:MBS("CURL.SetDebugWithData"; $curl; 1) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::Image; MBS("CURL.GetResultAsJPEG"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

Upload to S3:

```
Set Variable [ $AWSAccessKeyId; Value:"xxx" ]
Set Variable [ $AWSSecretAccessKey; Value:"xxx" ]
Set Variable [ $Region; Value:"us-east-1" ]
Set Variable [ $Bucketname; Value:"xxx" ]
Set Variable [ $Filename; Value:"test.jpg" ]
Set Variable [ $Service; Value:"s3" ]
# do upload
```

```

Set Variable [ $Verb; Value:"PUT" ]
# make file available to public
Set Variable [ $Headers; Value: "Content-Type: image/jpeg&x-amz-acl: public-read" ]
# Keep those empty for default
Set Variable [ $Domain; Value:"" ]
Set Variable [ $HashedPayload; Value:"" ]
# Build a path
Set Variable [ $Path; Value:"/" & $BucketName & "/" & $Filename ]
#
Set Variable [ $curl; Value:MBS("CURL.New") ]
# pass in container
Set Variable [ $result; Value:MBS("CURL.SetInputFile"; $curl; CURL Test::Image) ]
#
Set Variable [ $result; Value:MBS("CURL.SetupAWS"; $curl; $AWSAccessKeyId; $AWSSecretAccessKey;
$Region; $Service; $Path; $Domain; $Verb; ""; $Headers) ]
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ CURL Test::resultText; MBS("CURL.GetResultAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]

```

Upload PDF from container:

```

Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetInputPDF"; $curl; Documents::PDFContainer) ]
Set Variable [ $result ; Value: MBS("CURL.SetupAWS"; $curl; $AWSAccessKeyId; $AWSSecretAccessKey;
$Region; $Service; $Path; $Domain; $Verb; ""; $headers) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

Upload file from disk and calculate hash ourselves:

```

# Build a path to file (local) and in AWS
Set Variable [ $Filename ; Value: "test.pdf" ]
Set Variable [ $Path ; Value: "/" & $BucketName & "/PDF/" & $Filename ]
Set Variable [ $localPath ; Value: "/Users/cs/Desktop/license.pdf" ]
# calculate hash for file to upload
Set Variable [ $HashedPayload ; Value: Lower(MBS( "Hash.Digest"; "sha256"; "path"; $localPath; ""; "hex"
)) ]
# upload
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# file content is streamed
Set Variable [ $result ; Value: MBS("CURL.OpenInputFile"; $curl; $localPath) ]
# setup AWS
Set Variable [ $result ; Value: MBS("CURL.SetupAWS"; $curl; $AWSAccessKeyId; $AWSSecretAccessKey;
$Region; $Service; $Path; $Domain; $Verb; $HashedPayload; $headers) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]

```

```
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

**See also**

- [62.43 CURL.GetDebugAsText](#) 1866
- [62.117 CURL.GetResultAsJPEG](#) 1955
- [62.140 CURL.New](#) 1985
- [62.142 CURL.OpenInputFile](#) 1989
- [62.143 CURL.Perform](#) 1992
- [62.149 CURL.Release](#) 2011
- [62.156 CURL.SetDebugWithData](#) 2022
- [62.161 CURL.SetInputFile](#) 2032
- [62.164 CURL.SetInputPDF](#) 2039
- [88.2 Hash.Digest](#) 4851

**Example Databases**

- [CURL/Amazon S3 Buckets](#)
- [CURL/Amazon S3 Download Picture](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/Amazon S3 Upload Picture](#)

**62.389.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr3](#)
- [MBS FileMaker Plugin, version 8.0pr7](#)
- [Amazon S3 Upload with Mime Type and Permissions](#)
- [MBS FileMaker Plugin 7.2](#)

Created 22nd March 2017, last changed 19th April 2020.



**62.390 CURL.SetupOAuth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.SetupOAuth"; curl; ConsumerKey; ConsumerSecret; AccessToken; AccessTokenSecret; HTTPVerb; URL { ; Parameters; Headers; Datas; Nonce; Timestamp; HMAC; Verifier } )

**Parameters****curl**

The CURL session handle.

\$curl

**ConsumerKey**

The oauth consumer key.

"xvz1evFS4wEEPTGEGPHBog"

**ConsumerSecret**

The oauth consumer secret.

"kAcSOqF21Fu85e7zjz7ZN2U4ZRhfV3WpwPAoE3Z7kBw"

**AccessToken**

The oauth access token. Can be empty if not yet known.

"370773112-GmHxMAGYyLbNEtIKZeRNFsMKPR9EyMZeS9weJAEb"

**AccessTokenSecret**

The oauth access token secret. Can be empty if not yet known.

"LswwdoUaIvS8ltyTt5jkrh4J50vUPVVHtR2YPI5kE"

**HTTPVerb**

The HTTP verb. e.g. POST, PUT, GET, DELETE. Default if empty is GET.

"POST"

**URL**

The URL to query without parameters.

"https://api.twitter.com/1.1/statuses/update.json"

**Parameters**

Optional

List of parameters. Can be empty. Please pass list with newline as delimiter. values should be URL encoded already.

"include\_entities=true"

**Headers**

Optional

List of additional header entries to include. Can be empty. We automatically set Authorization header.

"Accept: application/json\$Content-Type: application/json"

**Datas**

Optional

Data value list for POST.

```
"status=Hello&others=123"
```

**Nonce**

Optional

The nonce value. If empty, we generate it automatically for you.

```
"kYjzVBB8Y0ZFabxSWbWovY3uYSQ2pTgmZeNu2VS4cg"
```

**Timestamp**

Optional

The timestamp to use for signature. If empty, we query current timestamp (same as you calling Time.UnixTimeStamp)

```
1318622958
```

**HMAC**

Optional

Which HMAC algorithm to use. Can be HMAC-SHA512, HMAC-SHA256 or HMAC-SHA1. Default is HMAC-SHA1 if parameter is missing or empty.

```
"HMAC-SHA1"
```

**Verifier**

Optional

The verifier. Usually an ID shown on a website after login to the service and authorization of an app.

```
"3456789"
```

**Result** Returns OK or error.

**Description**

The plugin calculates the signature and adds headers for authorization to the CURL handle.

Sets URL with parameters and optionally data values for POST.

**Examples**

Setup OAuth query for Twitter:

```
# global settings (Sample entries from Twitter documentation)
# https://developer.twitter.com/en/docs/basics/authentication/guides/creating-a-signature.html
#
Set Variable [ $ConsumerKey ; Value: "xvz1evFS4wEEPTGEFPHBog" ]
Set Variable [ $ConsumerSecret ; Value: "kAcSOqF21Fu85e7zjz7ZN2U4ZRhfV3WpwPAoE3Z7kBw" ]
Set Variable [ $AccessToken ; Value: "370773112-GmHxMAGyYlBNEtIKZeRNfSfMKPR9EyMZes9weJAEb" ]
]
Set Variable [ $AccessTokenSecret ; Value: "LswwdoUaIvS8ltyTt5jkrh4J50vUPVVHtR2YPi5kE" ]
Set Variable [ $nonce ; Value: "kYjzVBB8Y0ZFabxSWbWovY3uYSQ2pTgmZeNu2VS4cg" ]
Set Variable [ $TimeStamp ; Value: "1318622958" ]
#
Set Variable [ $URL ; Value: "https://api.twitter.com/1.1/statuses/update.json" ]
Set Variable [ $Method ; Value: "POST" ]
#
Set Variable [ $Parameters ; Value: "include_entities=true" ]
Set Variable [ $Headers ; Value: "" ]
Set Variable [ $Data ; Value: "status=Hello% 20Ladies% 20% 2B% 20Gentlemen% 2C% 20a% 20signed%" ]
```

```

200Auth% 20request% 21" ]
#
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetupOAuth"; $curl; $ConsumerKey; $ConsumerSecret; $Access-Token; $AccessTokenSecret; $Method; $URL; $Parameters; $Headers; $Data; $Nonce; $Timestamp) ]
# Perform...
#
# signature must be hCtSmYh+iHYCEqBWrE7C7hYmtUk=
#
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

Query magento web service:

```

# globale einstellungen für Zugang
Set Variable [ $ConsumerKey ; Value: "xxx" ]
Set Variable [ $ConsumerSecret ; Value: "xxx" ]
Set Variable [ $AccessToken ; Value: "xxx" ]
Set Variable [ $AccessTokenSecret ; Value: "xxx" ]
#
# Für diesen Request GET mit der Customers URL
Set Variable [ $URL ; Value: "http://xxxx/index.php/rest/V1/customers/" & $customerID ]
Set Variable [ $Method ; Value: "GET" ]
# Optional parameters for filters
Set Variable [ $Parameters ; Value: "abc=hello&test=world" ]
#
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetupOAuth"; $curl; $ConsumerKey; $ConsumerSecret; $Access-Token; $AccessTokenSecret; $Method; $URL; $Parameters; "") ]
# RUN now
Set Field [ CURL::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL::HTTP Response ; MBS("CURL.GetResponseCode"; $curl) ]
Set Field [ CURL::Customer Info ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

Update customers in magento:

```

Set Variable [ $ConsumerKey ; Value: "xxx" ]
Set Variable [ $ConsumerSecret ; Value: "xxx" ]
Set Variable [ $AccessToken ; Value: "xxx" ]
Set Variable [ $AccessTokenSecret ; Value: "xxx" ]
#
# PUT to this URL

```

```

Set Variable [ $URL ; Value: "http://m2.castinfo.im-labor.de/index.php/rest/V1/customers/" & CURL::customerID ]
Set Variable [ $Method ; Value: "PUT" ]
Set Variable [ $Content ; Value: MBS( "JSON.AddItemToObject"; " { } "; "customer"; CURL::CustomerInfo) ]
Set Variable [ $Parameters ; Value: "" ]
Set Variable [ $Headers ; Value: "Accept: application/json$Content-Type: application/json" ]
#
#
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $result ; Value: MBS("CURL.SetupOAuth"; $curl; $ConsumerKey; $ConsumerSecret; $AccessToken; $AccessTokenSecret; $Method; $URL; $Parameters; $Headers) ]
Set Variable [ $result ; Value: MBS("CURL.SetDebugWithData"; $curl; 1) ]
Set Variable [ $result ; Value: MBS("CURL.SetOptionPostFields"; $curl; $Content; "UTF8") ]
# RUN now
Set Field [ CURL::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL::HTTP Response ; MBS("CURL.GetResponseCode"; $curl) ]
Set Field [ CURL::Customer Info ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]

```

**See also**

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.111 [CURL.GetResponseCode](#) 1942
- 62.121 [CURL.GetResultAsText](#) 1963
- 62.140 [CURL.New](#) 1985
- 62.143 [CURL.Perform](#) 1992
- 62.156 [CURL.SetDebugWithData](#) 2022
- 62.273 [CURL.SetOptionPost](#) 2194
- 62.275 [CURL.SetOptionPostFields](#) 2199
- 102.8 [JSON.AddItemToObject](#) 5317
- 178.14 [Time.UnixTimeStamp](#) 8373

**Example Databases**

- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Twitter OAuth](#)

### **62.390.1 Blog Entries**

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [MBS FileMaker Plugin, version 8.3pr6](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [CURL function for OAuth](#)

### **62.390.2 FileMaker Magazin**

- [Ausgabe 4/2018, Seite 38](#)

Created 24th May 2018, last changed 30th April 2020.

## 62.391 CURL.Upkeep

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Upkeep"; curl )

### Parameters

#### curl

The CURL session handle.

\$curl

**Result** Returns OK or error.

### Description

Some protocols have "connection upkeep" mechanisms. These mechanisms usually send some traffic on existing connections in order to keep them alive; this can prevent connections from being closed due to overzealous firewalls, for example.

Currently the only protocol with a connection upkeep mechanism is HTTP/2: when the connection upkeep interval is exceeded and CURL.Upkeep is called, an HTTP/2 PING frame is sent on the connection.

This function must be explicitly called in order to perform the upkeep work. The connection upkeep interval is set with CURL.SetOptionUpkeepIntervalMS.

### See also

- 62.376 CURL.SetOptionUpkeepIntervalMS 2339

### 62.391.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr5](#)

Created 31st October 2018, last changed 31st October 2018.

**62.392 CURL.UseSystemCertificates**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	7.2	Yes	Yes	Yes	No	No

MBS( "CURL.UseSystemCertificates"; curl )

**Parameters****curl**

The CURL session handle.

\$curl

**Result** Returns number or error.

**Description**

For macOS and Windows we load the available certificates from keychain or Windows Certificate Store and pass them to CURL. This is better than having no certificates at all.

Even better is normally to provide a cacert.pem file with only the expected certificates.

Returns number of certificates loaded.

**Examples**

Enable system certificates:

```
Set Variable [ $result; Value:MBS("CURL.UseSystemCertificates"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyPeer"; $curl; 1) ]
Set Variable [ $result; Value:MBS("CURL.SetOptionSSLVerifyHost"; $curl; 2 ) ]
```

Do download with TLS and system certificates:

```
# Start new session
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result ; Value: MBS("CURL.SetOptionURL"; $curl; CURL Test::URL) ]
# Use system certificate store for TLS
Set Variable [ $result ; Value: MBS( "CURL.UseSystemCertificates"; $curl ) ]
# RUN now
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ CURL Test::Text ; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
# Cleanup
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.121 [CURL.GetResultAsText](#) 1963

- 62.140 `CURL.New` 1985
- 62.143 `CURL.Perform` 1992
- 62.149 `CURL.Release` 2011
- 62.343 `CURL.SetOptionSSLVerifyHost` 2292
- 62.344 `CURL.SetOptionSSLVerifyPeer` 2295
- 62.373 `CURL.SetOptionURL` 2329

### **62.392.1 Blog Entries**

- [Using system SSL Certificates in CURL](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 19th March 2017, last changed 19th April 2020.



**62.393 CURL.Version**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
62 CURL	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "CURL.Version" )

**Result** CURL's version string.

**Description****Examples**

Show version in dialog:

Show Custom Dialog [ MBS( "CURL.Version" ) ]

**See also**

- 62.139 CURL.LoadLibrary

1984

**Example Databases**

- [CURL/CURL Version and Protocols](#)

Created 18th August 2014, last changed 16th December 2015.



# Chapter 63

## Debugger

Control the debugger window on macOS.

### 63.1 Debugger.BringToFront

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	7.4	Yes	No	No	No	No

MBS( "Debugger.BringToFront" )

**Result** Returns OK or error.

**Description**

Created 14th August 2017, last changed 14th August 2017.

## 63.2 Debugger.CurrentLineNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	8.5	Yes	No	No	No	No

MBS( "Debugger.CurrentLineNumber" )

**Result** Returns number or error.

### Description

This is the line number showing the hash mark and may not be the current line.

If FileMaker does not update the debugger window while running several steps, the line returned is usually the last one it stopped.

Result is -1 if not known. First row is number 1.

### 63.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 25th October 2018, last changed 25th October 2018.

## 63.3 Debugger.GetCallStack

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	7.4	Yes	No	No	No	No

MBS( "Debugger.GetCallStack" )

**Result** Returns list or error.

### Description

Usually first entry is current script followed by callers.

Created 14th August 2017, last changed 15th August 2017.

## 63.4 Debugger.IsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	7.4	Yes	No	No	No	No

MBS( "Debugger.IsVisible" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible or 0 if not.

### Example Databases

- [CURL/Amazon S3 Upload File](#)

Created 14th August 2017, last changed 14th August 2017.

## 63.5 Debugger.Title

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	7.4	Yes	No	No	No	No

MBS( "Debugger.Title" )

**Result** Returns text or error.

### Description

Created 14th August 2017, last changed 14th August 2017.

## 63.6 Debugger.Window

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
63 Debugger	7.4	Yes	No	No	No	No

MBS( "Debugger.Window" )

**Result** Returns window reference number or error.

### Description

Allows to use other commands like Window.Hide.

### See also

- 185.41 Window.Hide

8717

Created 14th August 2017, last changed 14th August 2017.



# Chapter 64

## Dialog

Shows a message dialog with icon and customized buttons.

### 64.1 Dialog.AddField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.4	Yes	No	No	No	No

MBS( "Dialog.AddField"; Label { ; Text; Placeholder; Password; TextViewHeight } )

#### Parameters

##### Label

The label text for the field.

"First Name:"

##### Text

Optional

The text for the field. This is initial text.

""

##### Placeholder

Optional

The placeholder text shown when no text is in the field. (not for text view)

"Put your name here"

##### Password

Optional

Pass 1 to hide text with • or 0 for normal text field.

0

##### TextViewHeight

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

Pass number of points in height for a textView. If value is >20, we will use a text view instead of a text field.

50

**Result** Returns index or error.

### Description

Please use Dialog.GetFieldText later to query text for field.

Returns the index of the field.

Maximum we allow 10 fields.

### Examples

Adds two fields:

```
Set Variable [ $r; Value:MBS("Dialog.AddField"; "Username: "; "" ; "username here") ]
```

```
Set Variable [ $r; Value:MBS("Dialog.AddField"; "Password: "; "" ; "password here"; 1) ]
```

### See also

- [64.9 Dialog.GetFieldText](#) 2390
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

## 64.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [Add a search and replace command for FileMaker Script Workspace](#)
- [MBS FileMaker Plugin, version 8.1pr5](#)
- [MBS FileMaker Plugin, version 6.4pr8](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 13th September 2016, last changed 13th December 2019.

## 64.2 Dialog.ClearFields

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.4	Yes	No	No	No	No

MBS( "Dialog.ClearFields" )

**Result** Returns OK or error.

**Description**

**See also**

- [162.1 SyntaxColoring.AddContextMenuCommand](#)

7679

### 64.2.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 13th September 2016, last changed 13th September 2016.

## 64.3 Dialog.CloseSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.CloseSheet" )

**Result** Returns OK or error.

### Description

This will not call the script for the sheet notification.  
Created 18th August 2014, last changed 26th March 2016.

## 64.4 Dialog.GetAlternateButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetAlternateButton" )

**Result** Returns text or error.

**Description**

**See also**

- 64.30 Dialog.SetAlternateButton

2412

Created 18th August 2014, last changed 26th March 2016.

## 64.5 Dialog.GetButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.1	Yes	Yes	No	No	No

MBS( "Dialog.GetButton"; Index )

### Parameters

#### Index

The index of the button. From 1 to 10.

4

**Result** Returns text or error.

### Description

#### See also

- [64.7 Dialog.GetButtons](#) 2388
- [64.10 Dialog.GetIcon](#) 2391
- [64.28 Dialog.Run](#) 2409
- [64.29 Dialog.RunSheet](#) 2411
- [64.31 Dialog.SetButton](#) 2413
- [64.32 Dialog.SetButtons](#) 2415

### 64.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 14th February 2017.

## 64.6 Dialog.GetButtonPressed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.2	Yes	Yes	No	No	No

MBS( "Dialog.GetButtonPressed" )

**Result** Returns number or error.

### Description

Value is negative If not applicable.

Index is 0 for first button.

### See also

- [64.28 Dialog.Run](#) 2409
- [64.29 Dialog.RunSheet](#) 2411
- [64.31 Dialog.SetButton](#) 2413

### 64.6.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)

Created 6th April 2017, last changed 6th April 2017.

## 64.7 Dialog.GetButtons

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetButtons" )

**Result** Returns buttons or error.

### Description

Possible combinations are: OK, OKCancel, RetryCancel, YesNo, YesNoCancel, AbortRetryIgnore or CancelTryContinue.

### See also

- 64.5 Dialog.GetButton 2386
- 64.31 Dialog.SetButton 2413
- 64.32 Dialog.SetButtons 2415

Created 18th August 2014, last changed 26th March 2016.



## 64.8 Dialog.GetDefaultButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetDefaultButton" )

**Result** Returns text or error.

**Description**

**See also**

- 64.33 Dialog.SetDefaultButton

2416

Created 18th August 2014, last changed 26th March 2016.

## 64.9 Dialog.GetFieldText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.4	Yes	No	No	No	No

MBS( "Dialog.GetFieldText"; FieldIndex )

### Parameters

#### FieldIndex

The index of the field. Range from 0 to 9.

0

**Result** Returns field text or error.

### Description

### Examples

Query text of first field:

```
MBS("Dialog.GetFieldText"; 0)
```

### See also

- [64.1 Dialog.AddField](#) 2381
- [64.34 Dialog.SetFieldText](#) 2417
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### 64.9.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 13th September 2016, last changed 13th September 2016.

## 64.10 Dialog.GetIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetIcon" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG. Ignored on Windows: Always returns PNG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

The default image is the application icon (NSApplicationIcon application property).

### See also

- 64.5 Dialog.GetButton 2386
- 64.13 Dialog.GetLeft 2394
- 64.15 Dialog.GetMode 2396
- 64.25 Dialog.GetTop 2406
- 64.35 Dialog.SetIcon 2418

Created 18th August 2014, last changed 26th March 2016.

## 64.11 Dialog.GetInformativeText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetInformativeText" )

**Result** Returns text.

**Description**

**See also**

- 64.36 Dialog.SetInformativeText 2419

Created 18th August 2014, last changed 26th March 2016.

## 64.12 Dialog.GetLastResult

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	Yes	No	No	No

MBS( "Dialog.GetLastResult" )

**Result** Returns name of button pressed.

### Description

This is useful for sheets to query the status in a script later.

If a timeout occurred, the result is "Timeout".

### See also

- 64.29 Dialog.RunSheet

2411

Created 18th August 2014, last changed 26th March 2016.

## 64.13 Dialog.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.3	Yes	Yes	No	No	No

MBS( "Dialog.GetLeft" )

**Result** Returns value or error.

### Description

Returns -1 if not defined.

### See also

- 64.10 Dialog.GetIcon 2391
- 64.15 Dialog.GetMode 2396
- 64.37 Dialog.SetLeft 2420
- 185.22 Window.GetLeft 8698

### 64.13.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 64.14 Dialog.GetMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetMessage" )

**Result** Returns message text.

### Description

### See also

- 64.38 Dialog.SetMessage 2421
- 78.16 FileDialog.GetMessage 3778
- 78.37 FileDialog.SetMessage 3811

Created 18th August 2014, last changed 18th August 2014.

## 64.15 Dialog.GetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetMode" )

**Result** Returns the mode or the error.

### Description

### See also

- 64.10 Dialog.GetIcon 2391
- 64.13 Dialog.GetLeft 2394
- 64.25 Dialog.GetTop 2406
- 64.39 Dialog.SetMode 2422

Created 18th August 2014, last changed 18th August 2014.



## 64.16 Dialog.GetOtherButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetOtherButton" )

**Result** Returns title or error.

### Description

### See also

- 64.40 Dialog.SetOtherButton

2423

Created 18th August 2014, last changed 26th March 2016.

## 64.17 Dialog.GetSheetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.2	Yes	No	No	No	No

MBS( "Dialog.GetSheetEvaluate" )

**Result** Returns OK or error.

### Description

If you use sheet functions you can setup an evaluation, so the plugin can evaluates this expression when sheet is done.

### See also

- [64.18 Dialog.GetSheetFileName](#) 2399
- [64.41 Dialog.SetSheetEvaluate](#) 2424

### 64.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

## 64.18 Dialog.GetSheetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.GetSheetFileName" )

**Result** Returns file name.

### Description

If you use sheet functions you can setup a file name and script name, so the plugin can call this script when sheet is done.

### See also

- 64.17 Dialog.GetSheetEvaluate 2398
- 64.20 Dialog.GetSheetScriptName 2401
- 64.42 Dialog.SetSheetFileName 2425
- 64.43 Dialog.SetSheetScriptName 2426

Created 18th August 2014, last changed 18th August 2014.

## 64.19 Dialog.GetSheetRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.GetSheetRunning" )

**Result** Returns status or error.

### Description

You can run a loop with script pauses if you want your script to wait. You exit your loop when this function returns not a 1.

Created 18th August 2014, last changed 18th August 2014.

## 64.20 Dialog.GetSheetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.GetSheetScriptName" )

**Result** Returns script name.

### Description

If you use sheet functions you can setup a file name and script name, so the plugin can call this script when sheet is done.

### See also

- 64.18 Dialog.GetSheetFileName 2399
- 64.42 Dialog.SetSheetFileName 2425
- 64.43 Dialog.SetSheetScriptName 2426

Created 18th August 2014, last changed 18th August 2014.

## 64.21 Dialog.GetShowsSuppressionButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetShowsSuppressionButton" )

**Result** Returns 0, 1 or error.

### Description

Value is 1 when the alert shows a suppression button, 0 otherwise. The default is 0.

### See also

- 64.44 Dialog.SetShowsSuppressionButton

2427

Created 18th August 2014, last changed 26th March 2016.

## 64.22 Dialog.GetSuppressionButtonTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetSuppressionButtonTitle" )

**Result** Returns text or error.

**Description**

**See also**

- 64.45 Dialog.SetSuppressionButtonTitle

2428

Created 18th August 2014, last changed 26th March 2016.

## 64.23 Dialog.GetSuppressionState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetSuppressionState" )

**Result** Returns 0, 1 or error.

### Description

So first call Dialog.SetShowsSuppressionButton to set flag to 1. Than you use Dialog.Run to show the dialog and finally after the dialog is done, you can use this function to query result and see if checkbox was set by user.

### See also

- 64.28 Dialog.Run 2409
- 64.44 Dialog.SetShowsSuppressionButton 2427

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 26th March 2016.



## 64.24 Dialog.GetTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	5.2	Yes	Yes	No	No	No

MBS( "Dialog.GetTimeout" )

**Result** Returns OK or error.

**Description**

**See also**

- 64.46 Dialog.SetTimeout

2429

Created 11st June 2015, last changed 26th March 2016.

## 64.25 Dialog.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.3	Yes	Yes	No	No	No

MBS( "Dialog.GetTop" )

**Result** Returns value or error.

### Description

Returns -1 if not defined.

### See also

- [64.10 Dialog.GetIcon](#) 2391
- [64.15 Dialog.GetMode](#) 2396
- [64.47 Dialog.SetTop](#) 2431

### 64.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 64.26 Dialog.GetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.GetWindowTitle" )

**Result** Returns title text.

### Description

### See also

- 64.48 Dialog.SetWindowTitle 2433
- 78.26 FileDialog.GetWindowTitle 3790
- 78.46 FileDialog.SetWindowTitle 3822
- 106.21 ListDialog.GetWindowTitle 5668
- 106.42 ListDialog.SetWindowTitle 5689

Created 18th August 2014, last changed 18th March 2017.

## 64.27 Dialog.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.Reset" )

**Result** Returns OK.

### Description

### See also

- [64.37 Dialog.SetLeft](#) 2420
- [64.46 Dialog.SetTimeout](#) 2429
- [64.47 Dialog.SetTop](#) 2431
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.28 FileDialog.Reset](#) 3794
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [81.37 FM.SetSQLBatchMode](#) 4220
- [93.91 ImageCapture.SetParameter](#) 5094
- [133.14 ProgressDialog.Hide](#) 6618
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

### 64.27.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)
- [Add a search and replace command for FileMaker Script Workspace](#)

Created 18th August 2014, last changed 18th August 2014.

## 64.28 Dialog.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.Run" )

**Result** Returns OK or error.

### Description

Returns which button was pressed.

On Windows may return Abort, Cancel, Continue, Ignore, No, OK, Retry, Try Again or Yes.

On Mac returns text of the buttons clicked.

Version 6.2 adds new capabilities for Windows including custom buttons, timeout, suppression checkbox and icon.

### Examples

Show dialog with 7 buttons:

```
Set Variable [ $r; Value: MBS("Dialog.Reset") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 0; "Send All Copies to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 1; "Send All Copies to the Informant") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 2; "No Copies are required") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 3; "Reorder copies and send them to Informant") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 4; "Reorder copies and send them to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 5; "Reorder and send to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 6; "Town Hall Form Only") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 7; "Cancel") ]
Set Variable [ $r; Value: MBS("Dialog.SetMessage"; "Hello World" ) ]
Set Variable [ $r; Value: MBS("Dialog.SetWindowTitle"; "test" ) ]
Set Variable [ $r; Value: MBS("Dialog.Run" ) ]
Set Variable [ $button; Value: MBS("Dialog.GetButtonPressed" ) ]
```

### See also

- 64.5 Dialog.GetButton 2386
- 64.6 Dialog.GetButtonPressed 2387
- 64.23 Dialog.GetSuppressionState 2404
- 64.31 Dialog.SetButton 2413
- 64.41 Dialog.SetSheetEvaluate 2424
- 64.42 Dialog.SetSheetFileName 2425
- 64.43 Dialog.SetSheetScriptName 2426

- 64.46 Dialog.SetTimeout 2429
- 64.48 Dialog.SetWindowTitle 2433
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

### 64.28.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)
- [MBS FileMaker Plugin, version 9.2pr3](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS Filemaker Plugin, version 4.3pr9](#)

Created 18th August 2014, last changed 26th October 2017.

## 64.29 Dialog.RunSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.RunSheet"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns Ok or error.

### Description

Please pass reference to a window to use as parent window.

The script will be triggered later and you can query the button clicked with Dialog.GetButtonPressed or Dialog.GetLastResult. The button clicked is also passed as parameter to the script. Use Dialog.SetSheetFileName and Dialog.SetSheetScriptName to define which script to run.

### See also

- 64.5 Dialog.GetButton 2386
- 64.6 Dialog.GetButtonPressed 2387
- 64.12 Dialog.GetLastResult 2393
- 64.41 Dialog.SetSheetEvaluate 2424
- 64.42 Dialog.SetSheetFileName 2425
- 64.43 Dialog.SetSheetScriptName 2426
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 25th November 2019.

## 64.30 Dialog.SetAlternateButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetAlternateButton"; text )

### Parameters

#### text

The new text.  
"Don't Save"

**Result** Returns OK.

### Description

#### See also

- [64.4 Dialog.GetAlternateButton](#) 2385
- [64.31 Dialog.SetButton](#) 2413
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

### 64.30.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)

Created 18th August 2014, last changed 26th March 2016.



## 64.31 Dialog.SetButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.1	Yes	Yes	No	No	No

MBS( "Dialog.SetButton"; Index; Text )

### Parameters

#### Index

The index of the button. From 1 to 10.

4

#### Text

The new button label.

**Result** Returns OK or error.

### Description

Index 1 is default button, 2 alternate button, 3 other button and 4 to 10 are even more buttons.

### Examples

Set six buttons:

```
Set Variable [ $r; Value:MBS("Dialog.SetDefaultButton"; "1") ]
Set Variable [ $r; Value:MBS("Dialog.SetAlternateButton"; "2") ]
Set Variable [ $r; Value:MBS("Dialog.SetOtherButton"; "3") ]
Set Variable [ $r; Value:MBS("Dialog.SetButton"; 4; "4") ]
Set Variable [ $r; Value:MBS("Dialog.SetButton"; 5; "5") ]
Set Variable [ $r; Value:MBS("Dialog.SetButton"; 6; "6") ]
```

Show dialog with 7 buttons:

```
Set Variable [ $r; Value: MBS("Dialog.Reset") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 0; "Send All Copies to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 1; "Send All Copies to the Informant") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 2; "No Copies are required") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 3; "Reorder copies and send them to Informant") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 4; "Reorder copies and send them to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 5; "Reorder and send to US") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 6; "Town Hall Form Only") ]
Set Variable [ $r; Value: MBS("Dialog.SetButton"; 7; "Cancel") ]
Set Variable [ $r; Value: MBS( "Dialog.SetMessage"; "Hello World" ) ]
Set Variable [ $r; Value: MBS( "Dialog.SetWindowTitle"; "test" ) ]
Set Variable [ $r; Value: MBS( "Dialog.Run" ) ]
Set Variable [ $button; Value: MBS( "Dialog.GetButtonPressed" ) ]
```

**See also**

- 64.5 Dialog.GetButton 2386
- 64.33 Dialog.SetDefaultButton 2416
- 64.35 Dialog.SetIcon 2418
- 64.38 Dialog.SetMessage 2421
- 64.40 Dialog.SetOtherButton 2423
- 64.48 Dialog.SetWindowTitle 2433
- 93.86 ImageCapture.RequestScan 5086
- 102.57 JSON.Import 5395
- 133.17 ProgressDialog.SetButtonCaption 6623
- 194.13 XML.Import 9428

### 64.31.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 26th October 2017.

## 64.32 Dialog.SetButtons

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetButtons"; buttons )

### Parameters

#### buttons

Which buttons to show.

"OK"

**Result** Returns OK or error.

### Description

On Windows only a fixed list of combinations are allowed.

Possible combinations are: OK, OKCancel, RetryCancel, YesNo, YesNoCancel, AbortRetryIgnore or CancelTryContinue.

### See also

- [64.5 Dialog.GetButton](#) 2386
- [64.7 Dialog.GetButtons](#) 2388
- [64.31 Dialog.SetButton](#) 2413

### Example Databases

- [Dialog](#)

### 64.32.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 64.33 Dialog.SetDefaultButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetDefaultButton"; text { ; NoDefault } )

### Parameters

#### text

The new default button text.

"OK"

#### NoDefault

Optional

Whether to not have a default button. Pass 1 to have no default button, so return key will not close dialog.

Default value here is 0 for allowing enter. (Mac only)

0

**Result** Returns OK or error.

### Description

When an empty string, a default localized button title ("OK" in English) is used.

### See also

- [64.8 Dialog.GetDefaultButton](#) 2389
- [64.31 Dialog.SetButton](#) 2413
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

### 64.33.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)

Created 18th August 2014, last changed 27th October 2017.

## 64.34 Dialog.SetFieldText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.4	Yes	No	No	No	No

MBS( "Dialog.SetFieldText"; FieldIndex; Text )

### Parameters

#### FieldIndex

The index of the field. Range from 0 to 9.

0

#### Text

The text for the field.

"Hello"

**Result** Returns OK or error.

### Description

#### See also

- [64.9 Dialog.GetFieldText](#)

2390

### 64.34.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 13th September 2016, last changed 13th September 2016.

## 64.35 Dialog.SetIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetIcon"; Image )

### Parameters

#### Image

The container with image to use as dialog icon. Should be a PNG with transparency.

**Result** Returns OK or error.

### Description

By default, the image is the application icon, accessed through the application bundle's `NSApplicationIcon` property.

So for FileMaker Pro, the icon is the FileMaker icon.

### See also

- [64.10 Dialog.GetIcon](#) 2391
- [64.31 Dialog.SetButton](#) 2413
- [64.37 Dialog.SetLeft](#) 2420
- [64.39 Dialog.SetMode](#) 2422
- [64.46 Dialog.SetTimeout](#) 2429
- [64.47 Dialog.SetTop](#) 2431

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 26th March 2016.

## 64.36 Dialog.SetInformativeText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetInformativeText"; text )

### Parameters

#### text

The new informative text.

"Hello World"

**Result** Returns OK or error.

### Description

This text shows below the message text set with Dialog.SetMessage.

### See also

- [64.11 Dialog.GetInformativeText](#) 2392
- [64.38 Dialog.SetMessage](#) 2421
- [64.46 Dialog.SetTimeout](#) 2429
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Dialog](#)

#### 64.36.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)

Created 18th August 2014, last changed 14th November 2019.

## 64.37 Dialog.SetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.3	Yes	Yes	No	No	No

MBS( "Dialog.SetLeft"; Value )

### Parameters

#### Value

The new horizontal position.

100

**Result** Returns OK or error.

### Description

Value -1 means not defined.

This is reset by Dialog.Reset function.

You should not need this as dialog is automatically positioned in front of FileMaker window.

### Examples

Set to 100 points:

MBS( "Dialog.SetLeft"; 100 )

### See also

- [64.13 Dialog.GetLeft](#) 2394
- [64.27 Dialog.Reset](#) 2408
- [64.35 Dialog.SetIcon](#) 2418
- [64.39 Dialog.SetMode](#) 2422

### 64.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)

Created 12nd June 2017, last changed 12nd June 2017.



## 64.38 Dialog.SetMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetMessage"; text )

### Parameters

#### text

The new message text.

"Hello World"

**Result** Returns OK.

### Description

Use Dialog.SetInformativeText to show some text in smaller font size below for information.

### See also

- [64.14 Dialog.GetMessage](#) 2395
- [64.28 Dialog.Run](#) 2409
- [64.36 Dialog.SetInformativeText](#) 2419
- [78.16 FileDialog.GetMessage](#) 3778
- [78.19 FileDialog.GetPath](#) 3781
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.37 FileDialog.SetMessage](#) 3811
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

### 64.38.1 Blog Entries

- [Add a search and replace command for FileMaker Script Workspace](#)

Created 18th August 2014, last changed 14th November 2019.

## 64.39 Dialog.SetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetMode"; Mode )

### Parameters

#### Mode

The new mode.

"Warning"

**Result** Returns OK or error.

### Description

Indicates the severity level of the alert.

Allowed modes on Mac: Warning, Information, Critical, Error.

Allowed modes on Windows: Question, Hand, Stop, Error, Information, Warning or Exclamation.

So the cross platform options are Information, Error and Warning.

New in 7.1 for Mac: Note and Stop.

### See also

- [64.15 Dialog.GetMode](#) 2396
- [64.35 Dialog.SetIcon](#) 2418
- [64.37 Dialog.SetLeft](#) 2420
- [64.46 Dialog.SetTimeout](#) 2429
- [64.47 Dialog.SetTop](#) 2431

### Example Databases

- [Dialog](#)
- [Utility functions/Idle](#)

#### 64.39.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 18th August 2014, last changed 8th March 2017.

## 64.40 Dialog.SetOtherButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetOtherButton"; text { ; NoCancel } )

### Parameters

#### text

The title for the other button.

"Cancel"

#### NoCancel

Optional

Whether to not allow a cancel button. Pass 1 to have no cancel button, so esc key will not close dialog. Default value here is 0 for allowing cancel. (Windows only)

0

**Result** Returns OK or error.

### Description

#### See also

- [64.16 Dialog.GetOtherButton](#) 2397
- [64.31 Dialog.SetButton](#) 2413
- [106.32 ListDialog.SetOtherButtonEvaluate](#) 5679
- [106.33 ListDialog.SetOtherButtonLabel](#) 5680

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 6th April 2016.

## 64.41 Dialog.SetSheetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	6.2	Yes	No	No	No	No

MBS( "Dialog.SetSheetEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

If you run a sheet, this expression is evaluated when the sheet is done.

Only used for Dialog.RunSheet.

### See also

- 64.17 Dialog.GetSheetEvaluate 2398
- 64.28 Dialog.Run 2409
- 64.29 Dialog.RunSheet 2411
- 64.42 Dialog.SetSheetFileName 2425

### 64.41.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 25th November 2019.

## 64.42 Dialog.SetSheetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.SetSheetFileName"; filename )

### Parameters

#### filename

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

### Description

If you run a sheet, this file name is used to locate the script to call when the sheet is done.

Only used for Dialog.RunSheet.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Sets notification script:

```
MBS( "Dialog.SetSheetFileName"; "test.fmp12" )
MBS( "Dialog.SetSheetScriptName"; "SheetDoneScript" )
```

### See also

- 64.18 Dialog.GetSheetFileName 2399
- 64.20 Dialog.GetSheetScriptName 2401
- 64.28 Dialog.Run 2409
- 64.29 Dialog.RunSheet 2411
- 64.41 Dialog.SetSheetEvaluate 2424
- 64.43 Dialog.SetSheetScriptName 2426

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 25th November 2019.

## 64.43 Dialog.SetSheetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.2	Yes	No	No	No	No

MBS( "Dialog.SetSheetScriptName"; ScriptName )

### Parameters

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

If you run a sheet, this script name is used to locate the script to call when the sheet is done.

Only used for Dialog.RunSheet.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Sets notification script:

```
MBS( "Dialog.SetSheetFileName"; "test.fmp12" )
MBS( "Dialog.SetSheetScriptName"; "SheetDoneScript" )
```

### See also

- 64.18 Dialog.GetSheetFileName 2399
- 64.20 Dialog.GetSheetScriptName 2401
- 64.28 Dialog.Run 2409
- 64.29 Dialog.RunSheet 2411
- 64.42 Dialog.SetSheetFileName 2425

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 25th November 2019.

## 64.44 Dialog.SetShowsSuppressionButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetShowsSuppressionButton"; Value )

### Parameters

#### Value

When 1 the alert includes the suppression checkbox, else 0.

**Result** Returns OK or error.

### Description

#### See also

- [64.21 Dialog.GetShowsSuppressionButton](#) 2402
- [64.23 Dialog.GetSuppressionState](#) 2404

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 26th March 2016.

## 64.45 Dialog.SetSuppressionButtonTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetSuppressionButtonTitle"; text )

### Parameters

#### text

The new button label.

"Never show this message again."

**Result** Returns OK or error.

### Description

This allows you to show a checkbox. It doesn't need to be a suppression checkbox, you can use it for other questions to user.

### See also

- [64.22 Dialog.GetSuppressionButtonTitle](#) 2403

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 27th March 2016.



## 64.46 Dialog.SetTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	5.2	Yes	Yes	No	No	No

MBS( "Dialog.SetTimeout"; Value )

### Parameters

#### Value

The new timeout value in seconds.

30

**Result** Returns OK or error.

### Description

If a timeout is set the plugin will run a timer to close the window after a given time period.

The result of the dialog will be "Abort" and your scripts can continue.

### Examples

Run a dialog with timeout:

```
Set Variable [ $r; Value:MBS("Dialog.Reset") ]
Set Variable [ $r; Value:MBS("Dialog.SetIcon"; Dialog::Icon) ]
Set Variable [ $r; Value:MBS("Dialog.SetInformativeText"; Dialog::InformativeText) ]
Set Variable [ $r; Value:MBS("Dialog.SetMessage"; Dialog::Message) ]
Set Variable [ $r; Value:MBS("Dialog.SetMode"; "Warning") ]
Set Variable [ $r; Value:MBS("Dialog.SetWindowTitle"; Dialog::WindowTitle) ]
Set Variable [ $r; Value:MBS("Dialog.SetTimeout"; 20) ]
Set Variable [ $result; Value:MBS("Dialog.Run") ]
Set Field [ Dialog::Result; $result ]
```

### See also

- 64.24 Dialog.GetTimeout 2405
- 64.27 Dialog.Reset 2408
- 64.28 Dialog.Run 2409
- 64.35 Dialog.SetIcon 2418
- 64.36 Dialog.SetInformativeText 2419
- 64.38 Dialog.SetMessage 2421
- 64.39 Dialog.SetMode 2422
- 64.48 Dialog.SetWindowTitle 2433

### Example Databases

- [Utility functions/Idle](#)

### 64.46.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr3](#)

Created 11st June 2015, last changed 26th March 2016.

## 64.47 Dialog.SetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	7.3	Yes	Yes	No	No	No

MBS( "Dialog.SetTop"; Value )

### Parameters

#### Value

The new vertical position.

100

**Result** Returns OK or error.

### Description

Value -1 means not defined.

This is reset by Dialog.Reset function.

You should not need this as dialog is automatically positioned in front of FileMaker window.

### Examples

Set to 100 points:

MBS( "Dialog.SetTop"; 100 )

### See also

- 62.388 CURL.SetUpdateProgressDialog 2359
- 64.25 Dialog.GetTop 2406
- 64.35 Dialog.SetIcon 2418
- 64.39 Dialog.SetMode 2422
- 81.3 FM.CompareTables 4127
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 102.57 JSON.Import 5395
- 133.29 ProgressDialog.SetTopMost 6643
- 133.31 ProgressDialog.Show 6647

### 64.47.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)

Created 12nd June 2017, last changed 12nd June 2017.

## 64.48 Dialog.SetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
64 Dialog	4.1	Yes	Yes	No	No	No

MBS( "Dialog.SetWindowTitle"; Title )

### Parameters

#### Title

The new window title.

"Hello"

**Result** Returns OK or error.

### Description

Only Windows operation system uses the window title property.

### See also

- 64.26 Dialog.GetWindowTitle 2407
- 64.28 Dialog.Run 2409
- 64.31 Dialog.SetButton 2413
- 78.27 FileDialog.OpenFileDialog 3791
- 78.29 FileDialog.SaveFileDialog 3796
- 78.30 FileDialog.SelectFolderDialog 3798
- 78.31 FileDialog.SelectItemDialog 3801
- 78.46 FileDialog.SetWindowTitle 3822
- 106.21 ListDialog.GetWindowTitle 5668
- 106.42 ListDialog.SetWindowTitle 5689

### Example Databases

- [Dialog](#)

Created 18th August 2014, last changed 18th March 2017.



# Chapter 65

## DialogModifications

Modifications for built in FileMaker dialogs.

### 65.1 DialogModifications.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
65 DialogModifications	4.3	Yes	No	No	No	No

```
MBS( "DialogModifications.Clear" )
```

**Result** Returns OK.

#### Description

#### Examples

Install with setup and clear:

```
MBS( "DialogModifications.Install" )  
MBS( "DialogModifications.Clear" )  
MBS( "DialogModifications.Set"; "Import", "Import of Contacts" )  
# do something here which shows dialog  
MBS( "DialogModifications.Clear" )
```

#### See also

- [65.2 DialogModifications.Install](#) 2436
- [65.3 DialogModifications.Set](#) 2437

Created 18th August 2014, last changed 18th August 2014.

## 65.2 DialogModifications.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
65 DialogModifications	4.3	Yes	No	No	No	No

MBS( "DialogModifications.Install" )

**Result** Returns OK or error.

### Description

Those functions are to rename text in a FileMaker dialogs. So before you run an operation which shows one of the built in dialogs, you can install, clear and set the items to replace. After the dialog finished you should call DialogModifications.Clear function. This makes sure you don't replace text when you don't expect this. See also DialogModifications.Uninstall.

### Examples

Install with setup:

MBS( "DialogModifications.Install" )

MBS( "DialogModifications.Clear" )

MBS( "DialogModifications.Set"; "Import", "Import of Contacts" )

### See also

- 65.1 DialogModifications.Clear 2435
- 65.3 DialogModifications.Set 2437
- 65.4 DialogModifications.Uninstall 2438

Created 18th August 2014, last changed 18th August 2014.



## 65.3 DialogModifications.Set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
65 DialogModifications	4.3	Yes	No	No	No	No

MBS( "DialogModifications.Set"; Key; Value )

### Parameters

#### Key

The item to look for. Text must match exactly.

"Sichern"

#### Value

The new text to use.

"Daten sichern"

**Result** Returns OK.

### Description

See also DialogModifications.Clear.

Be aware that match is exactly byte per byte, so different variants of quotes like " and " or " can make a big difference.

Also you may need to provide several variants of text to cover all variants in different FileMaker localizations or versions.

### Examples

Replaces a text:

MBS("DialogModifications.Set"; "Wollen Sie den GESAMTEN Datensatz löschen?"; "Wollen Sie den Kontakt löschen?")

### See also

- 65.1 DialogModifications.Clear 2435
- 65.2 DialogModifications.Install 2436

### 65.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 18th August 2014, last changed 10th September 2014.

## 65.4 DialogModifications.Uninstall

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
65 DialogModifications	4.3	Yes	No	No	No	No

MBS( "DialogModifications.Uninstall" )

**Result** Returns OK.

### Description

You should call this when you no longer need the replacements.  
See also DialogModifications.Install.

### See also

- 65.2 DialogModifications.Install

2436

Created 18th August 2014, last changed 18th August 2014.

# Chapter 66

## Dictionary

Key/Value map to store values. An associative array preserving data types.

### 66.1 Dictionary.AddSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.AddSQL"; DictionaryRef; SQL Statement; FileName { ; Params } )

#### Parameters

##### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

##### SQL Statement

SQL Statement as a Text string

##### FileName

The target database name. Can be empty to not limit query to one database.  
""

##### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns number of items added or error.

#### Description

From the result set, the first field is used as key and second field if exists as value.

Returns error in case of SQL error with error message.

You don't need to use ORDER BY in SQL as the order in a dictionary is defined by storage which for you means unordered.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Test function:

```
# create dictionary
$dic = MBS("Dictionary.Create")
# add keys and values via SQL
MBS("Dictionary.AddSQL"; $dic; "SELECT TextField, NumberField FROM \"Test Table\"")
# query keys
$keys = MBS("Dictionary.Keys"; $dic)
# and values
$values = MBS("Dictionary.ValueForKey"; $dic; "Hello")
# free
MBS("Dictionary.Release"; $dic )
```

Add zip codes for three countries from 3 databases to dictionary:

```
MBS( "Dictionary.AddSQL"; $dic; "SELECT ('DE' + \"_5_stellige_PLZ\"),Ort FROM \"PLZ Deutschland Konvertiert\" "; "PLZ Deutschland" ) +
MBS( "Dictionary.AddSQL"; $dic; "SELECT ('AT' + \"_4_stellige_PLZ\"),Ort FROM \"PLZ Österreich Konvertiert\" "; "PLZ Österreich" ) +
MBS( "Dictionary.AddSQL"; $dic; "SELECT ('CH' + \"_4_stellige_PLZ\"),Ort FROM \"PLZ Schweiz Konvertiert\" "; "PLZ Schweiz" )
```

### See also

- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 66.7 Dictionary.Create 2449
- 66.12 Dictionary.Keys 2457
- 66.14 Dictionary.Release 2459
- 102.1 Dictionary.ToJSON 5303
- 66.24 Dictionary.ValueForKey 2475

#### 66.1.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 12nd March 2015, last changed 13th February 2017.

## 66.2 Dictionary.AddSQLRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.AddSQLRecord"; DictionaryRef; Keys; SQL Statement; FileName { ; Params } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Keys

The list of keys for the dictionary. Could be the same as the field list.

"FirstName\$LastName\$Company"

#### SQL Statement

SQL Statement as a Text string

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

From the result set, the first record is used for values and given key list for the keys.

Returns error in case of SQL error with error message.

As we only use first record, you can use FETCH FIRST 1 ROWS ONLY in the SQL command to only query first record.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Query record and get JSON:

```
Set Variable [ $dic ; Value: MBS("Dictionary.Create") ]
Set Variable [ $r ; Value: MBS( "Dictionary.AddSQLRecord"; $dic; "Vorname$Nachname$Firma"; "SE-
LECT Vorname, Nachname, Firma FROM Kontakte"; "Kontakte" ) ]
Set Variable [ $json ; Value: MBS( "Dictionary.ToJSON"; $dic ) ]
Set Variable [ $r ; Value: MBS( "Dictionary.Release"; $dic ) ]
```

66.2. *DICTIONARY.ADDSQLRECORD* 2443

**See also**

- 66.1 Dictionary.AddSQL 2439
- 81.2 Dictionary.AddSQLRecords 4125
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 102.1 Dictionary.ToJSON 5303

### **66.2.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr8](#)

Created 21st September 2017, last changed 20th February 2018.

## 66.3 Dictionary.AddSQLRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.AddSQLRecords"; DictionaryRef; Keys; SQL Statement; FileName { ; Params } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

#### Keys

The list of keys for the dictionary. Could be the same as the field list.  
"FirstName\$LastName\$Company"

#### SQL Statement

SQL Statement as a Text string

#### FileName

The target database name. Can be empty to not limit query to one database.  
""

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

From the result set, the records are used for values and given key list for the keys.  
If you have multiple records, you get all values collected per field in a list.  
Returns error in case of SQL error with error message.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Query record and get JSON:

```
Set Variable [ $dic ; Value: MBS("Dictionary.Create") ]
Set Variable [ $r ; Value: MBS( "Dictionary.AddSQLRecords"; $dic; "Vorname$Nachname$Firma"; "SELECT Vorname, Nachname, Firma FROM Kontakte"; "Kontakte" ) ]
Set Variable [ $json ; Value: MBS( "Dictionary.ToJSON"; $dic ) ]
Set Variable [ $r ; Value: MBS( "Dictionary.Release"; $dic ) ]
```

### See also



<i>66.3. DICTIONARY.ADDSQLRECORDS</i>	2445
• 66.1 Dictionary.AddSQL	2439
• 81.1 Dictionary.AddSQLRecord	4123
• 66.7 Dictionary.Create	2449
• 66.14 Dictionary.Release	2459
• 102.1 Dictionary.ToJSON	5303

Created 23th September 2017, last changed 20th February 2018.

## 66.4 Dictionary.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Clear"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

**Result** Returns OK or error.

### Description

Removes all keys and values.

### See also

- 66.5 Dictionary.Clone 2447
- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449
- 66.12 Dictionary.Keys 2457
- 66.14 Dictionary.Release 2459

Created 12nd December 2014, last changed 12nd December 2014.

## 66.5 Dictionary.Clone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Clone"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns reference number or error.

### Description

A new reference number with a new dictionary behind and all keys and values copied.

#### See also

- 66.4 Dictionary.Clear 2446
- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449

### 66.5.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 5th March 2016, last changed 5th March 2016.

## 66.6 Dictionary.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Count"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns number or error.

### Description

### Examples

Query count of a dictionary:

```
$count = MBS("Dictionary.Count"; $Param)
```

### See also

- [66.4 Dictionary.Clear](#) 2446
- [66.5 Dictionary.Clone](#) 2447
- [66.7 Dictionary.Create](#) 2449
- [66.11 Dictionary.KeyAtIndex](#) 2456
- [66.13 Dictionary.List](#) 2458
- [66.22 Dictionary.ToText](#) 2471
- [194.1 Dictionary.ToXML](#) 9407

### Example Databases

- [Dictionary/Pass Parameters with Dictionary](#)

Created 12nd December 2014, last changed 12nd December 2014.

## 66.7 Dictionary.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Create" { ; Key; Value } )

### Parameters

#### Key

Optional

Optional, a key.

#### Value

Optional

Optional, a value.

**Result** Returns dictionary reference number or error.

### Description

Dictionaries are hash maps, so lookup is very fast (often faster than search in your FileMaker database). You can use them for storing parameters or lookup tables.

Optionally you can pass keys and values as parameters to this function.

If you looked for assoziative arrays, you are right here.

### Examples

Build a dictionary in a calculation:

```
Let ( [
/*
Create new Dictionary
/
param = MBS( "Dictionary.Create" );

/*
Fill in parameters
/
r1 = MBS( "Dictionary.SetValueForKey"; param; "text"; Pass Parameters with Dictionary::TextField );
r2 = MBS( "Dictionary.SetValueForKey"; param; "number"; Pass Parameters with Dictionary::Number-
Field);
r3 = MBS( "Dictionary.SetValueForKey"; param; "date"; Pass Parameters with Dictionary::DateField);
r4 = MBS( "Dictionary.SetValueForKey"; param; "time"; Pass Parameters with Dictionary::TimeField);
r5 = MBS( "Dictionary.SetValueForKey"; param; "timestamp"; Pass Parameters with Dictionary::TimeS-
tampField);
r6 = MBS( "Dictionary.SetValueForKey"; param; "container"; Pass Parameters with Dictionary::Contain-
erField)
/*
```

```
return dictionary
/
]; param )
```

Build a dictionary with given Keys and Values:

```
MBS("Dictionary.Create"; "FirstName"; $FirstName; "LastName"; $LastName; "City"; $City; "Phone";
$Phone; "Email"; $Email)
```

Test script to look for duplicate UUIDs:

```
Set Variable [ $dic ; Value: MBS( "Dictionary.Create" ) ]
Loop
Set Variable [ $uuid ; Value: Get(UUID) ]
If [ MBS("Dictionary.HasKey"; $dic; $uuid) ]
Show Custom Dialog [ "Duplicate!" ; $uuid ]
Exit Loop If [ 1 ]
End If
Set Variable [ $r ; Value: MBS( "Dictionary.SetValueForKey"; $dic; $uuid; $uuid ) ]
End Loop
Set Field [ test::test ; MBS( "Dictionary.Keys"; $dic ) ]
Set Variable [ $r ; Value: MBS( "Dictionary.Release"; $dic ) ]
```

### See also

- 81.1 Dictionary.AddSQLRecord 4123
- 66.6 Dictionary.Count 2448
- 66.8 Dictionary.CreateNamed 2452
- 66.16 Dictionary.Serialize 2461
- 66.20 Dictionary.SetVariables 2468
- 102.1 Dictionary.ToJSON 5303
- 194.1 Dictionary.ToXML 9407
- 66.24 Dictionary.ValueForKey 2475
- 66.26 Dictionary.Values 2478
- 66.25 Dictionary.ValueTypeForKey 2477

### Example Databases

- [Dictionary/Dictionary Container Test](#)
- [Dictionary/Pass Parameters with Dictionary 2](#)
- [Dictionary/Pass Parameters with Dictionary](#)

### 66.7.1 Blog Entries

- [MBS FileMaker Plugin 5.1 for OS X/Windows](#)
- [Passing parameters via dictionary functions](#)

Created 12nd December 2014, last changed 15th June 2017.

## 66.8 Dictionary.CreateNamed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.CreateNamed"; KeyRef { ; Key; Value } )

### Parameters

#### KeyRef

The desired key reference.

"IDs"

#### Key

Optional

Optional, a key.

#### Value

Optional

Optional, a value.

**Result** Returns dictionary reference or error.

### Description

Dictionaries are hash maps, so lookup is very fast (often faster than search in your FileMaker database). You can use them for storing parameters or lookup tables.

Optionally you can pass keys and values as parameters to this function.

If you looked for assoziative arrays, you are right here.

### Examples

Creates new dictionary with reference number "IDs":

```
MBS("Dictionary.CreateNamed"; "IDs")
```

### See also

- 66.7 Dictionary.Create

2449

### 66.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr6](#)

Created 27th February 2018, last changed 27th February 2018.



## 66.9 Dictionary.Deserialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Deserialize"; Text )

### Parameters

#### Text

The serialized data as text.

**Result** Returns dictionary reference number or error.

### Description

### Examples

Create a dictionary and serialize it:

```
Set Variable [ $list; Value:MBS( "Dictionary.Create"; "Hello"; "World"; "1234"; "Just a test!" ) ]
Set Variable [ $text; Value:MBS("Dictionary.Serialize"; $list) ]
Set Variable [ $secondList; Value:MBS("Dictionary.Deserialize"; $text) ]
Show Custom Dialog [ "List"; "Encoded: " & $text & $& $& "Decoded Keys: " & MBS("Dictionary.Keys";
$secondList) & $& $& "D... ]
Set Variable [ $r; Value:MBS("Dictionary.Release"; $list) ]
Set Variable [ $r; Value:MBS("Dictionary.Release"; $secondList) ]
```

Serialize and unserialize with date and time:

```
# Create Dictionary
Set Variable [ $dict; Value:MBS ( "Dictionary.Create" ) ]
# put date and time inside:
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theTime"; Get ( CurrentTime ) ) ]
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theDate"; Get ( CurrentDate ) ) ]
# Serialize this
Set Variable [ $dictEncoded; Value:MBS ( "Dictionary.Serialize"; $dict ) ]
# Free dictionary
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $dict ) ]
# Unpack it:
Set Variable [ $newDict; Value:MBS ( "Dictionary.Deserialize"; $dictEncoded ) ]
# and get values
Set Variable [ $TheTime; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theTime" ) ]
Set Variable [ $TheDate; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theDate" ) ]
Show Custom Dialog [ $TheTime & " " & $TheDate ]
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $newDict ) ]
```

**See also**

- 66.7 Dictionary.Create 2449
- 66.12 Dictionary.Keys 2457
- 66.14 Dictionary.Release 2459
- 66.16 Dictionary.Serialize 2461
- 66.19 Dictionary.SetValueForKey 2465
- 66.24 Dictionary.ValueForKey 2475

### Example Databases

- [Dictionary/Dictionary Container Test](#)

### 66.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr5](#)
- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 22nd February 2016.

## 66.10 Dictionary.HasKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.HasKey"; DictionaryRef; Key )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Key

The key to use. Keys are case sensitive. Also keys must be text and should be single line.

"FirstName"

**Result** Returns 1, 0 or error.

### Description

### Examples

Checks if some values are there:

```
$hasText = MBS("Dictionary.HasKey"; $Param; "text")
```

```
$hasFun = MBS("Dictionary.HasKey"; $Param; "fun")
```

### See also

- [66.7 Dictionary.Create](#) 2449
- [66.12 Dictionary.Keys](#) 2457
- [66.26 Dictionary.Values](#) 2478

### Example Databases

- [Dictionary/Pass Parameters with Dictionary](#)

Created 12nd December 2014, last changed 12nd December 2014.

## 66.11 Dictionary.KeyAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.KeyAtIndex"; DictionaryRef; Index )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Index

The index for the key. Range from 0 to Dictionary.Count-1.

0

**Result** Returns OK or error.

### Description

Index starts at zero and ends at Dictionary.Count-1.

### Examples

Query first key:

```
MBS("Dictionary.KeyAtIndex"; $Param; 0)
```

### See also

- [66.6 Dictionary.Count](#) 2448
- [66.7 Dictionary.Create](#) 2449

### Example Databases

- [Dictionary/Pass Parameters with Dictionary](#)

Created 12nd December 2014, last changed 12nd December 2014.

## 66.12 Dictionary.Keys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Keys"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns list or error.

### Description

The order is random and defined by how the dictionary internally stores values.

See also Dictionary.Values.

### Examples

Query list of keys:

```
$keys = MBS("Dictionary.Keys"; $Param)
```

### See also

- [66.1 Dictionary.AddSQL](#) 2439
- [66.4 Dictionary.Clear](#) 2446
- [66.7 Dictionary.Create](#) 2449
- [66.9 Dictionary.Deserialize](#) 2453
- [66.10 Dictionary.HasKey](#) 2455
- [66.13 Dictionary.List](#) 2458
- [66.16 Dictionary.Serialize](#) 2461
- [66.26 Dictionary.Values](#) 2478

### Example Databases

- [Dictionary/Pass Parameters with Dictionary](#)

Created 12nd December 2014, last changed 10th September 2015.

## 66.13 Dictionary.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.List" )

**Result** Returns list or error.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.

### See also

- [66.6 Dictionary.Count](#) 2448
- [66.12 Dictionary.Keys](#) 2457
- [66.17 Dictionary.SetList](#) 2463

### 66.13.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr7](#)

Created 16th July 2015, last changed 21st September 2015.

## 66.14 Dictionary.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Release"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns OK or error.

### Description

#### See also

- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 66.7 Dictionary.Create 2449
- 66.17 Dictionary.SetList 2463
- 66.19 Dictionary.SetValueForKey 2465
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 66.24 Dictionary.ValueForKey 2475
- 66.26 Dictionary.Values 2478

### Example Databases

- [Dictionary/Dictionary Container Test](#)
- [Dictionary/Pass Parameters with Dictionary 2](#)
- [Dictionary/Pass Parameters with Dictionary](#)

#### 66.14.1 Blog Entries

- [Passing parameters via dictionary functions](#)

Created 12nd December 2014, last changed 12nd December 2014.

## 66.15 Dictionary.RemoveKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.RemoveKey"; DictionaryRef; Key )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

#### Key

The key to use. Keys are case sensitive.  
"FirstName"

**Result** Returns OK or error.

### Description

#### See also

- 66.7 Dictionary.Create

2449

Created 12nd December 2014, last changed 12nd December 2014.



## 66.16 Dictionary.Serialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Serialize"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns text or error.

### Description

The dictionary content is stored in a base64 encoded string which the plugin function Dictionary.Deserialize can read.

Does not work with external containers.

Using this function allows to store a dictionary in a text field or transmit it with Socket functions, SerialPort functions or by writing it to a file.

### Examples

Create a dictionary and serialize it:

```
Set Variable [ $list; Value:MBS( "Dictionary.Create"; "Hello"; "World"; "1234"; "Just a test!" ) ]
Set Variable [ $text; Value:MBS("Dictionary.Serialize"; $list) ]
Set Variable [ $secondList; Value:MBS("Dictionary.Deserialize"; $text) ]
Show Custom Dialog [ "List"; "Encoded: " & $text & $& $& "Decoded Keys: " & MBS("Dictionary.Keys";
$secondList) & $& $& "D... ]
Set Variable [ $r; Value:MBS("Dictionary.Release"; $list) ]
Set Variable [ $r; Value:MBS("Dictionary.Release"; $secondList) ]
```

Serialize and unserialize with date and time:

```
# Create Dictionary
Set Variable [ $dict; Value:MBS ( "Dictionary.Create" ) ]
# put date and time inside:
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theTime"; Get ( CurrentTime ) ) ]
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theDate"; Get ( CurrentDate ) ) ]
# Serialize this
Set Variable [ $dictEncoded; Value:MBS ( "Dictionary.Serialize"; $dict ) ]
# Free dictionary
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $dict ) ]
# Unpack it:
Set Variable [ $newDict; Value:MBS ( "Dictionary.Deserialize"; $dictEncoded ) ]
# and get values
Set Variable [ $TheTime; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theTime" ) ]
Set Variable [ $TheDate; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theDate" ) ]
```

```
Show Custom Dialog [ $TheTime & " " & $TheDate ]  
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $newDict ) ]
```

**See also**

- [66.7 Dictionary.Create](#) 2449
- [66.9 Dictionary.Deserialize](#) 2453
- [66.12 Dictionary.Keys](#) 2457
- [66.14 Dictionary.Release](#) 2459
- [66.19 Dictionary.SetValueForKey](#) 2465
- [66.24 Dictionary.ValueForKey](#) 2475

**Example Databases**

- [Dictionary/Dictionary Container Test](#)

**66.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr3](#)
- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 22nd February 2016.

## 66.17 Dictionary.SetList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.SetList"; DictionaryRef; List { ; Delimiter } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### List

The list of values with delimiter.

"Hello=World\$Other=Value"

#### Delimiter

Optional

The delimiter for the value list. Default is tab key.

"="

**Result** Returns OK or error.

### Description

The list contains key=value entries with a configurable delimiter.

#### See also

- 66.7 Dictionary.Create 2449
- 66.13 Dictionary.List 2458
- 66.14 Dictionary.Release 2459
- 66.18 Dictionary.SetQuickList 2464

### 66.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 2nd May 2016, last changed 2nd May 2016.

## 66.18 Dictionary.SetQuickList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.SetQuickList"; DictionaryRef; ListRef { ; Delimiter } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Delimiter

Optional

The delimiter for the value list. Default is tab key.

"="

**Result** Returns OK or error.

### Description

The list contains key=value entries with a configurable delimiter.

### See also

- 66.7 Dictionary.Create 2449
- 66.17 Dictionary.SetList 2463
- 105.74 QuickList.New 5604

Created 11st March 2017, last changed 11st March 2017.

## 66.19 Dictionary.SetValueForKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.SetValueForKey"; DictionaryRef; Key; Value )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Key

The key to use. Keys are case sensitive. Also keys must be text and should be single line.

"FirstName"

#### Value

The new value. Supported data types include empty, text, number, boolean, container, time, timestamp and date.

"Hello World"

**Result** Returns OK or error.

### Description

Data type is preserved, so you can even store containers in the dictionary.

Keys should be text and are handled case sensitive.

### Examples

Build a dictionary in a calculation:

```
Let ( [
/*
Create new Dictionary
/
param = MBS( "Dictionary.Create" );

/*
Fill in parameters
/
r1 = MBS( "Dictionary.SetValueForKey"; param; "text"; Pass Parameters with Dictionary::TextField );
r2 = MBS( "Dictionary.SetValueForKey"; param; "number"; Pass Parameters with Dictionary::Number-
Field);
r3 = MBS( "Dictionary.SetValueForKey"; param; "date"; Pass Parameters with Dictionary::DateField);
r4 = MBS( "Dictionary.SetValueForKey"; param; "time"; Pass Parameters with Dictionary::TimeField);
r5 = MBS( "Dictionary.SetValueForKey"; param; "timestamp"; Pass Parameters with Dictionary::TimeS-
tampField);
r6 = MBS( "Dictionary.SetValueForKey"; param; "container"; Pass Parameters with Dictionary::Contain-
erField)
/*
```

```
return dictionary
/
]; param )
```

Serialize and unserialize with date and time:

```
# Create Dictionary
Set Variable [ $dict; Value:MBS ( "Dictionary.Create" ) ]
# put date and time inside:
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theTime"; Get ( CurrentTime ) ) ]
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theDate"; Get ( CurrentDate ) ) ]
# Serialize this
Set Variable [ $dictEncoded; Value:MBS ( "Dictionary.Serialize"; $dict ) ]
# Free dictionary
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $dict ) ]
# Unpack it:
Set Variable [ $newDict; Value:MBS ( "Dictionary.Deserialize"; $dictEncoded ) ]
# and get values
Set Variable [ $TheTime; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theTime" ) ]
Set Variable [ $TheDate; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theDate" ) ]
Show Custom Dialog [ $TheTime & " " & $TheDate ]
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $newDict ) ]
```

### See also

- 66.7 Dictionary.Create 2449
- 66.9 Dictionary.Deserialize 2453
- 66.14 Dictionary.Release 2459
- 66.16 Dictionary.Serialize 2461
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 66.24 Dictionary.ValueForKey 2475
- 66.25 Dictionary.ValueTypeForKey 2477

### Example Databases

- [Dictionary/Dictionary Container Test](#)
- [Dictionary/Pass Parameters with Dictionary](#)

### 66.19.1 Blog Entries

- [Passing parameters via dictionary functions](#)

Created 12nd December 2014, last changed 22nd February 2016.

## 66.20 Dictionary.SetVariables

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.SetVariables"; DictionaryRef { ; Options } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Options

Optional

Whether to create local or global variables. Pass 2 to create global variables (\$\$) Pass 0 to create local variables (\$), default.

Add 1 to free the dictionary after doing this.

1+2

**Result** Returns OK or error.

### Description

The plugin evaluates a Let statement which defines variables in current script with the content of the dictionary. This is very useful for passing arguments to a script (see blog post & guide)

This does not work, if passing Directory reference number from client to server or back!

**See also**

- [66.7 Dictionary.Create](#) 2449

### Example Databases

- [Dictionary/Pass Parameters with Dictionary 2](#)

### 66.20.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr5](#)
- [Passing parameters via dictionary functions](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 14th March 2015, last changed 8th May 2017.



## 66.21 Dictionary.ToJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ToJSON"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns OK or error.

### Description

This is useful for passing data from dictionary to some javascript.

### Examples

Test exporting dictionaries:

```
#
#
# Create new Dictionary
#
Set Variable [ $param; Value:MBS( "Dictionary.Create" ) ]
#
# Fill in values
#
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "text"; Pass Parameters with Dictionary::TextField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "number"; Pass Parameters with Dictionary::NumberField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "date"; Pass Parameters with Dictionary::DateField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "time"; Pass Parameters with Dictionary::TimeField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "timestamp"; Pass Parameters with Dictionary::TimeStampField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "container"; Pass Parameters with Dictionary::ContainerField ) ]
#
# Call save xml, json and text
#
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToXML"; $param; 1); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.xml"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToText"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.txt"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToJSON"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.json"); "UTF8" ) ]
```

```
dPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.json.txt"); "UTF8") ]  
#  
# free memory  
#  
Set Variable [ $r; Value:MBS("Dictionary.Release"; $param) ]
```

### See also

- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 66.19 Dictionary.SetValueForKey 2465
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243

### 66.21.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 25th February 2016, last changed 20th February 2018.

## 66.22 Dictionary.ToText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ToText"; DictionaryRef { ; Column Delimiter; Row Delimiter } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Column Delimiter

Optional

The delimiter between key and value. Should not be part of content. By default we use tab key.

#### Row Delimiter

Optional

The delimiter between rows. By default we use return key (char 13)

**Result** Returns OK or error.

### Description

Containers are just added as text and delimiters inside a text value can cause trouble.

### Examples

Test exporting dictionaries:

```
#
#
# Create new Dictionary
#
Set Variable [ $param; Value:MBS( "Dictionary.Create" ) ]
#
# Fill in values
#
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "text"; Pass Parameters with Dictionary::TextField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "number"; Pass Parameters with Dictionary::NumberField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "date"; Pass Parameters with Dictionary::DateField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "time"; Pass Parameters with Dictionary::TimeField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "timestamp"; Pass Parameters with Dictionary::TimeStampField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "container"; Pass Parameters with Dictionary::ContainerField ) ]
#
```

```

# Call save xml, json and text
#
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToXML"; $param; 1); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "dictionary.xml"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToText"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "dictionary.txt"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToJSON"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "dictionary.json.txt"); "UTF8" ) ]
#
# free memory
#
Set Variable [ $r; Value:MBS("Dictionary.Release"; $param) ]

```

### See also

- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 66.19 Dictionary.SetValueForKey 2465
- 102.1 Dictionary.ToJSON 5303
- 194.1 Dictionary.ToXML 9407
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 167.68 Text.WriteTextFile 7999

### 66.22.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 25th February 2016, last changed 25th February 2016.

## 66.23 Dictionary.ToXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 194 XML	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ToXML"; DictionaryRef { ; Format } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Format

Optional

If 1, we format pretty. Pass 0 to get compact xml.

1

**Result** Returns OK or error.

### Description

### Examples

Test exporting dictionaries:

```
#
#
# Create new Dictionary
#
Set Variable [ $param; Value:MBS( "Dictionary.Create" ) ]
#
# Fill in values
#
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "text"; Pass Parameters with Dictionary::TextField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "number"; Pass Parameters with Dictionary::NumberField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "date"; Pass Parameters with Dictionary::DateField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "time"; Pass Parameters with Dictionary::TimeField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "timestamp"; Pass Parameters with Dictionary::TimeStampField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "container"; Pass Parameters with Dictionary::ContainerField ) ]
#
# Call save xml, json and text
#
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToXML"; $param; 1); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.xml"); "UTF8" ) ]
```

```

Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToText"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.txt"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToJSON"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.json.txt"); "UTF8" ) ]
#
# free memory
#
Set Variable [ $r; Value:MBS("Dictionary.Release"; $param) ]

```

**See also**

- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 66.19 Dictionary.SetValueForKey 2465
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 167.68 Text.WriteTextFile 7999

**66.23.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 25th February 2016, last changed 20th February 2018.

## 66.24 Dictionary.ValueForKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ValueForKey"; DictionaryRef; Key )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Key

The key to use. Keys are case sensitive.

"FirstName"

**Result** Returns value or error.

### Description

As dictionary preserves data type, result can be empty, text, number, date, time, timestamp, container or boolean.

### Examples

Serialize and unserialize with date and time:

```
# Create Dictionary
Set Variable [ $dict; Value:MBS ( "Dictionary.Create" ) ]
# put date and time inside:
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theTime"; Get ( CurrentTime ) ) ]
Set Variable [ $r; Value:MBS ( "Dictionary.SetValueForKey"; $dict; "theDate"; Get ( CurrentDate ) ) ]
# Serialize this
Set Variable [ $dictEncoded; Value:MBS ( "Dictionary.Serialize"; $dict ) ]
# Free dictionary
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $dict ) ]
# Unpack it:
Set Variable [ $newDict; Value:MBS ( "Dictionary.Deserialize"; $dictEncoded ) ]
# and get values
Set Variable [ $TheTime; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theTime" ) ]
Set Variable [ $TheDate; Value: MBS ( "Dictionary.ValueForKey"; $newDict; "theDate" ) ]
Show Custom Dialog [ $TheTime & " " & $TheDate ]
Set Variable [ $r; Value:MBS ( "Dictionary.Release"; $newDict ) ]
```

### See also

- 66.1 Dictionary.AddSQL 2439
- 66.7 Dictionary.Create 2449
- 66.9 Dictionary.Deserialize 2453

- 66.14 Dictionary.Release 2459
- 66.16 Dictionary.Serialize 2461
- 66.19 Dictionary.SetValueForKey 2465
- 66.25 Dictionary.ValueTypeForKey 2477

### Example Databases

- [Dictionary/Dictionary Container Test](#)
- [Dictionary/Pass Parameters with Dictionary](#)

### 66.24.1 Blog Entries

- [Passing parameters via dictionary functions](#)

Created 12nd December 2014, last changed 22nd February 2016.



## 66.25 Dictionary.ValueTypeForKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ValueTypeForKey"; DictionaryRef; Key )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

#### Key

The key to use. Keys are case sensitive.

"FirstName"

**Result** Returns type or error.

### Description

Value can be Invalid, Text, Number, Date, Time, TimeStamp, Container or Boolean.

### See also

- 66.7 Dictionary.Create 2449
- 66.19 Dictionary.SetValueForKey 2465
- 66.24 Dictionary.ValueForKey 2475

### 66.25.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 12nd March 2015, last changed 12nd March 2015.

## 66.26 Dictionary.Values

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.Values"; DictionaryRef )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.

\$dic

**Result** Returns list or error.

### Description

Of course data in dictionary is converted to text, so this function will not return details like data type or container content.

Order is same as for Dictionary.Keys if the dictionary is not changed inbetween.

### Examples

Query list of keys and values:

```
$keys = MBS("Dictionary.Keys"; $Param)
$values = MBS("Dictionary.Values"; $Param)
```

### See also

- [66.7 Dictionary.Create](#) 2449
- [66.10 Dictionary.HasKey](#) 2455
- [66.12 Dictionary.Keys](#) 2457
- [66.14 Dictionary.Release](#) 2459

### 66.26.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 12nd March 2015, last changed 12nd March 2015.

# Chapter 67

## DirectoryWatcher

Watch directories for changes on Windows.

Watch changes on directories and get script triggered for changes. See FSEvents functions for Mac.

### 67.1 DirectoryWatcher.AddDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.AddDirectory"; Watcher; Path; recursive; Action )

#### Parameters

##### Watcher

The watcher reference number.

\$watcher

##### Path

The directory path to verify.

"C:\Users\Administrator\Desktop"

##### recursive

Whether to recursively check subdirectories. Pass 1 to turn on or 0 to turn off.

1

##### Action

The changes to monitor.

"Filename\$DirName\$Attributes\$Size\$LastWrite\$LastAccess\$Creation\$Security"

**Result** Returns OK or error.

#### Description

With the actions you can define what changes to report.

Action	Value	Description
Filename	1	Any file name change in the watched directory or subtree causes a change notification wait operation to return. Changes include renaming, creating, or deleting a file name.
DirName	2	Any directory-name change in the watched directory or subtree causes a change notification wait operation to return. Changes include creating or deleting a directory.
Attributes	4	Any attribute change in the watched directory or subtree causes a change notification wait operation to return.
Size	8	Any file-size change in the watched directory or subtree causes a change notification wait operation to return. The operating system detects a change in file size only when the file is written to the disk. For operating systems that use extensive caching, detection occurs only when the cache is sufficiently flushed.
LastWrite	16	Any change to the last write-time of files in the watched directory or subtree causes a change notification wait operation to return. The operating system detects a change to the last write-time only when the file is written to the disk. For operating systems that use extensive caching, detection occurs only when the cache is sufficiently flushed.
LastAccess	32	Any change to the last access time of files in the watched directory or subtree causes a change notification wait operation to return.
Creation	64	Any change to the creation time of files in the watched directory or subtree causes a change notification wait operation to return.
Security	256	Any security-descriptor change in the watched directory or subtree causes a change notification wait operation to return.

### Examples

Watch for changes in directory:

```
MBS("DirectoryWatcher.AddDirectory"; $Watcher; Directory Watcher::Directory; 1; "Filename$DirName$Attributes$Size$LastWrite$LastAccess$Creation$Security")
```

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 26th May 2017.

## 67.2 DirectoryWatcher.ChangeCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.ChangeCount"; Watcher )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

**Result** Returns number or error.

### Description

We queue the changes in a list and you can query it.

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 5th March 2017.

## 67.3 DirectoryWatcher.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.Create" )

**Result** Returns reference number or error.

### Description

Works on server and client.

May not work for network shared disks as most drivers don't pass through change events.

### See also

- [67.8 DirectoryWatcher.Release](#)

2487

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 27th February 2019.

## 67.4 DirectoryWatcher.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.GetEvaluate"; Watcher )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

**Result** Returns text or error.

### Description

#### See also

- 67.5 DirectoryWatcher.GetFileName 2484
- 67.6 DirectoryWatcher.GetScriptName 2485
- 67.7 DirectoryWatcher.NextChange 2486
- 67.8 DirectoryWatcher.Release 2487
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.11 DirectoryWatcher.SetFileName 2490

Created 5th March 2017, last changed 5th March 2017.

## 67.5 DirectoryWatcher.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.GetFileName"; Watcher )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

**Result** Returns text or error.

### Description

#### See also

- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.6 DirectoryWatcher.GetScriptName 2485
- 67.8 DirectoryWatcher.Release 2487
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.11 DirectoryWatcher.SetFileName 2490
- 67.12 DirectoryWatcher.SetScriptName 2491

Created 5th March 2017, last changed 5th March 2017.



**67.6 DirectoryWatcher.GetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.GetScriptName"; Watcher )

**Parameters****Watcher**

The watcher reference number.

\$watcher

**Result** Returns text or error.

**Description****See also**

- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.11 DirectoryWatcher.SetFileName 2490
- 67.12 DirectoryWatcher.SetScriptName 2491

Created 5th March 2017, last changed 5th March 2017.

## 67.7 DirectoryWatcher.NextChange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.NextChange"; Watcher )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

**Result** Returns list or error.

### Description

The list contains first the path name, second the action code and third the name of the action.

Action	Name
1	Added
2	Removed
3	Modified
4	Renamed Old Name
5	Renamed New Name

### See also

- [67.4 DirectoryWatcher.GetEvaluate](#) 2483
- [67.8 DirectoryWatcher.Release](#) 2487
- [67.10 DirectoryWatcher.SetEvaluate](#) 2489

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 5th March 2017.

**67.8 DirectoryWatcher.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.Release"; Watcher )

**Parameters****Watcher**

The watcher reference number.

\$watcher

**Result** Returns OK or error.

**Description**

This will free all memory used and stops the checks.

**See also**

- 67.3 DirectoryWatcher.Create 2482
- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.7 DirectoryWatcher.NextChange 2486
- 67.9 DirectoryWatcher.ReleaseAll 2488
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.11 DirectoryWatcher.SetFileName 2490

Created 5th March 2017, last changed 5th March 2017.

## 67.9 DirectoryWatcher.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.4	No	Yes	Yes, Windows only	No	No

MBS( "DirectoryWatcher.ReleaseAll" )

**Result** Returns OK or error.

### Description

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 67.8 DirectoryWatcher.Release

2487

### 67.9.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 6th August 2017, last changed 9th January 2020.

**67.10 DirectoryWatcher.SetEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.SetEvaluate"; Watcher; Expression )

**Parameters****Watcher**

The watcher reference number.

\$watcher

**Expression**

The expression to evaluate.

**Result** Returns OK or error.

**Description****See also**

- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.7 DirectoryWatcher.NextChange 2486
- 67.8 DirectoryWatcher.Release 2487
- 67.11 DirectoryWatcher.SetFileName 2490
- 67.12 DirectoryWatcher.SetScriptName 2491

Created 5th March 2017, last changed 5th March 2017.

## 67.11 DirectoryWatcher.SetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.SetFileName"; Watcher; Filename )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

#### Filename

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- 67.4 DirectoryWatcher.GetEvaluate 2483
- 67.5 DirectoryWatcher.GetFileName 2484
- 67.6 DirectoryWatcher.GetScriptName 2485
- 67.8 DirectoryWatcher.Release 2487
- 67.10 DirectoryWatcher.SetEvaluate 2489
- 67.12 DirectoryWatcher.SetScriptName 2491

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 5th March 2017.

## 67.12 DirectoryWatcher.SetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
67 DirectoryWatcher	7.1	No	Yes	No	No	No

MBS( "DirectoryWatcher.SetScriptName"; Watcher; ScriptName )

### Parameters

#### Watcher

The watcher reference number.

\$watcher

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- [67.5 DirectoryWatcher.GetFileName](#) 2484
- [67.6 DirectoryWatcher.GetScriptName](#) 2485
- [67.10 DirectoryWatcher.SetEvaluate](#) 2489
- [67.11 DirectoryWatcher.SetFileName](#) 2490

### Example Databases

- [Win Only/Directory Watcher](#)

Created 5th March 2017, last changed 5th March 2017.





# Chapter 68

## DNSLookup

Query the IP address for a domain name.

Or find the domain name for an IPv4 or IPv6 address.

### 68.1 DNSLookup.Address

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.Address"; LookupRef { ; Index } )

#### Parameters

##### LookupRef

The reference number for the DNS Lookup.

\$Lookup

##### Index

Optional

The index of the address. From 0 to DNSLookup.AddressCount-1. Index of -1 gives list with all values.

0

**Result** Returns text or error.

#### Description

#### See also

- 68.2 DNSLookup.AddressCount 2495
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.6 DNSLookup.LookupHostByName 2500

**Example Databases**

- [DNS Lookup](#)

**68.1.1 Blog Entries**

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.2 DNSLookup.AddressCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.AddressCount"; LookupRef )

### Parameters

#### LookupRef

The reference number for the DNS Lookup.

\$Lookup

**Result** Returns number or error.

### Description

#### See also

- [68.1 DNSLookup.Address](#) 2493
- [68.4 DNSLookup.AliasCount](#) 2497

### 68.2.1 Blog Entries

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.3 DNSLookup.Alias

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.Alias"; LookupRef { ; Index } )

### Parameters

#### LookupRef

The reference number for the DNS Lookup.

\$Lookup

#### Index

Optional

The index of the alias. From 0 to DNSLookup.AliasCount-1. Index of -1 gives list with all values.

0

**Result** Returns text or error.

### Description

#### See also

- [68.4 DNSLookup.AliasCount](#) 2497
- [68.5 DNSLookup.LookupHostByAddress](#) 2498
- [68.6 DNSLookup.LookupHostByName](#) 2500
- [68.8 DNSLookup.Release](#) 2503

### Example Databases

- [DNS Lookup](#)

#### 68.3.1 Blog Entries

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.4 DNSLookup.AliasCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.AliasCount"; LookupRef )

### Parameters

#### LookupRef

The reference number for the DNS Lookup.

\$Lookup

**Result** Returns number or error.

### Description

#### See also

- [68.2 DNSLookup.AddressCount](#) 2495
- [68.3 DNSLookup.Alias](#) 2496

### 68.4.1 Blog Entries

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.5 DNSLookup.LookupHostByAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.LookupHostByAddress"; IP )

### Parameters

#### IP

The IP address to query.

"192.35.60.462"

**Result** Returns reference number or error.

### Description

Lookup is synchronous.

### Examples

Lookup an IP:

```
Set Variable [ $q; Value:MBS( "DNSLookup.LookupHostByAddress"; DNS Lookup::IP to lookup ) ]
If [ MBS("IsError") = 0 ]
Set Field [ DNS Lookup::Name; MBS( "DNSLookup.Name"; $q ) ]
Set Field [ DNS Lookup::Addresses; MBS( "DNSLookup.Address"; $q; -1 ) ]
Set Field [ DNS Lookup::Aliases; MBS( "DNSLookup.Alias"; $q; -1 ) ]
Set Variable [ $r; Value:MBS( "DNSLookup.Release"; $q ) ]
End If
```

### See also

- 68.1 DNSLookup.Address 2493
- 68.3 DNSLookup.Alias 2496
- 68.6 DNSLookup.LookupHostByName 2500
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 127.6 IsError 6374

### Example Databases

- [DNS Lookup](#)

### **68.5.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 1st January 2016.

## 68.6 DNSLookup.LookupHostByName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.LookupHostByName"; DomainName { ; Type } )

### Parameters

#### DomainName

The domain name to lookup.  
"monkeybreadsoftware.de"

#### Type

Optional

What IP type to find. Can be 4 for IPv4 or 6 for IPv6. Default is IPv4. This is currently ignored on Windows and you get back default IP type.

4

**Result** Returns reference number or error.

### Description

Lookup is synchronous.

By default queries the primary IP type the machine is configured for.

### Examples

Lookup domain name:

```
Set Variable [ $q; Value:MBS( "DNSLookup.LookupHostByName"; DNS Lookup::Name to lookup; Get(Script-Parameter) ) ]
If [ MBS("IsError") = 0 ]
Set Field [ DNS Lookup::Name; MBS( "DNSLookup.Name"; $q ) ]
Set Field [ DNS Lookup::Addresses; MBS( "DNSLookup.Address"; $q; -1 ) ]
Set Field [ DNS Lookup::Aliases; MBS( "DNSLookup.Alias"; $q; -1 ) ]
Set Variable [ $r; Value:MBS( "DNSLookup.Release"; $q ) ]
End If
```

### See also

- 68.1 DNSLookup.Address 2493
- 68.3 DNSLookup.Alias 2496
- 68.5 DNSLookup.LookupHostByAddress 2498
- 68.7 DNSLookup.Name 2502
- 68.8 DNSLookup.Release 2503
- 127.6 IsError 6374



**Example Databases**

- [DNS Lookup](#)

**68.6.1 Blog Entries**

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.7 DNSLookup.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.Name"; LookupRef )

### Parameters

#### LookupRef

The reference number for the DNS Lookup.

\$Lookup

**Result** Returns text or error.

### Description

#### See also

- [68.5 DNSLookup.LookupHostByAddress](#) 2498
- [68.6 DNSLookup.LookupHostByName](#) 2500

### Example Databases

- [DNS Lookup](#)

### 68.7.1 Blog Entries

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.

## 68.8 DNSLookup.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
68 DNSLookup	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DNSLookup.Release"; LookupRef )

### Parameters

#### LookupRef

The reference number for the DNS Lookup.  
\$Lookup

**Result** Returns OK or error.

### Description

#### See also

- [68.3 DNSLookup.Alias](#) 2496
- [68.5 DNSLookup.LookupHostByAddress](#) 2498
- [68.6 DNSLookup.LookupHostByName](#) 2500

### Example Databases

- [DNS Lookup](#)

### 68.8.1 Blog Entries

- [DNS Lookups in FileMaker](#)

Created 25th November 2015, last changed 25th November 2015.



# Chapter 69

## DocumentCameraScan

Scan documents on iOS directly into FileMaker with the camera.

For MacOS see ContinuityCamera functions.

### 69.1 DocumentCameraScan.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Clear" )

**Result** Returns OK or error.

#### Description

Optional function to call if you like to release memory for last scan result.

#### Examples

Clears current scan:

```
Set Variable [ $r; Value: MBS( "DocumentCameraScan.Clear" ) ]
```

#### See also

- 69.2 DocumentCameraScan.Close 2507
- 69.7 DocumentCameraScan.PageImage 2513
- 69.8 DocumentCameraScan.Scan 2515
- 69.11 DocumentCameraScan.Title 2519
- 69.12 DocumentCameraScan.Visible 2520



**69.2 DocumentCameraScan.Close**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Close" )

**Result** Returns OK or error.

**Description**

If the dialog is not open, this function does nothing.

The plugin will close it automatically when the script is triggered.

**See also**

- 69.1 DocumentCameraScan.Clear 2505
- 69.8 DocumentCameraScan.Scan 2515
- 69.10 DocumentCameraScan.Supported 2518
- 69.11 DocumentCameraScan.Title 2519
- 69.12 DocumentCameraScan.Visible 2520

Created 6th January 2020, last changed 8th January 2020.

### 69.3 DocumentCameraScan.ErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.ErrorMessage" )

**Result** Returns text.

#### Description

#### Examples

Script may look like this:

```
Set Variable [ $param ; Value: Get( ScriptParameter ) ]
If [ $param = "Error" ]
Show Custom Dialog [ "Failed to scan" ; MBS( "DocumentCameraScan.ErrorMessage" ) ]
Else If [ $param = "Scan" ]
Perform Script [ Specified: From list ; "Import" ; Parameter: ]
Else If [ $param = "Cancel" ]
# do nothing
End If
```

#### See also

- 69.7 DocumentCameraScan.PageImage 2513
- 69.9 DocumentCameraScan.SetScript 2516

#### Example Databases

- [iOS/DocumentCameraScan test](#)

Created 6th January 2020, last changed 8th January 2020.



## 69.4 DocumentCameraScan.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Initialize" )

**Result** Returns OK or error.

### Description

Requires iOS 13 or newer.

### Examples

Script to initialize:

```
# Initialize document camera scanner
#
If [ MBS("DocumentCameraScan.IsInitialized") = 0 ]
Set Variable [ $r ; Value: MBS("DocumentCameraScan.Initialize") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to initialize" ; $r ]
Else If [ MBS("DocumentCameraScan.Supported") = 0 ]
Show Custom Dialog [ "Not supported on this device." ]
End If
End If
```

### See also

- [69.5 DocumentCameraScan.IsInitialized](#) 2511
- [69.8 DocumentCameraScan.Scan](#) 2515
- [69.9 DocumentCameraScan.SetScript](#) 2516
- [69.10 DocumentCameraScan.Supported](#) 2518
- [69.11 DocumentCameraScan.Title](#) 2519
- [69.12 DocumentCameraScan.Visible](#) 2520
- [127.6 IsError](#) 6374

### Example Databases

- [iOS/DocumentCameraScan test](#)

### 69.4.1 Blog Entries

- [Document Camera Scan functions for FileMaker iOS SDK](#)



## 69.5 DocumentCameraScan.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.IsInitialized" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 on success or 0 on failure.

### Examples

Script to initialize:

```
# Initialize document camera scanner
#
If [ MBS("DocumentCameraScan.IsInitialized") = 0 ]
Set Variable [ $r ; Value: MBS("DocumentCameraScan.Initialize") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to initialize" ; $r ]
Else If [ MBS("DocumentCameraScan.Supported") = 0 ]
Show Custom Dialog [ "Not supported on this device." ]
End If
End If
```

### See also

- 69.4 DocumentCameraScan.Initialize 2509
- 69.10 DocumentCameraScan.Supported 2518
- 127.6 IsError 6374

Created 6th January 2020, last changed 24th January 2020.

## 69.6 DocumentCameraScan.PageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.PageCount" )

**Result** Returns number or error.

### Description

### Examples

Import scan result:

```
Set Variable [ $count ; Value: MBS( "DocumentCameraScan.PageCount" ) ]
If [ $count >0 ]
Set Variable [ $index ; Value: 0 ]
Loop
# store image
New Record/Request
Set Field [ Contacts::Video ; MBS( "DocumentCameraScan.PageImage"; $Index; "PNG"; "test.png" ) ]
Commit Records/Requests [ With dialog: On ]
# next
Set Variable [ $index ; Value: $index + 1 ]
Exit Loop If [ $index $count ]
End Loop
End If
```

### See also

- [69.7 DocumentCameraScan.PageImage](#) 2513
- [69.9 DocumentCameraScan.SetScript](#) 2516

### Example Databases

- [iOS/DocumentCameraScan test](#)

### 69.6.1 Blog Entries

- [Document Camera Scan functions for FileMaker iOS SDK](#)

Created 6th January 2020, last changed 6th January 2020.

## 69.7 DocumentCameraScan.PageImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.PageImage"; Index { ; ImageType; Filename } )

### Parameters

#### Index

The index of the page. Range is 0 to DocumentCameraScan.PageCount-1.

0

#### ImageType

Optional

The type of image to return. Either JPEG or PNG. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value or error.

### Description

See DocumentCameraScan.PageCount for the count of pages.

### Examples

Import scan result:

```
Set Variable [ $count ; Value: MBS( "DocumentCameraScan.PageCount" ) ]
If [ $count >0 ]
Set Variable [ $index ; Value: 0 ]
Loop
# store image
New Record/Request
Set Field [ Contacts::Video ; MBS( "DocumentCameraScan.PageImage"; $Index; "PNG"; "test.png" ) ]
Commit Records/Requests [ With dialog: On ]
# next
Set Variable [ $index ; Value: $index + 1 ]
Exit Loop If [ $index $count ]
End Loop
End If
```

### See also

- 69.1 DocumentCameraScan.Clear 2505
- 69.3 DocumentCameraScan.ErrorMessage 2508

- 69.6 DocumentCameraScan.PageCount

### Example Databases

- [iOS/DocumentCameraScan test](#)

### 69.7.1 Blog Entries

- [Document Camera Scan functions for FileMaker iOS SDK](#)

Created 6th January 2020, last changed 6th January 2020.

## 69.8 DocumentCameraScan.Scan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Scan" )

**Result** Returns OK or error.

### Description

Please use DocumentCameraScan.Initialize before and check DocumentCameraScan.Supported to make sure you only show the button when it may work.

### Examples

Start the dialog:

```
Set Variable [ $r ; Value: MBS( "DocumentCameraScan.Scan" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to scan" ; $r ]
End If
```

### See also

- 69.1 DocumentCameraScan.Clear 2505
- 69.2 DocumentCameraScan.Close 2507
- 69.4 DocumentCameraScan.Initialize 2509
- 69.10 DocumentCameraScan.Supported 2518
- 69.11 DocumentCameraScan.Title 2519
- 127.6 IsError 6374

### Example Databases

- [iOS/DocumentCameraScan test](#)

### 69.8.1 Blog Entries

- [Document Camera Scan functions for FileMaker iOS SDK](#)

Created 6th January 2020, last changed 8th January 2020.

## 69.9 DocumentCameraScan.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.SetScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Parameter to the script is either Cancel, Error or Scan.

In case of error, please use DocumentCameraScan.ErrorMessage to query the error message to display.

When you get Scan as parameter, you may use DocumentCameraScan.PageCount function to query number of pages scanned.

### Examples

Script may look like this:

```
Set Variable [ $param ; Value: Get(ScriptParameter) ]
If [ $param = "Error" ]
Show Custom Dialog [ "Failed to scan" ; MBS( "DocumentCameraScan.ErrorMessage" ) ]
Else If [ $param = "Scan" ]
Perform Script [ Specified: From list ; "Import" ; Parameter: ]
Else If [ $param = "Cancel" ]
# do nothing
End If
```

### See also

- 69.3 DocumentCameraScan.ErrorMessage 2508
- 69.4 DocumentCameraScan.Initialize 2509
- 69.6 DocumentCameraScan.PageCount 2512
- 69.10 DocumentCameraScan.Supported 2518

### Example Databases

- [iOS/DocumentCameraScan test](#)



### 69.9.1 Blog Entries

- [Document Camera Scan functions for FileMaker iOS SDK](#)

Created 6th January 2020, last changed 8th January 2020.

## 69.10 DocumentCameraScan.Supported

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Supported" )

**Result** Returns 1, 0 or error.

### Description

May return 0 if hardware is not supported.

### Examples

Check supported state:

```
If [ MBS("DocumentCameraScan.Supported") = 1 ]
Show Custom Dialog [ "Not supported on this device." ]
End If
```

### See also

- 69.2 DocumentCameraScan.Close 2507
- 69.4 DocumentCameraScan.Initialize 2509
- 69.5 DocumentCameraScan.IsInitialized 2511
- 69.8 DocumentCameraScan.Scan 2515
- 69.9 DocumentCameraScan.SetScript 2516

Created 6th January 2020, last changed 8th January 2020.

**69.11 DocumentCameraScan.Title**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Title" )

**Result** Returns text or error.

**Description****See also**

- 69.1 DocumentCameraScan.Clear 2505
- 69.2 DocumentCameraScan.Close 2507
- 69.4 DocumentCameraScan.Initialize 2509
- 69.8 DocumentCameraScan.Scan 2515
- 69.12 DocumentCameraScan.Visible 2520

Created 6th January 2020, last changed 6th January 2020.

## 69.12 DocumentCameraScan.Visible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
69 DocumentCameraScan	10.0	No	No	No	No	Yes

MBS( "DocumentCameraScan.Visible" )

**Result** Returns 1, 0 or error.

### Description

As we use animation the dialog may be in transition in or out.

### See also

- 69.1 DocumentCameraScan.Clear 2505
- 69.2 DocumentCameraScan.Close 2507
- 69.4 DocumentCameraScan.Initialize 2509
- 69.11 DocumentCameraScan.Title 2519

Created 6th January 2020, last changed 6th January 2020.

# Chapter 70

## DragDrop

Accept Drag& Drop of files, text, pictures, URLs or Emails.

### 70.1 DragDrop.ClearDragActionHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.ClearDragActionHandler"; droparea )

#### Parameters

##### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns "OK" on success.

#### Description

Basically the reverse of SetDragActionHandler.

#### Examples

Clears all handlers:

```
MBS( "DragDrop.ClearDragActionHandler"; $dropHandle )
```

```
MBS( "DragDrop.ClearDragEnterHandler"; $dropHandle )
```

```
MBS( "DragDrop.ClearDragExitHandler"; $dropHandle )
```

#### See also

- 70.2 DragDrop.ClearDragEnterHandler

2523

- 70.3 DragDrop.ClearDragExitHandler 2524
- 70.6 DragDrop.CreateWithControl 2529
- 70.40 DragDrop.SetDragActionHandler 2577

Created 18th August 2014, last changed 5th February 2018.

## 70.2 DragDrop.ClearDragEnterHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.ClearDragEnterHandler"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns "OK" on success.

### Description

Basically the reverse of SetDragActionHandler.

### Examples

Clears all handlers:

```
MBS( "DragDrop.ClearDragActionHandler"; $dropHandle )
MBS( "DragDrop.ClearDragEnterHandler"; $dropHandle )
MBS( "DragDrop.ClearDragExitHandler"; $dropHandle )
```

### See also

- 70.1 DragDrop.ClearDragActionHandler 2521
- 70.3 DragDrop.ClearDragExitHandler 2524
- 70.6 DragDrop.CreateWithControl 2529
- 70.41 DragDrop.SetDragEnterHandler 2579
- 70.42 DragDrop.SetDragExitHandler 2581

Created 18th August 2014, last changed 5th February 2018.

## 70.3 DragDrop.ClearDragExitHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.ClearDragExitHandler"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns "OK" on success.

### Description

Basically the reverse of SetDragActionHandler.

### Examples

Clears all handlers:

```
MBS( "DragDrop.ClearDragActionHandler"; $dropHandle )
MBS( "DragDrop.ClearDragEnterHandler"; $dropHandle )
MBS( "DragDrop.ClearDragExitHandler"; $dropHandle )
```

### See also

- 70.1 DragDrop.ClearDragActionHandler 2521
- 70.2 DragDrop.ClearDragEnterHandler 2523
- 70.6 DragDrop.CreateWithControl 2529
- 70.41 DragDrop.SetDragEnterHandler 2579
- 70.42 DragDrop.SetDragExitHandler 2581

Created 18th August 2014, last changed 5th February 2018.



## 70.4 DragDrop.CreateOnPopoverWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.2	Yes	Yes	No	No	No

```
MBS( "DragDrop.CreateOnPopoverWithControl"; WindowRef; Popover Name; ControlName { ; DX; DY }
)
```

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Popover Name

The name of the popover to look for on the window.

"MyPopover"

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns Drop Area ID on success.

### Description

Use DragDrop.Release later to destroy the drop area.

Drag & Drop reference numbers are starting at 31000 and counting up for each new drop area.

### See also

- 70.5 DragDrop.CreateOnPopoverWithSize 2527
- 70.36 DragDrop.Release 2570
- 168.3 TextView.CreateOnPopoverWithControl 8007
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

**Example Databases**

- [Drag and Drop/DragTest Popover](#)

**70.4.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Drag & Drop to a popover coming for next MBS Plugin](#)

Created 22nd March 2019, last changed 28th March 2019.

## 70.5 DragDrop.CreateOnPopoverWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.2	Yes	Yes	No	No	No

MBS( "DragDrop.CreateOnPopoverWithSize"; WindowRef; Popover Name; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Popover Name

The name of the popover to look for on the window.

"MyPopover"

#### x

The left coordinate in the popover.

0

#### y

The top coordinate in the popover.

0

#### w

The width of the drop area in the popover.

600

#### h

The height of the drop area in the popover.

400

**Result** Returns Drop Area ID on success.

### Description

Use DragDrop.Release later to destroy the drop area.

Drag & Drop reference numbers are starting at 31000 and counting up for each new drop area.

### See also

- 70.4 DragDrop.CreateOnPopoverWithControl 2525
- 70.36 DragDrop.Release 2570
- 168.4 TextView.CreateOnPopoverWithSize 8009
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Drag and Drop/DragTest Popover](#)

### 70.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Drag & Drop to a popover coming for next MBS Plugin](#)

Created 22nd March 2019, last changed 22nd March 2019.

## 70.6 DragDrop.CreateWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.CreateWithControl"; WindowRef; ControlName { ; DX; DY } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a rectangle.

"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns Drop Area ID on success.

### Description

Use DragDrop.Release later to destroy the drop area.

If you use a register on the window, be aware that the drop area actually is in front of the register. So you need to check in the script which register page is current and should get the dropped files.

Drag & Drop reference numbers are starting at 31000 and counting up for each new drop area.

Added Windows support for MBS Plugin 8.1 for FileMaker 16 or newer.

When creating on a card window, please pass reference to parent window or just 0 for front window. On MacOS you may need to pass delta y value to adjust position.

If you create a control on a new window, you may do window update command in your script first to have FileMaker actually build the window with controls and display it. A short script pause or using FM.RunScriptLater with 0.1 delay can help having all controls draw themselves. Then you can use this command to put our control on top. We use GetControl() to query left, top, width and height and this gives empty value if control is not yet here.

Creation fails to pick the right window in case the window is selected by name and the window name is not

unique. In that case better work with window reference numbers or just pass 0 for current front window.

### Examples

Creates a new drop area:

```
Set Variable [ $$dropview ; Value: MBS("DragDrop.CreateWithControl"; Get(WindowName); "drop") ]
Set Variable [ $result ; Value: MBS( "DragDrop.RegisterDropTypes"; $$dropview; "file" ) ]
Set Variable [ $result ; Value: MBS( "DragDrop.SetDragActionHandler"; $$dropview; Get ( FileName );
"DragAction" ) ]
Set Variable [ $result ; Value: MBS( "DragDrop.SetCursor"; $$dropview; 1 ) ]
Set Variable [ $result ; Value: MBS( "DragDrop.SetImage"; $$dropview; DragTest::DropLogo ) ]
```

### See also

- 70.36 DragDrop.Release 2570
- 70.39 DragDrop.SetCursor 2575
- 70.42 DragDrop.SetDragExitHandler 2581
- 70.43 DragDrop.SetFrame 2583
- 70.44 DragDrop.SetFrameWithControl 2584
- 70.47 DragDrop.SetVisible 2589
- 70.48 DragDrop.UnregisterDropTypes 2590
- 80.59 FM.RunScriptLater 4049
- 95.2 ImageView.CreateWithControl 5162
- 108.8 MapView.CreateWithControl 5735

### Example Databases

- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest Email](#)
- [Drag and Drop/for Mac/DragTest Image](#)
- [Drag and Drop/for Mac/DragTest Text](#)
- [Drag and Drop/for Mac/DragTest URL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drag](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drop](#)

### 70.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS Filemaker Plugin, version 4.3pr2](#)

### 70.6.2 FileMaker Magazin

- [Ausgabe 2/2020, Seite 36](#)

Created 18th August 2014, last changed 28th April 2020.

## 70.7 DragDrop.CreateWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.CreateWithSize"; WindowRef; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### x

The left coordinate in the window.

0

#### y

The top coordinate in the window.

0

#### w

The width of the drop area in the window.

100

#### h

The height of the drop area in the window.

100

**Result** Returns Drop Area ID on success.

### Description

Use DragDrop.Release later to destroy the drop area.

If you use a register on the window, be aware that the drop area actually is in front of the register. So you need to check in the script which register page is current and should get the dropped files.

Drag & Drop reference numbers are starting at 31000 and counting up for each new drop area.

Added Windows support for MBS Plugin 8.1 for FileMaker 16 or newer.

### See also

- 70.8 DragDrop.CreateWithWindow 2534
- 70.36 DragDrop.Release 2570
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688



### 70.7.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

### 70.7.2 FileMaker Magazin

- Ausgabe 2/2020, Seite 37

Created 18th August 2014, last changed 17th June 2018.

## 70.8 DragDrop.CreateWithWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.CreateWithWindow"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns Drop Area ID on success.

### Description

Use DragDrop.Release later to destroy the drop area.

If you use a register (tab controls) on the window, be aware that the drop area actually is in front of the register (tab controls). So you need to check in the script which register page is current and should get the dropped files.

Drag & Drop reference numbers are starting at 31000 and counting up for each new drop area.

Added Windows support for MBS Plugin 8.1 for FileMaker 16 or newer. On Windows the control can't be transparent, so you may not want to use this function on Windows.

Not recommended for Windows. Better use DragDrop.CreateWithControl.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.7 DragDrop.CreateWithSize 2532
- 70.36 DragDrop.Release 2570
- 95.4 ImageView.CreateWithWindow 5166
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

### **70.8.1 FileMaker Magazin**

- Ausgabe 2/2020, Seite 37

Created 18th August 2014, last changed 5th November 2019.

## 70.9 DragDrop.GetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.1	Yes	No	No	No	No

MBS( "DragDrop.GetAutoResizingMask"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

**Result** Returns number or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.5 AVPlayer.GetAutoResizingMask 1077
- 70.6 DragDrop.CreateWithControl 2529
- 70.38 DragDrop.SetAutoResizingMask 2573
- 108.15 MapView.GetAutoResizingMask 5744
- 108.65 MapView.SetAutoResizingMask 5798
- 168.10 TextView.GetAutoResizingMask 8016
- 183.52 WebView.GetAutoResizingMask 8477

### 70.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 20th February 2019, last changed 22nd February 2019.

## 70.10 DragDrop.GetEmailAccount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.7	Yes	No	No	No	No

MBS( "DragDrop.GetEmailAccount"; droparea; Index )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Index

Optional, zero based index of the received email. Default is 0.

1

**Result** The account name as text.

### Description

Index from 0 to DragDrop.GetEmailCount -1.

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.11 DragDrop.GetEmailCount 2538
- 70.13 DragDrop.GetEmailMailbox 2540
- 70.14 DragDrop.GetEmailSubject 2541
- 70.35 DragDrop.RegisterDropTypes 2568

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)

#### 70.10.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 18th August 2014.

## 70.11 DragDrop.GetEmailCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.7	Yes	No	No	No	No

MBS( "DragDrop.GetEmailCount"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** The number of emails or error.

### Description

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.10 DragDrop.GetEmailAccount 2537
- 70.12 DragDrop.GetEmailID 2539
- 70.13 DragDrop.GetEmailMailbox 2540
- 70.14 DragDrop.GetEmailSubject 2541
- 70.23 DragDrop.GetPathCount 2553
- 70.35 DragDrop.RegisterDropTypes 2568

Created 18th August 2014, last changed 18th August 2014.

## 70.12 DragDrop.GetEmailID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.7	Yes	No	No	No	No

MBS( "DragDrop.GetEmailID"; droparea; Index )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### Index

Optional, zero based index of the received email. Default is 0.

1

**Result** Returns the email id as text.

### Description

Index from 0 to DragDrop.GetEmailCount -1.

Using the ID you can ask Mail by Apple Script for the content or other details on the email.

For an email drag from Apple Mail, the function DragDrop.GetPath may give the path to a copy of the email file in temporary folder.

You can use DragDrop.GetPath to get the email as file.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.11 DragDrop.GetEmailCount 2538
- 70.22 DragDrop.GetPath 2550
- 70.35 DragDrop.RegisterDropTypes 2568

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)

#### 70.12.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 7th May 2017.

## 70.13 DragDrop.GetEmailMailbox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.7	Yes	No	No	No	No

MBS( "DragDrop.GetEmailMailbox"; droparea; Index )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Index

Optional, zero based index of the received email. Default is 0.

1

**Result** The mailbox name as text.

### Description

Index from 0 to DragDrop.GetEmailCount -1.

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.10 DragDrop.GetEmailAccount 2537
- 70.11 DragDrop.GetEmailCount 2538
- 70.14 DragDrop.GetEmailSubject 2541
- 70.35 DragDrop.RegisterDropTypes 2568

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)

### 70.13.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 18th August 2014.



## 70.14 DragDrop.GetEmailSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.7	Yes	No	No	No	No

MBS( "DragDrop.GetEmailSubject"; droparea; Index )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### Index

Optional, zero based index of the received email. Default is 0.

1

**Result** The email subject as text.

### Description

Index from 0 to DragDrop.GetEmailCount -1.

For an email drag from Apple Mail, the function DragDrop.GetPath may give the path to a copy of the email file in temporary folder.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.10 DragDrop.GetEmailAccount 2537
- 70.11 DragDrop.GetEmailCount 2538
- 70.13 DragDrop.GetEmailMailbox 2540
- 70.22 DragDrop.GetPath 2550
- 70.35 DragDrop.RegisterDropTypes 2568

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)

#### 70.14.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 7th May 2017.

## 70.15 DragDrop.GetFileDescriptor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	8.1	No	Yes	No	No	No

MBS( "DragDrop.GetFileDescriptor"; droparea; Index; Selector )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Index

The index of the file descriptor from 0 to DragDrop.GetFileDescriptorCount-1.

0

#### Selector

Which value to return. Can be Name, Size, Data or Path.

"Name"

**Result** Returns value or error.

### Description

The file descriptor may include a file path and/or file data.

The data is returned as container value.

### Examples

Check for a file descriptor coming with Drag & Drop:

```
Set Variable [ $count ; Value: MBS("DragDrop.GetFileDescriptorCount"; $dropview; "") ]
If [ $count >0 ]
Set Variable [ $index ; Value: 0 ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $name ; Value: MBS("DragDrop.GetFileDescriptor"; $dropview; $index; "name") ]
Set Variable [ $data ; Value: MBS("DragDrop.GetFileDescriptor"; $dropview; $index; "data") ]
Set Variable [ $size ; Value: MBS("DragDrop.GetFileDescriptor"; $dropview; $index; "size") ]
Set Variable [ $path ; Value: MBS("DragDrop.GetFileDescriptor"; $dropview; $index; "path") ]

If [ Length ( $path ) >0 ]
New Record/Request
Set Field [ DragTest::field ; MBS("Files.ReadFile"; $path; "auto") ]
Set Field [ DragTest::Description ; "Got via file descriptor with path" ]
Set Field [ DragTest::Text ; $path ]
Commit Records/Requests [ With dialog: Off ]
Else If [ $size >0 ]
New Record/Request
Set Field [ DragTest::field ; $data ]
Set Field [ DragTest::Text ; $name ]
```

## 70.15. DRAGDROP.GETFILEDESCRIPTOR

2543

```
Set Field [ DragTest::Description ; "Got via file descriptor with data" ]  
Commit Records/Requests [ With dialog: Off ]  
End If
```

```
# next  
Set Variable [ $index ; Value: $index+1 ]  
Exit Loop If [ $index = $count ]  
End Loop  
End If
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.16 DragDrop.GetFileDescriptorCount 2544
- 79.45 Files.ReadFile 3898

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)

### 70.15.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 39

Created 5th February 2018, last changed 5th February 2018.

## 70.16 DragDrop.GetFileDescriptorCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	8.1	No	Yes	No	No	No

MBS( "DragDrop.GetFileDescriptorCount"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns number or error.

### Description

#### See also

- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.15 DragDrop.GetFileDescriptor](#) 2542

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)

Created 5th February 2018, last changed 5th February 2018.

## 70.17 DragDrop.GetHTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.2	Yes	Yes	No	No	No

MBS( "DragDrop.GetHTML"; droparea { ; Encoding } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### Encoding

Optional

The text encoding for result. Default is Windows ANSI.

UTF8

**Result** Returns HTML text or error.

### Description

HTML may be prefixed on Windows with metadata like the source URL. You may remove all text before <html> to get only the html.

### See also

- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.19 DragDrop.GetLeft](#) 2547
- [70.22 DragDrop.GetPath](#) 2550
- [70.25 DragDrop.GetRTF](#) 2557
- [70.26 DragDrop.GetTag](#) 2558
- [70.27 DragDrop.GetText](#) 2559
- [70.28 DragDrop.GetTop](#) 2561
- [70.30 DragDrop.GetURL](#) 2563
- [70.46 DragDrop.SetTag](#) 2588

### Example Databases

- [Drag and Drop/DragTest](#)

### 70.17.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 13th March 2019, last changed 13th March 2019.

## 70.18 DragDrop.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.GetHeight"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns height or error.

### Description

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.19 DragDrop.GetLeft 2547
- 70.27 DragDrop.GetText 2559
- 70.32 DragDrop.GetWidth 2565

Created 18th August 2014, last changed 5th February 2018.

## 70.19 DragDrop.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.GetLeft"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns x coordinate or error.

### Description

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.18 DragDrop.GetHeight 2546
- 70.17 DragDrop.GetHTML 2545
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.28 DragDrop.GetTop 2561
- 70.30 DragDrop.GetURL 2563
- 70.32 DragDrop.GetWidth 2565

Created 18th August 2014, last changed 5th February 2018.

## 70.20 DragDrop.GetMouseX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.GetMouseX"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns the mouse x coordinate.

### Description

Call this function in the drag action script. The mouse position is relative to the window.  
Added Windows support for MBS Plugin 8.1.

### Examples

Queries Mouse X and Y coordinates:

```
MBS( "DragDrop.GetMouseX"; $droparea ) & " / " & MBS( "DragDrop.GetMouseY"; $droparea )
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.21 DragDrop.GetMouseY 2549
- 70.29 DragDrop.GetTypes 2562

Created 18th August 2014, last changed 5th February 2018.



## 70.21 DragDrop.GetMouseY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.GetMouseY"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns the mouse y coordinate.

### Description

Call this function in the drag action script. The mouse position is relative to the window.  
Added Windows support for MBS Plugin 8.1.

### Examples

Queries Mouse X and Y coordinates:

```
MBS( "DragDrop.GetMouseX"; $droparea ) & " / " & MBS( "DragDrop.GetMouseY"; $droparea )
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.20 DragDrop.GetMouseX 2548
- 70.29 DragDrop.GetTypes 2562

Created 18th August 2014, last changed 5th February 2018.

## 70.22 DragDrop.GetPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.GetPath"; droparea { ; index } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### index

Optional

Optional index for the file path. Index goes from 0 to DragDrop.GetPathCount-1.

0

**Result** The path or empty value.

### Description

Call this function in the drag action script.

For an email drag from Apple Mail, this function may give the path to a copy of the email file in temporary folder.

Use Path.NativePathToFileMakerPath to convert to a FileMaker path if you plan to use "filemac:" for an insert file script step.

Added Windows support for MBS Plugin 8.1.

### Examples

Process paths in Drag & Drop:

```
Set Variable [ $count ; Value: MBS("DragDrop.GetPathCount"; $dropview) ]
If [ $count >0 ]
Set Variable [ $index ; Value: 0 ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $path ; Value: MBS("DragDrop.GetPath"; $dropview; $index) ]
If [ Length ( $path ) >0 ]
If [ MBS("Files.FileExists"; $path) = 0 ]
# File not yet written? Wait a bit
Pause/Resume Script [ Duration (seconds): 1 ]
End If
New Record/Request
Set Field [ DragTest::field ; MBS("Files.ReadFile"; $path; "auto") ]
Set Field [ DragTest::Text ; $path ]
Set Field [ DragTest::Description ; "Got via path list" ]
Commit Records/Requests [ With dialog: Off ]
End If
```

```
# next
Set Variable [ $index ; Value: $index+1 ]
Exit Loop If [ $index = $count ]
End Loop
End If
```

Stores files in records:

```
Set Variable [ $dropview ; Value: Get(ScriptParameter) ]
Set Variable [ $count ; Value: MBS("DragDrop.GetPathCount"; $dropview) ]
// Show Custom Dialog [ "Number of files: " & $count ]
Set Variable [ $index ; Value: 0 ]
If [ $count >0 ]
Loop
Set Variable [ $OSPfad ; Value: MBS("DragDrop.GetPath"; $dropview; $index) ]
Set Variable [ $FMPfad ; Value: MBS( "Path.NativePathToFilemakerPath"; $OSPfad ) ]
#
If [ MBS("Files.FileExists"; $OSPfad) ]
Go to Layout [ "MIX" ; Animation: None ]
New Record/Request
#
Set Field [ MIX::Path ; $OSPfad ]
Set Field [ MIX::Name ; MBS( "Path.LastPathComponent"; $OSPfad ) ]
#
Go to Field [ MIX::Image ]
Insert Picture [ Reference ; "$FMPfad" ]
#
Commit Records/Requests [ With dialog: Off ]
Go to Layout [ original layout ; Animation: None ]
End If
#
Set Variable [ $index ; Value: $index+1 ]
Exit Loop If [ $index = $count ]
End Loop
End If
```

### See also

- 70.17 DragDrop.GetHTML 2545
- 70.23 DragDrop.GetPathCount 2553
- 70.24 DragDrop.GetPicture 2555
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.30 DragDrop.GetURL 2563

- 70.32 DragDrop.GetWidth 2565
- 70.46 DragDrop.SetTag 2588
- 79.45 Files.ReadFile 3898
- 124.5 Path.LastPathComponent 6252

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

### 70.22.1 Blog Entries

- [MBS Filemaker Plugin, version 2.4pr8](#)

### 70.22.2 FileMaker Magazin

- [Ausgabe 2/2020, Seite 38](#)

Created 18th August 2014, last changed 8th February 2018.

## 70.23 DragDrop.GetPathCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.GetPathCount"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** The number of paths.

### Description

Call this function in the drag action script.  
Added Windows support for MBS Plugin 8.1.

### Examples

Stores files in records:

```

Set Variable [ $dropview ; Value: Get( ScriptParameter ) ]
Set Variable [ $count ; Value: MBS( "DragDrop.GetPathCount"; $dropview ) ]
// Show Custom Dialog [ "Number of files: " & $count ]
Set Variable [ $index ; Value: 0 ]
If [ $count > 0 ]
Loop
Set Variable [ $OSPFad ; Value: MBS( "DragDrop.GetPath"; $dropview; $index ) ]
Set Variable [ $FMPfad ; Value: MBS( "Path.NativePathToFilemakerPath"; $OSPFad ) ]
#
If [ MBS( "Files.FileExists"; $OSPFad ) ]
Go to Layout [ "MIX" ; Animation: None ]
New Record/Request
#
Set Field [ MIX::Path ; $OSPFad ]
Set Field [ MIX::Name ; MBS( "Path.LastPathComponent"; $OSPFad ) ]
#
Go to Field [ MIX::Image ]
Insert Picture [ Reference ; "$FMPfad" ]
#
Commit Records/Requests [ With dialog: Off ]
Go to Layout [ original layout ; Animation: None ]
End If
#
Set Variable [ $index ; Value: $index+1 ]
Exit Loop If [ $index = $count ]
End Loop
End If

```

**See also**

- 70.6 DragDrop.CreateWithControl 2529
- 70.11 DragDrop.GetEmailCount 2538
- 70.22 DragDrop.GetPath 2550
- 70.24 DragDrop.GetPicture 2555
- 79.19 Files.FileExists 3855
- 124.5 Path.LastPathComponent 6252
- 124.7 Path.NativePathToFileMakerPath 6255

**Example Databases**

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

**70.23.1 FileMaker Magazin**

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 8th February 2018.

## 70.24 DragDrop.GetPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	No	No	No	No

MBS( "DragDrop.GetPicture"; droparea { ; ImageType; Filename; index } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.  
"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

#### index

Optional

Index for the file path. Index goes from 0 to DragDrop.GetPathCount-1.  
0

**Result** Returns container value with picture.

### Description

Call this function in the drag action script. This can be a direct picture drag or a file drag where we load the picture file.

### Examples

Queries picture as PNG

MBS( "DragDrop.GetPicture"; \$droparea; "PNG"; "myfile.png" )

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.22 DragDrop.GetPath 2550
- 70.23 DragDrop.GetPathCount 2553
- 70.31 DragDrop.GetVisible 2564
- 70.32 DragDrop.GetWidth 2565

**Example Databases**

- [Drag and Drop/for Mac/DragTest Image](#)

**70.24.1 FileMaker Magazin**

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 12nd July 2015.



## 70.25 DragDrop.GetRTF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.2	Yes	Yes	No	No	No

MBS( "DragDrop.GetRTF"; droparea { ; Encoding } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Encoding

Optional

The text encoding for result. Default is Windows ANSI.

UTF8

**Result** Returns RTF or error.

### Description

#### See also

- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.17 DragDrop.GetHTML](#) 2545
- [70.19 DragDrop.GetLeft](#) 2547
- [70.22 DragDrop.GetPath](#) 2550
- [70.26 DragDrop.GetTag](#) 2558
- [70.27 DragDrop.GetText](#) 2559
- [70.28 DragDrop.GetTop](#) 2561
- [70.30 DragDrop.GetURL](#) 2563
- [70.46 DragDrop.SetTag](#) 2588

### Example Databases

- [Drag and Drop/DragTest](#)

### 70.25.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 13th March 2019, last changed 13th March 2019.

## 70.26 DragDrop.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	3.3	Yes	Yes	No	No	No

MBS( "DragDrop.GetTag"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns the stored tag value or an error.

### Description

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.17 DragDrop.GetHTML 2545
- 70.19 DragDrop.GetLeft 2547
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.27 DragDrop.GetText 2559
- 70.28 DragDrop.GetTop 2561
- 70.30 DragDrop.GetURL 2563
- 70.45 DragDrop.SetImage 2586
- 70.46 DragDrop.SetTag 2588

### 70.26.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr5](#)

Created 18th August 2014, last changed 5th February 2018.

## 70.27 DragDrop.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.6	Yes	Yes	No	No	No

MBS( "DragDrop.GetText"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** The text.

### Description

Added Windows support for MBS Plugin 8.1.

### Examples

Process text coming with Drag & Drop:

```
Set Variable [ $text ; Value: MBS("DragDrop.GetText"; $dropview) ]
If [ Length($text) >0 ]
New Record/Request
Set Field [ DragTest::Text ; $text ]
Set Field [ DragTest::Description ; "Got text" ]
Commit Records/Requests [ With dialog: Off ]
End If
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.18 DragDrop.GetHeight 2546
- 70.19 DragDrop.GetLeft 2547
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.26 DragDrop.GetTag 2558
- 70.28 DragDrop.GetTop 2561
- 70.29 DragDrop.GetTypes 2562
- 70.32 DragDrop.GetWidth 2565
- 70.46 DragDrop.SetTag 2588

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest Text](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drag](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drop](#)

### 70.27.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr6](#)

Created 18th August 2014, last changed 5th February 2018.

## 70.28 DragDrop.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.GetTop"; droparea; swap )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### swap

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns y coordinate or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.17 DragDrop.GetHTML 2545
- 70.19 DragDrop.GetLeft 2547
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.29 DragDrop.GetTypes 2562
- 70.30 DragDrop.GetURL 2563
- 70.46 DragDrop.SetTag 2588

Created 18th August 2014, last changed 5th February 2018.

## 70.29 DragDrop.GetTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.3	Yes	No	No	No	No

MBS( "DragDrop.GetTypes"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns list of types or error.

### Description

This are the names Apple uses for drag and drop, e.g. NSStringPBoardType for text.

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.20 DragDrop.GetMouseX 2548
- 70.21 DragDrop.GetMouseY 2549
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.28 DragDrop.GetTop 2561
- 70.32 DragDrop.GetWidth 2565

### 70.29.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 70.30 DragDrop.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.6	Yes	No	No	No	No

MBS( "DragDrop.GetURL"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** The URL text.

### Description

Useful for receiving links from Safari.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.17 DragDrop.GetHTML 2545
- 70.19 DragDrop.GetLeft 2547
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.28 DragDrop.GetTop 2561
- 70.46 DragDrop.SetTag 2588

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)
- [Drag and Drop/for Mac/DragTest URL](#)

#### 70.30.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr6](#)

#### 70.30.2 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 18th August 2014.

## 70.31 DragDrop.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.GetVisible"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.24 DragDrop.GetPicture 2555
- 70.47 DragDrop.SetVisible 2589

### 70.31.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 5th February 2018.



## 70.32 DragDrop.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.GetWidth"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns width or error.

### Description

#### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.18 DragDrop.GetHeight 2546
- 70.19 DragDrop.GetLeft 2547
- 70.22 DragDrop.GetPath 2550
- 70.24 DragDrop.GetPicture 2555
- 70.27 DragDrop.GetText 2559
- 70.29 DragDrop.GetTypes 2562

Created 18th August 2014, last changed 5th February 2018.

## 70.33 DragDrop.GetWindowRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	3.3	Yes	Yes	No	No	No

MBS( "DragDrop.GetWindowRef"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns window reference number or error.

### Description

### See also

- [70.6 DragDrop.CreateWithControl](#) 2529

### 70.33.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr5](#)

Created 18th August 2014, last changed 15th April 2019.

## 70.34 DragDrop.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.List" )

**Result** Returns list of IDs.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.  
Created 18th August 2014, last changed 5th February 2018.

## 70.35 DragDrop.RegisterDropTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	No	No	No	No

MBS( "DragDrop.RegisterDropTypes"; droparea; Types )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### Types

The types you want to accept for the window. This can be Cocoa native type specifications or some special types: "images" for all image types, "movies" for movie types, "file" for files, "URL" for URLs, "Email" for emails and "text" for text. If you use more than one type, separate them with comma.

"images"

**Result** Returns "OK" on success.

### Description

Call this function for each window where you want to define drag types. As FileMaker defines some types by itself, you don't need to call this method for every type.

Version 2.7 adds "Emails" as type. You can receive Email drops from Apple Mail this way. The functions DragDrop.GetEmailCount, DragDrop.GetEmailID, DragDrop.GetEmailMailbox, DragDrop.GetEmailAccount and DragDrop.GetEmailSubject give you the details on received emails. GetURL gives URL of email if you received only one.

For Version 9.2 or newer you can pass RTF and HTML for the types.

### Examples

Registers for file drop for the current window:

```
MBS( "DragDrop.RegisterDropTypes"; $droparea; "file")
```

Create with control:

```
Set Variable [ $dropview ; Value: MBS("DragDrop.CreateWithControl"; 0; "DropArea") ]
Set Variable [ $result ; Value: MBS( "DragDrop.RegisterDropTypes"; $dropview; "file") ]
Set Variable [ $result ; Value: MBS( "DragDrop.SetDragActionHandler"; $dropview; Get ( FileName ) ; "DragAction" ) ]
Set Variable [ $result ; Value: MBS( "DragDrop.SetCursor"; $dropview; 1 ) ]
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.10 DragDrop.GetEmailAccount 2537

70.35. <i>DRAGDROP.REGISTERDROPTYPES</i>	2569
• 70.11 DragDrop.GetEmailCount	2538
• 70.12 DragDrop.GetEmailID	2539
• 70.13 DragDrop.GetEmailMailbox	2540
• 70.14 DragDrop.GetEmailSubject	2541
• 70.39 DragDrop.SetCursor	2575
• 70.40 DragDrop.SetDragActionHandler	2577
• 70.48 DragDrop.UnregisterDropTypes	2590

### **Example Databases**

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/for Mac/DragTest Email](#)
- [Drag and Drop/for Mac/DragTest Image](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Drag and Drop/for Mac/DragTest Text](#)
- [Drag and Drop/for Mac/DragTest URL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drag](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drop](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

Created 18th August 2014, last changed 13th March 2019.

## 70.36 DragDrop.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.Release"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns "OK" on success.

### Description

If you go to layout editor and drop zones are still active, this may cause trouble. Like you can't drag & drop controls.

### Examples

Releases a drop area:

```
If [ Length($$dropView) >0 ]
Set Variable [ $result ; Value: MBS( "DragDrop.Release"; $$dropview) ]
Set Variable [ $$dropview ; Value: "" ]
End If
```

### See also

- 70.4 DragDrop.CreateOnPopoverWithControl 2525
- 70.5 DragDrop.CreateOnPopoverWithSize 2527
- 70.6 DragDrop.CreateWithControl 2529
- 70.7 DragDrop.CreateWithSize 2532
- 70.8 DragDrop.CreateWithWindow 2534
- 70.37 DragDrop.ReleaseAll 2572

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)

### **70.36.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr1](#)

### **70.36.2 FileMaker Magazin**

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 5th February 2018.

## 70.37 DragDrop.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.ReleaseAll" )

**Result** Returns number of drop views released.

**Description**

**See also**

- 70.36 DragDrop.Release

2570

### 70.37.1 Blog Entries

- [MBS Filemaker Plugin, version 2.4pr8](#)

### 70.37.2 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 5th February 2018.



## 70.38 DragDrop.SetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	9.1	Yes	No	No	No	No

MBS( "DragDrop.SetAutoResizingMask"; droparea; Value )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Value

The new setting.

4+8

**Result** Returns OK or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### Examples

Resize with window growing:

MBS( "DragDrop.SetAutoResizingMask"; \$\$dragDrop; 4+2+8+16 )

### See also

- 41.29 AVPlayer.SetAutoResizingMask 1104
- 70.6 DragDrop.CreateWithControl 2529
- 70.9 DragDrop.GetAutoResizingMask 2536
- 108.15 MapView.GetAutoResizingMask 5744

- 108.65 `MapView.SetAutoResizingMask` 5798
- 168.30 `TextView.SetAutoResizingMask` 8036
- 183.124 `WebView.SetAutoResizingMask` 8583

### 70.38.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 20th February 2019, last changed 22nd February 2019.

## 70.39 DragDrop.SetCursor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.SetCursor"; droparea; mode )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### mode

The cursor mode. Currently: 0 = default, 1 = copy, 2 = link and 4 = move.

1

**Result** Returns "OK" on success.

### Description

This defines what cursor the user sees when moving mouse over the drop area.

FileMaker seems to overwrite our cursor change. Sorry.

Added Windows support for MBS Plugin 8.1 and new mode Move.

### Examples

Set cursor to shop plus sign:

```
MBS( "DragDrop.SetCursor"; $dropview; 1)
```

### See also

- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.35 DragDrop.RegisterDropTypes](#) 2568
- [70.43 DragDrop.SetFrame](#) 2583

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

### 70.39.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr3](#)

- [MBS FileMaker Plugin, version 5.2pr1](#)

### **70.39.2 FileMaker Magazin**

- Ausgabe 2/2020, Seite 37

Created 18th August 2014, last changed 10th February 2018.

## 70.40 DragDrop.SetDragActionHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.SetDragActionHandler"; droparea; FileName; ScriptName )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run

**Result** Returns "OK" on success.

### Description

Specify a filename and script name to have this script being called when a drag operation drops something on the window. This gives you the possibility to process the data.

The script parameter will be the drop area reference.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers drag action handler:

```
MBS( "DragDrop.SetDragActionHandler"; $dropHandle; Get ( FileName ); "MyDragAction")
```

### See also

- [70.1 DragDrop.ClearDragActionHandler](#) 2521
- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.35 DragDrop.RegisterDropTypes](#) 2568
- [70.41 DragDrop.SetDragEnterHandler](#) 2579
- [70.42 DragDrop.SetDragExitHandler](#) 2581

### Example Databases

- [Drag and Drop/DragTest Popover](#)

- Drag and Drop/DragTest
- Drag and Drop/for Mac/DragTest Email
- Drag and Drop/for Mac/DragTest Image
- Drag and Drop/for Mac/DragTest Text
- Drag and Drop/for Mac/DragTest URL
- Drag and Drop/for Mac/Image drag from one database to other/Image drop
- Drag and Drop/for Mac/Text drag from one database to other/Text drag
- Drag and Drop/for Mac/Text drag from one database to other/Text drop
- Mac and iOS/Machine Learning/Core ML Photos

### 70.40.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 36

Created 18th August 2014, last changed 5th February 2018.

## 70.41 DragDrop.SetDragEnterHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.SetDragEnterHandler"; droparea; FileName; ScriptName )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run

**Result** Returns "OK" on success.

### Description

Specify a filename and script name to have this script being called when a drag operation enters the window. This gives you the possibility to draw something like a note "Drop here".

The script parameter will be the drop area reference.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers drag enter handler:

```
MBS( "DragDrop.SetDragEnterHandler"; $dropHandle; Get ( FileName ); "MyDragEnter")
```

### See also

- 70.2 DragDrop.ClearDragEnterHandler 2523
- 70.3 DragDrop.ClearDragExitHandler 2524
- 70.6 DragDrop.CreateWithControl 2529
- 70.40 DragDrop.SetDragActionHandler 2577
- 70.42 DragDrop.SetDragExitHandler 2581

### 70.41.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 39

Created 18th August 2014, last changed 5th February 2018.



## 70.42 DragDrop.SetDragExitHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.SetDragExitHandler"; droparea; FileName; ScriptName )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run

**Result** Returns "OK" on success.

### Description

Specify a filename and script name to have this script being called when a drag operation leaves the window. This gives you the possibility to restore the window from anything you drew there on Drag Enter. The script parameter will be the drop area reference.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers drag exit handler:

```
MBS( "DragDrop.SetDragExitHandler"; $dropHandle; Get ( FileName ); "MyDragExit")
```

### See also

- 70.2 DragDrop.ClearDragEnterHandler 2523
- 70.3 DragDrop.ClearDragExitHandler 2524
- 70.6 DragDrop.CreateWithControl 2529
- 70.40 DragDrop.SetDragActionHandler 2577
- 70.41 DragDrop.SetDragEnterHandler 2579

### 70.42.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 39



## 70.43 DragDrop.SetFrame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.SetFrame"; droparea; X; Y; Width; Height { ; swap } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### X

The x coordinate.

#### Y

The y coordinate.

#### Width

The width of the control.

#### Height

The height of the control.

#### swap

Optional

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns OK or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.39 DragDrop.SetCursor 2575
- 70.44 DragDrop.SetFrameWithControl 2584
- 70.45 DragDrop.SetImage 2586
- 70.46 DragDrop.SetTag 2588

### 70.43.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 37

Created 18th August 2014, last changed 5th February 2018.

## 70.44 DragDrop.SetFrameWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	8.5	Yes	Yes	No	No	No

MBS( "DragDrop.SetFrameWithControl"; droparea; ControlName { ; DX; DY } )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!  
"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the drop area back to the new position. Also useful to switch between different locations on the layout.

### Examples

Move drop area:

```
Set Variable [ $r ; Value: MBS( "DragDrop.SetFrameWithControl"; $$dropview; "drop") ]
```

### See also

- 41.34 AVPlayer.SetFrameWithControl 1110
- 70.6 DragDrop.CreateWithControl 2529
- 70.43 DragDrop.SetFrame 2583
- 95.15 ImageView.SetFrameWithControl 5177
- 108.69 MapView.SetFrameWithControl 5803
- 168.33 TextView.SetFrameWithControl 8040

### 70.44.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr3](#)

Created 19th October 2018, last changed 19th October 2018.

## 70.45 DragDrop.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	Yes	No	No	No

MBS( "DragDrop.SetImage"; droparea; image )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### image

the image to use. For best results, pass a container value with a PNG image.

**Result** Returns "OK" on success.

### Description

Currently not working right in FileMaker 13. Better just put image in layout where you plan to put the drag area.

Added Windows support for MBS Plugin 8.1. Please use picture without alpha channel.

Image is scaled to viewing area, so best make sure you have exactly two times the pixels in the image relative to size of the control.

### Examples

Put a picture on drop area:

```
Set Variable [ $result; Value:MBS( "DragDrop.SetImage"; $dropview; DragTest::img ) ]
```

### See also

- [70.6 DragDrop.CreateWithControl](#) 2529
- [70.26 DragDrop.GetTag](#) 2558
- [70.43 DragDrop.SetFrame](#) 2583
- [70.46 DragDrop.SetTag](#) 2588

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)

### **70.45.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr10](#)
- [MBS Filemaker Plugin, version 2.4pr7](#)

### **70.45.2 FileMaker Magazin**

- Ausgabe 2/2020, Seite 37

Created 18th August 2014, last changed 13th October 2018.

## 70.46 DragDrop.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	3.3	Yes	Yes	No	No	No

MBS( "DragDrop.SetTag"; droparea; tag )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area. \$dropHandle

#### tag

A string you want to associate with the dropview.

**Result** Returns OK or error message.

### Description

Use the tag to store whatever value you want to associate with the drop view. You can later query it using DragDrop.GetTag.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.17 DragDrop.GetHTML 2545
- 70.22 DragDrop.GetPath 2550
- 70.25 DragDrop.GetRTF 2557
- 70.26 DragDrop.GetTag 2558
- 70.27 DragDrop.GetText 2559
- 70.28 DragDrop.GetTop 2561
- 70.30 DragDrop.GetURL 2563
- 70.43 DragDrop.SetFrame 2583
- 70.45 DragDrop.SetImage 2586

### 70.46.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr5](#)

Created 18th August 2014, last changed 2nd April 2020.



## 70.47 DragDrop.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	4.0	Yes	Yes	No	No	No

MBS( "DragDrop.SetVisible"; droparea; Visible )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

#### Visible

The new visible state.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.31 DragDrop.GetVisible 2564

### Example Databases

- [Drag and Drop/DragTest](#)

#### 70.47.1 FileMaker Magazin

- Ausgabe 2/2020, Seite 38

Created 18th August 2014, last changed 5th February 2018.

## 70.48 DragDrop.UnregisterDropTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
70 DragDrop	2.4	Yes	No	No	No	No

MBS( "DragDrop.UnregisterDropTypes"; droparea )

### Parameters

#### droparea

The reference ID for this drop area. Use functions like DragDrop.CreateWithControl to create a drop area.  
\$dropHandle

**Result** Returns "OK" on success.

### Description

This can be done for cleanup, but normally you simply let the window go away.

### Examples

Unregisters all drag types for the drop area:

```
MBS( "DragDrop.UnregisterDropTypes"; $droparea)
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 70.35 DragDrop.RegisterDropTypes 2568

Created 18th August 2014, last changed 18th August 2014.

# Chapter 71

## DynaPDF

Create, Import and Modify PDFs on Mac OS X and Windows.

### 71.1 DynaPDF.AddActionToObj

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddActionToObj"; PDF; ObjectType; ObjectEvent; Action Handle; Object Handle )

#### Parameters

##### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

##### ObjectType

The type of object that should get the action. Can be Action, Annotation, Bookmark, Catalog, Field, Page or PageLink.

"Field"

##### ObjectEvent

Which event should trigger the action. Can be OnOpen, OnClose, OnMouseUp, OnMouseEnter, OnMouseExit, OnMouseDown, OnFocus, OnBlur, OnKeyStroke, OnFormat, OnCalc, OnValidate, OnPageVisible, OnPageInVisible, OnPageOpen, OnPageClose, OnBeforeClosign, OnBeforeSaving, OnAfterSaving, OnBeforePrinting or OnAfterPrinting.

"OnCalc"

##### Action Handle

The handle for the action. e.g. returned by DynaPDF.CreateJSAction.

\$action

##### Object Handle

The object handle, e.g. a field number for a ObjectType = Field.

\$o

**Result** Returns OK or error.

### Description

The parameter ActHandle requires a handle that was returned by a function that creates an action object such as DynaPDF.CreateGoToAction, etc. The object handle is also a return value of its creation function. If the object type is a page, then use the page number as handle.

It is possible to add multiple actions to one object, but note that DynaPDF does not check whether all actions are valid. For example, it is possible to add more than one action to a text field to the OnFormat event, but Acrobat executes only the first one. Always test your actions with different Acrobat versions because each version handles actions in a different manner.

The OnMouseUp event is the standard event supported by all objects. This event type supports also all action types. The other events are handled differently depending on the Acrobat version. Acrobat 4 supports JavaScript actions only in non-OnMouseUp events. Newer versions support also predefined action types. However, test your forms with the Acrobat versions that should be supported - this is the only way to find incompatibilities.

See also [AddActionToObj](#) function in DynaPDF manual.

### Examples

Create sum field:

```
Set Variable [ $y; Value:50 ]
Set Variable [ $script; Value:"var v1 = this.getField(\"Val1\");" & $& "var v2 = this.getField(\"Val2\");"
& $& "var v3 = this.getField(\"Val3\");" & $& "event.value = v1.value + v2.value + v3.value;" ]
Set Variable [ $script; Value:MBS( "Text.ReplaceNewline"; $script; 2 ) ]
Set Variable [ $a; Value:MBS( "DynaPDF.CreateJSAction"; $pdf; $script ) ]
# Create 1st field
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val1"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "50.00"; "50.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
# Create 2nd field
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val2"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "100.00"; "100.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
# Create 3rd field
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val3"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "200.00"; "200.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
# Create sum field
# This last field calculates sum of other fields
# Works only in PDF Viewers supporting JavaScript!
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Sum"; -1; 0; 10; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFieldBorderWidth"; $pdf; $f; 0 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "350.00 €"; "350.00 €"; "Right" ) ]
```

```
Set Variable [ $r; Value:MBS( "DynaPDF.SetFieldFlags"; $pdf; $f; "ReadOnly"; 0 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.AddActionToObj"; $pdf; "Field"; "OnCalc"; $a; $f ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "CommaDot"; 2; "MinusBlack"; "€"; 0 ) ]
```

Create checkbox to confirm page and jump to next one:

```
Set Variable [ $f ; Value: MBS( "DynaPDF.CreateCheckBox"; $pdf; "OK"; "OK";0; -1; $PageWidth-150; $pageHeight-20; 15; 15 ) ]
# This is javascript from Adobe to go to next page You could substitute many of their examples
Set Variable [ $script ; Value: "this.pageNum++" ]
Set Variable [ $script ; Value: MBS( "Text.ReplaceNewline"; $script; 2 ) ]
Set Variable [ $a ; Value: MBS( "DynaPDF.CreateJSAction"; $pdf; $script ) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.AddActionToObj"; $pdf; "Field"; "OnMouseUp"; $a; $f ) ]
```

### See also

- [71.50 DynaPDF.CreateCheckBox](#) 2670
- [71.55 DynaPDF.CreateGoToRAction](#) 2681
- [71.56 DynaPDF.CreateGoToRActionEx](#) 2683
- [71.58 DynaPDF.CreateJSAction](#) 2687
- [71.67 DynaPDF.CreateTextField](#) 2709
- [71.279 DynaPDF.InsertBookmarkEx](#) 3001
- [71.294 DynaPDF.New](#) 3032
- [71.377 DynaPDF.SetFieldFlags](#) 3188
- [71.409 DynaPDF.SetNumberFormat](#) 3241
- [167.59 Text.ReplaceNewline](#) 7985

### Example Databases

- [DynaPDF/Create PDF with sum form field](#)

#### 71.1.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr5](#)
- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

Created 24th August 2016, last changed 21st May 2017.

## 71.2 DynaPDF.AddAnnotToPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddAnnotToPage"; PDF; PageNum; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PageNum

The page number.

#### Handle

The annotation handle.

**Result** Returns OK or error.

### Description

With exception of PopUp annotations all annotation types can be drawn on multiple pages. Watermark or Stamp annotations are typical annotations which can be placed on multiple pages.

See also [AddAnnotToPage](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.505 DynaPDF.WatermarkAnnot 3399

### 71.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 13th December 2016, last changed 13th December 2016.

## 71.3 DynaPDF.AddBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddBookmark"; PDF; Title; Parent; DestPage { ; Open } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Title

Title of the bookmark

"Chapter 2"

#### Parent

The Parent bookmark or -1.

-1

#### DestPage

Destination page.

5

#### Open

Optional

Optional, whether bookmark should appear open initially. Default is 0 for closed.

0

**Result** Returns Handle of bookmark or error.

### Description

It sets also the page mode to pmUseOutlines (see DynaPDF.SetPageMode). If the outline tree should not be shown when opening the document, then set the page mode back to pmUseNone or any other value before closing the PDF file.

Parent can be a handle of another bookmark if it should be added as a child of this bookmark. If Parent is set to -1 the bookmark is added as a root node.

DestPage specifies the page that should be opened when clicking on the bookmark. The parameter can be set to a page number that does not yet exist. If the page does not exist when closing file then it is adjusted to page number 1.

The parameter Open specifies whether a bookmark node should appear open or closed when it contains children. When a bookmark contains no children then this parameter should be set to false.

Related functions: DynaPDF.AddBookmarkEx, DynaPDF.ChangeBookmark, DynaPDF.InsertBookmark, DynaPDF.InsertBookmarkEx, DynaPDF.SetBookmarkDest, DynaPDF.SetBookmarkStyle.

See also [AddBookmark](#) function in DynaPDF manual.

### Examples

Add a bookmark to link to page 5

MBS( "DynaPDF.AddBookmark"; \$PDF; "Test"; -1; 5; 0 )

### See also

- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.32 DynaPDF.ChangeBookmark 2642
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.107 DynaPDF.FindBookmark 2770
- 71.128 DynaPDF.GetBookmark 2803
- 71.278 DynaPDF.InsertBookmark 2999
- 71.279 DynaPDF.InsertBookmarkEx 3001
- 71.294 DynaPDF.New 3032
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.420 DynaPDF.SetPageMode 3262

### Example Databases

- [DynaPDF/Bookmarks](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.4 DynaPDF.AddBookmarkEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddBookmarkEx"; PDF; Title; Parent; NamedDest; Open )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Title

Title of the bookmark.

"Chapter 2"

#### Parent

Parent bookmark if any or -1 for a root node.

-1

#### NamedDest

Name of a named destination (text) or Named Destination handle (number).

"test"

#### Open

Open (1) or close (0) the node when it has children?

0

**Result** Returns new bookmark handle or error.

### Description

It sets also the page mode to UseOutlines (see DynaPDF.SetPageMode). If the outline tree should not be shown when opening the document, set the page mode back to pmUseNone or any other value before closing the document.

Parent can be a handle of another bookmark if it should be added as a child of this bookmark. If Parent is set to -1 the bookmark is added as a root node.

The difference in comparison to DynaPDF.AddBookmarkEx is that the named destination can be defined as a string. This makes it possible to create the bookmark, also if you don't have the required information to create the named destination at this point. If the named destination does not exist when the file is closed then the bookmark does nothing. See also DynaPDF.CreateNamedDest().

See also [AddBookmarkEx](#) function in DynaPDF manual.

### See also

- 71.3 DynaPDF.AddBookmark 2595
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.107 DynaPDF.FindBookmark 2770
- 71.128 DynaPDF.GetBookmark 2803

- 71.279 DynaPDF.InsertBookmarkEx 3001
- 71.294 DynaPDF.New 3032
- 71.420 DynaPDF.SetPageMode 3262

Created 18th August 2014, last changed 18th August 2014.

## 71.5 DynaPDF.AddButtonImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddButtonImage"; PDF; Field; Button State; Image File Path )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Button State

The state of the button. Can be "Up", "Down" or "RollOver".

"Up"

#### Image File Path

The native file path for the image file.

"C:\test\picture.png"

**Result** Returns OK or error.

### Description

Adds an image to a push button to one or more of the three different states of a button. The parameter Field must be handle of a button field that was returned by a DynaPDF.CreateButton function call or the index of an existing field of type button.

The parameter State defines the button state in which the image should appear. Each state is optional; it is possible to add different images to all three states of the button. The rollover state should get a different image than the other states. If two states should get the same image, the image is physically inserted only once to the PDF file.

DynaPDF checks whether duplicate images are already available before inserting an image again. Depending on the parameter UseTransparency (see DynaPDF.SetUseTransparency) the image appears with a transparent background or opaque (default transparent). However, note that the background of the button must be transparent too to get a transparent button. Otherwise the button is still opaque due the opaque background of the button.

The parameter Caption is optional, it can be empty. Each state can contain its own caption which is drawn horizontally and vertically centered by default. The alignment can be changed with the function SetField-TextAlign(). Because each button state is directly drawn when calling the function, the alignment must be set before this function is called.

If a button has already an image for a specific button state, the existing image will be replaced with the new one.

See also [AddButtonImage](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton

- 71.294 DynaPDF.New 3032
- 71.441 DynaPDF.SetUseTransparency 3296

### 71.5.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 17th April 2020, last changed 17th April 2020.

## 71.6 DynaPDF.AddContinueText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddContinueText"; PDF; text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### text

Text to be printed.  
"Hello World"

**Result** Returns OK or error message.

### Description

Text lines created by this function are handled as a separate block. Before calling the function the first time, the usage must be prepared with DynaPDF.BeginContinueText.

The distance between two text lines can be adjusted with DynaPDF.SetLeading.

See also [AddContinueText](#) function in DynaPDF manual.

### See also

- [71.22 DynaPDF.BeginContinueText](#) 2629
- [71.206 DynaPDF.GetLeading](#) 2898
- [71.294 DynaPDF.New](#) 3032
- [71.402 DynaPDF.SetLeading](#) 3230

### Example Databases

- [DynaPDF/Create Text as PDF/A](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.7 DynaPDF.AddDeviceNProcessColorants

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.AddDeviceNProcessColorants"; PDF; DeviceNCS; Colorants; NumColorants; ProcessCS
{ ; Handle } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### DeviceNCS

Handle of a DeviceN or NChannel color space

#### Colorants

Array of colorant names.

#### NumColorants

Number of colorants in the arrays.

#### ProcessCS

Process color space

#### Handle

Optional

Alternate color space handle or -1.

**Result** Returns OK or error.

### Description

Adds a dictionary to a DeviceN or NChannel color space that describes the process color space whose components are included in the DeviceN or NChannel color space.

The array Colorants holds the process colorant names which are included in the process color space. The names must appear in the normal color space order, e.g. Red, Green, and Blue, for a RGB color space and the number of colorant names must match the number of color components in the process color space. However, the names in the Colorants array need not match the actual color space names. For example, a Red component need not be named Red.

Definitions of process colorants must not appear in the definition of spot colorants (see DynaPDF.AddDeviceNSeparations).

The reserved names Cyan, Magenta, Yellow, and Black are always considered to be process colors, which do not necessarily correspond to the colorants of a specific device; they are not required to have entries in the process dictionary.

If NumColorants is zero the functions deletes existing definitions of process colorants in the DeviceN or NChannel color space. Otherwise, existing definitions will be overridden.

Remarks:

Process colorant names must be defined in the code page 1252 (WinAnsi). The plugin will convert text to Windows ANSI.

71.7. *DYNAPDF.ADDDEVICENPROCESSCOLORANTS* 2603

See also [AddDeviceNProcessColorants](#) function in DynaPDF manual.

**See also**

- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.294 DynaPDF.New 3032

### **Example Databases**

- [DynaPDF/Create DeviceN ColorSpace](#)

### **71.7.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th August 2017.

## 71.8 DynaPDF.AddDeviceNSeparations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddDeviceNSeparations"; PDF; DeviceNCS; Colorants; SeparationCS; NumColorants )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DeviceNCS

Handle of a DeviceN or NChannel color space.

#### Colorants

Array of colorant names.

#### SeparationCS

Array of Separation color space handles.

#### NumColorants

Number of colorants and handles in the arrays.

**Result** Returns OK or error.

### Description

Adds a dictionary to a DeviceN or NChannel color space that describes the spot colorants which are used in the color space.

This dictionary provides information about the individual colorants that may be useful to some applications. In particular, the alternate color space and tint transformation function of a Separation color space describe the appearance of that colorant alone, whereas those of a DeviceN color space describe only the appearance of its colorants in combination.

The array Colorants holds the spot colorant names and the array SeparationCS holds the corresponding Separation color space handles. The colorant names in the array must match the names in the corresponding Separation color spaces. In addition, the colorants must be included in the DeviceN or NChannel color space. If NumColorants is zero the functions deletes existing definitions of spot colorants in the DeviceN or NChannel color space. Otherwise, existing definitions will be overridden.

See also [AddDeviceNSeparations](#) function in DynaPDF manual.

### Examples

Create separation color space with spotcolor and use it:

```
# Create the DeviceN color space
# Create Blend function (see dynapdf_help.pdf for how this was created)
Set Variable [ $PostScriptFunc ; Value: " { 2 index 0.38 mul 2 index 0 add add 0 3 index 0.56 mul 0 add
add 4 index 0.34 mul 0 4 index add add 0 0 0 add add 7 4 roll pop pop pop } " ]
Set Variable [ $cls ; Value: "PANTONE 345 CVC$PANTONE 293 CVC$Yellow" ]
Set Variable [ $cs ; Value: MBS("DynaPDF.CreateDeviceNColorSpace"; $pdf; $cls; 3; $PostScriptFunc;
"DeviceCMYK"; -1) ]
```



```

# We create also Separation color spaces for the spot colors and add
# these color spaces as an attribute to the DeviceN color space:
# First spot color
Set Variable [ $separations0 ; Value: MBS("DynaPDF.CreateSeparationCS"; $pdf; Trim(GetValue ( $cls; 1
)); "DeviceCMYK"; -1; MBS("DynaPDF.CMYK"; 97; 0; 87; 0) ) ]
# Second spot color
Set Variable [ $separations1 ; Value: MBS("DynaPDF.CreateSeparationCS"; $pdf; Trim(GetValue ( $cls; 2
)); "DeviceCMYK"; -1; MBS("DynaPDF.CMYK"; 255; 143; 0; 0) ) ]
# Put in a list:
Set Variable [ $separations ; Value: $separations0 & $& $separations1 ]
# Add the separation color spaces to the DeviceN color space.
Set Variable [ $r ; Value: MBS("DynaPDF.AddDeviceNSeparations"; $pdf; $cs; $cls; $separations; 2) ]
# Because the DeviceN color space uses a process color we add also
# the attributes of the process color space to it. Note that all
# colorant names must be defined, also if the DeviceN color space
# uses only one component of the process color space.
Set Variable [ $pcs ; Value: "Cyan$Magenta$Yellow$Black" ]
Set Variable [ $r ; Value: MBS("DynaPDF.AddDeviceNProcessColorants"; $pdf; $cs; $pcs; 4; "DeviceCMYK";
-1) ]
# The DeviceN color space is now fully created so that we can use it
# Set the DeviceN color space
Set Variable [ $r ; Value: MBS("DynaPDF.SetExtColorSpace"; $pdf; $cs) ]
# Draw a rectangle with this color
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 150/255; 100/255; 100/255) ]
Set Variable [ $r ; Value: MBS("DynaPDF.Rectangle"; $pdf; 50; 690; 200; 100; "fill") ]

```

**See also**

- 71.7 DynaPDF.AddDeviceNProcessColorants 2602
- 71.29 DynaPDF.CMYK 2638
- 71.52 DynaPDF.CreateDeviceNColorSpace 2675
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.389 DynaPDF.SetFillColor 3204

**Example Databases**

- [DynaPDF/Create DeviceN ColorSpace](#)

### 71.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th August 2017.

## 71.9 DynaPDF.AddFontSearchPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddFontSearchPath"; PDF; Path; Recursive )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Path

Path to font file directory or path to font file.  
"C:\Fonts"

#### Recursive

Include subdirectories (search recursively). Pass 1 for recursive or 0 for not recursive.  
1

**Result** Returns number of fonts loaded or error message.

### Description

An arbitrary number of search paths can be added at runtime. Subdirectories are added recursively if the parameter Recursive is 1.

Result may be 0 if all those fonts in were already loded.

See also [AddFontSearchPath](#) function in DynaPDF manual.

### Examples

Loads font folder on Windows:

```
MBS( "DynaPDF.AddFontSearchPath"; "C:\Fonts"; 1 )
```

### See also

- [71.255 DynaPDF.GetUseSystemFonts](#) 2958
- [71.294 DynaPDF.New](#) 3032
- [71.440 DynaPDF.SetUseSystemFonts](#) 3294

### 71.9.1 Blog Entries

- [Install fonts for PDF generation in FileMaker Cloud](#)
- [PDF Standard Fonts](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 21st October 2014.

## 71.10 DynaPDF.AddOutputIntent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddOutputIntent"; PDF; Path )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Path

The native path to the ICC profile.  
\$path

**Result** Returns handle of the Rendering Intent object or error.

### Description

see also DynaPDF.AddOutputIntentEx.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [AddOutputIntent](#) function in DynaPDF manual.

### See also

- [71.11 DynaPDF.AddOutputIntentEx](#) 2609
- [71.219 DynaPDF.GetOutputIntent](#) 2915
- [71.294 DynaPDF.New](#) 3032
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### 71.10.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr9](#)

Created 3th November 2014, last changed 27th May 2017.

## 71.11 DynaPDF.AddOutputIntentEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddOutputIntentEx"; PDF; Container )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Container

The container with the ICC Profile as file content.

**Result** Returns handle of the Rendering Intent object or error.

### Description

see also DynaPDF.AddOutputIntent.

See also [AddOutputIntentEx](#) function in DynaPDF manual.

### Examples

Check conformance and add required output intents:

```
# Check if this PDF conforms to PDF/A-1b 2005
Set Variable [ $c; Value:MBS("DynaPDF.CheckConformance"; $pdf; "PDF/A 1b 2005") ]
If [ $c = 1 ]
# A RGB ICC profile must be added to the document
Set Variable [ $r; Value:MBS("DynaPDF.AddOutputIntentEx"; $pdf; ZUGFeRD Invoice::RGB ICC Profile)
]
Else If [ $c = 2 ]
# A CMYK ICC profile must be added to the document
Set Variable [ $r; Value:MBS("DynaPDF.AddOutputIntentEx"; $pdf; ZUGFeRD Invoice::CMYK ICC Profile) ]
Else If [ $c = 3 ]
# A Gray, RGB, or CMYK ICC profile must be added to the document
Set Variable [ $r; Value:MBS("DynaPDF.AddOutputIntentEx"; $pdf; ZUGFeRD Invoice::RGB ICC Profile)
]
End If
```

### See also

- 71.10 DynaPDF.AddOutputIntent 2608
- 71.39 DynaPDF.CheckConformance 2650
- 71.219 DynaPDF.GetOutputIntent 2915
- 71.294 DynaPDF.New 3032

**Example Databases**

- DynaPDF/Convert to PDF/A
- DynaPDF/Create Text as PDF/A
- DynaPDF/Scan with WIA to PDF
- DynaPDF/ZUGFeRD/ZUGFeRD Invoice
- DynaPDF/ZUGFeRD 2.0/Factur-X Invoice
- DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice

**71.11.1 Blog Entries**

- ZUGFeRD 2.0 and Factur-X for FileMaker
- Creating PDF/A in FileMaker with ZUGFeRD standard
- Creating PDF/A in FileMaker with ZUGFeRD standard
- MBS Filemaker Plugin, version 4.4pr9

**71.11.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 24

Created 3th November 2014, last changed 16th August 2016.

## 71.12 DynaPDF.AddValToChoiceField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AddValToChoiceField"; PDF; Field; ExpValue; Value { ; Selected } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### ExpValue

Export value (can be empty)

""

#### Value

Visible choice value (required).

"Hello"

#### Selected

Optional

Whether this value should be selected. 1 to select and 0 to not select.

0

**Result** Returns OK or error.

### Description

The parameter Field must be a handle of a combo box or list box. The parameter ExpValue defines the export value that will be submitted to a web server if the value is selected in Adobe's Acrobat. The export value can be an empty string and it is possible to use one export value for multiple values.

The parameter Value is the visible text that can be selected inside the combo box or list box. Value must be a unique string inside the combo box or list box values. Value is required; it must not be an empty string.

If the parameter Selected is true the value appears as selected value in Adobe's Acrobat. List boxes support multiple selected values depending on whether the flag ffMultiSelect was set or not (see DynaPDF.SetFieldFlags and DynaPDF.CreateListBox for further information). If the flag ffMultiSelect is not set, a selected value disables all others (default).

See also [AddValToChoiceField](#) function in DynaPDF manual.

### See also

- 71.51 DynaPDF.CreateComboBox

- 71.59 DynaPDF.CreateListBox 2690
- 71.294 DynaPDF.New 3032
- 71.377 DynaPDF.SetFieldFlags 3188

### 71.12.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 9th July 2015.



## 71.13 DynaPDF.AllowPageBreak

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AllowPageBreak"; PDF; Allow; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Allow

Whether to allow page breaks. Can be 1 to allow or 0 to disallow.

0

#### PosX

The X position of new text rectangle on the new page.

100

#### PosY

The Y position of new text rectangle on the new page.

100

#### Width

The width of new text rectangle on the new page.

400

#### Height

The height of new text rectangle on the new page.

600

**Result** Returns OK or error.

### Description

By default DynaPDF.WriteFText and DynaPDF.WriteFTextEx functions stop when text rectangle is filled.

If you allow a page break, the plugin will start a new page and add text there.

If you pass all 6 parameters, we use the new rectangle for the following pages.

### Examples

Disable page break:

```
MBS("DynaPDF.AllowPageBreak"; $pdf; 0)
```

### See also

- 71.294 DynaPDF.New 3032
- 71.508 DynaPDF.WriteFText 3406

- 71.509 DynaPDF.WriteFTextEx 3408
- 71.511 DynaPDF.WriteStyledText 3414
- 71.512 DynaPDF.WriteStyledTextEx 3416

### Example Databases

- [DynaPDF/WriteFText](#)

Created 18th August 2014, last changed 28th November 2019.

## 71.14 DynaPDF.AppendImagePage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AppendImagePage"; PDF; Image Container { ; Resolution } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Image Container

The container with the image to insert.

#### Resolution

Optional

The resolution to use. Normally we use the ones in the images, but you can overwrite it here.

300

**Result** Returns OK or error.

### Description

This is a convenience function. It creates a page (DynaPDF.AppendPage), reads image format (DynaPDF.ReadImageFormat) and resolution (DynaPDF.ReadImageResolution) and places image on the new page (DynaPDF.InsertImageFile).

Returns number of images added. Because TIFF files can include several images, this count may be higher than 1.

### Examples

Create PDF with an image:

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# new page with container image
Set Variable [ $r; Value:MBS( "DynaPDF.AppendImagePage"; $pdf; Create Text::test) ]
# Render one page as Picture
Set Variable [ $PDFData; Value:MBS("DynaPDF.Save"; $pdf; "hello.pdf") ]
# cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
Set Field [ Create Text::PDF; $PDFData ]
```

### See also

- 71.15 DynaPDF.AppendImagePages 2617
- 71.16 DynaPDF.AppendPage 2619
- 71.281 DynaPDF.InsertImageFile 3007

- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.314 DynaPDF.ReadImageResolution 3083
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 184.11 WIA.Images 8646

### 71.14.1 Blog Entries

- [MBS FileMaker Plugin 6.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 27th June 2016, last changed 27th June 2016.

## 71.15 DynaPDF.AppendImagePages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AppendImagePages"; PDF; Image Paths { ; Resolution } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Image Paths

The list of native file paths.

"/Users/cs/Desktop/test.jpg"

#### Resolution

Optional

The resolution to use. Normally we use the ones in the images, but you can overwrite it here.

300

**Result** Returns number or error.

### Description

This is a convenience function. It creates pages (DynaPDF.AppendPage), reads image format (DynaPDF.ReadImageFormat) and resolution (DynaPDF.ReadImageResolution) and places image on page (DynaPDF.InsertImageFile).

Returns number of images added. Because TIFF files can include several images, this count may be higher than the number of file paths.

### Examples

Create PDF with images:

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Set destination path
Set Variable [ $r; Value:MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/test.pdf" ) ]
# Add pages
Set Variable [ $r; Value:MBS( "DynaPDF.AppendImagePages"; $pdf; "/Users/cs/Desktop/Auto2.JPG$/Users/cs/Desktop/Auto4.JPG$/Users/cs/Desktop/Auto1.JPG"; 300 ) ]
# Save
Set Variable [ $PDFData; Value:MBS("DynaPDF.Save"; $pdf; "hello.pdf" ) ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.14 DynaPDF.AppendImagePage 2615
- 71.16 DynaPDF.AppendPage 2619

- 71.280 DynaPDF.InsertImage 3003
- 71.281 DynaPDF.InsertImageFile 3007
- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.314 DynaPDF.ReadImageResolution 3083
- 71.316 DynaPDF.Release 3086
- 184.11 WIA.Images 8646

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)

### 71.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr5](#)
- [MBS FileMaker Plugin 6.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 27th June 2016, last changed 3th July 2016.

## 71.16 DynaPDF.AppendPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AppendPage"; PDF )

(old name: DynaPDF.Append)

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK on success.

### Description

The default page format for new created pages is DIN A4. However, when changing the page format, the next page is created in the same format as the previous one. The CropBox is also set to the values of the previous page. The other bounding boxes such as ArtBox, BleedBox and so on must be set manually for each page.

Use DynaPDF.SetPageHeight and DynaPDF.SetPageWidth or DynaPDF.SetPageFormat function to change size of current page.

See also [Append](#) function in DynaPDF manual.

### Examples

Append page:

```
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
```

### See also

- [71.14 DynaPDF.AppendImagePage](#) 2615
- [71.94 DynaPDF.EndPage](#) 2747
- [71.294 DynaPDF.New](#) 3032
- [71.313 DynaPDF.ReadImageFormat](#) 3081
- [71.326 DynaPDF.RotateTemplate](#) 3109
- [71.417 DynaPDF.SetPageFormat](#) 3256
- [71.418 DynaPDF.SetPageHeight](#) 3258
- [71.432 DynaPDF.SetTextRect](#) 3284
- [71.465 DynaPDF.Table.Draw](#) 3332

- 71.511 DynaPDF.WriteStyledText

### Example Databases

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Bookmarks](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Tables](#)
- [DynaPDF/WMF Conversion](#)
- [DynaPDF/WriteFText](#)

#### 71.16.1 Blog Entries

- [Merge PDF with table of contents](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

#### 71.16.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 28](#)

Created 18th August 2014, last changed 12nd October 2019.



## 71.17 DynaPDF.ApplyShading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ApplyShading"; PDF; ShadHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### ShadHandle

Handle of the shading

**Result** Returns OK or error.

### Description

This function applies a shading to the current clipping path, or if no clipping is active, to the entire page. See also DynaPDF.CreateAxialShading and DynaPDF.CreateRadialShading functions. See also [ApplyShading](#) function in DynaPDF manual.

#### See also

- [71.48 DynaPDF.CreateAxialShading](#) 2665
- [71.61 DynaPDF.CreateRadialShading](#) 2695
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/Signature Appearance](#)

#### 71.17.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 20th April 2020, last changed 20th April 2020.

## 71.18 DynaPDF.AssociateEmbFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AssociateEmbFile"; PDF; DestObject; DestHandle; Relationship; EmbFile )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestObject

The destination object type. Can be Annotation, Catalog, Field, Image, Page or Template.

"Annotation"

#### DestHandle

The destination object handle or -1.

-1

#### Relationship

The relationship for the object to its parent. Can be Associated, Data, Source, Supplement or Alternative.

The value Alternative must be used for ZUGFeRD compatible invoices.

"Alternative"

#### EmbFile

Handle of an embedded file.

**Result** Returns OK or error.

### Description

The parameter DestHandle must be a valid handle of a PDF object. If destination object type is a page, then the page number must be used as handle. The first page is denoted by one. If the destination object is the documents catalog then the parameter DestHandle is ignored. Set the parameter to zero or -1 in this case.

The parameter EmbFile must be a valid handle of an embedded file. See DynaPDF.AttachFile or AttachFile for further information.

Associated files are supported since PDF 2.0 and in PDF/A 3 files. In PDF/A 3 files all embedded files must be associated with a PDF object.

See also [AssociateEmbFile](#) function in DynaPDF manual.

### Examples

Add ZUGFeRD invoice xml file:

```
Set Variable [ $FileHandle; Value:MBS("DynaPDF.AttachFileText"; $pdf; ZUGFeRD Invoice::Invoice XML; "UTF-8"; "ZUGFeRD-invoice.xml"; "Invoice as XML" ) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.AssociateEmbFile"; $pdf; "Catalog"; -1; "Alternative"; $FileHandle) ]
```

71.18. *DYNAPDF.ASSOCIATEEMBFIELD* 2623

**See also**

- 71.19 DynaPDF.AttachFile 2624
- 71.21 DynaPDF.AttachFileText 2627
- 71.294 DynaPDF.New 3032

**Example Databases**

- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

**71.18.1 Blog Entries**

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

**71.18.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 24

Created 15th December 2015, last changed 16th August 2016.

## 71.19 DynaPDF.AttachFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AttachFile"; PDF; FilePath { ; Description; Compress } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### FilePath

The native file path for the file to attach.  
"/Users/cs/Desktop/invoice.xml"

#### Description

Optional  
The description for the file.  
"ZUGfERD-invoice.xml"

#### Compress

Optional  
Pass 1 to compress or 0 to not compress. You should pass 1 for text data like XML or JSON.  
0

**Result** Returns handle for embedded file or error.

### Description

The description is optional, the parameter can be set to "". The embedded file is compressed if the parameter Compress is set to 1. Otherwise it is left uncompressed. It is not always useful to compress embedded files especially if the file is already compressed, e.g. Zip files or already compressed image formats require no further compression. In the worst case the compressed file becomes larger as the uncompressed version. However, text files and most document formats should be compressed to reduce the file size.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [AttachFile](#) function in DynaPDF manual.

### See also

- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.21 DynaPDF.AttachFileText 2627
- 71.104 DynaPDF.FileAttachAnnot 2764
- 71.294 DynaPDF.New 3032
- 124.2 Path.FileMakerPathToNativePath 6247

### **71.19.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.5pr3](#)

### **71.19.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 25

Created 15th December 2015, last changed 15th August 2016.

## 71.20 DynaPDF.AttachFileContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AttachFileContainer"; PDF; Container; FileName { ; Description; Compress } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Container

The container value to use.

\$xmlContainer

#### FileName

The file name to display in PDF viewer.

"ZUGfERD-invoice.xml"

#### Description

Optional

The description for the file.

"invoice.xml"

#### Compress

Optional

Pass 1 to compress or 0 to not compress. You should pass 1 for text data like XML or JSON.

0

**Result** Returns OK or error.

### Description

The description is optional, the parameter can be set to "". The embedded file is compressed if the parameter Compress is set to 1. Otherwise it is left uncompressed. It is not always useful to compress embedded files especially if the file is already compressed, e.g. Zip files or already compressed image formats require no further compression. In the worst case the compressed file becomes larger as the uncompressed version. However, text files and most document formats should be compressed to reduce the file size.

### See also

- 71.294 DynaPDF.New

3032

### Example Databases

- [DynaPDF/Shrink PDF pages](#)

Created 15th December 2015, last changed 15th August 2016.

## 71.21 DynaPDF.AttachFileText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.AttachFileText"; PDF; Text; TextEncoding; FileName { ; Description; Compress } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Text

The text content for the file.

\$xml

#### TextEncoding

The text encoding for the text.

"UTF-8"

#### FileName

The file name to display in PDF viewer.

"ZUGFeRD-invoice.xml"

#### Description

Optional

The description for the file.

"invoice.xml"

#### Compress

Optional

Pass 1 to compress or 0 to not compress. You should pass 1 for text data like XML or JSON.

0

**Result** Returns OK or error.

### Description

The description is optional, the parameter can be set to "". The embedded file is compressed if the parameter Compress is set to 1. Otherwise it is left uncompressed. It is not always useful to compress embedded files especially if the file is already compressed, e.g. Zip files or already compressed image formats require no further compression. In the worst case the compressed file becomes larger as the uncompressed version. However, text files and most document formats should be compressed to reduce the file size.

### Examples

Add ZUGFeRD invoice xml file:

```
Set Variable [ $FileHandle; Value:MBS("DynaPDF.AttachFileText"; $pdf; ZUGFeRD Invoice::Invoice XML; "UTF-8"; "ZUGFeRD-invoice.xml"; "Invoice as XML") ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.AssociateEmbFile"; $pdf; "Catalog"; -1; "Alternative"; $FileHandle) ]
```

**See also**

- 71.18 DynaPDF.AssociateEmbFile 2622
- 71.19 DynaPDF.AttachFile 2624
- 71.294 DynaPDF.New 3032

**Example Databases**

- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

**71.21.1 Blog Entries**

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)

**71.21.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 24

Created 16th December 2015, last changed 29th September 2017.



## 71.22 DynaPDF.BeginContinueText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.BeginContinueText"; PDF; PosX; PosY )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the first text line

\$x

#### PosY

Y-Coordinate of the first text line

\$y

**Result** Returns OK or error message.

### Description

The distance between two text lines can be adjusted with DynaPDF.SetLeading. If no leading was defined it will be set to the font size. Note that the function changes the leading of the graphics state if it was not defined beforehand. Subsequent calls use then the leading that was set in a prior call. If the font or font size will be changed it is strongly recommended to set the leading to a correct value. The default leading is the font size. The leading, font, character spacing, word spacing, text scaling, or the text color can be changed before calling DynaPDF.AddContinueText the next time.

The point PosX, PosY defines the baseline of the first text line if the coordinate system is bottom-up, otherwise the top-left corner of the text's bounding box. The origin can be changed with the function DynaPDF.SetFontOrigin.

If the font uses horizontal writing mode the text cursor moves from top to bottom. In vertical writing mode the text cursor moves from left to right.

See also [BeginContinueText](#) function in DynaPDF manual.

### See also

- 71.6 DynaPDF.AddContinueText 2601
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.393 DynaPDF.SetFontOrigin 3212
- 71.402 DynaPDF.SetLeading 3230

### Example Databases

- [DynaPDF/Create Text as PDF/A](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.23 DynaPDF.BeginLayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.BeginLayer"; PDF; OCG )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### OCG

OCG or OCMD handle.

\$OCG

**Result** Returns layer reference number or error.

### Description

The layer must be closed with DynaPDF.EndLayer when finish. The parameter OCG must be valid handle of an Optional Content Group (OCG) or Optional Content Membership Dictionary (OCMD) (see DynaPDF.CreateOCG and DynaPDF.CreateOCMD for further information). The OCG or OCMD controls the visibility of the contents that is included in the layer.

DynaPDF.BeginLayer/DynaPDF.EndLayer calls connect normal page contents, such as text, images, and vector graphics with a layer but no interactive objects like annotations or form fields. Annotations and Form Fields can be added to a layer with DynaPDF.AddObjectToLayer.

It is not required to draw the entire contents of a layer in one pass. The page contents can be drawn as usual and delimited into DynaPDF.BeginLayer/DynaPDF.EndLayer calls as necessary. Only contents that is delimited into DynaPDF.BeginLayer/DynaPDF.EndLayer calls becomes part of a layer.

Layers can be nested by calling DynaPDF.BeginLayer more than one time with different OCGs or OCMDs. The visibility of an inner layer depends then also on the visibility of the out ones (see example below). If an outer layer is invisible then all inner layers are invisible too, regardless of the visibility settings of the inner layers. A layer is not part of the graphics state. Neither DynaPDF.BeginLayer nor DynaPDF.EndLayer change any parameter of the graphics state. DynaPDF.BeginLayer must not be called within an open path. See also [BeginLayer](#) function in DynaPDF manual.

### See also

- 71.24 DynaPDF.BeginPattern 2632
- 71.93 DynaPDF.EndLayer 2746
- 71.291 DynaPDF.LockLayer 3028
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.24 DynaPDF.BeginPattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.BeginPattern"; PDF; PatternType; TilingType; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PatternType

The pattern type. Can be Colored, UnColored or ShadingPattern.

"Colored"

#### TilingType

The tiling type. Can be ConstSpacing, NoDistortion or FastConstSpacing.

"ConstSpacing"

#### Width

Cell width.

10

#### Height

Cell height.

10

**Result** Returns pattern reference number or error.

### Description

See `dynapdf_help` manual for details.

See also [BeginPattern](#) function in DynaPDF manual.

### See also

- 71.23 DynaPDF.BeginLayer 2631
- 71.95 DynaPDF.EndPattern 2749
- 71.112 DynaPDF.FindPattern 2776
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.25 DynaPDF.BeginTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.BeginTemplate"; PDF; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Width

Width of the template.  
100

#### Height

Height of the template.  
100

**Result** Returns template handle or error.

### Description

See [dynapdf\\_help.pdf](#) manual for details.  
See also [BeginTemplate](#) function in DynaPDF manual.

### See also

- 71.80 DynaPDF.DeleteTemplate 2723
- 71.89 DynaPDF.EditTemplate 2738
- 71.90 DynaPDF.EditTemplate2 2740
- 71.96 DynaPDF.EndTemplate 2750
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.326 DynaPDF.RotateTemplate 3109

Created 6th February 2015, last changed 6th February 2015.

## 71.26 DynaPDF.Bezier123

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Bezier123"; PDF; x1; y1; x2; y2; x3; y3 )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### x1

X-Coordinate of the first control point P1

\$x1

#### y1

Y-Coordinate of the first control point P1

\$y1

#### x2

X-Coordinate of the second control point P2

\$x2

#### y2

Y-Coordinate of the second control point P2

\$y2

#### x3

X-Coordinate of the end point P3

\$x3

#### y3

Y-Coordinate of the end point P3

\$y3

**Result** Returns OK or error.

### Description

Curved path segments are specified as cubic Bézier curves. Such curves are defined by four points: the two endpoints (the current point P0 and the final point P3) and two control points P1 and P2. Given the coordinates of the four points, the curve is generated by varying the parameter t from 0.0 to 1.0 in the following equation:

$$R(t) = (1-t)^3P_0 + 3t(1-t)^2P_1 + 3t^2(1-t)P_2 + t^3P_3$$

When t = 0.0, the value of the function R(t) coincides with the current point P0; when t = 1.0, R(t) coincides with the final point P3. Intermediate values of t generate intermediate points along the curve. The curve does not, in general, pass through the two control points P1 and P2. Cubic Bézier curves have two desirable properties:

- The curve can be very quickly split into smaller pieces for rapid rendering.
- The curve is contained within the convex hull of the four points defining the curve, most easily visualized as the polygon obtained by stretching a rubber band around the outside of the four points. This property allows rapid testing of whether the curve lies completely outside the visible region, and hence does not have to be rendered.

The most general type of curve in PDF is the cubic Bézier curve with two control points. The starting point P0 is the current point that was set before by a painting operator (DynaPDF.MoveTo, DynaPDF.LineTo and so on). PDF also supports two other Bézier curves with only one control point (see DynaPDF.Bezier13 and DynaPDF.Bezier23). These two curve types are rarely used but still supported by all Acrobat versions incl. DynaPDF.

As mentioned earlier the function requires a start point that must be set with DynaPDF.MoveTo or another painting operator beforehand. Once the start point was set, multiple curve segments can be drawn to build circles, ellipses or other curved paths. The DynaPDF functions DynaPDF.DrawArc, DynaPDF.DrawCircle, DynaPDF.Ellipse and so on use all DynaPDF.Bezier123 to construct the path.

**See also**

- 71.27 DynaPDF.Bezier13 2636
- 71.28 DynaPDF.Bezier23 2637
- 71.83 DynaPDF.DrawArc 2726
- 71.86 DynaPDF.DrawCircle 2732
- 71.91 DynaPDF.Ellipse 2741
- 71.288 DynaPDF.LineTo 3022
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.27 DynaPDF.Bezier13

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Bezier13"; PDF; x1; y1; x3; y3 )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### x1

X-Coordinate of the first control point P1  
\$x1

#### y1

Y-Coordinate of the first control point P1  
\$y1

#### x3

X-Coordinate of the end point P3  
\$x3

#### y3

Y-Coordinate of the end point P3  
\$y3

**Result** Returns OK or error.

### Description

The second control point P2 coincides with the final point P3 of the curve. The start point P0 must be set with DynaPDF.MoveTo or any other painting operator before.

### See also

- 71.26 DynaPDF.Bezier123 2634
- 71.28 DynaPDF.Bezier23 2637
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.28 DynaPDF.Bezier23

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Bezier23"; PDF; x2; y2; x3; y3 )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### x2

X-Coordinate of the second control point P2  
\$x2

#### y2

Y-Coordinate of the second control point P2  
\$y2

#### x3

X-Coordinate of the end point P3  
\$x3

#### y3

Y-Coordinate of the end point P3  
\$y3

**Result** Returns OK or error.

### Description

In this version the first control coincides with initial point P0 of the curve. The start point P0 must be set with DynaPDF.MoveTo or any other painting operator before.

#### See also

- 71.26 DynaPDF.Bezier123 2634
- 71.27 DynaPDF.Bezier13 2636
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.29 DynaPDF.CMYK

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CMYK"; Cyan; Magenta; Yellow; Black )

### Parameters

#### Cyan

The cyan color component from 0 to 255.

0

#### Magenta

The magenta color component from 0 to 255.

0

#### Yellow

The yellow color component from 0 to 255.

255

#### Black

The black color component from 0 to 255.

255

**Result** Returns color value as number.

### Description

For use with functions which take a color as a big number.

Calculation is Cyan \* 16777216 + Magenta \* 65536 + Yellow \* 256 + Black.

Use it only if the color space is CMYK.

### Examples

Get a black color value:

```
MBS( "DynaPDF.CMYK"; 0; 0; 0; 255 )
```

### See also

- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.389 DynaPDF.SetFillColor 3204

### Example Databases

- [DynaPDF/Change Separation Colorant](#)
- [DynaPDF/Create DeviceN ColorSpace](#)

### 71.29.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.30 DynaPDF.ChangeAnnotName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeAnnotName"; PDF; AnnotationHandle; Name )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

#### Name

The new annotation name.  
"MyAnnotation"

**Result** Returns OK or error.

### Description

If the parameter Name contains an empty string, the name will be deleted. The annotation name must be a unique string so that the annotation can be identified in JavaScript actions. The string could be a GUIID, a hash, or any other string that uniquely identifies the annotation.

See also [ChangeAnnotName](#) function in DynaPDF manual.

### See also

- 71.31 DynaPDF.ChangeAnnotPos 2641
- 71.34 DynaPDF.ChangeFontSize 2645
- 71.294 DynaPDF.New 3032

Created 25th November 2014, last changed 25th November 2014.

## 71.31 DynaPDF.ChangeAnnotPos

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeAnnotPos"; PDF; AnnotationHandle; X; Y; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### X

The new x position

\$x

#### Y

The new y position

\$y

#### Width

The new width.

100

#### Height

The new height.

100

**Result** Returns OK or error.

### Description

Annotations which contain a visible appearance such as 3D annotations should be scaled without changing the annotation's aspect ratio.

See also [ChangeAnnotPos](#) function in DynaPDF manual.

### See also

- [71.30 DynaPDF.ChangeAnnotName](#) 2640
- [71.294 DynaPDF.New](#) 3032

Created 25th November 2014, last changed 25th November 2014.

## 71.32 DynaPDF.ChangeBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeBookmark"; PDF; BookmarkHandle; Title; Parent; DestPage; Open )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### BookmarkHandle

The reference number for the bookmark. Either returned by one of the add/insert functions or just counting from 0 to DynaPDF.GetBookmarkCount-1.

\$BookmarkHandle

#### Title

New title

"Hello"

#### Parent

New parent bookmark.

-1

#### DestPage

New destination page

5

#### Open

Open the bookmark?

0

**Result** Returns OK or error.

### Description

There is no difference between imported bookmarks and bookmarks which were created with DynaPDF. The parameter ABmk requires a valid bookmark handle. A bookmark handle is a simple array index ranging from zero to DynaPDF.GetBookmarkCount -1.

The parameter Title can be "" if it should be deleted. The parameter Open will be ignored if the bookmark contains no children.

The function does not check whether the destination page exists at the time the bookmark is changed. If the destination page does not exist when file is closed then it will be set to page 1.

To get the handle of a specific bookmark use the functions DynaPDF.FindBookmark and DynaPDF.FindNextBookmark to find the bookmark.

It is also possible to enumerate all bookmarks by using DynaPDF.GetBookmarkCount and DynaPDF.GetBookmark until the used bookmark was found (see DynaPDF.GetBookmark for further information).

See also [ChangeBookmark](#) function in DynaPDF manual.

**Examples**

Change the bookmark with new title and new page:

```
MBS( "DynaPDF.ChangeBookmark"; $PDF; $BookmarkHandle; "Hello World"; $NewParent; 6; 0 )
```

**See also**

- 71.3 DynaPDF.AddBookmark 2595
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.97 DynaPDF.ExchangeBookmarks 2751
- 71.107 DynaPDF.FindBookmark 2770
- 71.111 DynaPDF.FindNextBookmark 2775
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.278 DynaPDF.InsertBookmark 2999
- 71.294 DynaPDF.New 3032
- 71.350 DynaPDF.SetBookmarkDest 3149

Created 18th August 2014, last changed 18th August 2014.

## 71.33 DynaPDF.ChangeFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeFont"; PDF; FontHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### FontHandle

Handle of the new font.  
\$font

**Result** Returns OK or error message.

### Description

FontHandle must be a valid font handle that was returned by DynaPDF.SetFont, DynaPDF.SetFontEx, DynaPDF.SetCIDFont, or DynaPDF.LoadFont.

The font size is taken from the current font if any. If no font is active when the function is called, the font size will be set to the value that was used to load font the last time.

See also [ChangeFont](#) function in DynaPDF manual.

### See also

- 71.34 DynaPDF.ChangeFontSize 2645
- 71.35 DynaPDF.ChangeFontStyle 2646
- 71.36 DynaPDF.ChangeFontStyleEx 2647
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.392 DynaPDF.SetFontEx 3210

Created 18th August 2014, last changed 27th May 2017.



## 71.34 DynaPDF.ChangeFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeFontSize"; PDF; Size )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Size

The new font size.  
10

**Result** Returns OK or error message.

### Description

The font size must be greater zero.  
See also [ChangeFontSize](#) function in DynaPDF manual.

#### See also

- 71.30 DynaPDF.ChangeAnnotName 2640
- 71.33 DynaPDF.ChangeFont 2644
- 71.35 DynaPDF.ChangeFontStyle 2646
- 71.36 DynaPDF.ChangeFontStyleEx 2647
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 27th May 2017.

## 71.35 DynaPDF.ChangeFontStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeFontStyle"; PDF; Style )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Style

The new font style. See DynaPDF.LoadFont for details.  
8

**Result** Returns OK or error message.

### Description

Only the style flags Underlined (4) and Striked (8) can be set with this function. The font styles fsBold and fsItalic requires another font file that must be selected with DynaPDF.SetFont.

See also [ChangeFontStyle](#) function in DynaPDF manual.

### See also

- [71.33 DynaPDF.ChangeFont](#) 2644
- [71.34 DynaPDF.ChangeFontSize](#) 2645
- [71.36 DynaPDF.ChangeFontStyleEx](#) 2647
- [71.294 DynaPDF.New](#) 3032
- [71.391 DynaPDF.SetFont](#) 3208

### Example Databases

- [DynaPDF/Create Text as PDF A](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.36 DynaPDF.ChangeFontStyleEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeFontStyleEx"; PDF; Style )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Style

The new font style. See DynaPDF.LoadFont for details.

3

**Result** Returns OK or error message.

### Description

These flags can be used to explicitly enable the emulation of a missing font style.

See also [ChangeFontStyleEx](#) function in DynaPDF manual.

### See also

- [71.33 DynaPDF.ChangeFont](#) 2644
- [71.34 DynaPDF.ChangeFontSize](#) 2645
- [71.35 DynaPDF.ChangeFontStyle](#) 2646
- [71.294 DynaPDF.New](#) 3032

Created 18th August 2014, last changed 27th May 2017.

## 71.37 DynaPDF.ChangeLinkAnnot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeLinkAnnot"; PDF; AnnotationHandle; URL )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

#### URL

URL or file path.  
"http://www.mbsplugins.de/"

**Result** Returns OK or error.

### Description

The parameter AnnotationHandle must be a valid handle of a file link, page link, or web link Annotation. The parameter URL can be either a file path or an URL to an internet resource; it must not be an empty string. Note that you cannot change the type of the annotation with this function. For example, a web link annotation requires still a URL to an internet resource, while a file link annotation requires a path to a file on a local hard drive.

Imported file link or web link annotations are mostly defined as page link annotation because it is impossible to distinguish between these types during import. Use the function DynaPDF.FindLinkAnnot if you need to change an imported file link or web link annotation.

See also [ChangeLinkAnnot](#) function in DynaPDF manual.

### See also

- 71.110 DynaPDF.FindLinkAnnot 2774
- 71.294 DynaPDF.New 3032

### 71.37.1 FileMaker Magazin

- Ausgabe 3/2019, Seite 37

Created 25th November 2014, last changed 25th November 2014.

## 71.38 DynaPDF.ChangeSeparationColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ChangeSeparationColor"; PDF; CSHandle; NewColor; Alternate { ; AltHandle } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### CSHandle

Handle of the separation color space.

#### NewColor

New color in the alternate color space.

#### Alternate

The alternate color space. Can be DeviceRGB, DeviceCMYK, DeviceGray, CalGray, CalRGB, Lab, IC-CBased, Pattern, Indexed, Separation, DeviceN, NChannel or the matching number value.

#### AltHandle

Optional  
The Color space handle or -1 for device spaces.

**Result** Returns OK or error.

### Description

The new color value must be defined in the alternate color space. The alternate color space can be any device or ICC based color space including Lab. If a non-device color space is used, the parameter AltHandle must be set to the color space handle of the alternate color space.

If the function succeeds the return value is OK. If the function fails the return value is the error.

See also [ChangeSeparationColor](#) function in DynaPDF manual.

#### See also

- [71.294 DynaPDF.New](#)

3032

### Example Databases

- [DynaPDF/Change Separation Colorant](#)

### 71.38.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 22nd March 2017, last changed 22nd March 2017.

## 71.39 DynaPDF.CheckConformance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CheckConformance"; PDF; Type { ; Options } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Type

PDF Version to check. This can be "PDF/A 1b 2005", "PDF/A 2b", "PDF/A 3b" or "Normalize". Version 6.0 of DynaPDF supports also: ZUGFeRD Basic, ZUGFeRD Comfort and ZUGFeRD Extended.

"PDF/A 1b 2005"

#### Options

Optional

Various options. If no options are specified, we use default. Can be specified as number or a texts.

"DeletePostscript\$DeleteOPIComments"

**Result** Returns result or error.

### Description

This function can be used to convert any PDF to PDF/A.

The conversion of arbitrary imported PDF files to PDF/A requires a separate license of the PDF/A Extension (extra purchase in addition to Pro license).

See `dynapdf_help.pdf` manual file for more details on this function.

You can pass those texts for options:

See also [CheckConformance](#) function in DynaPDF manual.

### Examples

Check conformance for ZUGFeRD Extended:

```
MBS( "DynaPDF.CheckConformance"; $pdf; "ZUGFeRD Extended"; "Default" )
```

Check conformance only:

```
MBS("DynaPDF.CheckConformance"; $pdf; "PDF/A 1b 2005"; 0)
```

Check conformance for ZUGFeRD with Pro license:

```
MBS("DynaPDF.CheckConformance"; $pdf; "ZUGFeRD Basic")
```

```
// using default options
```

Check conformance for ZUGFeRD with Lite license:

```
MBS("DynaPDF.CheckConformance"; $pdf; "ZUGFeRD Basic"; 0)
// no corrections
```

#### See also

- [71.11 DynaPDF.AddOutputIntentEx](#) 2609
- [71.294 DynaPDF.New](#) 3032
- [71.423 DynaPDF.SetReplaceICCPProfile](#) 3268
- [71.424 DynaPDF.SetReplaceICCPProfileData](#) 3270

#### Example Databases

- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

#### 71.39.1 Blog Entries

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [MBS Filemaker Plugin, version 4.4pr9](#)

#### 71.39.2 FileMaker Magazin

- [Ausgabe 1/2018, Seite 25](#)
- [Ausgabe 1/2018, Seite 24](#)

Created 2nd November 2014, last changed 29th August 2017.

Default	Default options.
EmbedSubsets	Embed Subsets
DeleteTransferFuncs	Delete Transfer Functions
DeleteMultiMediaContents	Delete MultiMedia content
DeleteActionsAndScripts	Delete Actions and Scripts
DeleteInvRenderingIntent	Delete Invisible Rendering Intent
FlattenFormFields	Flatten form fields
ReplaceV4ICCPProfiles	Replace V4 ICC Profiles
DeleteEmbeddedFiles	Delete embedded files
DeleteOPIComments	Delete OPI comments.
DeleteSignatures	Delete signatures.
DeletePostscript	Delete Postscript XObjects. Rarely used and such Postscript fragments are meaningful on a Postscript device only. It is usually safe to delete such objects.
DeleteAlternateImages	Alternate images are seldom used and prohibited in PDF/A.
ReComprJPEG2000Images	Recompression results usually in larger images. It is often better to keep such files as is.
ResolveOverprint	PDF/A 2 and 3. Set the overprint mode to 0 if overprint mode = 1 and if overprinting for fill or stroke is true and if an ICCBased CMYK color space is used. Note that DeviceCMYK is treated as ICCBased color space due to implicit color conversion rules.
DeleteAppEvents	PDF/A 2 and 3. Application events are prohibited in PDF/A. The view state will be applied.
ApplyExportState	Meaningful only if coDeleteAppEvents is set. Apply the export state.
ApplyPrintState	Meaningful only if coDeleteAppEvents is set. Apply the print state.
DeleteReplies	Delete annotation replies. If absent, replies will be converted to regular text annotations.
ReplCCITTFaxWithFlate	Replace CCITT Fax compression with Flate.
DeleteHalftones	Delete halftone screens.
FlattenLayers	Flatten layers if any.
DeletePresentation	Presentations are prohibited in PDF/A 2 and 3.
NoFontEmbedding	If this flag is set no valid PDF/A file will be produced!
FlushPages	Write converted pages directly into the output file to reduce the memory usage.
AllowDeviceSpaces	If set, device color spaces will not be replaced with ICC based color spaces. This flag is meaningful for normalization only.
MakeLayerVisible	PDF/A 2 and 3 prohibit invisible layers. Layers can also be flattened if this is no option.



## 71.40 DynaPDF.CheckFieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CheckFieldNames"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns number or error.

### Description

Use this function if multiple interactive forms were imported. DynaPDF does not check or change duplicate field names during import. Therefore, check the field names and change invalid names if necessary before closing the document. If an interactive form contains duplicate field names or fields with different types, the document will be damaged.

If a form contains invalid duplicate field names, the names must be changed with DynaPDF.SetFieldName. However, if such a field is used in a JavaScript action or by a global JavaScript, the JavaScript(s) must also be changed to avoid error messages in Adobe's Acrobat.

Global JavaScripts can be accessed with the function DynaPDF.GetJavaScript and changed with the function DynaPDF.ChangeJavaScript. A JavaScript action can be accessed with the function DynaPDF.GetJavaScriptAction and changed with the function DynaPDF.ChangeJavaScriptAction.

The function returns the handle of the first invalid field name that was found, that is a value greater or equal zero. If no invalid field name was found the return value is -1.

See also [CheckFieldNames](#) function in DynaPDF manual.

#### See also

- 71.168 DynaPDF.GetFieldName 2851
- 71.294 DynaPDF.New 3032
- 71.384 DynaPDF.SetFieldName 3198

### 71.40.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr3](#)

Created 22nd October 2018, last changed 22nd October 2018.

## 71.41 DynaPDF.CircleAnnot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CircleAnnot"; PDF; PosX; PosY; Width; Height; LineWidth; FillColor; StrokeColor; ColorSpace )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PosX

X-coordinate of the annotation  
100

#### PosY

Y-coordinate of the annotation  
100

#### Width

Width of the annotation  
100

#### Height

Height of the annotation  
100

#### LineWidth

Line width of the circle or ellipse  
2

#### FillColor

Fill color for circle.  
200

#### StrokeColor

Stroke color for circle.  
255

#### ColorSpace

Color space of the fill and stroke colors.  
"RGB"

**Result** Returns annotation handle or error.

### Description

If the parameters Width and Height are equal the function draws a circle, an ellipse otherwise. If the annotation should be drawn without a border, set the parameter LineWidth to zero or StrokeColor to the special constant NO\_COLOR (4294967281).

If the interior should be transparent set FillColor to the special constant NO\_COLOR (4294967281).

Although the line width can be set to any positive floating point value, Adobe's Acrobat or Reader restrict the line width to 0 through 12 units. The line width should be restricted in the same way to avoid issues in Adobe viewer products.

See also [CircleAnnot](#) function in DynaPDF manual.

**See also**

- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032
- 71.451 DynaPDF.SquareAnnot 3309

Created 28th November 2014, last changed 1st December 2014.

## 71.42 DynaPDF.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Clear"; PDF { ; Path } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Path

Optional  
The file path to create the PDF.  
"C:\Test.pdf"

**Result** Returns OK on success.

### Description

Writing PDF to file to disk while creating it allows PDF files to be bigger than available memory. In order to have that working well, you need to call DynaPDF.FlushPages regularly to free memory. Use Path.FilemakerPathToNativePath to convert a FileMaker path to a native path if required.

### Examples

Starts with a new blank PDF:

```
$r = MBS( "DynaPDF.clear"; $PDF )
```

### See also

- 71.117 DynaPDF.FlushPages 2784
- 71.294 DynaPDF.New 3032
- 71.440 DynaPDF.SetUseSystemFonts 3294
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th August 2014, last changed 9th July 2015.

## 71.43 DynaPDF.ClipPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ClipPath"; PDF; ClipMode; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### ClipMode

The clipping mode. Can be EvenOdd for using the Even-Odd rule or winding for using the nonzero Winding Number rule.  
"winding"

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.  
"fill"

**Result** Returns OK or error.

### Description

The function must be called after a closable path was created. A path that consists of a DynaPDF.MoveTo and DynaPDF.LineTo only call cannot be closed!

A clipping path can also be filled, stroked, or both in one pass. However, the combination of a clipping path operator with a path painting operator is seldom used and not supported in all PDF viewers. To avoid unnecessary problems a path should always be clipped and painted in two separate steps, also if this causes some unnecessary overhead.

Once the clipping was created and activated with DynaPDF.ClipPath you can draw arbitrary contents into it, such as images, text, or vector graphics.

A clipping path is part of the current graphics state. The only way to deactivate a clipping path is to restore the graphics state with DynaPDF.RestoreGraphicState. This assumes that it was saved with DynaPDF.SaveGraphicState before the clipping path was created.

Note that it is not possible to extend or widen an active clipping path. It is only possible to intersect it with a new one. The intersection of two clipping paths is never larger than the initial clipping path.

Remarks:

Text objects are handled separately in PDF for use as clipping path. See DynaPDF.SetTextDrawMode for further information.

See also [ClipPath](#) function in DynaPDF manual.

### Examples

Clip image to circle:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
```

```

End If
# Clear current PDF document
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Add image on page
Set Variable [ $destPage ; Value: 1 ]
Set Variable [ $r ; Value: MBS("DynaPDF.AppendPage"; $pdf) ]
# no recompression if possible! But if needed, we use JPEG 90%
Set Variable [ $r ; Value: MBS("DynaPDF.SetSaveNewImageFormat"; $pdf; 0) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetJPEGQuality"; $pdf; 90) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetCompressionFilter"; $pdf; "jpeg") ]
# Save old state to restore later
Set Variable [ $r ; Value: MBS( "DynaPDF.SaveGraphicState"; $pdf ) ]
# Draw circle for clipping
Set Variable [ $r ; Value: MBS( "DynaPDF.DrawCircle"; $pdf; 260; 220; 100; "nofill" ) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.ClipPath"; $pdf; "Winding"; "fill" ) ]
# Draw clipped image
Set Variable [ $r ; Value: MBS("DynaPDF.InsertImage"; $pdf; Merge PDFs::InputImage; 100; 100; 320; 200) ]
# restore graphics static to get unclipped drawing
Set Variable [ $r ; Value: MBS( "DynaPDF.RestoreGraphicState"; $pdf ) ]
# Close page and store PDF in container
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
Set Field [ Merge PDFs::FinalPDF ; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.45 DynaPDF.ClosePath 2660
- 71.288 DynaPDF.LineTo 3022
- 71.293 DynaPDF.MoveTo 3030
- 71.316 DynaPDF.Release 3086
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.328 DynaPDF.RoundRectEx 3114
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.400 DynaPDF.SetJPEGQuality 3226
- 71.426 DynaPDF.SetSaveNewImageFormat 3274
- 71.429 DynaPDF.SetTextDrawMode 3279

**Example Databases**

- [DynaPDF/Signature Appearance](#)

Created 18th August 2014, last changed 17th January 2019.

## 71.44 DynaPDF.CloseImportFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CloseImportFile"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK.

### Description

The current working PDF stays in memory.  
See also [CloseImportFile](#) function in DynaPDF manual.

### Examples

Load a PDF from container, work with it and close PDF:

```
$r = MBS("DynaPDF.OpenPDFFromContainer"; $PDF; Test::data)
# work with import PDF
MBS( "DynaPDF.CloseImportFile"; $PDF )
```

### See also

- [71.294 DynaPDF.New](#) 3032
- [71.295 DynaPDF.OpenOutputFile](#) 3035
- [71.297 DynaPDF.OpenPDFFromContainer](#) 3039
- [71.438 DynaPDF.SetUseGlobalImpFiles](#) 3291

### Example Databases

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/Merge PDFs](#)

### 71.44.1 Blog Entries

- [Merge PDF with table of contents](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.45 DynaPDF.ClosePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ClosePath"; PDF; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error message.

### Description

In PDF all vector graphics are paths. Paths can be filled, stroked, or both. Filled path can be drawn by applying the nonzero winding number rule or the even-odd rule (see Path Construction and Painting for further information). Both rules produce different results on complex paths but they have no effect on simple paths like rectangles, circles, and so on.

The filling rules are can be used to produce holes in a path; an area that is left unpainted. The draw direction is important when drawing simple shapes like rectangles and so on. See DynaPDF.SetDrawDirection for further information.

The flag NoFill can be used to discard a path that was already drawn.

Paths are invisible until they will be filled or stroked. DynaPDF displays a warning if an unused path is in memory when drawing an image, text, or when closing the page. The function checks whether a path is in memory prior execution. If no open path is detected the function returns with an error message.

See also [ClosePath](#) function in DynaPDF manual.

### Examples

Draw triangle path:

```
# blue color
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 0; 0; 1) ]
# go to start point
Set Variable [ $r ; Value: MBS("DynaPDF.MoveTo"; $pdf; 100; 100) ]
# add more points
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 200; 100) ]
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 100; 200) ]
# and fill
Set Variable [ $r ; Value: MBS("DynaPDF.ClosePath"; $pdf; "fill") ]
```

**See also**



<i>71.45. DYNAPDF.CLOSEPATH</i>	2661
• 71.83 DynaPDF.DrawArc	2726
• 71.84 DynaPDF.DrawArcEx	2728
• 71.85 DynaPDF.DrawChord	2730
• 71.86 DynaPDF.DrawCircle	2732
• 71.91 DynaPDF.Ellipse	2741
• 71.288 DynaPDF.LineTo	3022
• 71.327 DynaPDF.RoundRect	3112
• 71.328 DynaPDF.RoundRectEx	3114
• 71.389 DynaPDF.SetFillColor	3204
• 71.453 DynaPDF.StrokePath	3313

Created 18th August 2014, last changed 7th March 2020.

## 71.46 DynaPDF.ConvertColors

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.ConvertColors"; PDF; Flags { ; Add } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

The mode to operate. Can be BW\_To\_Gray (RGB and B/W to gray), RGB\_To\_Gray (RGB to gray), ToGrayAdjust (Lighten or darken colors).

"BW\_To\_Gray"

#### Add

Optional

The value for ToGrayAdjust flag.

1.0

**Result** Returns OK or error.

### Description

The function converts inline RGB operators in the current open page to gray. At time of publication only inline operators like g, rg, G, and RG are processed. CMYK colors will be left unchanged. The parameter Add is optional and considered only if the constant ToGrayAdjust is used.

The conversion of RGB inline color operators can be useful if the document was created with a GDI application, e.g. Microsoft Word, Excel and so on and if the file must be split into black & white and color pages. DynaPDF.IsColorPage can then be used to determine whether the page contains still colored objects. The advantage is that RGB black & white values, which are used for text and vector graphics, are already removed so that DynaPDF.IsColorPage returns only true if any other object uses a color, e.g. an image.

The constant ToGrayAdjust can be used to convert RGB colors to gray and to darken or lighten RGB and gray colors. The parameter Add must be a pointer of a floating point variable. The value can be in the range -1.0 through 1.0. Colors in PDF are stored as floating point values in the range 0.0 through 1.0. Since DeviceGray is an additive color space, 0 denotes black and 1.0 white. If all color operators should be set to black for example, then set the variable to -1.0. The function performs a range check. If the color becomes out of range then it will be adjusted to the nearest value that is inside the allowed color range.

See also [ConvertColors](#) function in DynaPDF manual.

### See also

- 71.284 DynaPDF.IsColorPage 3014
- 71.294 DynaPDF.New 3032

### 71.46.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr4](#)

Created 17th April 2019, last changed 17th April 2019.

## 71.47 DynaPDF.ConvertStyledText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ConvertStyledText"; PDF; Text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Text

The text to write.  
"Hello World"

**Result** Returns text or error.

### Description

Requires an open page to load fonts.

### See also

- 71.294 DynaPDF.New 3032
- 71.511 DynaPDF.WriteStyledText 3414
- 71.512 DynaPDF.WriteStyledTextEx 3416

### Example Databases

- [DynaPDF/Styled Text](#)

Created 13th October 2016, last changed 14th October 2016.

## 71.48 DynaPDF.CreateAxialShading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.CreateAxialShading"; PDF; sX; sY; eX; eY; SCenter; SColor; EColor { ; Extend1; Extend2 } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### sX

X-Coordinate of the start point

0

#### sY

Y-Coordinate of the start point

0

#### eX

X-Coordinate of the end point

0

#### eY

Y-Coordinate of the end point

78

#### SCenter

Shading center

2

#### SColor

Start color

MBS("DynaPDF.RGB"; 120; 120; 220)

#### EColor

End color

MBS("DynaPDF.RGB"; 255; 255; 255) /\* white \*/

#### Extend1

Optional

Extend the shading beyond the start point. Pass 1 to extend or 0 if not. Default is 0.

0

#### Extend2

Optional

Extend the shading beyond the end point. Pass 1 to extend or 0 if not. Default is 0.

0

**Result** Returns number or error.

### Description

Axial shadings define a color blend or gradient that varies along a linear axis between two endpoints and extends indefinitely perpendicular to that axis. The shading may optionally be extended beyond either or both endpoints by continuing the boundary colors indefinitely.

The shading center defines the point from where the first color will blend into the other. A value of 1 determines the exact center between the starting and ending point of the shading. Smaller values shift the shading center in direction to the start point, greater values in the direction to the end point.

Axial shadings can be drawn into a clipping path to restrict painting into this path. If the shading is drawn outside of a clipping path it is applied to the entire page. Not that extended shadings are opaque, objects behind the shading becomes invisible if they are overprinted by the shading.

Shadings are drawn by using the current coordinate system. It is recommended to understand that shadings have its own dimension like a normal shape. The parameters `Extend1` and `Extend2` extend the shading beyond its dimension. If the shading is extended it must normally be drawn into a clipping path to avoid overprinting of other objects.

Shadings support the color spaces `DeviceGray`, `DeviceRGB`, and `DeviceCMYK`. The color values of the start and end color must be defined in the current color space. See also `DynaPDF.SetColorSpace`.

Shadings are invisible as long they are not drawn by using the function `DynaPDF.ApplyShading`. `DynaPDF.ApplyShading` requires a shading handle that was returned by this function.

If the function succeeds the return value is the handle of the shading, a value greater or equal zero. If the function fails it returns an error.

See also [CreateAxialShading](#) function in DynaPDF manual.

### See also

- 71.17 `DynaPDF.ApplyShading` 2621
- 71.61 `DynaPDF.CreateRadialShading` 2695
- 71.294 `DynaPDF.New` 3032
- 71.358 `DynaPDF.SetColorSpace` 3159

### Example Databases

- [DynaPDF/Signature Appearance](#)

#### 71.48.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 20th April 2020, last changed 20th April 2020.

## 71.49 DynaPDF.CreateButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateButton"; PDF; Name; Caption; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the text field

"Test"

#### Caption

The caption to use.

"Click me"

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns OK or error.

### Description

The parameter Name must be a unique name for the button field. It is not allowed to create two buttons with an identical name within the hierarchy in which they appear.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the button. If the coordinate system is top-down it defines the upper left corner.

Like all form fields, the width and height is measured incl. the line width of the border. The size of normal vector graphics is measured without the line width; this must be taken into account when calculating the

width and height of a form field.

The border is drawn by using the current line width and border style (see `DynaPDF.SetBorderStyle`). However, interactive form fields support natively the line width 1, 2 and 3 units only (thin, medium, thick). Other values can be applied but the appearance can be changed by Adobe's Acrobat when the form is reset by a Reset Form Action.

The appearance can be influenced with the following properties:

- `DynaPDF.GetFieldBackColor` and `DynaPDF.SetFieldBackColor` // Background color \* `DynaPDF.GetFieldBorderColor` and `DynaPDF.SetFieldBorderColor` // Border color \* `DynaPDF.GetFieldColor` and `DynaPDF.SetFieldColor` // Change a specific color of a field
- `DynaPDF.GetFieldTextColor` and `DynaPDF.SetFieldTextColor` // Color of the caption
- `DynaPDF.GetLineWidth` and `DynaPDF.SetLineWidth` // Line width of the border

The border and background color can be set to `NoColor` (4294967281), the background or border appears then transparent. The border appears also transparent when the line width was set to zero.

`DynaPDF` supports also image buttons. To create an image button store the handle of the button in a variable and add one or more images to the different button states (see `DynaPDF.AddButtonImage` for further information). The caption of the button will be overridden when an image to the up state is added.

Buttons are used to execute an action; the following events are supported by button fields:

- `OnMouseUp`
- `OnMouseDown`
- `OnMouseExit`
- `OnFocus`
- `OnBlur`

This function is implemented in an ANSI and Unicode compatible version. However, CJK encodings or Unicode are NOT supported by form fields. It is possible to use Unicode strings but the font must NOT use the code page `cpUnicode`. Unicode strings must contain characters of the actual used 8 bit code page.

Buttons requires a font, if no font was set before Helvetica is used to draw the caption by using the code page 1252. The caption is centred horizontally and vertically. By default the caption is drawn on multiple lines if it does not fit into a single line. To avoid a line break inside a button field remove the flag `Multiline` (see `DynaPDF.SetFieldFlags`).

Buttons are excluded from printing by default. If a button should be printable set the flag `Print` (see `DynaPDF.SetFieldFlags()` for further information).

Interactive form fields can be structured into several groups by passing a handle of a group field to the parameter `Parent`. See `DynaPDF.CreateGroupField` for further information.



71.49. *DYNAPDF.CREATEBUTTON* 2669

If the function succeeds the return value is the field handle, a value greater or equal zero. If the function fails the return value is an error.

See also [CreateButton](#) function in DynaPDF manual.

**See also**

- 71.59 DynaPDF.CreateListBox 2690
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.158 DynaPDF.GetFieldColor 2840
- 71.207 DynaPDF.GetLineWidth 2899
- 71.294 DynaPDF.New 3032
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.373 DynaPDF.SetFieldColor 3181
- 71.387 DynaPDF.SetFieldTextColor 3202

#### **Example Databases**

- [DynaPDF/Create PDF with sum form field](#)

#### **71.49.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr5](#)

Created 26th August 2016, last changed 13th January 2020.

## 71.50 DynaPDF.CreateCheckBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateCheckBox"; PDF; Name; ExpValue; Checked; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the text field

"IsMale"

#### ExpValue

Export value (required)

"IsMale"

#### Checked

If 1, the check box appears checked. Else pass 0 for unchecked.

0

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns field handle or error.

### Description

See CreateCheckBox function in dynapdf\_help.pdf for details.

See also [CreateCheckBox](#) function in DynaPDF manual.

**See also**

71.50. <i>DYNAPDF.CREATECHECKBOX</i>	2671
• 71.1 DynaPDF.AddActionToObj	2591
• 71.51 DynaPDF.CreateComboBox	2672
• 71.58 DynaPDF.CreateJSAction	2687
• 71.59 DynaPDF.CreateListBox	2690
• 71.294 DynaPDF.New	3032

## Example Databases

- [DynaPDF/Create Form](#)

### 71.50.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.51 DynaPDF.CreateComboBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateComboBox"; PDF; Name; Sort; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the field

"IsMale"

#### Sort

If 1, the items are sorted.

0

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns handle or error.

### Description

The choice values of the combo box must be added with the function DynaPDF.AddValToChoiceField. This function requires the field handle that was returned by this function.

A combo box can contain value that is not included in the array of choice values. This value can be used to display a string in the combo box when no choice value is selected, e.g. "Select a value!".

The field value can be set with the function `DynaPDF.SetFieldExpValue` as follows:

The parameter `ValIndex` of the function `DynaPDF.SetFieldExpValue` must be set to `PDF_MAX_INT` (2147483647) and the parameter `Value` must contain the wished value or be empty. If `Value` is empty string, a maybe existing field value will be deleted. The choice values of the combo box get the state unselected when setting a field value in this way.

If the coordinate system is bottom-up the point `PosX`, `PosY` defines the lower left corner of the button. If the coordinate system is top-down it defines the upper left corner.

Like all form fields the width and height is measured incl. the line width of the border. The size of normal vector graphics is measured without the line width; this must be taken into account when calculating the width or height of a form field. The line width of the border is derived from the current graphics state (see `DynaPDF.SetLineWidth`), it should be either 0, 1, 2, or 3 units (no border, thin, medium, or thick). The border style can be changed with the functions `DynaPDF.SetBorderStyle` or `DynaPDF.SetFieldBorderStyle`.

The values of the combo box are sorted if the parameter `Sort` is 1.

A combo box requires a font. If no font is active the standard font Helvetica is used. Note: If the form must be compatible to Acrobat 4 the used fonts by the form fields must be restricted to the 14 standard fonts (see `SetFont()` for further information). Acrobat 4 does not support interactive forms that use other fonts than the 14 standard fonts. Such a form requires Acrobat 5 or higher.

However, it is possible to use an arbitrary font as long as the code page 1252 is used.

The font size of a combo box is set to "auto" if either the font size of the active font is set to 1.0 unit or if no font is active when the field is created.

Specific flags supported by combo boxes:

<code>Edit</code>	Enable adding of values in Adobe's Acrobat
<code>Sorted</code>	Change the sort flag if necessary
<code>CommitOnSelCh</code>	Submit the new value immediately (PDF 1.5)
<code>DoNotSpellCheck</code>	Disable spell checking (requires <code>Edit</code> )

Earlier versions of `DynaPDF` allowed the usage of arbitrary 8 bit code pages. Due to changes in Acrobat viewer applications it is no longer possible to use another code page than 1252. In addition, it seems that Acrobat versions greater 6 do no longer support `Type1` fonts in form fields, with the exception of the 14 standard fonts.

Interactive form fields can be structured into several groups by passing a handle of a group field to the parameter `Parent`. See `DynaPDF.CreateGroupField` for further information.

If the function succeeds the return value is the handle of the combo box, a value greater or equal zero. If the function fails it returns an error message.

See also [CreateComboBox](#) function in DynaPDF manual.

**See also**

- 71.12 DynaPDF.AddValToChoiceField 2611
- 71.50 DynaPDF.CreateCheckBox 2670
- 71.57 DynaPDF.CreateGroupField 2685
- 71.59 DynaPDF.CreateListBox 2690
- 71.294 DynaPDF.New 3032
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.404 DynaPDF.SetLineWidth 3232

### 71.51.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.52 DynaPDF.CreateDeviceNColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateDeviceNColorSpace"; PDF; Colorants; NumColorants; PostScriptFunc; Alternate { ; Handle } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Colorants

Array of colorant names (required)

#### NumColorants

Number of colorants in the array.

#### PostScriptFunc

Postscript calculator function (required)

#### Alternate

The alternate color space. Can be DeviceRGB, DeviceCMYK, DeviceGray, CalGray, CalRGB, Lab, IC-CBased, Pattern, Indexed, Separation, DeviceN, NChannel or the matching number value.  
"DeviceCMYK"

#### Handle

Optional  
Alternate color space handle or -1.

**Result** Returns OK or error.

### Description

DeviceN color spaces (PDF 1.3) can contain up to 32 color components. They provide greater flexibility than is possible with standard device color spaces such as DeviceCMYK or with individual Separation color spaces. For example, it is possible to create a DeviceN color space consisting of only the cyan, magenta, and yellow color components, with the black component excluded.

Colors of a DeviceN color space are always treated as subtractive colors, even if the device produces output for the designated component by an additive method. Thus, a tint value of 0 denotes the lightest color that can be achieved with the given colorant and 255 the darkest. This convention is the same one as for DeviceCMYK color components but opposite to the one for DeviceGray or DeviceRGB.

DeviceN was designed to represent color spaces containing multiple components that correspond to colorants of some target device. As with Separation color spaces, PDF consumer applications must be able to approximate the colorants if they are not available on the current output device, such as a display. To accomplish this, the color space definition provides a tint transformation function that can be used to convert all the components to an alternate color space.

The tint transformation function consists of a PostScript calculator function that is called with n tint values and returns m color component values, where n is the number of components needed to specify a color in

the DeviceN color space and *m* is the number of components required by the alternate color space.

Note: Painting in the alternate color space may produce a good approximation of the intended color when only opaque objects are painted. However, it does not correctly represent the interactions between an object and its backdrop when the object is painted with transparency or when overprinting is enabled (see also `DynaPDF.CreateExtGState`).

A DeviceN color space supports the special colorant name `None` which produces no visible output on the device. When a DeviceN color space is painting the named device colorants directly, color components corresponding to `None` colorants are discarded. However, when the DeviceN color space reverts to its alternate color space, those components are passed to the tint transformation function, which can use them as desired. Note: A DeviceN color space whose component colorant names are all `None` always discards its output, just the same as a Separation color space for `None`; it never reverts to the alternate color space. Reversion occurs only if at least one color component (other than `None`) is specified and is not available on the device.

Encoding for colorants name is UTF-8.

See also `CreateDeviceNColorSpace` function in DynaPDF manual.

### Examples

Create the DeviceN color space:

```
# Create Blend function (see dynapdf_help.pdf for how this was created)
Set Variable [ $PostScriptFunc ; Value: " { 2 index 0.38 mul 2 index 0 add add 0 3 index 0.56 mul 0 add
add 4 index 0.34 mul 0 4 index add add 0 0 0 add add 7 4 roll pop pop pop } " ]
Set Variable [ $cls ; Value: "PANTONE 345 CVC$PANTONE 293 CVC$Yellow" ]
Set Variable [ $cs ; Value: MBS("DynaPDF.CreateDeviceNColorSpace"; $pdf; $cls; 3; $PostScriptFunc;
"DeviceCMYK"; -1) ]
```

### See also

- 71.8 `DynaPDF.AddDeviceNSeparations` 2604
- 71.294 `DynaPDF.New` 3032

### Example Databases

- [DynaPDF/Create DeviceN ColorSpace](#)

## 71.52.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th August 2017.



## 71.53 DynaPDF.CreateGoToAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateGoToAction"; PDF; DestType; DestPage { ; a; b; c; d } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestType

The type of destination, can be XYZoom, Fit, FitHTop, FitVLeft, FitRect, FitB, FitBHTop or FitBVLeft. "Fit"

#### DestPage

Destination Page

5

#### a

Optional

Various, depends on destination type

#### b

Optional

Various, depends on destination type

#### c

Optional

Various, depends on destination type

#### d

Optional

Various, depends on destination type

**Result** Returns action number or error.

### Description

The go-to action changes the view to a specific destination (page, location, and magnification factor). This action type is useful if a specific destination must be used by several objects such as bookmarks and page links.

See also [CreateGoToAction](#) function in DynaPDF manual.

### See also

- 71.1 DynaPDF.AddActionToObj 2591
- 71.54 DynaPDF.CreateGoToActionEx 2679
- 71.55 DynaPDF.CreateGoToRAction 2681

- 71.56 DynaPDF.CreateGoToRActionEx 2683
- 71.58 DynaPDF.CreateJSAction 2687
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.294 DynaPDF.New 3032
- 71.479 DynaPDF.Table.SetCellAction 3350

### 71.53.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 5th December 2019, last changed 5th December 2019.

## 71.54 DynaPDF.CreateGoToActionEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateGoToActionEx"; PDF; NamedDest )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### NamedDest

The index of the named destination.

**Result** Returns an action number or error.

### Description

A named destination can be used if the destination should be accessible from another PDF file. See also DynaPDF.CreateNamedDest.

See also [CreateGoToActionEx](#) function in DynaPDF manual.

### Examples

Adds a go-to action for a cell in the table:

```
Set Variable [ $NamedDest ; Value: MBS( "DynaPDF.CreateNamedDest"; $pdf; "test"; 2; "Fit" ) ]
Set Variable [ $Action ; Value: MBS( "DynaPDF.CreateGoToActionEx"; $PDF; $NamedDest ) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.Table.SetCellAction"; $Table; $rowNum; 0; $action; "Invert" ) ]
```

### See also

- [71.53 DynaPDF.CreateGoToAction](#) 2677
- [71.55 DynaPDF.CreateGoToRAction](#) 2681
- [71.56 DynaPDF.CreateGoToRActionEx](#) 2683
- [71.58 DynaPDF.CreateJSAction](#) 2687
- [71.60 DynaPDF.CreateNamedDest](#) 2693
- [71.294 DynaPDF.New](#) 3032
- [71.479 DynaPDF.Table.SetCellAction](#) 3350

### Example Databases

- [DynaPDF/Merge PDFs](#)

### 71.54.1 Blog Entries

- [Merge PDF with table of contents](#)
- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 5th December 2019, last changed 5th December 2019.

## 71.55 DynaPDF.CreateGoToRAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateGoToRAction"; PDF; FileName; PageNum )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### FileName

File path to external PDF file.

#### PageNum

Destination Page  
5

**Result** Returns action index or error.

### Description

A go-to-remote action opens an external PDF file and jumps to the page defined by the parameter PageNum. If the destination page does not exist the first page will be displayed.

The path to the external PDF file should be defined as relative path. Actions must be added to a PDF object with DynaPDF.AddActionToObj. This function is also implemented in a wide version that accepts an Unicode file path. However, Unicode file path are supported since PDF 1.7 (Acrobat 8). Earlier Acrobat versions will fail to open the file if the path contains non-Ansi characters.

If the function succeeds the return value is the action handle, a value greater or equal zero.

See also [CreateGoToRAction](#) function in DynaPDF manual.

### See also

- 71.1 DynaPDF.AddActionToObj 2591
- 71.53 DynaPDF.CreateGoToAction 2677
- 71.54 DynaPDF.CreateGoToActionEx 2679
- 71.56 DynaPDF.CreateGoToRActionEx 2683
- 71.58 DynaPDF.CreateJSAction 2687
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.279 DynaPDF.InsertBookmarkEx 3001
- 71.294 DynaPDF.New 3032
- 71.479 DynaPDF.Table.SetCellAction 3350

### 71.55.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 5th December 2019, last changed 5th December 2019.

## 71.56 DynaPDF.CreateGoToRActionEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateGoToRActionEx"; PDF; FileName; DestName; NewWindow )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### FileName

File path to external PDF file.

#### DestName

Named Destination to access.

#### NewWindow

If true, the file is opened in a new window.

1

**Result** Returns action index or error.

### Description

Creates a go-to-remote action that opens a named destination in an external PDF file. The parameter DestName must be the name of a named destination located in the external PDF file. Note that this is a binary string which must be specified exactly and case-sensitive. If the name was originally defined as an Unicode string, the go-to remote action must use the same string format. Otherwise the destination cannot be found. See also DynaPDF.CreateNamedDest.

The path to the external PDF file should be defined as relative path. Actions must be added to a PDF object with DynaPDF.AddActionToObj.

Unicode file path are supported since PDF 1.7 (Acrobat 8). Earlier Acrobat versions will fail to open the file if the path contains non-Ansi characters.

If the function succeeds the return value is the action handle, a value greater or equal zero.

See also [CreateGoToRActionEx](#) function in DynaPDF manual.

### See also

- 71.1 DynaPDF.AddActionToObj 2591
- 71.53 DynaPDF.CreateGoToAction 2677
- 71.54 DynaPDF.CreateGoToActionEx 2679
- 71.55 DynaPDF.CreateGoToRAction 2681
- 71.60 DynaPDF.CreateNamedDest 2693

- 71.279 DynaPDF.InsertBookmarkEx 3001
- 71.294 DynaPDF.New 3032

### 71.56.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 5th December 2019, last changed 5th December 2019.



## 71.57 DynaPDF.CreateGroupField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateGroupField"; PDF; Name; Parent )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the field

"Hello"

#### Parent

Parent group field if any or -1.

-1

**Result** Returns handle or error.

### Description

The field itself has no appearance, it is invisible.

For example, if an interactive form contains fields for private personal data and fields for company data in any kind, the fields can be structured into two base parts: `PersonalData` and `CompanyData`. The field names of each part must be unique inside its own hierarchy. However, duplicate field names of fields of the same type are still allowed.

Field names and Group fields

The name of a specific interactive form field is the partial field name. The fully qualified name is not explicitly defined, but is constructed from the partial field name of the field and all of its ancestors.

For a field with no parent, the partial field name and the fully qualified name are the same; for a field that is the child of a parent (group) field, the fully qualified name is formed by appending the child field's partial name to the parent's fully qualified name, separated by a period (.):

parent\_field\_name.child\_partial\_name

For example, if a group field with the partial field name `PersonalData` has a child whose partial field name is `Address`, which in turn has a child with the partial field name `ZipCode`, then the fully qualified name of this last field would be

`PersonalData.Address.ZipCode`

Thus all fields descended from a common ancestor will share the ancestor's fully qualified field name as a common prefix in their own fully qualified names.

The naming scheme must be taken into account when accessing fields of a group in JavaScript functions.

Acrobat 4 does not support group fields inside a hide or form action. For example, if a group field will be added to a hide action, the entire group becomes invisible if the action is executed in Acrobat 5 or higher. Acrobat 4 ignores the group field; each field of the group must be manually added to the hide action. See also [CreateGroupField](#) function in DynaPDF manual.

**See also**

- 71.49 DynaPDF.CreateButton 2667
- 71.51 DynaPDF.CreateComboBox 2672
- 71.59 DynaPDF.CreateListBox 2690
- 71.64 DynaPDF.CreateSigField 2702
- 71.65 DynaPDF.CreateSigFieldAP 2705
- 71.67 DynaPDF.CreateTextField 2709
- 71.294 DynaPDF.New 3032

### 71.57.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 21st October 2014.

## 71.58 DynaPDF.CreateJSAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateJSAction"; PDF; Script )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Script

The javascript text.

**Result** Returns number or error.

### Description

A JavaScript Action causes a script to be compiled and executed by the JavaScript interpreter of Adobe's Acrobat. Depending on the nature of the scripts, this can cause various interactive form fields in the document to update their values or change their visual appearances.

The parameter Script must be a valid JavaScript. The script is not checked by DynaPDF whether it is valid or not. Note that older Acrobat versions of Adobe's Acrobat do not support all JavaScript functions. Due to several bugs in Acrobat 4/5 an invalid JavaScript can cause an access violation in Adobe's Acrobat. Test your scripts carefully with all Acrobat versions which must be supported.

See also [CreateJSAction](#) function in DynaPDF manual.

### Examples

Create sum field:

```
Set Variable [ $y; Value:50 ]
Set Variable [ $script; Value:"var v1 = this.getField(\\"Val1\\");" & $& "var v2 = this.getField(\\"Val2\\");"
& $& "var v3 = this.getField(\\"Val3\\");" & $& "event.value = v1.value + v2.value + v3.value;" ]
Set Variable [ $script; Value:MBS( "Text.ReplaceNewline"; $script; 2 ) ]
Set Variable [ $a; Value:MBS( "DynaPDF.CreateJSAction"; $pdf; $script ) ]
# Create 1st field
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val1"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "50.00"; "50.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
# Create 2nd field
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val2"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "100.00"; "100.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
# Create 3rd field
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val3"; -1; 0; 0; 50; $y; 200; 20 ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "200.00"; "200.00"; "Right" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "NoneDot"; 2; "MinusBlack" ) ]
```

```

# Create sum field
# This last field calculates sum of other fields
# Works only in PDF Viewers supporting JavaScript!
Set Variable [ $y; Value:$y + 30 ]
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Sum"; -1; 0; 10; 50; $y; 200; 20) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFieldBorderWidth"; $pdf; $f; 0) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetTextFieldValue"; $pdf; $f; "350.00 €"; "350.00 €"; "Right") ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFieldFlags"; $pdf; $f; "ReadOnly"; 0) ]
Set Variable [ $r; Value:MBS( "DynaPDF.AddActionToObj"; $pdf; "Field"; "OnCalc"; $a; $f) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetNumberFormat"; $pdf; $f; "CommaDot"; 2; "MinusBlack"; "
€"; 0) ]

```

Create checkbox to confirm page and jump to next one:

```

Set Variable [ $f ; Value: MBS( "DynaPDF.CreateCheckBox"; $pdf; "OK"; "OK";0; -1; $PageWidth-150;
$pageHeight-20; 15; 15 ) ]
# This is javascript from Adobe to go to next page You could substitute many of their examples
Set Variable [ $script ; Value: "this.pageNum++" ]
Set Variable [ $script ; Value: MBS( "Text.ReplaceNewline"; $script; 2 ) ]
Set Variable [ $a ; Value: MBS( "DynaPDF.CreateJSAction"; $pdf; $script ) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.AddActionToObj"; $pdf; "Field"; "OnMouseUp"; $a; $f ) ]

```

### See also

- 71.1 DynaPDF.AddActionToObj 2591
- 71.49 DynaPDF.CreateButton 2667
- 71.50 DynaPDF.CreateCheckBox 2670
- 71.53 DynaPDF.CreateGoToAction 2677
- 71.54 DynaPDF.CreateGoToActionEx 2679
- 71.59 DynaPDF.CreateListBox 2690
- 71.294 DynaPDF.New 3032
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.430 DynaPDF.SetTextFieldValue 3281
- 167.59 Text.ReplaceNewline 7985

### Example Databases

- [DynaPDF/Create PDF with sum form field](#)

### 71.58.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr5](#)
- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

Created 24th August 2016, last changed 21st May 2017.

## 71.59 DynaPDF.CreateListBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateListBox"; PDF; Name; Sort; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the field

"IsMale"

#### Sort

Sort the choice values? 0 = no, 1 = yes.

1

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns handle or error.

### Description

The choice values of the list box must be added with the function DynaPDF.AddValToChoiceField. This function requires the field handle that was returned by this function.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the list box. If the coordinate system is top-down it defines the upper left corner.

Like all form fields, the width and height is measured incl. the line width of the border. The size of normal vector graphics is measured without the line width; this must be taken into account when calculating the width or height of a form field. The line width of the border is derived from the current graphics state (see `DynaPDF.SetLineWidth()`), it should be either 0, 1, 2, or 3 units (no border, thin, medium, or thick). The border style can be changed with the functions `SetBorderStyle()` or `DynaPDF.SetFieldBorderStyle()`.

The values of the list box are sorted if the parameter `Sort` is true. List boxes support multiple selected values. To enable multi selection add the flag `ffMultiSelect` to the field (see `DynaPDF.SetFieldFlags()` for further information).

A list box requires a font. If no font is active the standard font Helvetica is used. Note that if the form must be compatible to Acrobat 4, the used fonts by the form fields must be restricted to the 14 standard fonts (see `SetFont()` for further information). Acrobat 4 does not support interactive forms that use other fonts than the 14 standard fonts. Such a form requires Acrobat 5 or higher.

However, it is possible to use an arbitrary font as long as the code page 1252 is used.

The font size of a list box is set to "auto" if either the font size of the active font is set to 1.0 unit or if no font is active when the field is created.

A text field can be formatted and the allowed input values can be restricted to specific data formats. See `DynaPDF.SetDateTimeFormat()`, `DynaPDF.SetNumberFormat()` for further information.

Specific flags supported by list boxes:

- `Sorted` // Change the sort flag if necessary
- `MultiSelect` // Enable multi selection

Earlier versions of DynaPDF allowed the usage of arbitrary 8 bit code pages. Due to changes in Acrobat viewer applications it is no longer possible to use another code page than 1252. In addition, it seems that Acrobat versions greater 6 do no longer support Type1 fonts in form fields, with the exception of the 14 standard fonts.

Interactive form fields can be structured into several groups by passing a handle of a group field to the parameter `Parent`. See `DynaPDF.CreateGroupField()` for further information.

If the function succeeds the return value is the handle of the combo box, a value greater or equal zero. If the function fails the return value is a negative error code.

See also [CreateListBox](#) function in DynaPDF manual.

**See also**

- 71.12 `DynaPDF.AddValToChoiceField()` 2611
- 71.50 `DynaPDF.CreateCheckBox()` 2670
- 71.51 `DynaPDF.CreateComboBox()` 2672

- 71.57 DynaPDF.CreateGroupField 2685
- 71.58 DynaPDF.CreateJSAction 2687
- 71.294 DynaPDF.New 3032
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.404 DynaPDF.SetLineWidth 3232
- 71.409 DynaPDF.SetNumberFormat 3241

Created 18th August 2014, last changed 18th August 2014.



## 71.60 DynaPDF.CreateNamedDest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateNamedDest"; PDF; Name; DestPage; DestType { ; a; b; c; d } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the destination

"Chapter1"

#### DestPage

Destination Page

5

#### DestType

The type of destination, can be XYZoom, Fit, FitHTop, FitVLeft, FitRect, FitB, FitBHTop or FitBVLeft.

"Fit"

#### a

Optional

optional parameter

#### b

Optional

optional parameter

#### c

Optional

optional parameter

#### d

Optional

optional parameter

**Result** Returns number or error.

### Description

Named destinations are useful if the destination must be accessed from another PDF file. For example, a link to the beginning of Chapter 3 in another document might refer to the destination by a name, such as Chap3.begin, instead of an explicit page number in the other document. This makes it possible to change the destination in the document without invalidating the external link that refers to the destination.

Named destinations can be used in the same document by bookmarks, page links, and go-to actions. This makes it possible to share named destinations with external and internal links. Named destinations which are located in another document can be accessed with a go-to-remote action (see DynaPDF.CreateGoToRAC-

tionEx for further information).

The different destination types are described in detail at `DynaPDF.CreateGoToAction`.

To avoid unnecessary problems it is usually best to use 7 bit Ansi strings for named destinations.

If the function succeeds the return value is the destination handle, a value greater or equal zero. If the function fails the return value is an error message.

See also [CreateNamedDest](#) function in DynaPDF manual.

### Examples

Created named dest and add a bookmark using it:

```
$NamedDest = MBS("DynaPDF.CreateNamedDest"; $pdf; "link" & Create Text::DestPage; Create Text::DestPage; "FitRect"; 100; 200; 300; 400)
$b = MBS("DynaPDF.AddBookmarkEx"; $pdf; Create Text::Title; Create Text::Parent; $NamedDest; Create Text::Open)
```

### See also

- [71.3 DynaPDF.AddBookmark](#) 2595
- [71.4 DynaPDF.AddBookmarkEx](#) 2597
- [71.53 DynaPDF.CreateGoToAction](#) 2677
- [71.54 DynaPDF.CreateGoToActionEx](#) 2679
- [71.55 DynaPDF.CreateGoToRAction](#) 2681
- [71.56 DynaPDF.CreateGoToRActionEx](#) 2683
- [71.279 DynaPDF.InsertBookmarkEx](#) 3001
- [71.294 DynaPDF.New](#) 3032
- [71.479 DynaPDF.Table.SetCellAction](#) 3350

### Example Databases

- [DynaPDF/Merge PDFs](#)

#### 71.60.1 Blog Entries

- [Merge PDF with table of contents](#)
- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 6th October 2014, last changed 21st October 2014.

## 71.61 DynaPDF.CreateRadialShading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateRadialShading"; PDF; sX; sY; R1; eX; eY; R2; SCenter; SColor; EColor { ; Extend1; Extend2 } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### sX

X-Coordinate of the inner circle

#### sY

Y-Coordinate of the inner circle

#### R1

Radius of the inner circle

#### eX

X-Coordinate of the outer circle

#### eY

Y-Coordinate of the outer circle

#### R2

Radius of the outer circle

#### SColor

Shading center

#### SColor

Start color

MBS("DynaPDF.RGB"; 120; 120; 220)

#### EColor

End color

MBS("DynaPDF.RGB"; 255; 255; 255) /\* white \*/

#### Extend1

Optional

Extend the shading beyond the start point. Pass 1 to extend or 0 if not. Default is 0.

0

#### Extend2

Optional

Extend the shading beyond the end point. Pass 1 to extend or 0 if not. Default is 0.

0

**Result** Returns OK or error.

### Description

Radial shadings define a color blend or gradient that varies between two circles. The shading may optionally be extended beyond the starting or ending circles by continuing the boundary colors indefinitely. Shadings of this type are commonly used to depict three-dimensional spheres and cones.

The shading center defines the point from where the first color will blend into the other. A value of 1 determines the exact center between the start and end point of the shading. Smaller values shift the shading center in direction to the start circle, greater values to the end circle.

Radial shadings can be drawn into a clipping path to restrict painting into this path. If the shading is drawn outside of a clipping path it is applied to the entire page. Not that extended shadings are opaque, objects behind the shading become invisible if they are overprinted by the shading.

Shadings are drawn by using the current coordinate system. It is recommended to understand that shadings have its own dimension like a normal shape. The parameters `Extend1` and `Extend2` extend the shading beyond its dimension. If the shading is extended it must normally be drawn into a clipping path to avoid overprinting of other objects.

Shadings support any device, ICCBased, and special color spaces like DeviceN or Separation. The color values of the start and end color must be defined in the current color space. See also `DynaPDF.SetColorSpace`, `DynaPDF.SetExtColorSpace`.

This function creates a shading object but it doesn't draw it on the page. The shading can be drawn with `DynaPDF.ApplyShading`.

If the function succeeds the return value is the shading handle, a value greater or equal zero. If the function fails, it returns an error.

See also [CreateRadialShading](#) function in DynaPDF manual.

### See also

- 71.17 `DynaPDF.ApplyShading` 2621
- 71.48 `DynaPDF.CreateAxialShading` 2665
- 71.294 `DynaPDF.New` 3032
- 71.358 `DynaPDF.SetColorSpace` 3159
- 71.365 `DynaPDF.SetExtColorSpace` 3170

### 71.61.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 20th April 2020, last changed 20th April 2020.

## 71.62 DynaPDF.CreateRadioButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateRadioButton"; PDF; Name; ExpValue; Checked; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the field

"IsMale"

#### ExpValue

Export value (required)

"IsMale"

#### Checked

If 1, the check box appears checked. Else pass 0 for unchecked.

0

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns handle or error.

### Description

A radio button field is a set of related toggle controls (check boxes), at most one of which may be on at any given time; selecting any one of the button automatically deselects all others.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the first check box that is automatically created by this function. If the coordinate system is top-down it defines the upper left corner.

Like all form fields, the width and height is measured incl. the line width of the border. The size of normal vector graphics is measured without the line width; this must be taken into account when calculating the width or height of a form field. The line width of the border is derived from the current graphics state (see DynaPDF.SetLineWidth), it should be either 0, 1, 2, or 3 units (no border, thin, medium, or thick). The border style can be changed with the functions DynaPDF.SetBorderStyle or DynaPDF.SetFieldBorderStyle.

This field type supports two additional flags: `ffNoToggleToOff` and `ffRadioIsUnion`. The flag `ffNoToggleToOff` has no more any effect in Adobes Acrobat or Reader. The radio button behaves always as if the flag `ffNoToggleToOff` is set.

If the flag `ffRadioIsUnion` is set, and if two or more check boxes contain the same export value, then these check boxes will be selected in unison.

It is not possible to add an action to a radio button field. Actions must be added to the check boxes which are included in the radio button. The handle of the first check box can be calculated by adding 1 to the handle value of the radio button field. For example, if the handle of the radio button is 1, then the handle of the first check box is 2.

If the function succeeds the return value is the handle of the radio button, a value greater or equal zero. If the function fails the return is error message.

See also [CreateRadioButton](#) function in DynaPDF manual.

**See also**

- 71.49 DynaPDF.CreateButton 2667
- 71.53 DynaPDF.CreateGoToAction 2677
- 71.294 DynaPDF.New 3032
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.404 DynaPDF.SetLineWidth 3232

### 71.62.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.63 DynaPDF.CreateSeparationCS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateSeparationCS"; PDF; Colorant; Alternate; Handle; Color )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Colorant

Colorant name. Required.

"Pantone"

#### Alternate

The alternate color space. Can be DeviceRGB, DeviceCMYK, DeviceGray, CalGray, CalRGB, Lab, IC-CBased, Pattern, Indexed, Separation, DeviceN, NChannel or the matching number value.

"DeviceCMYK"

#### Handle

Alternate color space handle or -1.

#### Color

Color value defined in the alt. color space.

**Result** Returns color space handle or error.

### Description

Color output devices produce full color by combining primary or process colorants in varying amounts. On an additive color device such as a display, the primary colorants consist of red, green, and blue phosphors; on a subtractive device such as a printer, they typically consist of cyan, magenta, yellow, and sometimes black inks. In addition, some devices can apply special colorants, often called spot colorants, to produce effects that cannot be achieved with the standard process colorants alone. Examples include metallic and fluorescent colors and special textures.

When printing a page, most devices produce a single composite page on which all process colorants (and spot colorants, if any) are combined. However, some devices, such as imagesetters, produce a separate, monochromatic rendition of the page, called a separation, for each colorant. When the separations are later combined—on a printing press, for example—and the proper inks or other colorants are applied to them, the result is a full-color page.

A Separation color space (PDF 1.2) provides a means for specifying the use of additional colorants or for isolating the control of individual color components of a device color space for a subtractive device. When such a space is the current color space, the current color is a single-component value, called a tint, that controls the application of the given colorant or color components only.

The parameter Colorant specifies the colorant name which this Separation color space is intended to represent. The special colorant name All refers collectively to all colorants available on an output device, including those for the standard process colorants. When a Separation space with this colorant name is the current color space, painting operators apply tint values to all available colorants at once. This is useful for purposes

such as painting registration targets in the same place on every separation.

Such marks are typically painted as the last step in composing a page to ensure that they are not overwritten by subsequent painting operations.

The special colorant name `None` never produces any visible output. Painting operations in a Separation space with this colorant name have no effect on the current page.

The parameter `Alternate` specifies the alternate color space in which the color should be rendered if the device does not support the specified colorant. The alternate color space can be any Device or CIE based color space but not in turn a special color space like Separation, Indexed, or DeviceN.

The parameter `Handle` specifies the handle of the alternate color space if a CIE based color space should be used. If the alternate color space is a device color space the parameter `Handle` is ignored.

The parameter `Color` specifies the alternate color value, defined in the alternate color space, which is used if the device does not support the colorant.

A color value in a Separation color space consists of a single tint component in the range 0 to 255. The value 0 represents the minimum amount of colorant that can be applied; 255 represent the maximum. Tints are always treated as subtractive colors, even if the device produces output for the designated component by an additive method. Thus, a tint value of 0 denotes the lightest color that can be achieved with the given colorant, and 255 is the darkest. This convention is the same as for DeviceCMYK color components but opposite to the one for DeviceGray and DeviceRGB.

Encoding of Colorant Names

MBS Plugin uses UTF-8 for colorants names.

Notice:

Non-device color spaces cannot be used for interactive objects such as annotations or form fields. The active color space must always be changed to a device color space before creating interactive objects; see `DynaPDF.SetColorSpace`. Note also that annotations support DeviceRGB only. Form fields support DeviceGray, DeviceRGB, and DeviceCMYK.

Remarks:

Use the function `DynaPDF.SetExtColorSpace` to activate the color space in the graphics state. To set a color of a Separation space pass the wished color value to `DynaPDF.SetFillColor`, `DynaPDF.SetStrokeColor`, or `DynaPDF.SetColors`.

Return values:

If the function succeeds the return value is the color space handle, a value greater or equal zero. If the function fails the return value is an error message.

See also [CreateSeparationCS](#) function in DynaPDF manual.

### Examples

Create separation color space:

```
# We create also Separation color spaces for the spot colors and add
# these color spaces as an attribute to the DeviceN color space:
Set Variable [ $separations0 ; Value: MBS("DynaPDF.CreateSeparationCS"; $pdf; "Yellow"; "DeviceCMYK";
-1; MBS("DynaPDF.CMYK"; 0; 0; 87; 0)) ]
```

Draw line in a separation color:

```
# draw line in Cut Color
Set Variable [ $cs ; Value: MBS("DynaPDF.CreateSeparationCS"; $pdf; "Through Cut"; "DeviceCMYK";
-1; MBS("DynaPDF.CMYK"; 0; 255; 0; 0)) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetExtColorSpace"; $pdf; $cs) ]
```



71.63. *DYNAPDF.CREATESEPARATIONCS* 2701

Set Variable [ \$r ; Value: MBS("DynaPDF.SetFillColor"; \$pdf; 1) ]

Set Variable [ \$r ; Value: MBS( "DynaPDF.Rectangle"; \$pdf; \$x; \$y; \$w; \$h; "Stroke" ) ]

#### See also

- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.29 DynaPDF.CMYK 2638
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.358 DynaPDF.SetColorSpace 3159
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.389 DynaPDF.SetFillColor 3204
- 71.428 DynaPDF.SetStrokeColor 3277

#### Example Databases

- [DynaPDF/Create DeviceN ColorSpace](#)

#### 71.63.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 11st November 2018.

## 71.64 DynaPDF.CreateSigField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateSigField"; PDF; Name; Parent; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the field

"IsMale"

#### Parent

Parent group field if any or -1.

-1

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns handle or error message.

### Description

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the signature field. If the coordinate system is top-down it defines the upper left corner.

Like all form fields, the width and height is measured incl. the line width of the border. The size of normal vector graphics is measured without the line width; this must be taken into account when calculating the width or height of a form field. The line width of the border is derived from the current graphics state (see DynaPDF.SetLineWidth), it should be either 0, 1, 2, or 3 units (no border, thin, medium, or thick). The border style can be changed with the functions DynaPDF.SetBorderStyle or DynaPDF.SetFieldBorderStyle. If the PDF file should be digitally signed by DynaPDF call the function DynaPDF.CloseAndSignFile or DynaPDF.CloseAndSignFileEx after all pages has been created. The first signature field is used for signing

if multiple signature fields exist. In this case it is also possible to create a user defined appearance for the signature field. See `CreateSigFieldAP()` for further information.

A signature field can be visible or invisible depending on your requirements. To create a hidden signature field set the flag `ffHidden` to the field (see also `DynaPDF.SetFieldFlags`).

How to lock an Interactive Form after signing?

If an Interactive Form should be filled in and signed within the full version of Adobe's Acrobat 4 or higher then it is possible to create an empty signature field which executes a special JavaScript Action to lock the form after it has been signed. This can be done with a JavaScript Action which contains the JavaScript function `AFSignature_Format()`. This function can be called within the `OnFormat` event of the signature field. Note that this is the one and only event that signature fields support.

The function supports two parameters, the first parameter defines whether all or only specific fields should be locked, the second parameter contains either an empty array or an array of full qualified field names delimited by a comma:

- `AFSignature_Format("ALL", new Array (""))`;
- `AFSignature_Format("THESE", new Array ("Field1, Field2"))`;
- `AFSignature_Format("EXCEPT", new Array ("Field1, Field2"))`;

If a form contains a button with a Submit Form Action then it is recommended to exclude the button field from locking so that it is still possible to submit the form data. Otherwise, the entire form is locked, incl. the submit button, and it is impossible to submit the form data to a web server.

See also [CreateSigField](#) function in DynaPDF manual.

**See also**

- 71.57 `DynaPDF.CreateGroupField` 2685
- 71.65 `DynaPDF.CreateSigFieldAP` 2705
- 71.67 `DynaPDF.CreateTextField` 2709
- 71.294 `DynaPDF.New` 3032
- 71.304 `DynaPDF.PlaceSigFieldValidateIcon` 3064
- 71.352 `DynaPDF.SetBorderStyle` 3153
- 71.371 `DynaPDF.SetFieldBorderStyle` 3178
- 71.377 `DynaPDF.SetFieldFlags` 3188
- 71.404 `DynaPDF.SetLineWidth` 3232

**Example Databases**

- [DynaPDF/Signature Appearance](#)

**71.64.1 Blog Entries**

- [Digitally signing PDF with DynaPDF and custom signature appearance](#)
- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.65 DynaPDF.CreateSigFieldAP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateSigFieldAP"; PDF; SigField )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### SigField

Handle of a signature field.

\$SigField

**Result** Returns action handle or error.

### Description

The created template is already opened if the function succeeds and you can draw arbitrary contents into it. After the appearance has been defined the template must be closed with EndTemplate.

Note that the template is reserved for the signature field. It must not be placed on pages or other templates. When creating a user defined appearance for a signature field you should also place the validation icon properly so that it does not overprint the entire contents. See also DynaPDF.PlaceSigFieldValidateIcon.

If the function succeeds the return value is the action handle, a value greater or equal zero. If the function fails the return value is the error message.

See also [CreateSigFieldAP](#) function in DynaPDF manual.

### See also

- [71.57 DynaPDF.CreateGroupField](#) 2685
- [71.64 DynaPDF.CreateSigField](#) 2702
- [71.67 DynaPDF.CreateTextField](#) 2709
- [71.294 DynaPDF.New](#) 3032
- [71.304 DynaPDF.PlaceSigFieldValidateIcon](#) 3064

### Example Databases

- [DynaPDF/Signature Appearance](#)

#### 71.65.1 Blog Entries

- [Digitally signing PDF with DynaPDF and custom signature appearance](#)

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.66 DynaPDF.CreateStructureTree

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateStructureTree"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

See dynapdf\_help.pdf manual for details.

Required for PDF/A.

See also [CreateStructureTree](#) function in DynaPDF manual.

### Examples

Create structure tree:

```
Set Variable [ $r; Value:MBS("DynaPDF.CreateStructureTree"; $pdf) ]
```

### See also

- 71.294 DynaPDF.New

3032

### Example Databases

- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factor-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

### 71.66.1 Blog Entries

- [ZUGFeRD 2.0 and Factor-X for FileMaker](#)

- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)

### **71.66.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 25
- Ausgabe 1/2018, Seite 24

Created 4th November 2014, last changed 18th June 2016.



## 71.67 DynaPDF.CreateTextField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateTextField"; PDF; Name; Parent; Multiline; MaxLen; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Name of the text field

"Input"

#### Parent

Parent group field if any or -1.

-1

#### Multiline

Enable multi line text output.

0

#### MaxLen

Maximum length of the text or 0.

0

#### PosX

X-Coordinate of the text field.

100

#### PosY

Y-Coordinate of the text field.

100

#### Width

Width of the text field.

100

#### Height

Height of the text field.

20

**Result** Returns field handle or error.

### Description

See CreateTextField function in dynapdf\_help.pdf for details.

See also [CreateTextField](#) function in DynaPDF manual.

### Examples

Create a text field:

```
Set Variable [ $f; Value:MBS( "DynaPDF.CreateTextField"; $pdf; "Val1"; -1; 0; 0; 50; $y; 200; 20) ]
```

### See also

- [71.1 DynaPDF.AddActionToObj](#) 2591
- [71.57 DynaPDF.CreateGroupField](#) 2685
- [71.58 DynaPDF.CreateJSAction](#) 2687
- [71.64 DynaPDF.CreateSigField](#) 2702
- [71.65 DynaPDF.CreateSigFieldAP](#) 2705
- [71.119 DynaPDF.FreeTextAnnot](#) 2788
- [71.294 DynaPDF.New](#) 3032
- [71.409 DynaPDF.SetNumberFormat](#) 3241

### Example Databases

- [DynaPDF/Create Form](#)
- [DynaPDF/Create PDF with sum form field](#)
- [DynaPDF/Form/Form](#)

### 71.67.1 Blog Entries

- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)
- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 18th October 2016.

## 71.68 DynaPDF.CreateXFASStream

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.CreateXFASStream"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns number or error.

### Description

The parameter Name must be the name of the XFA resource. XML must be a valid XFA stream buffer or empty text, if the buffer should be set later with DynaPDF.SetXFASStream.

If the function succeeds the return value is the stream handle, a value greater or equal zero.

If the function fails the return value is an error message.

### See also

- 71.265 DynaPDF.GetXFASStream 2969
- 71.294 DynaPDF.New 3032
- 71.448 DynaPDF.SetXFASStream 3304

### 71.68.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 20th October 2019, last changed 20th October 2019.

## 71.69 DynaPDF.DeleteAcroForm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteAcroForm"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

If the document contains no interactive form the function does nothing.  
See also [DeleteAcroForm](#) function in DynaPDF manual.

### See also

- 71.82 DynaPDF.DeleteXFAForm 2725
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.70 DynaPDF.DeleteActionFromObjEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteActionFromObjEx"; PDF; ObjType; ActHandle; ObjHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ObjType

The type of object. Can be Action, Annotation, Bookmark, Catalog, Field, Page or PageLink.

"Page"

#### ActHandle

The action handle.

\$action

#### ObjHandle

The object handle.

\$obj

**Result** Returns OK or error.

### Description

If the object type is page, then use the page number as handle. If the handle of the action is not known, because the object was may be imported from an external PDF file, then use the function DynaPDF.DeleteActionFromObjEx instead.

See also [DeleteActionFromObjEx](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New

3032

Created 6th February 2015, last changed 6th February 2015.

## 71.71 DynaPDF.DeleteAnnotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteAnnotation"; PDF; AnnotationHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

**Result** Returns OK or error.

### Description

Annotations are global objects. To delete specific annotations of a PDF file use the functions DynaPDF.GetAnnotCount, DynaPDF.GetAnnotType and DynaPDF.DeleteAnnotation.

Annotations are marked as deleted and not removed from list of annotations right away.

See also [DeleteAnnotation](#) function in DynaPDF manual.

### See also

- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.124 DynaPDF.GetAnnotType 2796
- 71.223 DynaPDF.GetPageAnnotation 2920
- 71.294 DynaPDF.New 3032

Created 25th November 2014, last changed 16th January 2020.

## 71.72 DynaPDF.DeleteBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteBookmark"; PDF; BookmarkHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### BookmarkHandle

The reference number for the bookmark. Either returned by one of the add/insert functions or just counting from 0 to DynaPDF.GetBookmarkCount-1.

\$BookmarkHandle

**Result** Returns number or error.

### Description

The parameter BookmarkHandle must be a valid bookmark handle. Please note that this function invalidates all bookmark handles which are numerically greater than BookmarkHandle. DynaPDF supports several functions to find or enumerate bookmarks. It is safe to delete a bookmark within a search run. See the following functions for further information:

- DynaPDF.GetBookmarkCount
- DynaPDF.GetBookmark
- DynaPDF.FindBookmark and DynaPDF.FindNextBookmark

If the function succeeds the return value is the remaining number of bookmarks. If the function fails the return value is an error.

See also [DeleteBookmark](#) function in DynaPDF manual.

### See also

- 71.32 DynaPDF.ChangeBookmark 2642
- 71.107 DynaPDF.FindBookmark 2770
- 71.111 DynaPDF.FindNextBookmark 2775
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.278 DynaPDF.InsertBookmark 2999
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.73 DynaPDF.DeleteEmbeddedFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteEmbeddedFile"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

The index number for the embedded file. Range from 0 to DynaPDF.GetEmbeddedFileCount.

0

**Result** Returns OK or error.

### Description

The parameter Handle must be a valid embedded file handle. Such a handle is a simple array index. DynaPDF.GetEmbeddedFileCount returns the remaining number of embedded files. If all embedded files should be deleted then delete the files from top to bottom by decrementing the loop variable. This is faster because it is not required to reorganize the array in which the files are stored in this case. All handles above the deleted file index become invalid after the file was deleted.

See also [DeleteEmbeddedFile](#) function in DynaPDF manual.

### See also

- 71.108 DynaPDF.FindEmbeddedFile 2772
- 71.147 DynaPDF.GetEmbeddedFile 2824
- 71.149 DynaPDF.GetEmbeddedFileCount 2827
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.



## 71.74 DynaPDF.DeleteField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteField"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

A field handle.  
\$field

**Result** Returns OK or error.

### Description

The parameter Field must be a valid field handle. If the field is a radio button or group field, the child fields used are also deleted. There is no need to delete each field separately.

A field is never physically deleted. All field handles are still valid after a field was deleted, but the "Used" flag of the field is set to false (see DynaPDF.GetField for further information). If a field contained an action that was not used by another object then the action is also deleted.

Fields can also be deleted by using its name instead of the handle. See DynaPDF.DeleteFieldEx for further information.

See also [DeleteField](#) function in DynaPDF manual.

### See also

- 71.75 DynaPDF.DeleteFieldEx 2718
- 71.77 DynaPDF.DeletePage 2720
- 71.117 DynaPDF.FlushPages 2784
- 71.152 DynaPDF.GetField 2833
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.75 DynaPDF.DeleteFieldEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteFieldEx"; PDF; Name )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Name

Full qualified field name.  
"FirstName"

**Result** Returns OK or error.

### Description

This function deletes an interactive form field by using its full qualified name, that is the name of any parent group field separated by a period (.) plus the field name.

Check boxes of a radio button have no name. It is not possible to delete such a check box by using this function, use DynaPDF.DeleteField instead. However, the entire radio button can be deleted with this function.

See also [DeleteFieldEx](#) function in DynaPDF manual.

### See also

- 71.74 DynaPDF.DeleteField 2717
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.76 DynaPDF.DeleteJavaScripts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteJavaScripts"; PDF; DelJavaScriptActions )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DelJavaScriptActions

Delete Javascript Actions? Pass 1 to delete or 0 to not delete.

1

**Result** Returns OK or error.

### Description

Optionally deletes all Javascript Actions from the document.

See also [DeleteJavaScripts](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New

3032

Created 6th February 2015, last changed 6th February 2015.

## 71.77 DynaPDF.DeletePage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeletePage"; PDF; PageNumber )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PageNumber

The page number to delete. Range from 1 to DynaPDF.GetPageCount.  
1

**Result** Returns OK or error.

### Description

See also [DeletePage](#) function in DynaPDF manual.

#### See also

- 71.16 DynaPDF.AppendPage 2619
- 71.74 DynaPDF.DeleteField 2717
- 71.117 DynaPDF.FlushPages 2784
- 71.226 DynaPDF.GetPageCount 2924
- 71.294 DynaPDF.New 3032
- 71.307 DynaPDF.Print 3070
- 71.320 DynaPDF.RenderPage 3093

### 71.77.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr3](#)

Created 18th August 2014, last changed 18th August 2014.

**71.78 DynaPDF.DeletePageLabels**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeletePageLabels"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

See also [DeletePageLabels](#) function in DynaPDF manual.

**See also**

- 71.229 DynaPDF.GetPageLabel 2929
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.79 DynaPDF.DeleteSeparationInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteSeparationInfo"; PDF { ; AllPages } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AllPages

Optional

Optionally, delete the separation info of all pages? Pass 1 to delete.

0

**Result** Returns OK or error.

### Description

If of all pages if the parameter AllPages is set to 1.

See also [DeleteSeparationInfo](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.427 DynaPDF.SetSeparationInfo 3276

Created 6th February 2015, last changed 6th February 2015.

## 71.80 DynaPDF.DeleteTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteTemplate"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

Template handle.

\$template

**Result** Returns OK or error.

### Description

The parameter Handle must be a valid template handle. A template is not physically deleted by this function, only the content stream is cleared. Templates can be references in other content stream so that it is quite complex to delete a template physically at runtime. However, this behavior is maybe changed in a future version of DynaPDF.

Imported PDF pages are converted to templates by default. The handles of such templates are often not known, however, it is possibly to delete them by using the function DynaPDF.DeleteTemplateEx(

See also [DeleteTemplate](#) function in DynaPDF manual.

### See also

- 71.25 DynaPDF.BeginTemplate 2633
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.89 DynaPDF.EditTemplate 2738
- 71.90 DynaPDF.EditTemplate2 2740
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.326 DynaPDF.RotateTemplate 3109

Created 6th February 2015, last changed 6th February 2015.

## 71.81 DynaPDF.DeleteTemplateEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteTemplateEx"; PDF; Index )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

Index of the template inside the page's array.

0

**Result** Returns OK or error.

### Description

The parameter Index represents an index into the array of templates used by the current open page. The number of templates used by a page is returned by the function DynaPDF.GetTemplCount.

It is not easy to identify a specific template, all templates used by a page can be deleted easily, but it is much more complex to delete a specific template if the page contains more than one.

However, if a template contains text, then the functions DynaPDF.EditTemplate and DynaPDF.GetPage-Text can be used to identify a template, but in most cases it is easier to delete a template and check the file with Acrobat or Reader to determine whether it was the right one.

See also [DeleteTemplateEx](#) function in DynaPDF manual.

### See also

- 71.80 DynaPDF.DeleteTemplate 2723
- 71.89 DynaPDF.EditTemplate 2738
- 71.241 DynaPDF.GetTemplCount 2943
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.306 DynaPDF.PlaceTemplateEx 3068
- 71.326 DynaPDF.RotateTemplate 3109

Created 6th February 2015, last changed 6th February 2015.



## 71.82 DynaPDF.DeleteXFAForm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DeleteXFAForm"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error.

### Description

This can be useful if the PDF file contains a hybrid form because DynaPDF does not allow editing form fields as long as an XFA form is present.

See also [DeleteXFAForm](#) function in DynaPDF manual.

#### See also

- 71.69 DynaPDF.DeleteAcroForm 2712
- 71.194 DynaPDF.GetInIsXFAForm 2885
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.83 DynaPDF.DrawArc

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DrawArc"; PDF; PosX; PosY; Radius; StartAngle; EndAngle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the midpoint of the arc

\$x

#### PosY

Y-Coordinate of the midpoint of the arc

\$y

#### Radius

Radius of the arc.

50

#### StartAngle

Start Angle.

\$StartAngle

#### EndAngle

End Angle.

\$EndAngle

**Result** Returns OK or error.

### Description

A full circle is drawn if the start and end angles are the same. The path is not closed, stroked or filled so that it will be invisible as long it is not stroked, filled or both (see DynaPDF.ClosePath, DynaPDF.StrokePath for further information).

The current point is connected with the start point of the arc and then updated to end point of the arc, see example below.

The draw direction can be changed with the function DynaPDF.SetDrawDirection. The start and end angles are always measured counter clockwise independent of the drawing direction.

See also [DrawArc](#) function in DynaPDF manual.

### See also

- 71.26 DynaPDF.Bezier123 2634
- 71.45 DynaPDF.ClosePath 2660
- 71.84 DynaPDF.DrawArcEx 2728

71.83. <i>DYNAPDF.DRAWARC</i>	2727
• 71.85 DynaPDF.DrawChord	2730
• 71.86 DynaPDF.DrawCircle	2732
• 71.87 DynaPDF.DrawPie	2734
• 71.294 DynaPDF.New	3032
• 71.364 DynaPDF.SetDrawDirection	3169

### **71.83.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.84 DynaPDF.DrawArcEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DrawArcEx"; PDF; PosX; PosY; Width; Height; StartAngle; EndAngle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the midpoint of the arc

\$x

#### PosY

Y-Coordinate of the midpoint of the arc

\$y

#### Width

Width of the bounding rectangle

\$w

#### Height

Height of the bounding rectangle

\$h

#### StartAngle

Start Angle.

\$StartAngle

#### EndAngle

End Angle.

\$EndAngle

**Result** Returns OK or error.

### Description

A full ellipse is drawn if the start and end angles are the same. The path is not closed, stroked or filled so that it will be invisible as long it is not stroked, filled or both (see DynaPDF.ClosePath, DynaPDF.StrokePath for further information).

The current point is connected with the start point of the ellipse and then updated to the end point of the ellipse.

The draw direction can be changed with the function DynaPDF.SetDrawDirection. The start and end angles are always measured counter clockwise independent of the drawing direction.

See also [DrawArcEx](#) function in DynaPDF manual.

### See also

- 71.45 DynaPDF.ClosePath

71.84. <i>DYNAPDF.DRAWARCEX</i>	2729
• 71.83 DynaPDF.DrawArc	2726
• 71.85 DynaPDF.DrawChord	2730
• 71.86 DynaPDF.DrawCircle	2732
• 71.294 DynaPDF.New	3032
• 71.364 DynaPDF.SetDrawDirection	3169

### **71.84.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.85 DynaPDF.DrawChord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DrawChord"; PDF; PosX; PosY; Width; Height; StartAngle; EndAngle; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the midpoint of the chord

\$x

#### PosY

Y-Coordinate of the midpoint of the chord

\$y

#### Width

Width of the bounding rectangle

\$w

#### Height

Height of the bounding rectangle

\$h

#### StartAngle

Start Angle.

\$StartAngle

#### EndAngle

End Angle.

\$EndAngle

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

### Description

The draw direction can be changed with the function DynaPDF.SetDrawDirection. The start and end angles are always measured counter clockwise independent of the drawing direction.

A chord is a closed path that can be filled, stroked or both. It is also possible to draw a chord invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under DynaPDF.ClipPath. The parameter FillMode is ignored if the chord is drawn inside a clipping path. The fill modes are described under DynaPDF.ClosePath.

71.85. *DYNAPDF.DRAWCHORD* 2731

See also [DrawChord](#) function in DynaPDF manual.

**See also**

- 71.43 DynaPDF.ClipPath 2657
- 71.45 DynaPDF.ClosePath 2660
- 71.83 DynaPDF.DrawArc 2726
- 71.84 DynaPDF.DrawArcEx 2728
- 71.86 DynaPDF.DrawCircle 2732
- 71.294 DynaPDF.New 3032
- 71.364 DynaPDF.SetDrawDirection 3169
- 71.450 DynaPDF.SkewCoords 3307

### 71.85.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.86 DynaPDF.DrawCircle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DrawCircle"; PDF; PosX; PosY; Radius; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the midpoint of the pie.

\$x

#### PosY

Y-Coordinate of the midpoint of the pie.

\$y

#### Radius

The radius to use.

\$radius

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

### Description

The draw direction can be changed with the function DynaPDF.SetDrawDirection.

A circle is a closed path that can be filled, stroked or both. It is also possible to draw a circle invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under DynaPDF.ClipPath. The parameter FillMode is ignored if the circle is drawn inside a clipping path. The fill modes are described under DynaPDF.ClosePath.

See also [DrawCircle](#) function in DynaPDF manual.

### Examples

Clip image to circle:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# Clear current PDF document
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Add image on page
Set Variable [ $destPage ; Value: 1 ]
```



```

Set Variable [ $r ; Value: MBS("DynaPDF.AppendPage"; $pdf) ]
# no recompression if possible! But if needed, we use JPEG 90%
Set Variable [ $r ; Value: MBS("DynaPDF.SetSaveNewImageFormat"; $pdf; 0) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetJPEGQuality"; $pdf; 90) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetCompressionFilter"; $pdf; "jpeg") ]
# Save old state to restore later
Set Variable [ $r ; Value: MBS( "DynaPDF.SaveGraphicState"; $pdf ) ]
# Draw circle for clipping
Set Variable [ $r ; Value: MBS( "DynaPDF.DrawCircle"; $pdf; 260; 220; 100; "nofill" ) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.ClipPath"; $pdf; "Winding"; "fill" ) ]
# Draw clipped image
Set Variable [ $r ; Value: MBS("DynaPDF.InsertImage"; $pdf; Merge PDFs::InputImage; 100; 100; 320; 200) ]
# restore graphics static to get unclipped drawing
Set Variable [ $r ; Value: MBS( "DynaPDF.RestoreGraphicState"; $pdf ) ]
# Close page and store PDF in container
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
Set Field [ Merge PDFs::FinalPDF ; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.83 DynaPDF.DrawArc 2726
- 71.85 DynaPDF.DrawChord 2730
- 71.286 DynaPDF.IsInitialized 3017
- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.329 DynaPDF.Save 3116
- 71.333 DynaPDF.SaveGraphicState 3125
- 71.400 DynaPDF.SetJPEGQuality 3226
- 71.426 DynaPDF.SetSaveNewImageFormat 3274

**Example Databases**

- [DynaPDF/Picture to PDF with navigation](#)

**71.86.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 17th January 2019.

## 71.87 DynaPDF.DrawPie

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.DrawPie"; PDF; PosX; PosY; Width; Height; StartAngle; EndAngle; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the midpoint of the pie.

\$x

#### PosY

Y-Coordinate of the midpoint of the pie.

\$y

#### Width

Width of the bounding rectangle.

\$w

#### Height

Height of the bounding rectangle.

\$h

#### StartAngle

Start Angle.

\$StartAngle

#### EndAngle

End Angle.

\$EndAngle

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

### Description

The draw direction can be changed with the function DynaPDF.SetDrawDirection. The start and end angles are always measured counter clockwise independent of the drawing direction.

A pie is a closed path that can be filled, stroked or both. It is also possible to draw a pie invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under DynaPDF.ClipPath. The parameter FillMode is ignored if the pie is drawn inside a clipping path. The fill modes are described under DynaPDF.ClosePath.

71.87. *DYNAPDF.DRAWPIE* 2735

See also [DrawPie](#) function in DynaPDF manual.

**See also**

- 71.43 DynaPDF.ClipPath 2657
- 71.45 DynaPDF.ClosePath 2660
- 71.83 DynaPDF.DrawArc 2726
- 71.86 DynaPDF.DrawCircle 2732
- 71.294 DynaPDF.New 3032
- 71.364 DynaPDF.SetDrawDirection 3169

### 71.87.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.88 DynaPDF.EditPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EditPage"; PDF; Page )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Page

The number of the page to edit. Range from 1 to DynaPDF.GetPageCount.

1

**Result** Returns OK on success.

### Description

If the page does exist (PageNum is greater than the number of pages in the document), new pages are appended until the number of pages is equal PageNum. An open page must be closed with EndPage() after the required changes are made.

See also [EditPage](#) function in DynaPDF manual.

### Examples

Edit page 1:

```
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; 1) ]
```

Loop over pages and add page numbers:

```
Set Variable [ $PageCount; Value:MBS( "DynaPDF.GetPageCount"; $pdf ) ]
```

```
Set Variable [ $PageNumber; Value:1 ]
```

```
Set Variable [ $pageWidth; Value:MBS("DynaPDF.GetPageWidth"; $pdf) ]
```

```
Set Variable [ $pageHeight; Value:MBS("DynaPDF.GetPageHeight"; $pdf) ]
```

Loop

```
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; $PageNumber) ]
```

```
Set Variable [ $r; Value:MBS( "DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 12) ]
```

```
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $pdf; 50; $pageHeight - 50; $pageWidth-100; 30; "right"; GetAsText($PageNumber) & " of " & $PageCount) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

```
Set Variable [ $PageNumber; Value:$PageNumber +1 ]
```

```
Exit Loop If [ $PageNumber >$PageCount ]
```

End Loop

### See also

- 71.284 DynaPDF.IsColorPage

71.88. <i>DYNAPDF.EDITPAGE</i>	2737
• 71.285 DynaPDF.IsEmptyPage	3016
• 71.292 DynaPDF.MovePage	3029
• 71.294 DynaPDF.New	3032
• 71.301 DynaPDF.PageLinkEx	3055
• 71.322 DynaPDF.ReplacePattern	3100
• 71.391 DynaPDF.SetFont	3208
• 71.506 DynaPDF.WebLink	3401
• 71.508 DynaPDF.WriteFText	3406
• 71.509 DynaPDF.WriteFTextEx	3408

### **Example Databases**

- [Barcode/QRCode PDF](#)
- [DynaPDF/Add Weblinks](#)
- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/DynaPDF Highlight Text](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/List Annotations](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/Watermark pages](#)

#### **71.88.1 Blog Entries**

- [Merge PDF with table of contents](#)

#### **71.88.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 37
- Ausgabe 2/2019, Seite 27

Created 18th August 2014, last changed 18th June 2016.

## 71.89 DynaPDF.EditTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EditTemplate"; PDF; TemplateIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### TemplateIndex

Index of template. From 0 to DynaPDF.GetTemplateCount-1.

0

**Result** Returns OK or error.

### Description

The parameter Index is the array index inside the page that contains the template. To get the number of templates used by a page call the function DynaPDF.GetTemplCount. The current graphics state is saved entirely before the template will be opened. This graphics state is restored when the template is closed with DynaPDF.EndTemplate. That means, the current font, line width, fill color and so on are all restored to its values before entering the template. DynaPDF.EndTemplate requires an open page that must be opened with DynaPDF.EditPage beforehand. After the changes are made the template must be closed with DynaPDF.EndTemplate.

DynaPDF.EditTemplate is mostly used to extract text strings from imported PDF files because imported pages are converted to templates by default. See DynaPDF.GetPagetext() for an example application.

See also [EditTemplate](#) function in DynaPDF manual.

### See also

- 71.25 DynaPDF.BeginTemplate 2633
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.88 DynaPDF.EditPage 2736
- 71.90 DynaPDF.EditTemplate2 2740
- 71.96 DynaPDF.EndTemplate 2750
- 71.141 DynaPDF.GetContent 2817
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.326 DynaPDF.RotateTemplate 3109

### 71.89.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr9](#)

Created 16th May 2015, last changed 17th May 2015.

## 71.90 DynaPDF.EditTemplate2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EditTemplate2"; PDF; TemplateHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### TemplateHandle

The template handle number.

\$template

**Result** Returns OK or error.

### Description

Templates can be edited multiple times in the same way as normal PDF pages. Therefore, the function prepares the template for editing. The current graphics state is saved entirely before the template will be opened and restored when the template will be closed with DynaPDF.EndTemplate. The current font, line width, fill color and so on are all restored to its values before entering the template.

The function depends not on an open page.

See also [EditTemplate2](#) function in DynaPDF manual.

#### See also

- 71.25 DynaPDF.BeginTemplate 2633
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.89 DynaPDF.EditTemplate 2738
- 71.96 DynaPDF.EndTemplate 2750
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.326 DynaPDF.RotateTemplate 3109

### 71.90.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr9](#)

Created 16th May 2015, last changed 16th May 2015.



## 71.91 DynaPDF.Ellipse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Ellipse"; PDF; PosX; PosY; Width; Height; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of the bounding rectangle

\$x

#### PosY

Y-Coordinate of the bounding rectangle.

\$y

#### Width

Width of the bounding rectangle.

200

#### Height

Height of the bounding rectangle.

150

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

### Description

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The draw direction can be changed with the function DynaPDF.SetDrawDirection.

An ellipse is a closed path that can be filled, stroked or both. It is also possible to draw an ellipse invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under DynaPDF.ClipPath. The parameter FillMode is ignored if the ellipse is drawn inside a clipping path. The fill modes are described under DynaPDF.ClosePath.

See also [Ellipse](#) function in DynaPDF manual.

### See also

- 71.26 DynaPDF.Bezier123 2634
- 71.43 DynaPDF.ClipPath 2657

- 71.45 DynaPDF.ClosePath 2660
- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.364 DynaPDF.SetDrawDirection 3169

### Example Databases

- [DynaPDF/Signature Appearance](#)

Created 6th February 2015, last changed 6th February 2015.

## 71.92 DynaPDF.EnableEncryption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EnableEncryption"; PDF; OpenPwd; OwnerPwd; Encryption { ; RestrictFlags } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### OpenPwd

Open password.

""

#### OwnerPwd

Owner password.

"Hello"

#### Encryption

Which encryption to use. Can be 40bit, 128bit, 128bitEx, AES128, AES256 or AESRev6.

"AES256"

#### RestrictFlags

Optional

What restrictions to apply. See above.

4+8

**Result** Returns OK on success.

### Description

Available Encryption methods:

ID	Encryption	PDF Version	Acrobat Version
0	RC4 40bit	PDF 1.2	Acrobat 3 or higher
1	RC4 128bit	PDF 1.4	Acrobat 5 or higher
2	RC4 128bit improved	PDF 1.5	Acrobat 6 or higher
3	AES 128bit	PDF 1.6	Acrobat 7 or higher
4	AES 256bit	PDF 1.7	Acrobat 9 or higher

Available restrictions:

FillInFormFields and later are for 128/256 bit encryption only, so ignored if 40 bit encryption is used.

Please combine those like this: Print and Modify = 4 + 8 = 12.

Please see DynaPDF manual on CloseFileEx function for details on which combination of restrictions are possible.

DenyNothing	0	Encrypt the file only
DenyAll	3900	Deny anything
Print	4	Deny printing
Modify	8	Deny modification of contents
CopyObj	16	Deny copying of contents
AddObj	32	No commenting
FillInFormFields	256	requires Modify + AddObj
ExtractObj	512	requires Modify
Assemble	1024	requires Modify
PrintHighRes	2048	Disable high res. printing
ExlMetadata	4096	PDF 1.5 Exclude metadata streams
EmbFilesOnly	8192	PDF 1.6 AES Encryption only

For passwords, please use only ASCII characters to avoid trouble with text encodings.

Requires DynaPDF Pro license.

### Examples

Don't allow adding content:

```
MBS( "DynaPDF.EnableEncryption"; $PDF; ""; "secret"; 1; 16 + 32 + 256 + 1024 )
```

Create AES 256-bit encrypted PDF:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitDynaPDF" ; Parameter: ]
End If
# Clear current PDF document
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Add page
Set Variable [ $r ; Value: MBS("DynaPDF.AppendPage"; $pdf) ]
# Write some text
Set Variable [ $r ; Value: MBS("DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 12) ]
Set Variable [ $x ; Value: MBS("DynaPDF.GetPageHeight"; $pdf)-100 ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 0; 0; 0) ]
Set Variable [ $r ; Value: MBS("DynaPDF.WriteText"; $pdf; 100; $x; "Some black text") ]
# End page
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
# Add encryption with AES
Set Variable [ $r ; Value: MBS( "DynaPDF.EnableEncryption"; $PDF; "xxx"; "yyy"; "AES256"; 8+16+32+256+512+1024+2048+4096+8192
) ]
# Save PDF to put in container later
Set Variable [ $PDFData ; Value: MBS("DynaPDF.Save"; $pdf; "hello.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
```

71.92. *DYNAPDF.ENABLEENCRYPTION* 2745  
Set Field [ Create Text::PDF ; \$PDFData ]

**See also**

- 71.16 DynaPDF.AppendPage 2619
- 71.94 DynaPDF.EndPage 2747
- 71.228 DynaPDF.GetPageHeight 2927
- 71.286 DynaPDF.IsInitialized 3017
- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 71.389 DynaPDF.SetFillColor 3204
- 71.391 DynaPDF.SetFont 3208
- 71.514 DynaPDF.WriteText 3420

**71.92.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 15th July 2019.

## 71.93 DynaPDF.EndLayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EndLayer"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

See also [EndLayer](#) function in DynaPDF manual.

#### See also

- [71.23 DynaPDF.BeginLayer](#) 2631
- [71.94 DynaPDF.EndPage](#) 2747
- [71.95 DynaPDF.EndPattern](#) 2749
- [71.291 DynaPDF.LockLayer](#) 3028
- [71.294 DynaPDF.New](#) 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.94 DynaPDF.EndPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EndPage"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK on success.

### Description

See also [EndPage](#) function in DynaPDF manual.

### Examples

Close current page:

```
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

### See also

- [71.16 DynaPDF.AppendPage](#) 2619
- [71.88 DynaPDF.EditPage](#) 2736
- [71.95 DynaPDF.EndPattern](#) 2749
- [71.292 DynaPDF.MovePage](#) 3029
- [71.326 DynaPDF.RotateTemplate](#) 3109
- [71.413 DynaPDF.SetOrientationEx](#) 3247
- [71.432 DynaPDF.SetTextRect](#) 3284
- [71.506 DynaPDF.WebLink](#) 3401
- [71.509 DynaPDF.WriteFTextEx](#) 3408
- [71.511 DynaPDF.WriteStyledText](#) 3414

### Example Databases

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Catalog with tables](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)

- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)

### **71.94.1 Blog Entries**

- [Merge PDF with table of contents](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

### **71.94.2 FileMaker Magazin**

- [Ausgabe 3/2019, Seite 38](#)
- [Ausgabe 2/2019, Seite 27](#)
- [Ausgabe 5/2018, Seite 28](#)

Created 18th August 2014, last changed 18th October 2016.



## 71.95 DynaPDF.EndPattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EndPattern"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

You can open patterns with DynaPDF.BeginPattern or DynaPDF.CreateStdPattern.  
See also [EndPattern](#) function in DynaPDF manual.

### See also

- 71.24 DynaPDF.BeginPattern 2632
- 71.93 DynaPDF.EndLayer 2746
- 71.94 DynaPDF.EndPage 2747
- 71.112 DynaPDF.FindPattern 2776
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.96 DynaPDF.EndTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.EndTemplate" )

**Result** Returns OK or error.

### Description

You can open one with DynaPDF.BeginTemplate, DynaPDF.EditTemplate or DynaPDF.EditTemplate2. See also [EndTemplate](#) function in DynaPDF manual.

### See also

- [71.25 DynaPDF.BeginTemplate](#) 2633
- [71.89 DynaPDF.EditTemplate](#) 2738
- [71.90 DynaPDF.EditTemplate2](#) 2740
- [71.305 DynaPDF.PlaceTemplate](#) 3066
- [71.505 DynaPDF.WatermarkAnnot](#) 3399

### Example Databases

- [DynaPDF/Signature Appearance](#)

### 71.96.1 Blog Entries

- [Digitally signing PDF with DynaPDF and custom signature appearance](#)

Created 7th January 2017, last changed 7th January 2017.

**71.97 DynaPDF.ExchangeBookmarks**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExchangeBookmarks"; PDF; Bmk1; Bmk2 )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Bmk1**

Handle of first bookmark.

3

**Bmk2**

Handle of second bookmark.

5

**Result** Returns OK or error

**Description**

See also [ExchangeBookmarks](#) function in DynaPDF manual.

**See also**

- 71.32 DynaPDF.ChangeBookmark 2642
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.98 DynaPDF.ExchangePages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExchangePages"; PDF; First; Second )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### First

First page number.

3

#### Second

Second page number.

5

**Result** Returns OK or error.

### Description

Page links, bookmarks, go-to actions, and named destinations are changed so that the destination page still refers to the correct page. Note that page numbering starts at 1. It is also possible to move a page to another position in the file (see DynaPDF.MovePage for further information).

See also [ExchangePages](#) function in DynaPDF manual.

### See also

- 71.100 DynaPDF.ExtractImages 2755
- 71.292 DynaPDF.MovePage 3029
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.99 DynaPDF.ExtractDocumentText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExtractDocumentText"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns text or error.

### Description

This is like extracting page by page, but plugin may do it faster than a loop in a FileMaker script and puts a newline between pages.

Use DynaPDF.ExtractPageText if you need text from just one page.

For Mac only solutions, you can also try PDFKit.GetPDFText.

Needs DynaPDF Lite license.

### Examples

Load PDF and extract text:

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile";$pdf) ]
Set Field [ Test::PageText; MBS("DynaPDF.ExtractDocumentText"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

Full script to get text with error checking:

```
If [ MBS("DynaPDF.IsInitialized") = 1 ]
Perform Script [ "InitDynaPDF" ]
End If
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "DynaPDF Fehler"; $pdf ]
Else
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "DynaPDF Fehler"; $r ]
Else
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile";$pdf) ]
If [ MBS("IsError") ]
```

```

Show Custom Dialog [ "DynaPDF Fehler"; $r ]
Else
Set Field [ Test::PageText; MBS("DynaPDF.ExtractTextOld"; $pdf) ]
Commit Records/Requests [ No dialog ]
End If
End If
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
End If

```

**See also**

- 71.101 DynaPDF.ExtractPageRectText 2757
- 71.102 DynaPDF.ExtractPageText 2759
- 71.103 DynaPDF.ExtractText 2761
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.286 DynaPDF.IsInitialized 3017
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.316 DynaPDF.Release 3086
- 127.6 IsError 6374
- 125.23 PDFKit.GetPDFText 6299

**Example Databases**

- [DynaPDF/PDF Library](#)

**71.99.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 8th December 2015, last changed 21st January 2019.

## 71.100 DynaPDF.ExtractImages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExtractImages"; PDF; Path { ; Flags; Page } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Path

The native Path to the folder ending with slash/backslash.

"C:\Images\"

#### Flags

Optional

Optional, various flags for image extraction.

0

#### Page

Optional

The page number to look at. If missing or empty, we process all pages.

123

**Result** Returns number of imported files or error.

### Description

Please import first a PDF file (or selected pages)

For the flags, please check the pf flags in dynapdf manual.

e.g. pass 34 (pfConvImagesToRGB + pfDecomprAllImages) convert all images to RGB.

Filenames are 4 digit number counting up the images with jpg, jp2 or tif extensions.

This function uses the parser interface in DynaPDF and needs a Pro license.

### See also

- 71.98 DynaPDF.ExchangePages 2752
- 71.102 DynaPDF.ExtractPageText 2759
- 71.180 DynaPDF.GetImageCount 2866
- 71.277 DynaPDF.Initialize 2992
- 71.290 DynaPDF.ListImages 3025
- 71.294 DynaPDF.New 3032

### Example Databases

- [DynaPDF/Extract Images](#)

### 71.100.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr7](#)

Created 18th August 2014, last changed 19th March 2019.



**71.101 DynaPDF.ExtractPageRectText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExtractPageRectText"; PDF; pageIndex; RectLeft; RectTop; RectRight; RectBottom )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**pageIndex**

The number of the page. Must be within 1 and DynaPDF.GetPageCount.

1

**RectLeft**

Left coordinate of the rectangle to search.

0

**RectTop**

Top coordinate of the rectangle to search.

0

**RectRight**

Right coordinate of the rectangle to search.

595

**RectBottom**

Bottom coordinate of the rectangle to search.

842

**Result** Returns the text or error message.

**Description**

Use DynaPDF.ExtractPageText if you need text from whole page.

Text that starts within the given rectangle is captured.

Be aware that PDF coordinates start on bottom left of page with 0/0.

Needs DynaPDF Lite license.

**Examples**

Takes text only from top rectangle:

MBS("DynaPDF.ExtractPageRectText"; \$pdf; \$PageIndex; 0; 695; 595; 842)

Takes text only from left column:

MBS("DynaPDF.ExtractPageRectText"; \$pdf; \$PageIndex; 0; 0; 295; 842)

Takes text only from right column:

```
MBS("DynaPDF.ExtractPageRectText"; $pdf; $PageIndex; 295; 0; 595; 842)
```

### See also

- 71.99 DynaPDF.ExtractDocumentText 2753
- 71.102 DynaPDF.ExtractPageText 2759
- 71.226 DynaPDF.GetPageCount 2924
- 71.294 DynaPDF.New 3032
- 123.14 OCR.SetImage 6233

### 71.101.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 30th April 2016, last changed 20th January 2018.

## 71.102 DynaPDF.ExtractPageText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExtractPageText"; PDF; pageIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### pageIndex

The number of the page. Must be within 1 and DynaPDF.GetPageCount.  
1

**Result** Returns the text or error message.

### Description

Use DynaPDF.ExtractDocumentText is you need text from whole document.

For Mac only solutions, you can also try PDFKit.GetPDFPageText instead.  
Needs DynaPDF Lite license.

### Examples

Queries page text of page 5:

```
$text = MBS( "DynaPDF.ExtractPageText"; $PDF; 5 )
```

Load PDF and extract text of page 2:

```
# initialize DynaPDF before running this:
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
# import all pages
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile";$pdf) ]
# extra text of page 2
Set Field [ Test::PageText; MBS("DynaPDF.ExtractPageText"; $pdf; 2) ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.99 DynaPDF.ExtractDocumentText 2753
- 71.100 DynaPDF.ExtractImages 2755

- 71.101 DynaPDF.ExtractPageRectText 2757
- 71.103 DynaPDF.ExtractText 2761
- 71.226 DynaPDF.GetPageCount 2924
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 123.14 OCR.SetImage 6233
- 125.19 PDFKit.GetPDFPageText 6292

### Example Databases

- [DynaPDF/DynaPDF Test](#)

### 71.102.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### 71.102.2 FileMaker Magazin

- [Ausgabe 1/2016, Seite 32](#)

Created 18th August 2014, last changed 8th November 2019.

## 71.103 DynaPDF.ExtractText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ExtractText"; PDF; PageNum { ; Flags; AreaLeft; AreaTop; AreaRight; AreaBottom } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PageNum

The page number.  
1

#### Flags

Optional  
The flags for text extraction. Can include SortTextX, SortTextY, SortTextXY and/or DeleteOverlappingText.  
"SortTextXY"

#### AreaLeft

Optional  
The left coordiante of the area.

#### AreaTop

Optional  
The top coordiante of the area.

#### AreaRight

Optional  
The right coordiante of the area.

#### AreaBottom

Optional  
The bottom coordiante of the area.

**Result** Returns text or error.

### Description

The first page is denoted by 1.

Text lines can be sorted in x- and y-direction. The flag DeleteOverlappingText causes that identical text records which are placed on the same position (with a tolerance of 2 units) will be deleted. The records must occur one after the other in order to detect them.

The optional parameter Area can be set to restrict the text extraction to that rectangle. The rectangle must be defined according to the current coordinate system. That means either in bottom up or top down coor-

ordinates, see `SetPageCoords()` for further information. Note also that the function considers the orientation of the page. The width and height of the rectangle must be exchanged if the orientation is 90, -90, 270, or -270 degrees.

If the function succeeds the return value is the text. If the function fails the return value is an error.

Special thing: If this function is called with two parameters, it redirects to old function `DynaPDF.ExtractDocumentText` to keep compatibility with existing scripts. If area parameters are not given or all zero, the area is not used.

Needs DynaPDF Lite license.

See also [ExtractText](#) function in DynaPDF manual.

### Examples

Extract some text:

```
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile";$pdf) ]
Set Field [ Test::PageText ; MBS("DynaPDF.ExtractText"; $pdf; 1; 0) ]
# Cleanup
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
```

Extract text in area:

```
Set Field [ Test::PageText ; MBS("DynaPDF.ExtractText"; $pdf; 1; "Default"; 200; 200; 400; 400) ]
```

### See also

- 71.99 `DynaPDF.ExtractDocumentText` 2753
- 71.102 `DynaPDF.ExtractPageText` 2759
- 71.272 `DynaPDF.ImportPDFFile` 2979
- 71.294 `DynaPDF.New` 3032
- 71.297 `DynaPDF.OpenPDFFromContainer` 3039
- 71.316 `DynaPDF.Release` 3086
- 123.14 `OCR.SetImage` 6233
- 125.23 `PDFKit.GetPDFText` 6299

### Example Databases

- [DynaPDF/Extract Text](#)
- [DynaPDF/PDF Library](#)

### **71.103.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin 8.0 - More than 5000 Functions In One Plugin](#)
- [MBS FileMaker Plug-in 8.0 - Über 5000 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)

### **71.103.2 FileMaker Magazin**

- [Ausgabe 1/2016, Seite 32](#)

Created 21st December 2017, last changed 20th January 2018.

## 71.104 DynaPDF.FileAttachAnnot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FileAttachAnnot"; PDF; PosX; PosY; Icon; Author; Description; FilePath; Compress )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate for the annotation icon

100

#### PosY

Y-Coordinate for the annotation icon

100

#### Icon

Which icon to use. Can be Graph, PaperClip, PushPin or Tag.

"Graph"

#### Author

Name of author. Can be empty.

"Christian Schmitz"

#### Description

Description text. Can be empty.

"Original File"

#### FilePath

The native file path to the file to embed.

"/Users/cs/Desktop/test.mp3"

#### Compress

If 1, the embedded file is compressed. Pass 0 for no compression.

0

**Result** Returns annotation handle or error.

### Description

If the coordinate system is bottom-up the point PosX, PosY defines the lower left point of the annotation icon. If the coordinate system is top-down it defines the upper left point. The width and height of the icon is not changeable.

The embedded file is compressed if the parameter Compress is set to 1. Otherwise it is left uncompressed. It is not always useful to compress embedded files especially if the file is already compressed, e.g. Zip files or already compressed image formats require no further compression. In the worst case the compressed files becomes larger. However, text files and most document formats should be compressed to reduce the file size.



File attachment annotations are supported since PDF 1.3 (Acrobat 4). File attachments are supported since PDF 1.4 (Acrobat 5). The difference between both attachment types is that a file attachment annotation is used as a comment that has usually a visible icon on a page, e.g. to provide additional information about a specific object.

File attachments are used to add arbitrary files to the PDF file, e.g. job options, the original document from which the file was created, or any other file (see also `DynaPDF.AttachFile`).

Note that Acrobat 7 or higher restricts access to executable files and compressed file formats such as zip, or rar. If such files must be embedded then change the file extension, e.g. to `.dat` or `.bin`. The user must then change the extension again when extracting the file.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [FileAttachAnnot](#) function in DynaPDF manual.

**See also**

- 71.19 `DynaPDF.AttachFile` 2624
- 71.105 `DynaPDF.FileAttachAnnotEx` 2766
- 71.294 `DynaPDF.New` 3032
- 124.2 `Path.FileMakerPathToNativePath` 6247

Created 28th November 2014, last changed 30th November 2014.

## 71.105 DynaPDF.FileAttachAnnotEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FileAttachAnnotEx"; PDF; PosX; PosY; Icon; Author; Description; FileName; Compress; Container )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate for the annotation icon

100

#### PosY

Y-Coordinate for the annotation icon

100

#### Icon

Which icon to use. Can be Graph, PaperClip, PushPin or Tag.

"Graph"

#### Author

Name of author. Can be empty.

"Christian Schmitz"

#### Description

Description text. Can be empty.

"Original File"

#### FileName

The file name to use.

"test.mp3"

#### Compress

If 1, the embedded file is compressed. Pass 0 for no compression.

0

#### Container

The container with the file content.

Test::MyFile

**Result** Returns annotation handle or error.

### Description

Same as DynaPDF.FileAttachAnnot, but with data from container instead of file path.

See also [FileAttachAnnotEx](#) function in DynaPDF manual.

**See also**

71.105. <i>DYNAPDF.FILEATTACHANNOTEX</i>	2767
• 71.104 DynaPDF.FileAttachAnnot	2764
• 71.294 DynaPDF.New	3032

### **71.105.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 21st December 2017.

## 71.106 DynaPDF.FileLink

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FileLink"; PDF; PosX; PosY; Width; Height; FilePath )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of bounding rectangle

100

#### PosY

Y-Coordinate of bounding rectangle

100

#### Width

Width of bounding rectangle

100

#### Height

Height of bounding rectangle

20

#### FilePath

The file path to use.

"C:\test.pdf"

**Result** Returns number or error.

### Description

A file link annotation opens a file by using the application that is connected with the file extension (MIME type). Viewer applications may display a warning before the file is opened.

The file path can be defined as relative or absolute path. However, the usage of an absolute makes only sense if it can be guaranteed that the path exist on an arbitrary system.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The border of the link annotation is drawn by using the current line width, stroke color and line dash pattern. If the link should appear without a border set the line width to zero beforehand (with DynaPDF.SetLineWidth).

When clicking on a link annotation the rectangle is highlighted, that is a simple visual effect. Several highlight modes are supported, see `DynaPDF.SetLinkHighlightMode` for further information. The function does not check whether the path is valid.

If the function succeeds the return value is an annotation handle, a value greater or equal zero. If the function fails it returns an error.

Use `DynaPDF.WebLink` for web links, `DynaPDF.FileLink` for file links, `DynaPDF.PageLink` or `DynaPDF.PageLinkEx` for page links and `DynaPDF.FindText` can help to find the location where to place the link.

See also [FileLink](#) function in DynaPDF manual.

**See also**

- 71.113 `DynaPDF.FindText` 2777
- 71.294 `DynaPDF.New` 3032
- 71.300 `DynaPDF.PageLink` 3052
- 71.301 `DynaPDF.PageLinkEx` 3055
- 71.404 `DynaPDF.SetLineWidth` 3232
- 71.405 `DynaPDF.SetLinkHighlightMode` 3234
- 71.506 `DynaPDF.WebLink` 3401

### 71.106.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr5](#)

Created 29th April 2017, last changed 9th December 2019.

## 71.107 DynaPDF.FindBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindBookmark"; PDF; DestPage; Title )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestPage

Destination page used by the bookmark or -1.

-1

#### Title

The title of the bookmark or a part of it.

"Chapter 1"

**Result** Returns bookmark handle or error.

### Description

If the parameter DestPage is greater zero the function returns the handle of the first bookmark that uses this page number as destination page.

If DestPage is smaller 1 the function returns the handle of the first bookmark that contains the substring Title in the bookmark title. The substring Title is compared non-case-sensitive.

The parameter Title can be "", the function searches for bookmarks with no title in this case. To search for the next bookmark with the same search parameters call DynaPDF.FindNextBookmark.

It is safe to delete a found bookmark with DynaPDF.DeleteBookmark and continue the search run with DynaPDF.FindNextBookmark.

If a bookmark can be found the return value is the bookmark handle, a value greater or equal zero. If no bookmark can be found the return value is -1. If an error occurred, the return value is an error.

See also [FindBookmark](#) function in DynaPDF manual.

### See also

- 71.3 DynaPDF.AddBookmark 2595
- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.32 DynaPDF.ChangeBookmark 2642
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.111 DynaPDF.FindNextBookmark 2775
- 71.128 DynaPDF.GetBookmark 2803
- 71.294 DynaPDF.New 3032

71.107. *DYNAPDF.FINDBOOKMARK*

2771

Created 18th August 2014, last changed 18th August 2014.

## 71.108 DynaPDF.FindEmbeddedFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindEmbeddedFile"; Name )

### Parameters

#### Name

The name of the embedded file.

\$name

**Result** Returns number or error.

### Description

The file can then be extracted with DynaPDF.GetEmbeddedFile.

If the function succeeds the return value is an embedded file handle, a value greater or equal zero. If the file cannot be found the return value is -1.

See also [FindEmbeddedFile](#) function in DynaPDF manual.

### See also

- 71.73 DynaPDF.DeleteEmbeddedFile 2716
- 71.147 DynaPDF.GetEmbeddedFile 2824

Created 1st June 2016, last changed 1st June 2016.



**71.109 DynaPDF.FindField**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindField"; PDF; Name )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Name**

The fully qualified field name.  
"FirstName"

**Result** Returns field handle or error.

**Description**

The fully qualified field name is constructed from the partial field name of the field and all of its ancestors. For a field with no parent group field, the partial and fully qualified names are the same. For a field that is the child of another field, the fully qualified name is formed by appending the child field's partial name to the parent's fully qualified name, separated by a period, e.g. "Company.Employee.Name".

Field names are case-sensitive; the name must be specified exactly.

See also [FindField](#) function in DynaPDF manual.

**See also**

- 71.113 DynaPDF.FindText 2777
- 71.152 DynaPDF.GetField 2833
- 71.166 DynaPDF.GetFieldIndex 2849
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.110 DynaPDF.FindLinkAnnot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindLinkAnnot"; PDF; URL )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### URL

The URL to find.  
"http://www.mbsplugins.de/"

**Result** Returns annotation handle or error.

### Description

The parameter URL must be the URL of a web link annotation or the file path of a file link annotation, exactly defined in a case sensitive manner.

See also [FindLinkAnnot](#) function in DynaPDF manual.

### See also

- 71.37 DynaPDF.ChangeLinkAnnot 2648
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032

### 71.110.1 FileMaker Magazin

- Ausgabe 3/2019, Seite 37

Created 25th November 2014, last changed 25th November 2014.

**71.111 DynaPDF.FindNextBookmark**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindNextBookmark"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns bookmark handle.

**Description**

Searches for the next bookmark with the same search parameters which were used by a previous call of DynaPDF.FindBookmark. DynaPDF.FindBookmark must be called beforehand. It is safe to delete a found bookmark with DynaPDF.DeleteBookmark and to continue the search run.

If a bookmark can be found the return value is the bookmark handle, a value greater or equal zero. If no bookmark can be found the return value is -1. This function cannot fail; other return values are impossible. See also [FindNextBookmark](#) function in DynaPDF manual.

**See also**

- 71.32 DynaPDF.ChangeBookmark 2642
- 71.72 DynaPDF.DeleteBookmark 2715
- 71.107 DynaPDF.FindBookmark 2770
- 71.278 DynaPDF.InsertBookmark 2999
- 71.279 DynaPDF.InsertBookmarkEx 3001
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.112 DynaPDF.FindPattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FindPattern"; PDF; Text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Text

The text to search.  
"Hello"

**Result** Returns number of locations found.

### Description

You need to have an open page. you can use DynaPDF.EditPage to edit an existing one.

#### See also

- 71.24 DynaPDF.BeginPattern 2632
- 71.88 DynaPDF.EditPage 2736
- 71.95 DynaPDF.EndPattern 2749
- 71.294 DynaPDF.New 3032

### 71.112.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

**71.113 DynaPDF.FindText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.FindText"; PDF; Text { ; CaseInsensitive } )
```

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Text**

The text to search.

"Hello"

**CaseInsensitive**

Optional

Optional, if 1, the case of the letters is ignored (also umlauts).

1

**Result** Returns list of found positions.

**Description**

You need to have an open page. you can use DynaPDF.EditPage to edit an existing one.

The list of returned coordinates contains a rectangle for each found position defined by 4 coordinates. The coordinates (x1 y1 x2 y2 x3 y3 x4 y4) define the surrounding rectangle of the text area.

This function uses the parser interface in DynaPDF and needs a Lite license.

**Examples**

Find the text Apple on the current page:

```
MBS( "DynaPDF.FindText"; $PDF; "Apple"; 1 )
```

Example result: "96.001800 662.040000 168.307802 662.040000 168.307802 676.080000 96.001800 676.080000"

Find text and place weblink:

```
Set Variable [ $pos ; Value: MBS( "DynaPDF.FindText"; $pdf; Links::Text; 1) ]
```

```
If [ IsEmpty ( $pos ) ]
```

```
# not found
```

```
Else
```

```
# read positions
```

```
Set Variable [ $pos ; Value: Substitute($pos; " "; $) ]
```

```
Set Variable [ $x1 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 1)) ]
```

```
Set Variable [ $y1 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 2)) ]
```

```
Set Variable [ $x2 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 3)) ]
```

```
Set Variable [ $xy ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 4)) ]
```

```

Set Variable [ $x3 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 5) ]
Set Variable [ $y3 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 6) ]
Set Variable [ $x4 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 7) ]
Set Variable [ $y4 ; Value: MBS( "Math.TextToNumber"; GetValue($pos; 8) ]
Set Variable [ $w ; Value: MBS( "Math.TextToNumber"; $x3-$x1 ) ]
Set Variable [ $h ; Value: MBS( "Math.TextToNumber"; $y3-$y1 ) ]
# place web link
Set Variable [ $r ; Value: MBS( "DynaPDF.WebLink"; $pdf; $x1; $y1; $w; $h; Links::URL ) ]
End If

```

**See also**

- 71.88 DynaPDF.EditPage 2736
- 71.106 DynaPDF.FileLink 2768
- 71.109 DynaPDF.FindField 2773
- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.300 DynaPDF.PageLink 3052
- 71.506 DynaPDF.WebLink 3401
- 71.514 DynaPDF.WriteText 3420
- 110.20 Math.TextToNumber 5862

**Example Databases**

- [DynaPDF/Add Weblinks](#)
- [DynaPDF/Form/Form](#)

**71.113.1 Blog Entries**

- [Example Script for DynaPDF.FindText and DynaPDF.WebLink](#)
- [MBS FileMaker Plugin 4.1 for OS X/Windows - More than 2400 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.1pr1](#)

**71.113.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 38
- Ausgabe 3/2019, Seite 37

**71.114 DynaPDF.FlattenAnnotOrField**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FlattenAnnotOrField"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

Form fields are annotations of type atWidget. The annotations of a page can be enumerated with DynaPDF.GetPageAnnotation and DynaPDF.GetPageAnnotCount.

The annotation or form field is deleted from the page's annotation array after it was flattened. If the function succeeds the return value is OK. If the function fails the return value is an error message.

**See also**

- 71.223 DynaPDF.GetPageAnnotation 2920
- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.294 DynaPDF.New 3032

**71.114.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 9th January 2020, last changed 9th January 2020.

## 71.115 DynaPDF.FlattenAnnots

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FlattenAnnots"; PDF; Flags )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

The flags as text or number. Default is None. Can be None, UseViewState, MarkupAnnots or both combined as VisibleMarkupAnnots.

"UseViewState"

**Result** Returns number or error message.

### Description

Draws all annotations according to the used flags on the corresponding pages and deletes the annotations when finish. The flatten flags can be combined. The flag MarkupAnnots causes that non-markup annotations will be left intact (all kind of link, sound, and file attach annotations).

The function flattens only annotations which contain an appearance stream. The function does not create missing appearances on demand.

If the function succeeds the return value is the number of annotations which are still in memory.

By default all annotations which have an appearance stream and which have the print flag set are flattened. All annotations are deleted when the function returns with the exception of file attachment annotations. If you want to flatten the view state then set the flag affUseViewState.

See also [FlattenAnnots](#) function in DynaPDF manual.

### See also

- [71.116 DynaPDF.FlattenForm](#) 2782
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/DynaPDF Highlight Text](#)



Flag Name	Flag Number	Description
None	0	Printable annotations independent of type.
UseViewState	1	If set, annotations which are visible in a viewer become flattened.
MarkupAnnots	2	If set, markup annotations are flattened only. Link, Sound, or FileAttach annotations are no markup annotations. Such types will be left intact.
NonPDFA_1	4	If set, flatten all annotations which are not supported in PDF/A 1.
NonPDFA_2	8	If set, flatten all annotations which are not supported in PDF/A 2 or 3.
FormFields	16	If set, form fields will be flattened too.
UseFieldViewState	32	Meaningful only if affFormFields or affSigFields is set. If set, flatten the view state of form fields. Use the print state otherwise.
SigFields	64	Meaningful only if affFormFields is not set. If set, signed signature fields will be flattened.
KeepLinkAnnots	4096	If set, link annotations will be kept.
KeepFileAttach	8192	If set, file attachment annotations will be kept.
KeepTextAnnots	16384	If set, text annotations will be kept.
KeepEmptySigFields	32768	If set, signature fields which are not already signed will be kept.
PreserveZOrder	4194304	If set, preserve the z-order under any circumstances. That means visible overlapping annotations or form fields will be flattened, regardless the type.

### 71.115.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)

Created 18th August 2014, last changed 19th November 2019.

## 71.116 DynaPDF.FlattenForm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FlattenForm"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error message.

### Description

Draws all form fields on the corresponding pages and deletes the form fields, incl. corresponding JavaScripts and JavaScript actions. The resulting PDF pages look after flattening as if the form were printed.

Note that this function does not support XFA forms. If the form is a hybrid form, the PDF form fields will be flattened. A maybe existing XFA form will be deleted but not flattened.

Fields, which are invisible for printing, due to an absent print flag, or if the hidden flag was set, are excluded from flattening. These fields are deleted without drawing them on the page.

This function is especially useful if a large amount of Interactive Forms (which are already filled out by the user) should be prepared for printing, or if the forms should be archived without allowing further changes. Flattened forms require less disk space and can be printed faster.

XFA Forms which are created by Adobe's Designer are not fully supported. Only hybrid forms can be flatted.

Requires DynaPDF Pro license.

See also [FlattenForm](#) function in DynaPDF manual.

### Examples

Make all forms flat:

MBS( "DynaPDF.FlattenForm"; \$PDF )

### See also

- [71.115 DynaPDF.FlattenAnnots](#) 2780
- [71.277 DynaPDF.Initialize](#) 2992
- [71.294 DynaPDF.New](#) 3032

### 71.116.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)

71.116. *DYNAPDF.FLATTENFORM*

2783

Created 18th August 2014, last changed 9th February 2015.

## 71.117 DynaPDF.FlushPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FlushPages"; PDF; Flags )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

A combination of the flag values. Default is 0.

0

**Result** Returns OK or error message.

### Description

The function can be called every time a new page was created or whenever the pages in memory are no longer required.

Calling the function on a memory based PDF file is not meaningful. The output file must already be open before the function can be called. If no output file was set in DynaPDF.New then open the output file with DynaPDF.OpenOutputFile beforehand.

Flushed pages can no longer be accessed with DynaPDF.EditPage but it is of course possible to add further pages to the file.

By default, the function writes the content streams of all pages and referenced templates, patterns, and images to the output file. The content streams of these objects will be released but the objects remain in memory. So, all handles remain valid and it is still possible to use already flushed objects in subsequent pages. For example, a flushed image or template can still be inserted in other pages with DynaPDF.PlaceImage or DynaPDF.PlaceTemplate because the content streams or image buffers are not required for this action.

The flag ImagesOnly can be used to flush the images in memory only. This can be useful if further objects must be added to the pages in memory or if a large image was inserted.

It is allowed to call the function within an open page. In this case the function does not flush the content stream of the current open page but anything else depending on the used flags.

Calling a function like DynaPDF.DeletePage, DynaPDF.DeleteField or any other function that deletes a flushed object results in a damaged PDF file.

Default	0	Write anything to the file that is possible
ImagesOnly	1	If set, only images are written to the PDF file. All pages are still kept in memory and can be modified with DynaPDF.EditPage. Flushed images can still be referenced in other pages. The image handles remain valid.
ExclLastPage	2	If set, the last page is not flushed

See also [FlushPages](#) function in DynaPDF manual.

71.117. *DYNAPDF.FLUSHPAGES*

2785

### Examples

Do a flush:

```
MBS( "DynaPDF.FlushPages" )
```

### See also

- [71.42 DynaPDF.Clear](#) 2656
- [71.74 DynaPDF.DeleteField](#) 2717
- [71.77 DynaPDF.DeletePage](#) 2720
- [71.88 DynaPDF.EditPage](#) 2736
- [71.294 DynaPDF.New](#) 3032
- [71.295 DynaPDF.OpenOutputFile](#) 3035
- [71.305 DynaPDF.PlaceTemplate](#) 3066

### Example Databases

- [DynaPDF/Merge PDFs to File](#)
- [DynaPDF/Merge PDFs](#)

#### 71.117.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.118 DynaPDF.FontInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FontInfo"; PDF; Index; Selector { ; FileName } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The font index from zero to DynaPDF.GetFontCount.

0

#### Selector

Which value to return. Can be Ascent, AvgWidth, BaseEncoding, BaseFont, CapHeight, CharSet, CharSet-Size, CIDOrdering, CIDRegistry, CIDSet, CIDSetSize, CIDSupplement, CIDToGIDMap, CMapBuf, CMapBufSize, CMapName, Encoding, FirstChar, FontBBox, Flags, FontBufSize, FontBuffer, FontFamily, FontFilePath, FontFileType, FontName, FontStretch, FontType, FontWeight, FullName, HaveEncoding, HorzWidths, HorzWidthsCount, Imported, ItalicAngle, Lang, LastChar, Leading, Length1, Length2, Length3, MaxWidth, Metadata, MetadataSize, MisWidth, Panose, PostScriptName, SpaceWidth, StemH, StemV, ToUnicode, ToUnicodeSize, VertDefPos, VertWidths, VertWidthsCount, WMode or XHeight.

"FamilyName"

#### FileName

Optional

Optional file name for values returned as container values. For CMapBuf and FontBuffer.

"test.dat"

**Result** Returns value or error.

### Description

CMapBuf and FontBuffer values are returned as container values.

HorzWidths is returned as a list of floating point numbers separated by newline character.

VertDefPos is returned as two floating point numbers for X and Y separated by space character.

VertWidths is returned as list of three floating pointing numbers. First is width, second X and third value is Y.

FontFamily, FontFilePath, FullName and PostScriptName are returned as unicode texts if possible.

For embedded fonts the FontBufSize field is >0.

### Examples

Get Family Name for first font:

MBS( "DynaPDF.FontInfo"; \$pdf; 0; "FamilyName" )

Create records with family name for each font in PDF file:

```
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; System Font Info::PDF) ]
# import a page
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# List fonts in PDF
Set Variable [ $FontCount; Value:MBS("DynaPDF.GetFontCount"; $pdf) ]
If [ $FontCount >0 ]
Set Variable [ $index; Value:0 ]
Loop
# Get values
New Record/Request
Set Field [ System Font Info::FontFamily; MBS("DynaPDF.FontInfo"; $pdf; $Index; "FontFamily") ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# Next
Set Variable [ $Index; Value:1 + $Index ]
Exit Loop If [ $Index >= $FontCount ]
End Loop
End If
```

#### See also

- 71.174 DynaPDF.GetFontCount 2857
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.454 DynaPDF.SysFontInfo 3315

#### Example Databases

- [DynaPDF/PDF Font Info](#)

#### 71.118.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 21st March 2015, last changed 20th December 2019.

## 71.119 DynaPDF.FreeTextAnnot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.FreeTextAnnot"; PDF; PosX; PosY; Width; Height; Author; Text; Textalign )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

x-coordinate

100

#### PosY

y-coordinate

100

#### Width

Stamp width

100

#### Height

Stamp height

100

#### Author

The author name. Can be empty.

"Christian Schmitz"

#### Text

The visible text of the annotation.

"Hello World"

#### Textalign

The text alignment. Can be Left, Center, Right or Justify.

"Justify"

**Result** Returns annotation handle or error.

### Description

The text of a Free Text annotation appears directly on screen such as normal text of a page. However, Free Text annotations are used to add comments. Comments can be excluded from printing if necessary (see DynaPDF.SetAnnotFlags for further information) and the contents of a Free Text annotation can be edited in Adobe's Acrobat.

The text of the annotation is printed into the bounding box by applying a formatting algorithm so that the text appears left aligned, right aligned, centered, or justified. Justified text is not directly supported by Adobe's Acrobat. However, the annotation appears correctly on screen but the alignment is set to left



aligned text if the text will be changed in Acrobat.

The border of the annotation is drawn by using the current line width, stroke color and line dash pattern. If the annotation should appear without a border set the line width to zero beforehand.

The border appears completely inside the bounding box of the annotation. This must be considered because normal vector graphics such as rectangles, ellipses and so on are measured without the line width. For instance, the real width of a rectangle is the width plus the line width.

A Free Text annotation requires a font. If no font is set beforehand Helvetica is used. The largest font size that can be used in Free Text annotations is 12 units. If the active font uses a larger font size then it will be changed to 12 units.

Text positioning issues:

Acrobat 7 or higher use a very unusual way to place text into a Free Text annotation. While the baseline of text is very well defined in practically all typo graphics systems, Acrobat uses a dynamic position depending on the height of the largest character in the first line. The baseline is placed at the annotation's height - border width - cap height as long as the first line contains no character with an accent (e.g. Ä, Ö, Ü, Å, È, Ê, Ñ). Because the cap height is not large enough for accented characters Acrobat adjusts the position of the first line if necessary. So, the text position depends on the contents of the first text line.

DynaPDF places the text at the annotation's height - border width - font size. This makes it possible to change the text of a Free Text annotation without changing its position. However, if the annotation will be edited with Adobe's Acrobat the text position will slightly change. If the text position is important then it is mostly better to use text fields instead (see `DynaPDF.CreateTextField`).

See also [FreeTextAnnot](#) function in DynaPDF manual.

**See also**

- 71.67 `DynaPDF.CreateTextField` 2709
- 71.294 `DynaPDF.New` 3032
- 71.336 `DynaPDF.SetAnnotBorderStyle` 3130
- 71.337 `DynaPDF.SetAnnotBorderWidth` 3132
- 71.338 `DynaPDF.SetAnnotColor` 3133
- 71.340 `DynaPDF.SetAnnotFlags` 3137
- 71.500 `DynaPDF.TextAnnot` 3391

Created 28th November 2014, last changed 30th November 2014.

## 71.120 DynaPDF.GeneratePreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.GeneratePreview"; PDFContainer { ; OnlyImage; ImageName } )
```

### Parameters

#### PDFContainer

The input PDF container value. Must contain a PDF file.

MyTable::PDFContainer

#### OnlyImage

Optional

Default is 0. But if you pass 1, the plugin does not return the PDF data in the result, but only the preview.

0

#### ImageName

Optional

If OnlyImage is 1, you can specify a file name for the image result.

"preview.jpg"

**Result** Returns updated container value or error.

### Description

On Windows if you have a PDF in a container FileMaker will not show a preview due to a missing PDF rendering library. On Mac OS X the system can show PDF directly and FileMaker uses this.

This function renders first page as JPEG and add it to the container value as preview.

You need to use DynaPDF.Initialize before to load the DynaPDF library and set the license key (Pro required).

With version 5.0 optionally only creates image without passing PDF data back.

Requires DynaPDF Pro license for the raster engine to create bitmaps from PDF pages.

See also DynaPDF.RenderPage for more options on rendering.

On Mac the PDFKit.GeneratePreview function can be an alternative way, but limited to the capabilities of Apple's frameworks.

### Examples

Add a preview to PDF container

```
# does container have jpeg preview?
```

```
If [ MBS( "Container.GetTypeSIze" ; test::pdf; "JPEG" ) <= 0 ]
```

```
# Add preview to PDF in container
```

```
Set Field [ test::pdf; MBS("DynaPDF.GeneratePreview"; test::pdf) ]
```

```
End If
```

Add a preview to PDF container if needed:

```
# get a PDF somewhere
Set Variable [ $PDF ; Value: MBS( "Files.ReadFile"; "C:\Users\Christian\Desktop\test.pdf"; "auto" ) ]
# Does have PDF and no image?
Set Variable [ $types ; Value: MBS( "Container.GetTypes"; $PDF ) ]
# PDF included?
If [ Position ( $types ; "PDF " ; 1 ; 1 ) >0 ]
# Image preview missing?
If [ Position ( $types ; "JPEG" ; 1 ; 1 ) <1 and Position ( $types ; "PNGf" ; 1 ; 1 ) <1 ]
# Use DynaPDF if initialized, we can use it
If [ MBS( "DynaPDF.IsInitialized" ) ]
Set Variable [ $PDF2 ; Value: MBS( "DynaPDF.GeneratePreview"; $PDF ) ]
If [ MBS("IsError") = 0 ]
# Success, so use the new PDF
Set Variable [ $PDF ; Value: $PDF2 ]
End If
Else If [ MBS( "IsMacOSX" ) = 1 ]
# On Mac use PDFKit
Set Variable [ $PDF2 ; Value: MBS( "PDFKit.GeneratePreview"; $PDF ) ]
If [ MBS("IsError") = 0 ]
# Success, so use the new PDF
Set Variable [ $PDF ; Value: $PDF2 ]
End If
End If
End If
End If
# Store PDF with preview
Set Field [ test::Image ; $PDF ]
```

#### See also

- 56.6 Container.Export 1649
- 56.22 Container.GetType 1672
- 56.23 Container.GetTypeSize 1674
- 62.119 CURL.GetResultAsPDF 1959
- 71.277 DynaPDF.Initialize 2992
- 71.286 DynaPDF.IsInitialized 3017
- 71.320 DynaPDF.RenderPage 3093
- 79.45 Files.ReadFile 3898
- 127.6 IsError 6374
- 125.7 PDFKit.GeneratePreview 6272

**Example Databases**

- [CURL/CURL Download PDF and add preview with DynaPDF](#)
- [DynaPDF/Generate Previews](#)

**71.120.1 Blog Entries**

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [FileMaker and PDF Containers](#)
- [MBS FileMaker Plugin, version 5.0pr9](#)
- [MBS Filemaker Plugin, version 4.1pr3](#)
- [MBS Filemaker Plugin, version 4.0pr2](#)

Created 18th August 2014, last changed 26th September 2019.

**71.121 DynaPDF.GetAnnotCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAnnotCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

Note: This value includes also annotations which were deleted by DynaPDF.DeleteAnnotation because annotations are not physically deleted at runtime. This value can be used to loop over all annotations. Annotation handles are simple array indexes.

See also [GetAnnotCount](#) function in DynaPDF manual.

**See also**

- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.174 DynaPDF.GetFontCount 2857
- 71.189 DynaPDF.GetInFieldCount 2880
- 71.215 DynaPDF.GetOCGCount 2911
- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.226 DynaPDF.GetPageCount 2924
- 71.241 DynaPDF.GetTemplCount 2943
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.347 DynaPDF.SetAnnotString 3145

**Example Databases**

- [DynaPDF/Extract Attachments](#)
- [DynaPDF/List Annotations](#)

Created 25th November 2014, last changed 25th November 2014.

## 71.122 DynaPDF.GetAnnotFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAnnotFlags"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

See also [GetAnnotFlags](#) function in DynaPDF manual.

#### See also

- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.294 DynaPDF.New 3032
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.341 DynaPDF.SetAnnotFlagsEx 3139
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.397 DynaPDF.SetGStateFlags 3218
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224

Created 25th November 2014, last changed 27th May 2017.

## 71.123 DynaPDF.GetAnnotLink

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAnnotLink"; PDF; AnnotationHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

**Result** Returns text or error.

### Description

The parameter AnnotationHandle must be a valid handle of a file link, page link, or web link annotation. Imported file link or web link annotations are mostly defined as page link annotation because it is impossible to distinguish between these types during import. Use the function DynaPDF.FindLinkAnnot if you need to change an imported file link or web link annotation.

See also [GetAnnotLink](#) function in DynaPDF manual.

### See also

- 71.110 DynaPDF.FindLinkAnnot 2774
- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.124 DynaPDF.GetAnnotType 2796
- 71.294 DynaPDF.New 3032
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.347 DynaPDF.SetAnnotString 3145

Created 25th November 2014, last changed 25th November 2014.

## 71.124 DynaPDF.GetAnnotType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAnnotType"; PDF; AnnotationHandle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

**Result** Returns type or error.

### Description

If the function succeeds the return value is the annotation type.

See also [GetAnnotType](#) function in DynaPDF manual.

### See also

- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.343 DynaPDF.SetAnnotIcon 3141

Created 25th November 2014, last changed 25th November 2014.



Value	Description
Caret	Caret
Circle	Circle
FileLink	A Link annotation with an associated GoToR action (go to remote)
FreeText	Free text
Highlight	Highlight annotation
Ink	Ink drawing
Line	Line
PageLink	A Link annotation with an associated GoTo action
Polygon	Polygon
PolyLine	Polyline
PopUp	Popup
Square	Square
Squiggly	Highlight annotation
Stamp	Stamp
StrikeOut	Highlight annotation
Text	Also used as container to store the State Model
Underline	Highlight annotation
WebLink	A Link annotation with an associated URI action
Widget	Form Fields are handled separately
3D	3D, PDF 1.6
SoundAnnot	Sound, PDF 1.2
FileAttach	File Attachment, PDF 1.3
Redact	Redact, PDF 1.7
Watermark	Watermark, PDF 1.6
Unknown	Unknown annotation type
MovieAnnot	Movie, PDF 1.2
PrinterMark	Printer Mark, PDF 1.4
Projection	Projection, PDF 1.7 Extension Level 3
RichMedia	Rich Media, PDF 1.7 Extension Level 3
Screen	Screen, PDF 1.5
TrapNet	TrapNet, PDF 1.3

## 71.125 DynaPDF.GetAnnotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAnnotation"; PDF; AnnotationHandle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### Selector

Which value to query. Possible values: Type, Deleted, BBox, BorderWidth, BorderColor, BorderStyle, BackColor, Handle, Author, Content, Name, Subject, PageNum, HighlightMode, DestPage, DestPos, DestType, DestFile, Icon, StampName, AnnotFlags, CreateDate, ModDate, Grouped, Open, Parent, PopUp, State, StateModel, EmbeddedFile, Subtype, PageIndex, MarkupAnnot, Opacity, QuadPointCount, QuadPoints, DashPattern, DashPatternCount, Intent, LE1, LE2, Vertices, VerticesCount, Caption, CaptionOffsetX, CaptionOffsetY, CaptionPos, LeaderLineLen, LeaderLineExtend or LeaderLineOffset.

"Name"

**Result** Returns value or error.

### Description

Please check also dynapdf manual with details on the pdfGetAnnotEx function.

### See also

- 71.223 DynaPDF.GetPageAnnotation 2920
- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.294 DynaPDF.New 3032
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.347 DynaPDF.SetAnnotString 3145
- 71.412 DynaPDF.SetOrientation 3246
- 71.425 DynaPDF.SetResolution 3272

**Example Databases**

- [DynaPDF/Extract Attachments](#)
- [DynaPDF/List Annotations](#)

Created 25th November 2014, last changed 25th November 2014.

## 71.126 DynaPDF.GetAscent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetAscent"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

### Description

The ascender is a typographic value that specifies the maximum extent to which characters rise above the baseline.

See also [GetAscent](#) function in DynaPDF manual.

### See also

- 71.141 DynaPDF.GetContent 2817
- 71.142 DynaPDF.GetDocInfo 2818
- 71.259 DynaPDF.GetUserUnit 2962
- 71.294 DynaPDF.New 3032
- 71.361 DynaPDF.SetContent 3164

Created 6th February 2015, last changed 6th February 2015.

## 71.127 DynaPDF.GetBBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetBBox"; PDF; box; Selector { ; Unit } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### box

Which box to set. Can be Art, Bleed, Crop, Trim or Media.

"Media"

#### Selector

What value to return. Can be Left, Right, Bottom or Top to get the coordinates. Can be Width and Height to get the size of page in points. Can be Exists to check if the given page bound exists. Returns 1 or 0.

"Width"

#### Unit

Optional

The unit to return values with. Default is points (72 dpi raster). You can pass "point", "cm" or "mm". If an user unit is used, we include it into the calculation for meters.

"point"

**Result** Returns value or error.

### Description

This function returns a bounding box of a PDF page. A PDF page may be prepared either for a finished medium, such as a sheet of paper, or as part of a prepress process in which the content of the page is placed on an intermediate medium, such as film or an imposed reproduction plate.

In the latter case, it is important to distinguish between the intermediate page and the finished page. The intermediate page may often include additional production-related content, such as bleeds or printer marks that falls outside the boundaries of the finished page. To handle such cases, a PDF page can define as many as five separate boundaries to control various aspects of the imaging process.

The function requires an open page because each page can use its own boundaries. Please use DynaPDF.EditPage to edit a page.

See also [GetBBox](#) function in DynaPDF manual.

### Examples

Query with of crop box in millimeter:

```
MBS( "DynaPDF.GetBBox"; $pdf; "crop"; "Width"; "mm")
```

**See also**

- [71.88 DynaPDF.EditPage](#) 2736
- [71.213 DynaPDF.GetOCG](#) 2906
- [71.224 DynaPDF.GetPageBBox](#) 2921
- [71.294 DynaPDF.New](#) 3032
- [71.349 DynaPDF.SetBBox](#) 3147

**Example Databases**

- [DynaPDF/List Pages](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Shrink PDF pages](#)

**71.127.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 19th July 2016, last changed 31st July 2016.

## 71.128 DynaPDF.GetBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetBookmark"; PDF; BookmarkHandle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### BookmarkHandle

The reference number for the bookmark. Either returned by one of the add/insert functions or just counting from 0 to DynaPDF.GetBookmarkCount-1.

\$BookmarkHandle

#### Selector

Which information to query.

"Title"

**Result** Returns value or error.

### Description

Selectors can be:

Color	Bookmark color (PDF 1.4)
DestPage	Destination page
DestPos	Destination position
DestType	Destination type (see DynaPDF.SetBookmarkDest)
Open	1 if the bookmark appears open
Parent	Parent bookmark if any or -1
Style	Text style. a combination of 1 for italic and 2 for bold.
Title	Title text.
TitleLen	Title length in characters.

See also [GetBookmark](#) function in DynaPDF manual.

### Examples

query title of a bookmark:

MBS( "DynaPDF.GetBookmark"; \$PDF; \$BookmarkHandle; "Title" )

### See also

• 71.3 DynaPDF.AddBookmark	2595
• 71.4 DynaPDF.AddBookmarkEx	2597
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.72 DynaPDF.DeleteBookmark	2715
• 71.107 DynaPDF.FindBookmark	2770
• 71.129 DynaPDF.GetBookmarkCount	2805
• 71.278 DynaPDF.InsertBookmark	2999
• 71.294 DynaPDF.New	3032
• 71.350 DynaPDF.SetBookmarkDest	3149
• 71.351 DynaPDF.SetBookmarkStyle	3151

Created 18th August 2014, last changed 18th August 2014.



**71.129 DynaPDF.GetBookmarkCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetBookmarkCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

See also [GetBookmarkCount](#) function in DynaPDF manual.

**Examples**

Query bookmark count:

MBS( "DynaPDF.GetBookmarkCount"; \$PDF )

**See also**

- [71.32 DynaPDF.ChangeBookmark](#) 2642
- [71.72 DynaPDF.DeleteBookmark](#) 2715
- [71.128 DynaPDF.GetBookmark](#) 2803
- [71.137 DynaPDF.GetColorSpaceCount](#) 2813
- [71.180 DynaPDF.GetImageCount](#) 2866
- [71.294 DynaPDF.New](#) 3032
- [71.350 DynaPDF.SetBookmarkDest](#) 3149
- [71.351 DynaPDF.SetBookmarkStyle](#) 3151

Created 18th August 2014, last changed 18th August 2014.

## 71.130 DynaPDF.GetBorderStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetBorderStyle"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns border style or error.

### Description

To determine the style of a specific field use the function DynaPDF.GetFieldBorderStyle.  
See also [GetBorderStyle](#) function in DynaPDF manual.

#### See also

- 71.152 DynaPDF.GetField 2833
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.371 DynaPDF.SetFieldBorderStyle 3178

### 71.130.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**71.131 DynaPDF.GetCMapCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCMapCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

This value can be used to access the header information of CMap files with DynaPDF.GetCMap.

See also [GetCMapCount](#) function in DynaPDF manual.

**See also**

- 71.121 DynaPDF.GetAnnotCount 2793
- 71.159 DynaPDF.GetFieldCount 2841
- 71.174 DynaPDF.GetFontCount 2857
- 71.180 DynaPDF.GetImageCount 2866
- 71.215 DynaPDF.GetOCGCount 2911
- 71.226 DynaPDF.GetPageCount 2924
- 71.241 DynaPDF.GetTemplCount 2943
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.132 DynaPDF.GetCharacterSpacing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCharacterSpacing"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

### Description

See also [GetCharacterSpacing](#) function in DynaPDF manual.

#### See also

- [71.294 DynaPDF.New](#) 3032
- [71.354 DynaPDF.SetCharacterSpacing](#) 3155

### 71.132.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr6](#)

Created 18th August 2014, last changed 18th August 2014.

**71.133 DynaPDF.GetCheckBoxChar**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCheckBoxChar"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns char or error.

**Description**

The checkbox char can be: Check, Circle, Cross1, Cross2, Cross3, Cross4, Diamond, Square or Star.  
See also [GetCheckBoxChar](#) function in DynaPDF manual.

**See also**

- [71.134 DynaPDF.GetCheckBoxCharEx](#) 2810
- [71.294 DynaPDF.New](#) 3032
- [71.355 DynaPDF.SetCheckBoxChar](#) 3156
- [71.357 DynaPDF.SetCheckBoxState](#) 3158

**71.133.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.

## 71.134 DynaPDF.GetCheckBoxCharEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCheckBoxCharEx"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns number or error.

### Description

See also [GetCheckBoxCharEx](#) function in DynaPDF manual.

### See also

- [71.133 DynaPDF.GetCheckBoxChar](#) 2809
- [71.294 DynaPDF.New](#) 3032
- [71.355 DynaPDF.SetCheckBoxChar](#) 3156
- [71.357 DynaPDF.SetCheckBoxState](#) 3158

### 71.134.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.

## 71.135 DynaPDF.GetCheckBoxDefState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCheckBoxDefState"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns 0, 1 or error.

### Description

That is 1 = checked or 0 = unchecked. The parameter Field must be a valid handle of a check box. The default state can differ from the current visible state of a check box. The default state is used when a form is reset with a Reset Form Action.

See also [GetCheckBoxDefState](#) function in DynaPDF manual.

### See also

- [71.294 DynaPDF.New](#) 3032
- [71.356 DynaPDF.SetCheckBoxDefState](#) 3157
- [71.357 DynaPDF.SetCheckBoxState](#) 3158

### 71.135.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.

**71.136 DynaPDF.GetColorSpace**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetColorSpace"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns current setting on success or error message.

**Description**

See also DynaPDF.SetColorSpace.

See also [GetColorSpace](#) function in DynaPDF manual.

**See also**

- 71.137 DynaPDF.GetColorSpaceCount 2813
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159
- 71.365 DynaPDF.SetExtColorSpace 3170

Created 18th August 2014, last changed 18th August 2014.



**71.137 DynaPDF.GetColorSpaceCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetColorSpaceCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

Color spaces can be accessed with DynaPDF.GetColorSpaceObj.

See also [GetColorSpaceCount](#) function in DynaPDF manual.

**See also**

- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.136 DynaPDF.GetColorSpace 2812
- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159

**Example Databases**

- [DynaPDF/Change Separation Colorant](#)
- [DynaPDF/List ColorSpaces](#)

Created 6th February 2015, last changed 6th February 2015.

## 71.138 DynaPDF.GetColorSpaceInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetColorSpaceInfo"; PDF; Index; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The index of the colorspace. From 0 to DynaPDF.GetColorSpaceCount-1.

0

#### Selector

Which value to return.

"Type"

**Result** Returns value or error.

### Description

You can query Type, Alternate, Size (byte size of ICC Profile), Buffer (ICC Profile), NumInComponents, NumOutComponents, NumColors, ColorantsCount, Colorants (names of colorants as list), MetadataSize, Metadata (XMP metadata as text).

#### See also

- [71.136 DynaPDF.GetColorSpace](#) 2812
- [71.137 DynaPDF.GetColorSpaceCount](#) 2813
- [71.181 DynaPDF.GetImportDocInfo](#) 2868
- [71.294 DynaPDF.New](#) 3032
- [71.358 DynaPDF.SetColorSpace](#) 3159

### Example Databases

- [DynaPDF/Change Separation Colorant](#)
- [DynaPDF/List ColorSpaces](#)

#### 71.138.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 19th July 2016, last changed 19th July 2016.

**71.139 DynaPDF.GetCompressionFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCompressionFilter"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns compression filter.

**Description**

Note that 1 bit images are always compressed with Flate.  
See also [GetCompressionFilter](#) function in DynaPDF manual.

**See also**

- 71.140 DynaPDF.GetCompressionLevel 2816
- 71.294 DynaPDF.New 3032
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.360 DynaPDF.SetCompressionLevel 3163

Created 18th August 2014, last changed 18th August 2014.

## 71.140 DynaPDF.GetCompressionLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetCompressionLevel"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns compression level or error.

### Description

JPEG images are compressed with optimized Huffmann tables if the compression level is Max. This results in 5% to 10% better compression ratio without losing quality. The compression level can also be used to switch the compression mode to real or integer when using the JPEG2000 compression filter (see also DynaPDF.InsertImage).

See also DynaPDF.SetCompressionLevel.

See also [GetCompressionLevel](#) function in DynaPDF manual.

### See also

- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.280 DynaPDF.InsertImage 3003
- 71.294 DynaPDF.New 3032
- 71.359 DynaPDF.SetCompressionFilter 3161
- 71.360 DynaPDF.SetCompressionLevel 3163
- 54.38 ZipFile.SetCompressionLevel 1553

### 71.140.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 30th November 2019.

## 71.141 DynaPDF.GetContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetContent"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns Text or error.

### Description

The page or template must be open with DynaPDF.EditPage or DynaPDF.EditTemplate beforehand.  
See also [GetContent](#) function in DynaPDF manual.

#### See also

- [71.88 DynaPDF.EditPage](#) 2736
- [71.89 DynaPDF.EditTemplate](#) 2738
- [71.126 DynaPDF.GetAscent](#) 2800
- [71.174 DynaPDF.GetFontCount](#) 2857
- [71.177 DynaPDF.GetFontWeight](#) 2860
- [71.215 DynaPDF.GetOCGCount](#) 2911
- [71.294 DynaPDF.New](#) 3032
- [71.303 DynaPDF.ParseContent](#) 3062
- [71.361 DynaPDF.SetContent](#) 3164
- [71.392 DynaPDF.SetFontEx](#) 3210

### 71.141.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 13th December 2016, last changed 13th December 2016.

## 71.142 DynaPDF.GetDocInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetDocInfo"; PDF; key )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### key

The key to set. Can be Author, Creator, Keywords, Producer, Subject, Title, Company, PDFXVersion, PDFXConfiguration, CreationDate or ModificationDate.

"Author"

**Result** Returns value or error message.

### Description

Please note that we have DynaPDF.GetDocInfo for the current working PDF and the DynaPDF.GetImportDocInfo for the current open import PDF.

See also [GetDocInfo](#) function in DynaPDF manual.

### Examples

Query title of current PDF:

```
$r = MBS( "DynaPDF.GetDocInfo"; $PDF; "title" )
```

Queries keywords:

```
Set Variable [ $r; Value:MBS("DynaPDF.GetImportDocInfo"; $pdf; "keywords") ]
```

### See also

- [71.126 DynaPDF.GetAscent](#) 2800
- [71.143 DynaPDF.GetDocInfoCount](#) 2820
- [71.181 DynaPDF.GetImportDocInfo](#) 2868
- [71.294 DynaPDF.New](#) 3032
- [71.362 DynaPDF.SetDocInfo](#) 3165
- [71.363 DynaPDF.SetDocInfoEx](#) 3167

### Example Databases

- [DynaPDF/PDF Library](#)

### 71.142.1 **Blog Entries**

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 18th June 2016.

## 71.143 DynaPDF.GetDocInfoCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetDocInfoCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

This function can be used in combination with GetDocInfoEx() to enumerate the document info entries of the PDF file.

See also [GetDocInfoCount](#) function in DynaPDF manual.

### See also

- 71.121 DynaPDF.GetAnnotCount 2793
- 71.142 DynaPDF.GetDocInfo 2818
- 71.174 DynaPDF.GetFontCount 2857
- 71.188 DynaPDF.GetInDocInfoCount 2879
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.



## 71.144 DynaPDF.GetDocUsesTransparency

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetDocUsesTransparency"; PDF { ; Flags } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

Optional

Flags for check.

**Result** Returns 1, 0 or error.

### Description

Checks whether a PDF file uses native PDF Transparency (PDF 1.4). The file uses transparency when it contains soft masks, blend modes other than Normal, or fill or stroke alpha values smaller than 1.0.

The function checks all pages, templates, extended graphics states, images, annotations, and form fields.

If the file uses transparency the return value is 1. If it uses no transparency the return value is 0.

See also [GetDocUsesTransparency](#) function in DynaPDF manual.

### See also

- 71.260 DynaPDF.GetUsesTransparency 2963
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.294 DynaPDF.New 3032
- 71.441 DynaPDF.SetUseTransparency 3296

Created 8th May 2018, last changed 8th May 2018.

## 71.145 DynaPDF.GetDrawDirection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetDrawDirection"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns draw direction or error message.

### Description

You can use DynaPDF.SetDrawDirection to set the direction.  
See also [GetDrawDirection](#) function in DynaPDF manual.

#### See also

- 71.146 DynaPDF.GetDynaPDFVersion 2823
- 71.294 DynaPDF.New 3032
- 71.364 DynaPDF.SetDrawDirection 3169

Created 18th August 2014, last changed 18th August 2014.

**71.146 DynaPDF.GetDynaPDFVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetDynaPDFVersion" )

**Result** Returns version string.

**Description**

See also [GetDynaPDFVersion](#) function in DynaPDF manual.

**See also**

- 71.145 DynaPDF.GetDrawDirection 2822
- 71.185 DynaPDF.GetImportPDFVersion 2873
- 71.221 DynaPDF.GetPDFVersion 2918
- 71.414 DynaPDF.SetPDFVersion 3250

Created 18th August 2014, last changed 16th May 2019.

## 71.147 DynaPDF.GetEmbeddedFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetEmbeddedFile"; PDF; Index; Selector { ; Encoding } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The index of the embedded file. From 0 to DynaPDF.GetEmbeddedFileCount-1.

0

#### Selector

Which value to query. Can be DataSize, FileSize, Compressed, Name, FileName, isURL, UnicodeName, Description, MimeType, CreationDate, ModificationDate or CheckSum. With value "Content" you can query the content of the embedded file as text. Optional Text encoding parameter is used in this case.

"Name"

#### Encoding

Optional

The text encoding for the content.

**Result** Returns value or error.

#### Description

See also [GetEmbeddedFile](#) function in DynaPDF manual.

#### Examples

Query name of first file:

```
MBS( "DynaPDF.GetEmbeddedFile"; $pdf; 0; "name"
```

Query content as text in UTF-8:

```
MBS( "DynaPDF.GetEmbeddedFile"; $pdf; 0; "Content"; "UTF-8" )
```

#### See also

- 71.73 DynaPDF.DeleteEmbeddedFile 2716
- 71.108 DynaPDF.FindEmbeddedFile 2772
- 71.148 DynaPDF.GetEmbeddedFileAsContainer 2826
- 71.149 DynaPDF.GetEmbeddedFileCount 2827

71.147. *DYNAPDF.GETEMBEDDEDFILE*

2825

- 71.294 DynaPDF.New

3032

### **Example Databases**

- [DynaPDF/Extract Attachments](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Extract XML](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD Extract XML](#)

### **71.147.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.5pr1](#)
- [MBS Filemaker Plugin, version 4.3pr11](#)

### **71.147.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 26

Created 11st September 2014, last changed 15th December 2015.

## 71.148 DynaPDF.GetEmbeddedFileAsContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetEmbeddedFileAsContainer"; PDF; Index )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The index of the embedded file. From 0 to DynaPDF.GetEmbeddedFileCount-1.

0

**Result** Returns OK or error.

### Description

You can store this in a container or write it to disk using Files.WriteFile.

### Examples

Query first embedded file as container:

```
MBS( "DynaPDF.GetEmbeddedFileAsContainer"; $pdf; 0 )
```

### See also

- [71.147 DynaPDF.GetEmbeddedFile](#) 2824
- [71.149 DynaPDF.GetEmbeddedFileCount](#) 2827
- [71.294 DynaPDF.New](#) 3032
- [79.62 Files.WriteFile](#) 3925

### Example Databases

- [DynaPDF/Extract Attachments](#)
- [DynaPDF/Shrink PDF pages](#)

### 71.148.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 30th November 2015.

## 71.149 DynaPDF.GetEmbeddedFileCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetEmbeddedFileCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

Note that the number of embedded files from an external PDF file is available after the PDF file has been imported. Depending of the used import flags embedded files can be excluded from import. See DynaPDF.SetImportFlags, or DynaPDF.ImportPDFFile for further information.  
See also [GetEmbeddedFileCount](#) function in DynaPDF manual.

#### See also

- [71.73 DynaPDF.DeleteEmbeddedFile](#) 2716
- [71.147 DynaPDF.GetEmbeddedFile](#) 2824
- [71.148 DynaPDF.GetEmbeddedFileAsContainer](#) 2826
- [71.272 DynaPDF.ImportPDFFile](#) 2979
- [71.294 DynaPDF.New](#) 3032
- [71.398 DynaPDF.SetImportFlags](#) 3220

### Example Databases

- [DynaPDF/Extract Attachments](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Extract XML](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD Extract XML](#)

### 71.149.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

## 71.149.2 FileMaker Magazin

- Ausgabe 1/2018, Seite 26

Created 11st September 2014, last changed 11st September 2014.



**71.150 DynaPDF.GetFTextHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFTextHeight"; PDF; Align; Text )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Align**

The text alignment. Can be left, center, right or justify.

"left"

**Text**

The text to write.

"Hello World"

**Result** Returns height or error message.

**Description**

Before calling this function a font (see DynaPDF.SetFont) and the output rectangle must be set with the function DynaPDF.SetTextRect. The parameter Height of DynaPDF.SetTextRect should be set to -1 to avoid page breaks. Otherwise the height of the first text block is returned that fits into the given height of the rectangle.

The parameter AText must contain the same text (incl. format tags if any) as which should be printed later with DynaPDF.WriteFText.

See also DynaPDF.GetFTextHeightEx.

See also [GetFTextHeight](#) function in DynaPDF manual.

**See also**

- 71.177 DynaPDF.GetFontWeight 2860
- 71.151 DynaPDF.GetFTextHeightEx 2831
- 71.228 DynaPDF.GetPageHeight 2927
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.396 DynaPDF.SetFontWeight 3216
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408

- 71.512 DynaPDF.WriteStyledTextEx

Created 18th August 2014, last changed 27th May 2017.

**71.151 DynaPDF.GetFTextHeightEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFTextHeightEx"; PDF; Width; Align; Text )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Width**

Width of output rectangle

\$width

**Align**

The text alignment. Can be left, center, right or justify.

"left"

**Text**

The text to write.

"Hello World"

**Result** Returns height or error message.

**Description**

The function works in the same way as DynaPDF.GetFTextHeight but the output rectangle must not be set manually beforehand.

The height of the output rectangle is set to -1 to avoid a page break during measuring.

The parameter text must contain the same text (incl. format tags if any) as which should be printed later with DynaPDF.GetFTextHeightEx.

See also DynaPDF.GetFTextHeight.

See also [GetFTextHeightEx](#) function in DynaPDF manual.

**See also**

- 71.177 DynaPDF.GetFontWeight 2860
- 71.150 DynaPDF.GetFTextHeight 2829
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.294 DynaPDF.New 3032
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.511 DynaPDF.WriteStyledText 3414
- 71.512 DynaPDF.WriteStyledTextEx 3416



## 71.152 DynaPDF.GetField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetField"; PDF; Field; Selector )

(old name: DynaPDF.GetFieldEx)

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name. Zero based and up to DynaPDF.GetFieldCount-1.

"FirstName"

#### Selector

What value to query. Can be Deleted, BBox, FieldType, GroupType, Handle, BackColor, BackColorSP, BorderColor, BorderColorSP, BorderStyle, BorderWidth, CharSpacing, Checked, CheckBoxChar, DefState, DefValue, EditFont, ExpValueCount, BorderColor, FieldFlags, FieldFont, FontSize, FieldName, Highlight-Mode, IsCalcField, MapName, MaxLen, KidCount, PageNum, Rotate, TextAlign, TextColor, TextColorSP, TextScaling, ToolTip, UniqueName, Value, WordSpacing, Parent or Kids.

Added ModDate, CaptionPos, DownCaption, DownImage, RollCaption, RollImage, UpCaption, UpImage, Action and ActionType for version 9.0.

"Name"

**Result** Returns field handle or error.

### Description

Field handles are simple array indexes into the field array of the global AcroForm object. To enumerate all fields of a document execute the function in a loop from 0 though DynaPDF.GetFieldCount-1.

See GetFieldEx function in DynaPDF help file for details.

See also [GetFieldEx](#) function in DynaPDF manual.

### Examples

Query bounding box of field:

MBS( "DynaPDF.GetField"; \$pdf; "FirstName"; "BBox" )

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.109 DynaPDF.FindField 2773
- 71.130 DynaPDF.GetBorderStyle 2806

- 71.159 DynaPDF.GetFieldCount 2841
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.168 DynaPDF.GetFieldName 2851
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.376 DynaPDF.SetFieldExpValueEx 3186

### Example Databases

- [DynaPDF/Form/Form](#)
- [DynaPDF/Show PDF Fields](#)

#### 71.152.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr3](#)
- [MBS FileMaker Plugin, version 7.5pr3](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 18th August 2014, last changed 28th May 2019.

**71.153 DynaPDF.GetFieldBackColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldBackColor"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns color as number or error.

**Description**

Note that color values must be defined in the current color space. See DynaPDF.SetColorSpace for further information.

If the return value is equal NO\_COLOR (4294967281) the border is transparent.

Default value = 0 for Black.

See also [GetFieldBackColor](#) function in DynaPDF manual.

**See also**

- 71.49 DynaPDF.CreateButton 2667
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.158 DynaPDF.GetFieldColor 2840
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.373 DynaPDF.SetFieldColor 3181
- 71.387 DynaPDF.SetFieldTextColor 3202

Created 18th August 2014, last changed 18th August 2014.

## 71.154 DynaPDF.GetFieldBorderColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldBorderColor"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns color as number or error.

### Description

Note that color values must be defined in the current color space. See DynaPDF.SetColorSpace for further information.

If the return value is equal NO\_COLOR (4294967281) the border is transparent.

Default value = 0 for Black.

See also [GetFieldBorderColor](#) function in DynaPDF manual.

### See also

- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.158 DynaPDF.GetFieldColor 2840
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179
- 71.387 DynaPDF.SetFieldTextColor 3202

Created 18th August 2014, last changed 18th August 2014.



## 71.155 DynaPDF.GetFieldBorderStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldBorderStyle"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns border style or error.

### Description

It is also possible to change the style of a specific field, see DynaPDF.SetFieldBorderStyle for further information.

If the function succeeds the return value is the border style, a value greater or equal zero.

Value can be Solid, Bevelled, Inset, Underline or Dashed.

See also [GetFieldBorderStyle](#) function in DynaPDF manual.

### See also

- 71.130 DynaPDF.GetBorderStyle 2806
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.352 DynaPDF.SetBorderStyle 3153
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179

Created 18th August 2014, last changed 18th August 2014.

## 71.156 DynaPDF.GetFieldBorderWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldBorderWidth"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns value or error.

### Description

All field types are supported by this function.

If the function succeeds the return value is the line width of the field's border (a value greater or equal zero).

See also [GetFieldBorderWidth](#) function in DynaPDF manual.

### See also

- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.294 DynaPDF.New 3032
- 71.337 DynaPDF.SetAnnotBorderWidth 3132
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179

Created 18th August 2014, last changed 18th August 2014.

**71.157 DynaPDF.GetFieldChoiceValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldChoiceValue"; PDF; Field; ValIndex; Selector )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Field**

The field index or field name.

"FirstName"

**ValIndex**

The value index.

0

**Selector**

Which value to return. Can be ExpValue, ExpValueLen, Value, ValueLen or Selected.

"Value"

**Result** Returns value or error.

**Description**

The parameter Field must be a valid handle of a combo or list box. ValIndex is the array index of the choice value to be retrieved. Call DynaPDF.GetFieldExpValCount to determine how many choice values are available in the combo or list box.

Choice values can be inherited from a parent group field. This is the case if the field is part of a field group. See "Interactive Forms/What is a Field Group?" Section in DynaPDF help file for further information.

See also [GetFieldChoiceValue](#) function in DynaPDF manual.

**See also**

- 71.152 DynaPDF.GetField 2833
- 71.160 DynaPDF.GetFieldExpValCount 2842
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184

Created 18th August 2014, last changed 27th May 2017.

## 71.158 DynaPDF.GetFieldColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldColor"; PDF; Field; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### Selector

What to return. This can be ColorSpace or Color. For RGB colorspace also Red, Green or Blue to get component.  
"Color"

**Result** Returns value or error.

### Description

The parameter ColorSpace defines the color space in which the color was defined.  
See also [GetFieldColor](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.387 DynaPDF.SetFieldTextColor 3202
- 71.388 DynaPDF.SetFieldToolTip 3203
- 71.389 DynaPDF.SetFillColor 3204

Created 18th August 2014, last changed 18th August 2014.

**71.159 DynaPDF.GetFieldCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

This is the number of fields in the current document, not the imported one.  
See also [GetFieldCount](#) function in DynaPDF manual.

**See also**

- [71.152 DynaPDF.GetField](#) 2833
- [71.158 DynaPDF.GetFieldColor](#) 2840
- [71.189 DynaPDF.GetInFieldCount](#) 2880
- [71.227 DynaPDF.GetPageFieldCount](#) 2926
- [71.241 DynaPDF.GetTemplCount](#) 2943
- [71.294 DynaPDF.New](#) 3032
- [71.373 DynaPDF.SetFieldColor](#) 3181
- [71.378 DynaPDF.SetFieldFont](#) 3190
- [71.379 DynaPDF.SetFieldFontEx](#) 3192
- [71.382 DynaPDF.SetFieldIndex](#) 3196

**Example Databases**

- [DynaPDF/Show PDF Fields](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.160 DynaPDF.GetFieldExpValCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldExpValCount"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns number or error.

### Description

Supported field types are combo boxes, list boxes, radio buttons, and check boxes. If the field is a radio button, the function returns the number of check boxes which are connected with the radio button. This number can be used to access the check boxes of the radio button either with DynaPDF.GetFieldExpValueEx or DynaPDF.SetFieldExpValue. If the field is a check box, the return value is always 1 because check boxes do not support multiple export values. However, this function is normally used to determine the number of available choice values within a combo box or list box because only these field types support multiple choice values. See also DynaPDF.GetFieldExpValueEx.

If the function succeeds the return value is the number of values/export values which are defined for a field. See also [GetFieldExpValCount](#) function in DynaPDF manual.

### See also

- 71.152 DynaPDF.GetField 2833
- 71.157 DynaPDF.GetFieldChoiceValue 2839
- 71.159 DynaPDF.GetFieldCount 2841
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.376 DynaPDF.SetFieldExpValueEx 3186

Created 18th August 2014, last changed 18th August 2014.

**71.161 DynaPDF.GetFieldExpValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldExpValue"; PDF; Field )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Field**

The field index or field name.

"FirstName"

**Result** Returns value or error.

**Description**

The field must be a valid field handle of a check box, list box or combo box.

The export value of a check box can be either "Off" if the check box is not selected or an arbitrary string when the check box is selected.

The export value of a combo box or list box can be empty when no value is selected.

Since Acrobat 5, list boxes support multiple selected values. In this case the export values are delimited by a newline character.

The field type can be determined with the functions DynaPDF.GetFieldType, DynaPDF.GetField or DynaPDF.GetPageField.

See also [GetFieldExpValue](#) function in DynaPDF manual.

**See also**

- 71.152 DynaPDF.GetField 2833
- 71.157 DynaPDF.GetFieldChoiceValue 2839
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.173 DynaPDF.GetFieldType 2856
- 71.246 DynaPDF.GetTextFieldValue 2948
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.376 DynaPDF.SetFieldExpValueEx 3186
- 71.383 DynaPDF.SetFieldMapName 3197

Created 18th August 2014, last changed 18th August 2014.

## 71.162 DynaPDF.GetFieldExpValueEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldExpValueEx"; PDF; Field; ValIndex; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### ValIndex

The value index.  
0

#### Selector

Which value to get. Can be Value, Selected or ExpValue.  
"Value"

**Result** Returns OK on success or error on failure.

### Description

If the field is a check box, the parameter ValIndex will be ignored and the export value and selectedstate are returned.

To enumerate the choice values of a combo box or list box call GetFieldExpValCount() to determine the number of available values. The parameter ValIndex can then be used to access each value / export value pair within the array.

Beginning with PDF 1.5 choice values of combo and list boxes can be in Unicode format. Because Unicode strings are not supported by this function the function DynaPDF.GetFieldChoiceValue should be used to enumerate choice values of these field types.

The parameters Value, ExpValue, and Selected require variables so that the values can be set by the function. To change a choice value of a combo box or list box call the function DynaPDF.SetFieldExpValue.

See also [GetFieldExpValueEx](#) function in DynaPDF manual.

### See also

- 71.152 DynaPDF.GetField 2833
- 71.157 DynaPDF.GetFieldChoiceValue 2839
- 71.160 DynaPDF.GetFieldExpValCount 2842
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.294 DynaPDF.New 3032



71.162. <i>DYNAPDF.GETFIELDEXPVALUEEX</i>	2845
• 71.375 DynaPDF.SetFieldExpValue	3184
• 71.376 DynaPDF.SetFieldExpValueEx	3186

Created 18th August 2014, last changed 18th August 2014.

## 71.163 DynaPDF.GetFieldFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldFlags"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns value or error.

### Description

Interactive form fields and annotations support the same basic set of field flags because both object types are in fact annotations. When we talk about form fields then we talk about an extended version of annotations because form fields are annotations. However, to make the handling easier, form fields and annotations are handled separately by DynaPDF.

The flags are described in detail on the DynaPDF help file.

See also [GetFieldFlags](#) function in DynaPDF manual.

### See also

- 71.178 DynaPDF.GetGStateFlags 2861
- 71.182 DynaPDF.GetImportFlags 2870
- 71.294 DynaPDF.New 3032
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196

Created 18th August 2014, last changed 27th May 2017.

## 71.164 DynaPDF.GetFieldType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldType"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns type or error.

### Description

A field group is a set of fields which have all the same name. Such fields contain always the same value with exception of checkboxes. If a field group consists of checkboxes the export value is also taken into account. However, a set of fields with identical names are internally stored in a group field. The group type specifies the field type of the group, e.g. ftText if text fields are stored in the group. A field group cannot contain different field types. An indication whether a field is a child of a field group is an empty field name because the field name is taken from the parent group field in this case. Radio buttons are identically organized, but the field type is ftRadioBtn in this case.

Value can be Button, CheckBox, RadioButton, ComboBox, Listbox, Text, Signature or Group.

See also [GetFieldGroupType](#) function in DynaPDF manual.

### See also

- 71.172 DynaPDF.GetFieldToolTip 2855
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.165 DynaPDF.GetFieldHighlightMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldHighlightMode"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns mode or error.

### Description

All other field types have no property highlight mode, the function returns None in this case.

Value can be None, Invert, Outline, Push or PushUpd.

See also [GetFieldHighlightMode](#) function in DynaPDF manual.

### See also

- 71.208 DynaPDF.GetLinkHighlightMode 2900
- 71.294 DynaPDF.New 3032
- 71.342 DynaPDF.SetAnnotHighlightMode 3140
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.405 DynaPDF.SetLinkHighlightMode 3234

Created 18th August 2014, last changed 18th August 2014.

## 71.166 DynaPDF.GetFieldIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldIndex"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns value or error.

### Description

The index of newly created fields starts at 1000. This makes it easier to set a field to another position inside the tab order. The field index can be changed with the function DynaPDF.SetFieldIndex. Note that fields must be sorted by index with the function DynaPDF.SortFieldsByIndex. Fields must be sorted for each page separately.

This is for tab order index. For index of field in the list of fields, please use DynaPDF.FindField.

See also [GetFieldIndex](#) function in DynaPDF manual.

### See also

- 71.163 DynaPDF.GetFieldFlags 2846
- 71.168 DynaPDF.GetFieldName 2851
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 9th October 2018.

## 71.167 DynaPDF.GetFieldMapName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldMapName"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns error or text.

### Description

The mapping name is used when interactive form field data is exported from the document.

See also [GetFieldMapName](#) function in DynaPDF manual.

### See also

- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.163 DynaPDF.GetFieldFlags 2846
- 71.168 DynaPDF.GetFieldName 2851
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.383 DynaPDF.SetFieldMapName 3197
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 18th August 2014.

**71.168 DynaPDF.GetFieldName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldName"; PDF; Field )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Result** Returns text or error.

**Description**

Note that the check boxes of a radio button field do not have a name.  
See also [GetFieldName](#) function in DynaPDF manual.

**See also**

- 71.166 DynaPDF.GetFieldIndex 2849
- 71.167 DynaPDF.GetFieldMapName 2850
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 18th August 2014.

## 71.169 DynaPDF.GetFieldOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldOrientation"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns field orientation or error.

### Description

The orientation is measured in degrees; it is always a multiple of 90 or 0.  
See also [GetFieldOrientation](#) function in DynaPDF manual.

### See also

- 71.170 DynaPDF.GetFieldTextAlign 2853
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.218 DynaPDF.GetOrientation 2914
- 71.294 DynaPDF.New 3032
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.412 DynaPDF.SetOrientation 3246

Created 18th August 2014, last changed 18th August 2014.



**71.170 DynaPDF.GetFieldTextAlign**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldTextAlign"; PDF; Field )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Result** Returns text align or error.

**Description**

Value can be Left, Center, Right or Justify.  
See also [GetFieldTextAlign](#) function in DynaPDF manual.

**See also**

- 71.169 DynaPDF.GetFieldOrientation 2852
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.386 DynaPDF.SetFieldTextAlign 3201
- 71.387 DynaPDF.SetFieldTextColor 3202

Created 18th August 2014, last changed 18th August 2014.

## 71.171 DynaPDF.GetFieldTextColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldTextColor"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns color or error.

### Description

See also [GetFieldTextColor](#) function in DynaPDF manual.

#### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.158 DynaPDF.GetFieldColor 2840
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.170 DynaPDF.GetFieldTextAlign 2853
- 71.294 DynaPDF.New 3032
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.373 DynaPDF.SetFieldColor 3181
- 71.386 DynaPDF.SetFieldTextAlign 3201
- 71.387 DynaPDF.SetFieldTextColor 3202

Created 18th August 2014, last changed 18th August 2014.

**71.172 DynaPDF.GetFieldToolTip**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldToolTip"; PDF; Field )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Result** Returns error or tooltip text.

**Description**

See also [GetFieldToolTip](#) function in DynaPDF manual.

**See also**

- 71.158 DynaPDF.GetFieldColor 2840
- 71.159 DynaPDF.GetFieldCount 2841
- 71.163 DynaPDF.GetFieldFlags 2846
- 71.164 DynaPDF.GetFieldGroupType 2847
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.388 DynaPDF.SetFieldToolTip 3203

Created 18th August 2014, last changed 18th August 2014.

## 71.173 DynaPDF.GetFieldType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFieldType"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns type or error.

### Description

The type can be Button, CheckBox, RadioButton, ComboBox, Listbox, Text, Signature or Group.  
See also [GetFieldType](#) function in DynaPDF manual.

### See also

- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.163 DynaPDF.GetFieldFlags 2846
- 71.164 DynaPDF.GetFieldGroupType 2847
- 71.167 DynaPDF.GetFieldMapName 2850
- 71.168 DynaPDF.GetFieldName 2851
- 71.294 DynaPDF.New 3032
- 71.374 DynaPDF.SetFieldDate 3183
- 71.378 DynaPDF.SetFieldFont 3190
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 18th August 2014.

**71.174 DynaPDF.GetFontCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFontCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

See also [GetFontCount](#) function in DynaPDF manual.

**See also**

- 71.118 DynaPDF.FontInfo 2786
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.143 DynaPDF.GetDocInfoCount 2820
- 71.159 DynaPDF.GetFieldCount 2841
- 71.180 DynaPDF.GetImageCount 2866
- 71.215 DynaPDF.GetOCGCount 2911
- 71.226 DynaPDF.GetPageCount 2924
- 71.241 DynaPDF.GetTemplCount 2943
- 71.294 DynaPDF.New 3032
- 71.361 DynaPDF.SetContent 3164

**Example Databases**

- [DynaPDF/PDF Font Info](#)

Created 21st October 2014, last changed 23th October 2014.

## 71.175 DynaPDF.GetFontOrigin

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFontOrigin"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

### Description

The font origin is automatically set to `orTopLeft` or `orDownLeft` if the coordinate system will be changed. The origin can be changed at runtime with the function `DynaPDF.SetFontOrigin`.

Returns `DownLeft` (BaseLine) or `TopLeft` (Upper left corner of the font's bounding box).

See also [GetFontOrigin](#) function in DynaPDF manual.

### See also

- 71.177 DynaPDF.GetFontWeight 2860
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.393 DynaPDF.SetFontOrigin 3212
- 71.396 DynaPDF.SetFontWeight 3216

Created 21st October 2014, last changed 21st October 2014.

**71.176 DynaPDF.GetFontSelMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFontSelMode"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns value or error.

**Description**

The font selection mode describes what kind of font name must be passed to DynaPDF.SetFont. Note that a font cannot be found if the wrong mode is set.

See also [GetFontSelMode](#) function in DynaPDF manual.

**See also**

- 71.177 DynaPDF.GetFontWeight 2860
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.395 DynaPDF.SetFontSelMode 3215

Created 21st October 2014, last changed 21st October 2014.

**71.177 DynaPDF.GetFontWeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetFontWeight"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

See also DynaPDF.SetFontWeight.

See also [GetFontWeight](#) function in DynaPDF manual.

**See also**

- 71.174 DynaPDF.GetFontCount 2857
- 71.175 DynaPDF.GetFontOrigin 2858
- 71.176 DynaPDF.GetFontSelMode 2859
- 71.150 DynaPDF.GetFTextHeight 2829
- 71.151 DynaPDF.GetFTextHeightEx 2831
- 71.228 DynaPDF.GetPageHeight 2927
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.294 DynaPDF.New 3032
- 71.393 DynaPDF.SetFontOrigin 3212
- 71.418 DynaPDF.SetPageHeight 3258

Created 21st October 2014, last changed 21st October 2014.



## 71.178 DynaPDF.GetGStateFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetGStateFlags"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

See DynaPDF.SetGStateFlags for details on flags.

Flags are returns as numeric value.

See also [GetGStateFlags](#) function in DynaPDF manual.

#### See also

- [71.122 DynaPDF.GetAnnotFlags](#) 2794
- [71.163 DynaPDF.GetFieldFlags](#) 2846
- [71.182 DynaPDF.GetImportFlags](#) 2870
- [71.211 DynaPDF.GetMetaConvFlags](#) 2903
- [71.294 DynaPDF.New](#) 3032
- [71.340 DynaPDF.SetAnnotFlags](#) 3137
- [71.397 DynaPDF.SetGStateFlags](#) 3218

### 71.178.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 21st August 2015, last changed 21st August 2015.

## 71.179 DynaPDF.GetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImage"; PDF; Index; Selector { ; FileName; ImageFormat } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The index of the image from 0 to DynaPDF.GetImageCount-1.

\$index

#### Selector

Which value to query.

"Picture"

#### FileName

Optional

In case we return a container value, the file name to use.

"test.jpg"

#### ImageFormat

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

Which image file format to use for the image returned. Default is to use JPEG for JPEG images and TIFF for other formats. Value can be TIFF, JPEG, PNG, BMP or JPC.

"JPEG"

**Result** Returns OK or error.

### Description

If all image types should be decompressed set the flag pfDecompressAllImages.

Selectors include:

This function allows to extract images from PDF with DynaPDF Lite or higher license.

### Examples

Query colorspace of an image:

```
MBS( "DynaPDF.GetImage"; $pdf; $ImageIndex; "ColorSpace"
```

Loop and get all images in various formats:

```

Go to Layout [ "Start" (Start) ; Animation: None ]
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Start::SourcePDF) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# Put result in records
Go to Layout [ "List" (List) ; Animation: None ]
Delete All Records [ With dialog: Off ]
Set Variable [ $imageCount ; Value: MBS( "DynaPDF.GetImageCount"; $PDF ) ]
Set Variable [ $imageIndex ; Value: 0 ]
If [ $imageCount >0 ]
Loop
New Record/Request
Set Field [ List::Index ; $imageIndex ]
Set Field [ List::Image ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "" ; "" ) ]
Set Field [ List::JPEG ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.jpg"; "JPEG") ]
Set Field [ List::BMP ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.bmp"; "BMP") ]
Set Field [ List::PNG ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.png"; "PNG") ]
Set Field [ List::TIFF ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.tif"; "TIFF") ]
Commit Records/Requests [ With dialog: On ]
Set Variable [ $imageIndex ; Value: $imageIndex + 1 ]
Exit Loop If [ $imageIndex >= $imageCount ]
End Loop
End If
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.180 DynaPDF.GetImageCount 2866
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.280 DynaPDF.InsertImage 3003
- 71.281 DynaPDF.InsertImageFile 3007
- 71.290 DynaPDF.ListImages 3025
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.316 DynaPDF.Release 3086
- 71.321 DynaPDF.ReplaceImage 3097

**Example Databases**

- [DynaPDF/PSD Conversion](#)

### 71.179.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)
- [MBS FileMaker Plugin, version 7.5pr1](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 12nd March 2020.

BufSize	The size of the image buffer in bytes.
Buffer	The image data as JPEG or FILE.
Picture	The image as a picture container. Either JPEG or TIFF.
Filter	The format of image: Required decode filter if the image is compressed. Possible values are dfDCTDecode (JPEG), dfJPXDecode (JPEG2000), and dfJBIG2Decode. Other filters are already removed by DynaPDF since a conversion to a native file format is then always required.
OrgFilter	The image was compressed with this filter in the PDF file. This info is useful to determine which compression filter should be used when creating a new image file from the image buffer.
BitsPerPixel	Bit depth of the image buffer. Possible values are 1, 2, 4, 8, 24, 32, and 64.
ColorSpace	The color space refers either to the image buffer or to the color table if set.
NumComponents	The number of components stored in the image buffer.
MinIsWhite	If 1, the colors of 1 bit images are reversed.
ColorCount	The number of colors in the color table.
Width	Image width in pixel.
Height	Image height in pixel.
ScanLineLength	The length of a scanline in bytes.
InlineImage	If 1, the image is an inline image.
Interpolate	If 1, image interpolation should be performed.
Transparent	The meaning is different depending on the bit depth and whether a color table is available. If the image is a 1 bit image and if no color table is available, black pixels must be drawn with the current fill color. If the image contains a color table, ColorMask contains the range of indexes in the form min/max index which should appear transparent. If no color table is present ColorMask contains the transparent ranges in the form min/max for every color component.
Intent	The rendering intent. Default is none.
MetadataSize	Length of Metadata in bytes.
ResolutionX	Image resolution on the x-axis.
ResolutionY	Image resolution on the y-axis.
Metadata	Optional XML Metadata stream as text.
ICCProfile	ICC Color Profile of the colorspace (can be empty).
MaskImage	If set, a 1 bit image is used as a transparency mask. Returns index of that image.
SoftMask	If set, a grayscale image is used as alpha channel. Returns index of that image.

## 71.180 DynaPDF.GetImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImageCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

Returns the number of image objects which were loaded with DynaPDF functions or imported from external PDF files. This does not include inline images.

The images can be accessed with DynaPDF.GetImage.

If you need to write all files to disk, you can use DynaPDF.ExtractImages or use DynaPDF.ListImages to list them all with details.

See also [GetImageCount](#) function in DynaPDF manual.

### Examples

Loop and get all images in various formats:

```
Go to Layout [ "Start" (Start) ; Animation: None ]
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Start::SourcePDF) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# Put result in records
Go to Layout [ "List" (List) ; Animation: None ]
Delete All Records [ With dialog: Off ]
Set Variable [ $imageCount ; Value: MBS( "DynaPDF.GetImageCount"; $PDF ) ]
Set Variable [ $imageIndex ; Value: 0 ]
If [ $imageCount >0 ]
Loop
New Record/Request
Set Field [ List::Index ; $imageIndex ]
Set Field [ List::Image ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "" ; "" ) ]
Set Field [ List::JPEG ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.jpg"; "JPEG") ]
Set Field [ List::BMP ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.bmp"; "BMP") ]
Set Field [ List::PNG ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.png"; "PNG") ]
Set Field [ List::TIFF ; MBS("DynaPDF.GetImage"; $pdf; $imageIndex; "Picture"; "test.tif"; "TIFF") ]
Commit Records/Requests [ With dialog: On ]
Set Variable [ $imageIndex ; Value: $imageIndex + 1 ]
Exit Loop If [ $imageIndex >= $imageCount ]
```

71.180. *DYNAPDF.GETIMAGECOUNT* 2867  
End Loop  
End If  
Set Variable [ \$r ; Value: MBS("DynaPDF.Release"; \$pdf) ]

#### See also

- 71.131 DynaPDF.GetCMapCount 2807
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.215 DynaPDF.GetOCGCount 2911
- 71.225 DynaPDF.GetPageCoords 2923
- 71.226 DynaPDF.GetPageCount 2924
- 71.241 DynaPDF.GetTemplCount 2943
- 71.289 DynaPDF.List 3024
- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.321 DynaPDF.ReplaceImage 3097

#### Example Databases

- [DynaPDF/Replace Image](#)

#### 71.180.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 12nd March 2020.

## 71.181 DynaPDF.GetImportDocInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportDocInfo"; PDF; key )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### key

The key to set. Can be Author, Creator, Keywords, Producer, Subject, Title, Company, PDFXVersion, PDFXConfiguration, CreationDate or ModificationDate.

"Author"

**Result** Returns value or error message.

### Description

Please note that we have DynaPDF.GetDocInfo for the current working PDF and the DynaPDF.GetImportDocInfo for the current open import PDF.

### Examples

Query title of import PDF:

```
$r = MBS( "DynaPDF.GetImportDocInfo"; $PDF; "title" )
```

Query creation and modification dates:

```
Set Variable [ $cd ; Value: MBS( "DynaPDF.GetImportDocInfo"; $PDF; "CreationDate" ) ]
```

```
Set Variable [ $md ; Value: MBS( "DynaPDF.GetImportDocInfo"; $PDF; "ModificationDate" ) ]
```

### See also

- 71.138 DynaPDF.GetColorSpaceInfo 2814
- 71.142 DynaPDF.GetDocInfo 2818
- 71.294 DynaPDF.New 3032
- 71.427 DynaPDF.SetSeparationInfo 3276

### Example Databases

- [DynaPDF/DynaPDF Batch Preview](#)



### **71.181.1 Blog Entries**

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### **71.181.2 FileMaker Magazin**

- Ausgabe 6/2016, Seite 24

Created 18th August 2014, last changed 26th April 2020.

## 71.182 DynaPDF.GetImportFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportFlags"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

The flags are described in detail under DynaPDF.SetImportFlags.  
See also [GetImportFlags](#) function in DynaPDF manual.

### See also

- [71.122 DynaPDF.GetAnnotFlags](#) 2794
- [71.163 DynaPDF.GetFieldFlags](#) 2846
- [71.178 DynaPDF.GetGStateFlags](#) 2861
- [71.183 DynaPDF.GetImportFlags2](#) 2871
- [71.294 DynaPDF.New](#) 3032
- [71.340 DynaPDF.SetAnnotFlags](#) 3137
- [71.398 DynaPDF.SetImportFlags](#) 3220
- [71.399 DynaPDF.SetImportFlags2](#) 3224

### 71.182.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 27th May 2017.

**71.183 DynaPDF.GetImportFlags2**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportFlags2" )

**Result** Returns flags.

**Description**

See also [GetImportFlags2](#) function in DynaPDF manual.

**See also**

- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.182 DynaPDF.GetImportFlags 2870
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224

Created 18th August 2014, last changed 18th August 2014.

## 71.184 DynaPDF.GetImportOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportOrientation"; PDF; Page )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Page

The page index from 0 to DynaPDF.GetImportPageCount-1.

0

**Result** Returns OK or error message.

### Description

The function returns the orientation of a specific page within the currently open import file.

If the function succeeds the return value is the orientation of the page in degrees. Possible values are 0, 90, 180, 270, or the same values as negative numbers. If the function fails, it returns an error.

### See also

- [71.169 DynaPDF.GetFieldOrientation](#) 2852
- [71.187 DynaPDF.GetImportPageCount](#) 2876
- [71.185 DynaPDF.GetImportPDFVersion](#) 2873
- [71.218 DynaPDF.GetOrientation](#) 2914
- [71.294 DynaPDF.New](#) 3032
- [71.385 DynaPDF.SetFieldOrientation](#) 3200

### Example Databases

- [DynaPDF/Generate Previews](#)

#### 71.184.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 18th August 2014, last changed 18th August 2014.

**71.185 DynaPDF.GetImportPDFVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportPDFVersion"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns PDF Version like "1.3".

**Description**

The PDF file must be opened with DynaPDF.OpenPDFFromFile or DynaPDF.OpenPDFFromContainer beforehand.

**See also**

- 71.146 DynaPDF.GetDynaPDFVersion 2823
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.221 DynaPDF.GetPDFVersion 2918
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043

Created 18th August 2014, last changed 18th August 2014.

## 71.186 DynaPDF.GetImportPageBounds

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportPageBounds"; PDF; PageIndex { ; Box } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PageIndex

The page index in range from 1 to DynaPDF.GetImportPageCount.  
1

#### Box

Optional

Optional, which box to use. Default is Mediabox. You can pass MediaBox, CropBox, ArtBox, BleedBox or TrimBox.  
"MediaBox"

**Result** Returns rectangle as string with four numbers for left, top, right and bottom.

### Description

Please note that we have DynaPDF.GetPageBounds for the current working PDF and the DynaPDF.GetImportPageBounds for the current open import PDF.

### Examples

Queries crop size of page 5 from import PDF:

```
$r = MBS( "DynaPDF.GetImportPageBounds"; $PDF; 5; "CropBox" )
```

### See also

- [71.187 DynaPDF.GetImportPageCount](#) 2876
- [71.224 DynaPDF.GetPageBBox](#) 2921
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)

### **71.186.1 Blog Entries**

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### **71.186.2 FileMaker Magazin**

- Ausgabe 6/2016, Seite 24

Created 18th August 2014, last changed 18th August 2014.

## 71.187 DynaPDF.GetImportPageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetImportPageCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns page number or error message.

### Description

Please note that we have DynaPDF.GetPageCount for the current working PDF and the DynaPDF.GetImportPageCount for the current open import PDF.

### Examples

Load a PDF from container and query page count:

```
$r = MBS("DynaPDF.OpenPDFFromContainer"; $PDF; Test::data)
$pageCount = MBS("DynaPDF.GetImportPageCount"; $PDF)
```

Import selected pages from one PDF and write into a new one:

```
# New PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]

# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]

# Query page count
Set Variable [ $pageCount; Value:MBS( "DynaPDF.GetImportPageCount"; $pdf ) ]

# Import the pages you need
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 2) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 3) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 2) ]

# Set output to this file path
# MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/output.pdf" )

# Write PDF
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]
```



71.187. *DYNAPDF.GETIMPORTPAGECOUNT* 2877

# release memory

Set Variable [ \$r1; Value:MBS("DynaPDF.Release"; \$pdf) ]

### See also

- 71.137 DynaPDF.GetColorSpaceCount 2813
- 71.180 DynaPDF.GetImageCount 2866
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.186 DynaPDF.GetImportPageBounds 2874
- 71.226 DynaPDF.GetPageCount 2924
- 71.273 DynaPDF.ImportPDFPage 2982
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.316 DynaPDF.Release 3086

### Example Databases

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/PDF Differences](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Split PDF](#)
- [DynaPDF/Tables](#)

#### 71.187.1 Blog Entries

- [Merge PDF with table of contents](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

## 71.187.2 FileMaker Magazin

- Ausgabe 6/2016, Seite 24

Created 18th August 2014, last changed 4th August 2016.

**71.188 DynaPDF.GetInDocInfoCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInDocInfoCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns number or error.

**Description**

Returns the number of available document info entries of the currently opened import file or a negative error code on failure. The document info entries can be enumerated with DynaPDF.GetInDocInfoEx.

See also [GetInDocInfoCount](#) function in DynaPDF manual.

**See also**

- 71.143 DynaPDF.GetDocInfoCount 2820
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.189 DynaPDF.GetInFieldCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInFieldCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns the number of fields or error.

### Description

The number of top level fields may not match the number of fields in the PDF file. For example, interactive forms created by Adobe's Designer contain usually one top level group field that contains all other fields of the document. The return value would be 1 in this case because the children of group fields are not taken into account.

See also [GetInFieldCount](#) function in DynaPDF manual.

### See also

- 71.121 DynaPDF.GetAnnotCount 2793
- 71.158 DynaPDF.GetFieldColor 2840
- 71.159 DynaPDF.GetFieldCount 2841
- 71.180 DynaPDF.GetImageCount 2866
- 71.227 DynaPDF.GetPageFieldCount 2926
- 71.241 DynaPDF.GetTemplCount 2943
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.378 DynaPDF.SetFieldFont 3190

Created 18th August 2014, last changed 18th August 2014.

**71.190 DynaPDF.GetInIsCollection**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInIsCollection"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 0, 1 or error.

**Description**

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile before this function can be called.

See also [GetInIsCollection](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043

Created 18th August 2014, last changed 18th August 2014.

## 71.191 DynaPDF.GetInIsEncrypted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInIsEncrypted"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns 0, 1 or error.

### Description

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile before this function can be called.

See also [GetInIsEncrypted](#) function in DynaPDF manual.

### See also

- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.271 DynaPDF.ImportEncryptionSettings 2978
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043

Created 18th August 2014, last changed 18th August 2014.

**71.192 DynaPDF.GetInIsSigned**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInIsSigned"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns 0, 1 or error.

**Description**

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile before this function can be called.

See also [GetInIsSigned](#) function in DynaPDF manual.

**See also**

- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043

Created 18th August 2014, last changed 18th August 2014.

## 71.193 DynaPDF.GetInIsTrapped

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInIsTrapped"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns 0, 1 or error.

### Description

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile beforehand. If the key is not set the return value is false.  
See also [GetInIsTrapped](#) function in DynaPDF manual.

### See also

- 71.191 DynaPDF.GetInIsEncrypted 2882
- 71.192 DynaPDF.GetInIsSigned 2883
- 71.251 DynaPDF.GetTrapped 2954
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.436 DynaPDF.SetTrapped 3289

Created 18th August 2014, last changed 18th August 2014.



**71.194 DynaPDF.GetInIsXFAForm**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInIsXFAForm"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 0, 1 or error.

**Description**

DynaPDF does not allow editing of XFA forms. If the form is a hybrid form the XFA part can be deleted and the remaining PDF form fields can be edited as usual.

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile before this function can be called.

DynaPDF.GetXFASream can be used to read the form definition and values.

See also [GetInIsXFAForm](#) function in DynaPDF manual.

**See also**

- 71.82 DynaPDF.DeleteXFAForm 2725
- 71.265 DynaPDF.GetXFASream 2969
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043

**Example Databases**

- [DynaPDF/Show PDF Fields](#)

Created 18th August 2014, last changed 21st April 2018.

## 71.195 DynaPDF.GetInMetadata

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInMetadata"; PDF; ObjType { ; PageNum } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ObjType

The object type. Can be Catalog, Font, Image, Page or Template.

"Catalog"

#### PageNum

Optional

Page number or -1 to access the global XMP stream.

-1

**Result** Returns text or error.

### Description

The function can be used to access the optional metadata streams of pages or the global metadata stream of the current open import file. Metadata streams are in XMP format that is a superset of XML. The PDF file must be opened with DynaPDF.OpenPDFFromFile or DynaPDF.OpenPDFFromContainer beforehand. Although the global XMP stream does usually exist in today's PDF files, metadata streams are optional and maybe not present. The function empty text, if no metadata stream is present.

See also [GetInMetadata](#) function in DynaPDF manual.

### Examples

Open PDF and get XMP metadata:

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; DynaPDF XMP::InputPDF) ]
```

```
Set Field [ DynaPDF XMP::XMP; MBS( "DynaPDF.GetInMetadata"; $pdf; "Catalog"; -1 ) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.212 DynaPDF.GetMetadata 2904
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.316 DynaPDF.Release 3086

71.195. *DYNAPDF.GETINMETADATA*

2887

- 71.407 DynaPDF.SetMetadata

3238

### **71.195.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 29th July 2015, last changed 31st July 2015.

## 71.196 DynaPDF.GetInPrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInPrintSettings"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

The PDF file must be opened with DynaPDF.OpenPDFFromContainer or DynaPDF.OpenPDFFromFile before the function can be used. The print settings are used to initialize the print dialog in a viewer application.

NumCopies, PickTrayByPDFSize and PrintRangesCount return a number (-1 if undefined). PrintRanges returns a list of values for the ranges. DuplexMode returns values like FlipShortEdge, FlipLongEdge, Simplex or None. PrintScaling returns None or AppDefault.

See also DynaPDF.GetPrintSettings and DynaPDF.SetPrintSettings.

See also [GetInPrintSettings](#) function in DynaPDF manual.

### See also

- 71.235 DynaPDF.GetPrintSettings 2937
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.422 DynaPDF.SetPrintSettings 3266

### 71.196.1 Blog Entries

- [Tip of the day: PDF print settings](#)

Created 14th March 2015, last changed 14th March 2015.

**71.197 DynaPDF.GetInRepairMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetInRepairMode"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 0, 1 or error.

**Description**

When a PDF file was loaded in normal mode and if it contains damages which were not recognized when opening the file, e.g. if it is not possible to load one or more pages of it, then it is possible to load the file explicitly in repair mode to repair the damages. Not all damages can be repaired but DynaPDF contains a very robust and powerful PDF parser that is able to repair many damages in a PDF file.

See also DynaPDF.OpenImportFile.

If the current open import file was already opened in repair mode then the return value is 1. If it was loaded in normal mode then the return value is 0. If no import file is in memory the return value is a negative error code.

See also [GetInRepairMode](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New

3032

Created 18th August 2014, last changed 18th August 2014.

**71.198 DynaPDF.GetIsFixedPitch**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetIsFixedPitch"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 0, 1 or error.

**Description**

You must set a font before this function can be used (see DynaPDF.SetFont for further information).

**See also**

- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208

Created 18th August 2014, last changed 18th August 2014.

**71.199 DynaPDF.GetIsTaggingEnabled**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetIsTaggingEnabled"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 1 if tagging is enabled, 0 if not or error.

**Description**

If the function is called within an open page then it checks whether tagging is enabled for this page. DynaPDF.EditPage does not fully disable tagging when the structure information of a specific page is damaged. When the function is called outside of an open page then it checks whether tagging for the entire document is enabled. Tagging can be disabled when a page of a PDF file with tagging information was imported while a structure tree was already in memory.

See also [GetIsTaggingEnabled](#) function in DynaPDF manual.

**See also**

- 71.88 DynaPDF.EditPage 2736
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

## 71.200 DynaPDF.GetJPEGQuality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetJPEGQuality"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns JPEG quality number (0 to 100)

### Description

The function returns the current JPEG compression quality which is used when compressing images with the JPEG or JPEG2000 compression filter. The return value can be negative indicating that the pass-through mode is disabled. The absolute value represents the wished image quality in percent if the JPEG compression filter is used.

If the JPEG2000 compression filter is used the value represents a divisor of the uncompressed image size to the wished compressed image size. The absolute value ranges from 0 to 1000. If the value is 0 or 1000 then the loss-less variant of JPEG2000 compression is used (see also Dynapdf.SetJPEGQuality).

See also [GetJPEGQuality](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.400 DynaPDF.SetJPEGQuality 3226

Created 18th August 2014, last changed 18th August 2014.



## 71.201 DynaPDF.GetJavaScriptCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetJavaScriptCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

See also [GetJavaScriptCount](#) function in DynaPDF manual.

#### See also

- 71.294 DynaPDF.New

3032

Created 6th February 2015, last changed 6th February 2015.

## 71.202 DynaPDF.GetLanguage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLanguage"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns text or error.

### Description

Language tags are defined as normal ANSI string values.  
The Language identifiers are described in detail under DynaPDF.SetLanguage.  
See also [GetLanguage](#) function in DynaPDF manual.

#### See also

- 71.294 DynaPDF.New 3032
- 71.401 DynaPDF.SetLanguage 3228

Created 28th July 2015, last changed 28th July 2015.

## 71.203 DynaPDF.GetLastErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLastErrorMessage"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns last error message as text.

### Description

### Examples

Opens PDF:

```
$r = MBS( "DynaPDF.OpenPDFFromContainer"; $PDF; $PDFFile )
$error = MBS( "DynaPDF.GetLastErrorMessage"; $PDF )
```

### See also

- [71.294 DynaPDF.New](#) 3032
- [71.297 DynaPDF.OpenPDFFromContainer](#) 3039

### 71.203.1 Blog Entries

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 18th August 2014.

**71.204 DynaPDF.GetLastTextPosX**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLastTextPosX"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns position.

**Description**

see also pdfGetLastTextPosX function in dynapdf manual.

**See also**

- 71.205 DynaPDF.GetLastTextPosY 2897
- 71.294 DynaPDF.New 3032

Created 18th August 2014, last changed 18th August 2014.

**71.205 DynaPDF.GetLastTextPosY**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLastTextPosY"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns position.

**Description**

see also pdfGetLastTextPosY function in dynapdf manual.

**See also**

- 71.204 DynaPDF.GetLastTextPosX 2896
- 71.294 DynaPDF.New 3032

**Example Databases**

- [DynaPDF/Create Text as PDF A](#)
- [DynaPDF/Invoice/Invoice](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.206 DynaPDF.GetLeading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLeading"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns leading value.

### Description

The leading is the distance between two text lines. The default leading in PDF is the font size. The property is used by the function DynaPDF.AddContinueText and DynaPDF.WriteFText. A value of 0 determines that the font size should be used as leading, this is the default behaviour.

Default value = 0

See also [GetLeading](#) function in DynaPDF manual.

### See also

- 71.6 DynaPDF.AddContinueText 2601
- 71.212 DynaPDF.GetMetadata 2904
- 71.217 DynaPDF.GetOpacity 2913
- 71.294 DynaPDF.New 3032
- 71.402 DynaPDF.SetLeading 3230
- 71.508 DynaPDF.WriteFText 3406

Created 18th August 2014, last changed 27th May 2017.

**71.207 DynaPDF.GetLineWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLineWidth"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns line width or error.

**Description**

The function returns the current line width used for stroked vector graphics and the border of interactive objects.

See also [GetLineWidth](#) function in DynaPDF manual.

**See also**

- 71.49 DynaPDF.CreateButton 2667
- 71.234 DynaPDF.GetPageWidth 2935
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.404 DynaPDF.SetLineWidth 3232
- 71.421 DynaPDF.SetPageWidth 3263

Created 18th August 2014, last changed 18th August 2014.

## 71.208 DynaPDF.GetLinkHighlightMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetLinkHighlightMode"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

See also [GetLinkHighlightMode](#) function in DynaPDF manual.

#### See also

- 71.165 DynaPDF.GetFieldHighlightMode 2848
- 71.294 DynaPDF.New 3032
- 71.342 DynaPDF.SetAnnotHighlightMode 3140
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.405 DynaPDF.SetLinkHighlightMode 3234

### 71.208.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 18th December 2016, last changed 18th December 2016.



**71.209 DynaPDF.GetLogMetafileSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.GetLogMetafileSize"; PDF; Filename )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Filename**

The native file path to the EMF file.

"C:\test.wmf"

**Result** Returns rectangle or error.

**Description**

Retrieves the logical bounding box of an enhanced or Windows metafile. The parameter FileName must be the file path to the EMF or WMF file. Returns the unscaled logical bounding box of the metafile. This bounding box is required to calculate a user defined cutting area or viewport (see the example below the description of the function).

Two WMF formats are available, the old non-portable WMF format and the newer portable WMF format. Both formats must be converted to EMF with the GDI function SetWinMetaFileBits() before the logical bounding box can be calculated (the conversion is done automatically). However, non-portable WMF files are device-dependent, they contain no size information. To get correct results, the default size must be set with the function DynaPDF.SetWMFDefExtent beforehand. The parameters Width and Height are passed to the member xExt, yExt of the structure METAFILEPICT which is required to convert WMF files to EMF. The default size is 0, 0, that means the GDI calculates the size automatically but mostly incorrect. Because the GDI function SetWinMeatFileBits() is used to convert WMF files to EMF, WMF files are not supported under Linux or UNIX.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [GetLogMetafileSize](#) function in DynaPDF manual.

**See also**

- 71.210 DynaPDF.GetLogMetafileSizeEx 2902
- 71.294 DynaPDF.New 3032
- 71.445 DynaPDF.SetWMFDefExtent 3301
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th May 2017, last changed 18th May 2017.

**71.210 DynaPDF.GetLogMetafileSizeEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.GetLogMetafileSizeEx"; PDF; Data )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Data**

The container value with EMF or WMF file inside.

**Result** Returns rectangle or error.

**Description**

See also [GetLogMetafileSizeEx](#) function in DynaPDF manual.

**See also**

- [71.209 DynaPDF.GetLogMetafileSize](#) 2901
- [71.294 DynaPDF.New](#) 3032

**Example Databases**

- [DynaPDF/WMF Conversion](#)

Created 18th May 2017, last changed 18th May 2017.

**71.211 DynaPDF.GetMetaConvFlags**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.GetMetaConvFlags"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

See also [GetMetaConvFlags](#) function in DynaPDF manual.

**See also**

- 71.178 DynaPDF.GetGStateFlags 2861
- 71.294 DynaPDF.New 3032
- 71.406 DynaPDF.SetMetaConvFlags 3236

Created 18th May 2017, last changed 18th May 2017.

## 71.212 DynaPDF.GetMetadata

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetMetadata"; PDF; ObjType { ; Handle } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ObjType

The object type. Can be Catalog, Font, Image, Page or Template.

"Catalog"

#### Handle

Optional

Object handle or -1 for the catalog object.

-1

**Result** Returns text or error.

### Description

Reads the optional metadata streams of pages, fonts, images, pages, templates, as well as the global metadata stream that is associated with the Catalog object. Metadata streams are in XMP format that is a superset of XML.

The global metadata stream will be created when this function is called. The returned stream is a preview of the XMP stream that will be stored in the file when DynaPDF.CloseFile or DynaPDF.CloseFileEx is called. Note that the creation and modification date will be updated when the file is closed (except if the stream will be modified or replaced with DynaPDF.SetMetadata).

The original global XMP stream of external PDF files can be accessed with DynaPDF.GetInMetadata.

Metadata streams are optional and maybe not present. The function returns true if no error occurs, also if no metadata stream is present. The caller must also check whether the text returned has a length greater than zero to determine whether stream data was returned.

See also [GetMetadata](#) function in DynaPDF manual.

### See also

- 71.195 DynaPDF.GetInMetadata 2886
- 71.206 DynaPDF.GetLeading 2898
- 71.294 DynaPDF.New 3032
- 71.407 DynaPDF.SetMetadata 3238

### 71.212.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

71.212. *DYNAPDF.GETMETADATA*

2905

Created 29th July 2015, last changed 29th July 2015.

## 71.213 DynaPDF.GetOCG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOCG"; PDF; Handle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

The OCG handle.

\$OCG

#### Selector

Which value to return.

"Name"

**Result** Returns value or error.

### Description

returns the properties of the Content Usage dictionary that is associated with an OCG or layer. If the OCG is not included in an application event, then the contents in this dictionary serves as pure information.

If the OCG is included in one or more application events, then these settings control also the visibility state of the OCG. The function DynaPDF.GetOCG returns the events and categories which control the layer visibility.

If UserNamesCount is greater zero, the dictionary contains also user names. The user names can be accessed with DynaPDF.GetOCGUsageUserName.

Properties:

Handle	Handle or array index
Intent	Bitmask, see TOCGIntent. For Intent and visibility state
Name	Layer name
HaveContUsage	If 1, the layer contains a Content Usage dictionary. See DynaPDF.GetOCG-ContUsage
AppEvents	Bitmask, see TOCAppEvent. If non-zero, the layer is included in one or more app events which control the layer state.
Categories	Bitmask, see TOCGUsageCategory. The Usage Categories which control the layer state.

See also [GetOCG](#) function in DynaPDF manual.

### Examples

Find layers in PDF:

```

Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
#
# import file
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Layers::Input PDF) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
#
# look for layers
Set Variable [ $count ; Value: MBS ( "DynaPDF.GetOCGCount" ; $pdf ) ]
Set Variable [ $index ; Value: 0 ]
Loop
Exit Loop If [ $index $count ]
#
Set Variable [ $Name ; Value: MBS ( "DynaPDF.GetOCG" ; $pdf ; $index; "Name" ) ]
Set Variable [ $Intent ; Value: MBS ( "DynaPDF.GetOCG" ; $pdf ; $index; "Intent" ) ]
Set Variable [ $Visible ; Value: MBS( "Math.BitwiseAND"; $intent; 32 ) = 32 ]
#
New Record/Request
Set Field [ Layers::Name ; $Name ]
Set Field [ Layers::Visible ; $visible ]
Commit Records/Requests [ With dialog: Off ]
#
Set Variable [ $index ; Value: $index + 1 ]
End Loop
#
Set Variable [ $r ; Value: MBS( "DynaPDF.Release"; $pdf ) ]

```

#### See also

- 71.127 DynaPDF.GetBBox 2801
- 71.214 DynaPDF.GetOCGContUsage 2909
- 71.215 DynaPDF.GetOCGCount 2911
- 71.216 DynaPDF.GetOCGUsageUserName 2912
- 71.273 DynaPDF.ImportPDFPage 2982
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.316 DynaPDF.Release 3086
- 71.410 DynaPDF.SetOCGState 3243
- 110.1 Math.BitwiseAND 5839

### 71.213.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 18th February 2019, last changed 18th February 2019.



## 71.214 DynaPDF.GetOCGContUsage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOCGContUsage"; PDF; Handle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

The OCG handle.

\$OCG

#### Selector

Which value to return.

"Language"

**Result** Returns value or error.

### Description

returns the properties of the Content Usage dictionary that is associated with an OCG or layer. If the OCG is not included in an application event, then the contents in this dictionary serves as pure information.

If the OCG is included in one or more application events, then these settings control also the visibility state of the OCG. The function DynaPDF.GetOCG returns the events and categories which control the layer visibility.

If UserNamesCount is greater zero, the dictionary contains also user names. The user names can be accessed with DynaPDF.GetOCGUsageUserName.

Properties:

See also [GetOCGContUsage](#) function in DynaPDF manual.

### See also

- [71.213 DynaPDF.GetOCG](#) 2906
- [71.216 DynaPDF.GetOCGUsageUserName](#) 2912
- [71.294 DynaPDF.New](#) 3032
- [71.401 DynaPDF.SetLanguage](#) 3228

### 71.214.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

ExportState	0 = Off, 1 = On, PDF_MAX_INT = not set
InfoCreator	CreatorInfo ->The application that created the group
InfoSubtype	CreatorInfo ->A name defining the type of content, e.g. Artwork, Technical etc.
Language	A language code as described at DynaPDF.SetLanguage
LangPreferred	0 = Off, 1 = On, PDF_MAX_INT = not set. The preferred state if there is a partial but no exact match of the lang id
PageElement	If the group contains a pagination artefact
PrintState	0 = Off, 1 = On, PDF_MAX_INT = not set
PrintSubtype	The type of content that is controlled by the OCG, e.g. Trapping, Printers-Marks or Watermark.
UserNamesCount	The user names can be accessed with DynaPDF.GetOCGUsageUserName
UserType	The user for whom the OCG is primarily intended
ViewState	0 = Off, 1 = On, PDF_MAX_INT = not set
ZoomMin	Minimum zoom factor at which the OCG should be On. -1 = not set
ZoomMax	Maximum zoom factor at which the OCG should be On. -1 = not set

Created 18th February 2019, last changed 18th February 2019.

## 71.215 DynaPDF.GetOCGCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOCGCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns count or error.

### Description

See also [GetOCGCount](#) function in DynaPDF manual.

### Examples

Query count of layers:

```
Set Variable [ $count ; Value: MBS ( "DynaPDF.GetOCGCount" ; $pdf ) ]
```

### See also

- [71.121 DynaPDF.GetAnnotCount](#) 2793
- [71.131 DynaPDF.GetCMapCount](#) 2807
- [71.141 DynaPDF.GetContent](#) 2817
- [71.159 DynaPDF.GetFieldCount](#) 2841
- [71.174 DynaPDF.GetFontCount](#) 2857
- [71.180 DynaPDF.GetImageCount](#) 2866
- [71.226 DynaPDF.GetPageCount](#) 2924
- [71.241 DynaPDF.GetTemplCount](#) 2943
- [71.294 DynaPDF.New](#) 3032
- [71.410 DynaPDF.SetOCGState](#) 3243

### 71.215.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 18th February 2019, last changed 18th February 2019.

## 71.216 DynaPDF.GetOCGUsageUserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOCGUsageUserName"; PDF; Handle; Index )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Handle

The OCG handle.  
\$OCG

#### Index

Index of the name.  
0

**Result** Returns text or error.

### Description

Returns a user name of a Content Usage dictionary that is associated with an OCG or layer.  
See also [GetOCGUsageUserName](#) function in DynaPDF manual.

### See also

- [71.213 DynaPDF.GetOCG](#) 2906
- [71.214 DynaPDF.GetOCGContUsage](#) 2909
- [71.294 DynaPDF.New](#) 3032

### 71.216.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 18th February 2019, last changed 18th February 2019.

**71.217 DynaPDF.GetOpacity**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOpacity"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns value or error.

**Description**

A value of 1 determines that the annotation is completely opaque. If the value is zero, newly created annotations will be invisible. The opacity flag is not supported by all annotation types.

At time of publication the opacity property is used for annotations only. Later versions of DynaPDF use this property may be for other PDF objects too.

See also [GetOpacity](#) function in DynaPDF manual.

**See also**

- 71.206 DynaPDF.GetLeading 2898
- 71.294 DynaPDF.New 3032
- 71.411 DynaPDF.SetOpacity 3245

Created 18th August 2014, last changed 18th August 2014.

## 71.218 DynaPDF.GetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOrientation"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error message.

### Description

The function returns the orientation of the current open page if an open page was detected or the default orientation for newly created pages if no open page was detected.

The orientation is measured in degrees; it is also always a multiple of 90 or 0.

See also [GetOrientation](#) function in DynaPDF manual.

### See also

- 71.125 DynaPDF.GetAnnotation 2798
- 71.169 DynaPDF.GetFieldOrientation 2852
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.223 DynaPDF.GetPageAnnotation 2920
- 71.294 DynaPDF.New 3032
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.412 DynaPDF.SetOrientation 3246
- 71.413 DynaPDF.SetOrientationEx 3247

Created 18th August 2014, last changed 18th August 2014.

**71.219 DynaPDF.GetOutputIntent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOutputIntent"; PDF; Index; Selector { ; FileName } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Index**

The index of the output indent. From 0 to DynaPDF.GetOutputIntentCount-1.

0

**Selector**

The value to query. Possible values: Buffer, BufSize, Info, NumComponents, OutputCondition, OutputConditionID or RegistryName.

"Info"

**FileName**

Optional

Optional for the buffer option to get the ICC profile, this parameter provides the file name to include in container.

"profile.icc"

**Result** Returns OK or error.

**Description**

An output intent is an ICC profile that describes the characteristics of the output device. The profile is mostly embedded but certain standards like PDF/X 4p, for example, allow also the usage of non-embedded profiles.

The parameter Index is the array index of the output intent. To determine the number of available intents call DynaPDF.GetOutputIntentCount.

See also [GetOutputIntent](#) function in DynaPDF manual.

**See also**

- 71.10 DynaPDF.AddOutputIntent 2608
- 71.11 DynaPDF.AddOutputIntentEx 2609
- 71.220 DynaPDF.GetOutputIntentCount 2917
- 71.294 DynaPDF.New 3032

### 71.219.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 28th July 2015, last changed 28th July 2015.



**71.220 DynaPDF.GetOutputIntentCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetOutputIntentCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

See also [GetOutputIntentCount](#) function in DynaPDF manual.

**See also**

- [71.219 DynaPDF.GetOutputIntent](#) 2915
- [71.294 DynaPDF.New](#) 3032

**71.220.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 28th July 2015, last changed 28th July 2015.

## 71.221 DynaPDF.GetPDFVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPDFVersion"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns PDF Version like "1.3".

### Description

Possible values include 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.0, PDF/X-1a:2001, PDF/X-1a:2002, PDF/X-3:2002, PDF/X-3:2003, PDF/A-1b 2005, PDF/X-4, PDF/A 1a 2005, PDF/A 2a, PDF/A 2b, PDF/A 2u, PDF/A 3a, PDF/A 3b, PDF/A 3b, ZUGFeRD Basic, ZUGFeRD Comfort, ZUGFeRD Extended, FacturX Minimum, FacturX Basic, FacturX Basic WL, FacturX Comfort, FacturX Extended.

See also [GetPDFVersion](#) function in DynaPDF manual.

### See also

- 71.146 DynaPDF.GetDynaPDFVersion 2823
- 71.185 DynaPDF.GetImportPDFVersion 2873
- 71.294 DynaPDF.New 3032
- 71.414 DynaPDF.SetPDFVersion 3250

### Example Databases

- [DynaPDF/Convert to PDF/A](#)

#### 71.221.1 FileMaker Magazin

- Ausgabe 6/2016, Seite 24

Created 18th August 2014, last changed 8th April 2020.

## 71.222 DynaPDF.GetPageAnnotCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageAnnotCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number of annotations or error.

### Description

The page must be opened with EditPage() before the function can be used. The annotations of the page can be accessed with DynaPDF.GetAnnotation.

Return values:

If the function succeeds the return value is the number of annotations which are used by a page. If the function fails the return value is a negative error code.

See also [GetPageAnnotCount](#) function in DynaPDF manual.

### See also

- 71.114 DynaPDF.FlattenAnnotOrField 2779
- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.223 DynaPDF.GetPageAnnotation 2920
- 71.226 DynaPDF.GetPageCount 2924
- 71.227 DynaPDF.GetPageFieldCount 2926
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.294 DynaPDF.New 3032

Created 25th November 2014, last changed 16th January 2020.

## 71.223 DynaPDF.GetPageAnnotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageAnnotation"; PDF; AnnotationHandle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### Selector

Which value to query. Possible values: Type, Deleted, BBox, BorderWidth, BorderColor, BorderStyle, BackColor, Handle, Author, Content, Name, Subject, PageNum, HighlightMode, DestPage, DestPos, DestType, DestFile, Icon, StampName, AnnotFlags, CreateDate, ModDate, Grouped, Open, Parent, PopUp, State, StateModel, EmbeddedFile, Subtype, PageIndex, MarkupAnnot, Opacity, QuadPoints, DashPattern, Intent, LE1, LE2, Vertices, Caption, CaptionOffsetX, CaptionOffsetY, CaptionPos, LeaderLineLen, LeaderLineExtend or LeaderLineOffset.

"Name"

**Result** Returns value or error.

### Description

Please check also dynapdf manual with details on the pdfGetAnnotEx function.

The parameter AnnotationHandle must be the array index of the page in which the annotation is used. To enumerate the annotations of a page execute the function in a loop from 0 to DynaPDF.GetPageAnnotCount - 1.

### See also

- 71.71 DynaPDF.DeleteAnnotation 2714
- 71.114 DynaPDF.FlattenAnnotOrField 2779
- 71.125 DynaPDF.GetAnnotation 2798
- 71.218 DynaPDF.GetOrientation 2914
- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.294 DynaPDF.New 3032

Created 25th November 2014, last changed 25th November 2014.

## 71.224 DynaPDF.GetPageBBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageBBox"; PDF; PageIndex { ; Box } )

(old name: DynaPDF.GetPageBounds)

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page index in range from 1 to DynaPDF.GetPageCount.

1

#### Box

Optional

Optional, which box to use. Default is Mediabox. You can pass MediaBox, CropBox, ArtBox, BleedBox or TrimBox.

"MediaBox"

**Result** Returns rectangle as string with four numbers for left, top, right and bottom.

### Description

Please note that we have DynaPDF.GetPageBBox for the current working PDF and the DynaPDF.GetImportPageBounds for the current open import PDF.

### Examples

Queries crop size of page 5 from current working PDF:

```
$r = MBS( "DynaPDF.GetPageBBox"; $PDF; 5; "CropBox" )
```

### See also

- 71.127 DynaPDF.GetBBox 2801
- 71.186 DynaPDF.GetImportPageBounds 2874
- 71.225 DynaPDF.GetPageCoords 2923
- 71.226 DynaPDF.GetPageCount 2924
- 71.231 DynaPDF.GetPageLayout 2932
- 71.233 DynaPDF.GetPageNum 2934
- 71.234 DynaPDF.GetPageWidth 2935

- 71.294 DynaPDF.New 3032
- 71.415 DynaPDF.SetPageBBox 3252
- 71.420 DynaPDF.SetPageMode 3262

Created 18th August 2014, last changed 4th May 2018.

## 71.225 DynaPDF.GetPageCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageCoords"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns current setting on success or error message.

### Description

The native coordinate system of the Portable Document Format is bottom-up. However, DynaPDF supports also top-down coordinates to make the usage of the library easier.

See also DynaPDF.SetPageCoords.

See also [GetPageCoords](#) function in DynaPDF manual.

### See also

- 71.224 DynaPDF.GetPageBBox 2921
- 71.228 DynaPDF.GetPageHeight 2927
- 71.231 DynaPDF.GetPageLayout 2932
- 71.232 DynaPDF.GetPageMode 2933
- 71.294 DynaPDF.New 3032
- 71.325 DynaPDF.RotateCoords 3106
- 71.334 DynaPDF.ScaleCoords 3126
- 71.416 DynaPDF.SetPageCoords 3254
- 71.417 DynaPDF.SetPageFormat 3256
- 71.420 DynaPDF.SetPageMode 3262

Created 18th August 2014, last changed 18th August 2014.

## 71.226 DynaPDF.GetPageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns page number or error message.

### Description

Please note that we have DynaPDF.GetPageCount for the current working PDF and the DynaPDF.GetImportPageCount for the current open import PDF.

See also [GetPageCount](#) function in DynaPDF manual.

### Examples

Queries number of pages in current working PDF:

```
$PageCount = MBS( "DynaPDF.GetPageCount"; $PDF )
```

### See also

- [71.88 DynaPDF.EditPage](#) 2736
- [71.229 DynaPDF.GetPageLabel](#) 2929
- [71.233 DynaPDF.GetPageNum](#) 2934
- [71.234 DynaPDF.GetPageWidth](#) 2935
- [71.241 DynaPDF.GetTemplCount](#) 2943
- [71.302 DynaPDF.PageStatistics](#) 3059
- [71.303 DynaPDF.ParseContent](#) 3062
- [71.320 DynaPDF.RenderPage](#) 3093
- [71.417 DynaPDF.SetPageFormat](#) 3256
- [71.419 DynaPDF.SetPageLayout](#) 3261

### Example Databases

- [DynaPDF/Add Page Numbers](#)



- [DynaPDF/Add Weblinks](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/Personalized PDFs](#)
- [DynaPDF/Watermark pages](#)

### **71.226.1 Blog Entries**

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### **71.226.2 FileMaker Magazin**

- [Ausgabe 2/2019, Seite 27](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.227 DynaPDF.GetPageFieldCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageFieldCount"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

The page must be opened beforehand with the function DynaPDF.EditPage.

See also [GetPageFieldCount](#) function in DynaPDF manual.

### See also

- 71.88 DynaPDF.EditPage 2736
- 71.159 DynaPDF.GetFieldCount 2841
- 71.189 DynaPDF.GetInFieldCount 2880
- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.226 DynaPDF.GetPageCount 2924
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.228 DynaPDF.GetPageHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageHeight"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns page height value.

### Description

If no open page can be detected the return value is the default height which will be used for newly created pages.

See also [GetPageHeight](#) function in DynaPDF manual.

### See also

- [71.242 DynaPDF.GetTemplHeight](#) 2944
- [71.258 DynaPDF.GetUserRights](#) 2961
- [71.294 DynaPDF.New](#) 3032
- [71.313 DynaPDF.ReadImageFormat](#) 3081
- [71.413 DynaPDF.SetOrientationEx](#) 3247
- [71.417 DynaPDF.SetPageFormat](#) 3256
- [71.419 DynaPDF.SetPageLayout](#) 3261
- [71.421 DynaPDF.SetPageWidth](#) 3263
- [71.509 DynaPDF.WriteFTextEx](#) 3408
- [71.511 DynaPDF.WriteStyledText](#) 3414

### Example Databases

- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Create Text as PDF](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)

- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Report](#)
- [DynaPDF/Styled Text](#)
- [DynaPDF/Watermark pages](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)

### **71.228.1 FileMaker Magazin**

- Ausgabe 3/2019, Seite 37
- Ausgabe 2/2019, Seite 27

Created 18th August 2014, last changed 18th August 2014.

## 71.229 DynaPDF.GetPageLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageLabel"; PDF; Index; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

Page label handle or array index.

\$index

#### Selector

What value to query. Can be StartRange, Format, FirstPageNum or Prefix.

"Prefix"

**Result** Returns value or error.

### Description

The parameter Index must be the array index of the page label. The number of available page labels can be queried with the function DynaPDF.GetPageLabelCount.

A page label is used to construct a format string. The start range identifies the first page to which this label applies. If no further page labels follow, the label is applied to all subsequent pages through DynaPDF.GetPageCount. The member FirstPageNum represents the numeric portion of the first page label in the range. Subsequent pages are numbered sequentially from this value.

Page label format can be: DecimalArabic, UppercaseRoman, LowercaseRoman, UppercaseLetters, LowercaseLetters or None.

See also [GetPageLabel](#) function in DynaPDF manual.

### See also

- 71.224 DynaPDF.GetPageBBox 2921
- 71.226 DynaPDF.GetPageCount 2924
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.231 DynaPDF.GetPageLayout 2932
- 71.232 DynaPDF.GetPageMode 2933
- 71.233 DynaPDF.GetPageNum 2934
- 71.234 DynaPDF.GetPageWidth 2935
- 71.294 DynaPDF.New 3032
- 71.419 DynaPDF.SetPageLayout 3261

- 71.420 DynaPDF.SetPageMode

Created 6th February 2015, last changed 6th February 2015.

**71.230 DynaPDF.GetPageLabelCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageLabelCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

See also [GetPageLabelCount](#) function in DynaPDF manual.

**See also**

- 71.222 DynaPDF.GetPageAnnotCount 2919
- 71.226 DynaPDF.GetPageCount 2924
- 71.227 DynaPDF.GetPageFieldCount 2926
- 71.229 DynaPDF.GetPageLabel 2929
- 71.231 DynaPDF.GetPageLayout 2932
- 71.294 DynaPDF.New 3032
- 71.419 DynaPDF.SetPageLayout 3261

Created 6th February 2015, last changed 6th February 2015.

## 71.231 DynaPDF.GetPageLayout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageLayout"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns the current page layout.

### Description

The page layout can be SinglePage, OneColumn, TwoColumnLeft, TwoColumnRight, TwoPageLeft, TwoPageRight or Default.

See also [GetPageLayout](#) function in DynaPDF manual.

### See also

- 71.225 DynaPDF.GetPageCoords 2923
- 71.226 DynaPDF.GetPageCount 2924
- 71.228 DynaPDF.GetPageHeight 2927
- 71.229 DynaPDF.GetPageLabel 2929
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.232 DynaPDF.GetPageMode 2933
- 71.233 DynaPDF.GetPageNum 2934
- 71.417 DynaPDF.SetPageFormat 3256
- 71.418 DynaPDF.SetPageHeight 3258
- 71.419 DynaPDF.SetPageLayout 3261

Created 18th August 2014, last changed 18th August 2014.



**71.232 DynaPDF.GetPageMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageMode"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns page mode or error.

**Description**

The mode can be UseMode, UseOutlines, UseThumbs, Fullscreen, UseOC or UseAttachments.  
See also [GetPageMode](#) function in DynaPDF manual.

**See also**

- 71.225 DynaPDF.GetPageCoords 2923
- 71.226 DynaPDF.GetPageCount 2924
- 71.229 DynaPDF.GetPageLabel 2929
- 71.231 DynaPDF.GetPageLayout 2932
- 71.233 DynaPDF.GetPageNum 2934
- 71.294 DynaPDF.New 3032
- 71.415 DynaPDF.SetPageBBox 3252
- 71.416 DynaPDF.SetPageCoords 3254
- 71.420 DynaPDF.SetPageMode 3262
- 71.421 DynaPDF.SetPageWidth 3263

Created 18th August 2014, last changed 27th May 2017.

## 71.233 DynaPDF.GetPageNum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageNum"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

See also [GetPageNum](#) function in DynaPDF manual.

#### See also

- 71.224 DynaPDF.GetPageBBox 2921
- 71.226 DynaPDF.GetPageCount 2924
- 71.229 DynaPDF.GetPageLabel 2929
- 71.231 DynaPDF.GetPageLayout 2932
- 71.232 DynaPDF.GetPageMode 2933
- 71.234 DynaPDF.GetPageWidth 2935
- 71.294 DynaPDF.New 3032
- 71.415 DynaPDF.SetPageBBox 3252
- 71.420 DynaPDF.SetPageMode 3262

Created 6th February 2015, last changed 6th February 2015.

## 71.234 DynaPDF.GetPageWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPageWidth"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns page width value.

### Description

If no open page can be detected the return value is the default width which will be used for newly created pages.

See also [GetPageWidth](#) function in DynaPDF manual.

### See also

- [71.207 DynaPDF.GetLineWidth](#) 2899
- [71.229 DynaPDF.GetPageLabel](#) 2929
- [71.232 DynaPDF.GetPageMode](#) 2933
- [71.243 DynaPDF.GetTemplWidth](#) 2945
- [71.249 DynaPDF.GetTextWidth](#) 2951
- [71.404 DynaPDF.SetLineWidth](#) 3232
- [71.413 DynaPDF.SetOrientationEx](#) 3247
- [71.418 DynaPDF.SetPageHeight](#) 3258
- [71.420 DynaPDF.SetPageMode](#) 3262
- [71.511 DynaPDF.WriteStyledText](#) 3414

### Example Databases

- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Catalog with tables](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Invoice/Invoice](#)

- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Personalized PDFs](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Report](#)
- [DynaPDF/Styled Text](#)

### **71.234.1 FileMaker Magazin**

- Ausgabe 3/2019, Seite 37
- Ausgabe 2/2019, Seite 27

Created 18th August 2014, last changed 18th August 2014.

## 71.235 DynaPDF.GetPrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetPrintSettings"; PDF; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Selector

Which value to retrieve. Can be NumCopies, PickTrayByPDFSize, PrintRangesCount, PrintScaling, DuplexMode and PrintRanges.

"NumCopies"

**Result** Returns OK or error.

### Description

The print settings are used to initialize the print dialog in a viewer application.

NumCopies, PickTrayByPDFSize and PrintRangesCount return a number (-1 if undefined). PrintRanges returns a list of values for the ranges. DuplexMode returns values like FlipShortEdge, FlipLongEdge, Simplex or None. PrintScaling returns None or AppDefault.

See also DynaPDF.SetPrintSettings and DynaPDF.GetInPrintSettings.

See also [GetPrintSettings](#) function in DynaPDF manual.

### See also

- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.294 DynaPDF.New 3032
- 71.422 DynaPDF.SetPrintSettings 3266

### 71.235.1 Blog Entries

- [Tip of the day: PDF print settings](#)

Created 14th March 2015, last changed 14th March 2015.

## 71.236 DynaPDF.GetReplaceICCProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetReplaceICCProfile"; PDF; ICCProfileType )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### ICCProfileType

The profile type. Can be Gray, RGB, CMYK or Lab.  
"RGB"

**Result** Returns path text or error.

### Description

### Examples

Query RGB profile path:

MBS( "DynaPDF.GetReplaceICCProfile"; \$pdf; "RGB" )

### See also

- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.238 DynaPDF.GetReplaceICCProfilesCounter 2940
- 71.294 DynaPDF.New 3032
- 71.423 DynaPDF.SetReplaceICCProfile 3268
- 71.424 DynaPDF.SetReplaceICCProfileData 3270

Created 8th March 2016, last changed 30th September 2017.

**71.237 DynaPDF.GetReplaceICCProfileData**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetReplaceICCProfileData"; PDF; ICCProfileType )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**ICCProfileType**

The profile type. Can be Gray, RGB, CMYK or Lab.  
"RGB"

**Result** Returns container value or error.

**Description****See also**

- [71.236 DynaPDF.GetReplaceICCProfile](#) 2938
- [71.238 DynaPDF.GetReplaceICCProfilesCounter](#) 2940
- [71.294 DynaPDF.New](#) 3032
- [71.423 DynaPDF.SetReplaceICCProfile](#) 3268
- [71.424 DynaPDF.SetReplaceICCProfileData](#) 3270

**71.237.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr1](#)

Created 30th September 2017, last changed 30th September 2017.

## 71.238 DynaPDF.GetReplaceICCProfilesCounter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetReplaceICCProfilesCounter"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

The plugin has a callback for ReplaceICCProfile for the CheckConformance function. This counter is increased for each call to the callback, so you can see how often it was called.

### See also

- 71.236 DynaPDF.GetReplaceICCProfile 2938
- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.294 DynaPDF.New 3032
- 71.424 DynaPDF.SetReplaceICCProfileData 3270

Created 8th March 2016, last changed 8th March 2016.



**71.239 DynaPDF.GetResolution**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetResolution"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns current resolution value.

**Description**

The function returns the resolution in DPI (Dots per Inch), in which images are stored by DynaPDF. The value will be ignored if the property SaveNewImageFormat was set to false.

The default value is 150 (DPI).

See also [GetResolution](#) function in DynaPDF manual.

**See also**

- 71.125 DynaPDF.GetAnnotation 2798
- 71.294 DynaPDF.New 3032
- 71.425 DynaPDF.SetResolution 3272

Created 18th August 2014, last changed 27th May 2017.

## 71.240 DynaPDF.GetSaveNewImageFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetSaveNewImageFormat"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns current state.

### Description

See also DynaPDF.SetSaveNewImageFormat.

See also [GetSaveNewImageFormat](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.426 DynaPDF.SetSaveNewImageFormat 3274

Created 18th August 2014, last changed 18th August 2014.

**71.241 DynaPDF.GetTemplCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTemplCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns count or error.

**Description**

The page must be opened with DynaPDF.EditPage beforehand.  
See also [GetTemplCount](#) function in DynaPDF manual.

**See also**

- 71.88 DynaPDF.EditPage 2736
- 71.89 DynaPDF.EditTemplate 2738
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.131 DynaPDF.GetCMapCount 2807
- 71.174 DynaPDF.GetFontCount 2857
- 71.215 DynaPDF.GetOCGCount 2911
- 71.226 DynaPDF.GetPageCount 2924
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.294 DynaPDF.New 3032

Created 16th May 2015, last changed 16th May 2015.

## 71.242 DynaPDF.GetTemplHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTemplHeight"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

Template handle.

\$template

**Result** Returns number or error.

### Description

The parameter Handle must be a valid template handle.

See also [GetTemplHeight](#) function in DynaPDF manual.

#### See also

- [71.177 DynaPDF.GetFontWeight](#) 2860
- [71.150 DynaPDF.GetFTextHeight](#) 2829
- [71.151 DynaPDF.GetFTextHeightEx](#) 2831
- [71.228 DynaPDF.GetPageHeight](#) 2927
- [71.241 DynaPDF.GetTemplCount](#) 2943
- [71.243 DynaPDF.GetTemplWidth](#) 2945
- [71.294 DynaPDF.New](#) 3032
- [71.418 DynaPDF.SetPageHeight](#) 3258

### Example Databases

- [DynaPDF/Generate Previews](#)
- [DynaPDF/Shrink PDF pages](#)

#### 71.242.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 6th February 2015, last changed 6th February 2015.

## 71.243 DynaPDF.GetTemplWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTemplWidth"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Handle

Template handle.  
\$template

**Result** Returns number or error.

### Description

The parameter Handle must be a valid template handle.  
See also [GetTemplWidth](#) function in DynaPDF manual.

#### See also

- [71.207 DynaPDF.GetLineWidth](#) 2899
- [71.234 DynaPDF.GetPageWidth](#) 2935
- [71.241 DynaPDF.GetTemplCount](#) 2943
- [71.242 DynaPDF.GetTemplHeight](#) 2944
- [71.249 DynaPDF.GetTextWidth](#) 2951
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/Generate Previews](#)
- [DynaPDF/Shrink PDF pages](#)

### 71.243.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 6th February 2015, last changed 6th February 2015.

## 71.244 DynaPDF.GetTextDrawMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextDrawMode"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns mode or error.

### Description

Mode can be Normal, Stroke, FillStroke, Invisible, FillClip, StrokeClip, FillStrokeClip or Clipping.

See also [GetTextDrawMode](#) function in DynaPDF manual.

### See also

- [71.294 DynaPDF.New](#) 3032
- [71.429 DynaPDF.SetTextDrawMode](#) 3279

### 71.244.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr8](#)

Created 22nd January 2016, last changed 22nd January 2016.

**71.245 DynaPDF.GetTextFieldDefaultValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextFieldDefaultValue"; PDF; Field )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Result** Returns the text or an error.

**Description****See also**

- [71.246 DynaPDF.GetTextFieldValue](#) 2948
- [71.294 DynaPDF.New](#) 3032

**71.245.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.1pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.246 DynaPDF.GetTextFieldValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextFieldValue"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns the text or an error.

### Description

See also [GetTextFieldValue](#) function in DynaPDF manual.

#### See also

- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.245 DynaPDF.GetTextFieldDefaultValue 2947
- 71.294 DynaPDF.New 3032
- 71.430 DynaPDF.SetTextFieldValue 3281
- 71.431 DynaPDF.SetTextFieldValueEx 3283

### 71.246.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr3](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.247 DynaPDF.GetTextRise

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextRise"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns rise value or error.

### Description

Text rise specifies the distance, in unscaled text space units, to move the baseline up or down from its default location. Positive values of text rise move the baseline up. Adjustments to the baseline are useful for drawing superscripts or subscripts. The default location of the baseline can be restored by setting the text rise to 0. The figure below illustrates the effect of the text rise. Text rise always applies to the vertical coordinate in text space. See also DynaPDF.SetTextRise.

The text moves around the baseline.

Default value = 0

See also DynaPDF.SetTextRise.

See also [GetTextRise](#) function in DynaPDF manual.

### Examples

Queries text rise:

MBS( "DynaPDF.GetTextRise"; \$PDF )

### See also

- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.432 DynaPDF.SetTextRect 3284
- 71.433 DynaPDF.SetTextRise 3286

Created 18th August 2014, last changed 18th August 2014.

## 71.248 DynaPDF.GetTextScaling

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextScaling"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

### Description

The scaling value adjusts the width of glyphs by stretching or compressing them in the horizontal direction. Its value is specified as a percentage of the normal width of the glyphs, with 100 being the normal width. See also DynaPDF.SetTextScaling.

Default value = 100

See also DynaPDF.SetTextScaling.

See also [GetTextScaling](#) function in DynaPDF manual.

### Examples

Queries text scaling:

MBS( "DynaPDF.GetTextScaling"; \$PDF )

### See also

- 71.264 DynaPDF.GetWordSpacing 2968
- 71.294 DynaPDF.New 3032
- 71.434 DynaPDF.SetTextScaling 3287

Created 18th August 2014, last changed 18th August 2014.

**71.249 DynaPDF.GetTextWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTextWidth"; PDF; Text )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Text**

The text to measure.

"Hello World"

**Result** Returns width or error.

**Description**

The graphics state parameters character spacing, word spacing, text scaling, and the current font size are all considered. A font must be set before this function can be used.

The function computes the visible width of the string. This is the width excluding the last character spacing. The bounding box of the string is the text width plus the current character spacing. This behavior must be taken into account when writing right aligned text with DynaPDF.WriteFText. Due to certain formatting rules DynaPDF.WriteFText uses the bounding box of a text string to output text.

See also [GetTextWidth](#) function in DynaPDF manual.

**See also**

- 71.150 DynaPDF.GetFTextHeight 2829
- 71.207 DynaPDF.GetLineWidth 2899
- 71.234 DynaPDF.GetPageWidth 2935
- 71.243 DynaPDF.GetTemplWidth 2945
- 71.247 DynaPDF.GetTextRise 2949
- 71.294 DynaPDF.New 3032
- 71.421 DynaPDF.SetPageWidth 3263
- 71.432 DynaPDF.SetTextRect 3284
- 71.433 DynaPDF.SetTextRise 3286
- 71.508 DynaPDF.WriteFText 3406

### 71.249.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 12nd November 2014.

**71.250 DynaPDF.GetTransparentColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTransparentColor"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

**Description**

See also [GetTransparentColor](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New 3032
- 71.435 DynaPDF.SetTransparentColor 3288

Created 6th February 2015, last changed 6th February 2015.

## 71.251 DynaPDF.GetTrapped

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetTrapped"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns value or error.

### Description

The default value is false. However, the real default value is unknown that means the key is not written to the file. The trapped key must be set with SetTrapped if it should be written to the file.

See also [GetTrapped](#) function in DynaPDF manual.

### See also

- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.294 DynaPDF.New 3032
- 71.436 DynaPDF.SetTrapped 3289

Created 6th February 2015, last changed 6th February 2015.

**71.252 DynaPDF.GetUseExactPwd**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseExactPwd"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns value or error.

**Description**

If the property UseExactPwd is 0, an encrypted PDF file can always be decrypted, if either the open or owner password in the file is an empty string. If 1, the open or owner password must be known to open the PDF file (see also DynaPDF.SetUseExactPwd).

Default value = 1

If your application should allow the modification of encrypted PDF files, you may check the access permissions to grant user rights, if the file was opened with the open password instead of the owner password (see also DynaPDF.GetUserRights).

Due to the license agreement of Adobe, all manufacturers of applications which make the treatment of encrypted PDF files possible, must respect the access permissions of a PDF file, if the file was opened with the open password.

Only if the file was opened with the owner password, all rights should be granted. See PDF Reference 1.5 for further information.

The property UseExactPwd should be 1, if the application is a commercial software product.

See also [GetUseExactPwd](#) function in DynaPDF manual.

**See also**

- 71.258 DynaPDF.GetUserRights 2961
- 71.294 DynaPDF.New 3032
- 71.437 DynaPDF.SetUseExactPwd 3290

Created 6th February 2015, last changed 6th February 2015.

**71.253 DynaPDF.GetUseGlobalImpFiles**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseGlobalImpFiles"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns value or error.

**Description**

Specifies whether import files should be loaded permanent into memory, e.g. to enable splitting of large PDF files. An open import file will not be closed when DynaPDF.CloseFile or DynaPDF.FreePDF is called when the property is true. See also DynaPDF.SetUseGlobalImpFiles.

Default value = 0

See also [GetUseGlobalImpFiles](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New 3032
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291

Created 6th February 2015, last changed 6th February 2015.



**71.254 DynaPDF.GetUseStdFonts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseStdFonts"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

**Description**

PDF viewer applications support 14 standard fonts, these fonts are not embedded by default, also if the parameter Embed of the function DynaPDF.SetFont is true and if the font file is available.

If a standard font should be embedded it is recommended to disable the internal fonts supported by DynaPDF. See also DynaPDF.SetFont or DynaPDF.SetUseStdFonts.

Default value = 1 (on)

See also DynaPDF.SetUseStdFonts.

See also [GetUseStdFonts](#) function in DynaPDF manual.

**Examples**

Queries standard fonts usage:

MBS( "DynaPDF.GetUseStdFonts"; \$PDF )

**See also**

- 71.258 DynaPDF.GetUserRights 2961
- 71.255 DynaPDF.GetUseSystemFonts 2958
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.439 DynaPDF.SetUseStdFonts 3292
- 71.440 DynaPDF.SetUseSystemFonts 3294

Created 18th August 2014, last changed 18th August 2014.

## 71.255 DynaPDF.GetUseSystemFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseSystemFonts"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value (0 or 1) or error.

### Description

The property specifies whether the default font directory of the operating system should be added to the list of font search paths. On Windows this is the % Windows% /Fonts directory plus additional fonts which can be named in the Registry.

On Mac OS X the following font directories will be added to the list of font search paths (in this order):

~/Library/Fonts/

/Library/Fonts/

/System/Library/Fonts/

System fonts are loaded on demand, e.g. when a function tries to load a font. To improve processing speed the internal font cache is hold in memory until the PDF instance will be deleted. Additional font search paths can be added with DynaPDF.AddFontSearchPath.

Because Linux and UNIX operating system support no default font directory the property is ignored.

See also DynaPDF.SetUseSystemFonts.

See also [GetUseSystemFonts](#) function in DynaPDF manual.

### Examples

Queries system fonts usage:

MBS( "DynaPDF.GetUseSystemFonts"; \$PDF )

### See also

- 71.9 DynaPDF.AddFontSearchPath 2607
- 71.254 DynaPDF.GetUseStdFonts 2957
- 71.294 DynaPDF.New 3032
- 71.439 DynaPDF.SetUseStdFonts 3292
- 71.440 DynaPDF.SetUseSystemFonts 3294

Created 18th August 2014, last changed 18th August 2014.

**71.256 DynaPDF.GetUseTransparency**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseTransparency"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns current state (0 or 1) or error.

**Description**

If 1, the transparent color (see DynaPDF.SetTransparentColor is used to mask an image. The property has no effect for JPEG compressed images.

The default value is 1 (true).

See also [GetUseTransparency](#) function in DynaPDF manual.

**See also**

- 71.144 DynaPDF.GetDocUsesTransparency 2821
- 71.260 DynaPDF.GetUsesTransparency 2963
- 71.294 DynaPDF.New 3032
- 71.435 DynaPDF.SetTransparentColor 3288
- 71.441 DynaPDF.SetUseTransparency 3296

Created 18th August 2014, last changed 27th May 2017.

## 71.257 DynaPDF.GetUseVisibleCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUseVisibleCoords"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

The crop box crops a page, but the paper format (media box) is left unchanged. To move the coordinates into the visible area, set the property to true. Coordinates can then be used as if no crop box was defined. The bounding boxes are described in detail at DynaPDF.SetBBox.

See also [GetUseVisibleCoords](#) function in DynaPDF manual.

#### See also

- 71.294 DynaPDF.New 3032
- 71.349 DynaPDF.SetBBox 3147
- 71.442 DynaPDF.SetUseVisibleCoords 3298

Created 6th February 2015, last changed 6th February 2015.

## 71.258 DynaPDF.GetUserRights

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUserRights"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

### Description

See also [GetUserRights](#) function in DynaPDF manual.

#### See also

- [71.228 DynaPDF.GetPageHeight](#) 2927
- [71.252 DynaPDF.GetUseExactPwd](#) 2955
- [71.259 DynaPDF.GetUserUnit](#) 2962
- [71.254 DynaPDF.GetUseStdFonts](#) 2957
- [71.271 DynaPDF.ImportEncryptionSettings](#) 2978
- [71.294 DynaPDF.New](#) 3032
- [71.437 DynaPDF.SetUseExactPwd](#) 3290

### 71.258.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 17th October 2019, last changed 17th October 2019.

## 71.259 DynaPDF.GetUserUnit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUserUnit"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK on success or error message.

### Description

A user unit acts like a scaling factor. The page format and all page coordinates are multiplied with this factor in a viewer application. The default size of a PDF unit is 1/72 inch and the default user unit is 1.0. User units can be useful if the page format would be too large to be expressed in standard PDF units. The largest page format in PDF is limited to 14400 units or 200 inches. This limit can be extended with the user unit.

The largest value that is supported is 75.0 which results in a maximum page format of 15,000 x 15,000 inches or 1,800,000 units.

See also [GetUserUnit](#) function in DynaPDF manual.

### See also

- 71.126 DynaPDF.GetAscent 2800
- 71.258 DynaPDF.GetUserRights 2961
- 71.294 DynaPDF.New 3032
- 71.443 DynaPDF.SetUserUnit 3299

### 71.259.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.260 DynaPDF.GetUsesTransparency

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetUsesTransparency"; PDF; PageIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page index in range from 1 to DynaPDF.GetPageCount.

1

**Result** Returns OK or error.

### Description

This is no quick check as DynaPDF.GetDocUsesTransparency applies. The function parses the page or pages to determine whether transparent objects are really used.

To check whether a specific page uses transparency set the parameter PageNum to the wished page number. The first page is denoted by 1. To check the entire PDF file set PageNum to -1.

The return value is a bit mask on success (a positive integer value), or a error message on failure.

The following flags are defined:

0: The page or document uses no transparency. 1: The content stream of a page contains transparent objects. 2: A page defines the blending color space (Group dictionary). 4: A page contains transparent annotations or form fields. The above values can occur in any combination. To check whether a specific flag was set use a binary and operator, e.g. Math.BitwiseAND. e.g. Value 6 means both 2 and 4 flags are set.

See also [GetUsesTransparency](#) function in DynaPDF manual.

### See also

- 71.144 DynaPDF.GetDocUsesTransparency 2821
- 71.226 DynaPDF.GetPageCount 2924
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.294 DynaPDF.New 3032
- 71.441 DynaPDF.SetUseTransparency 3296
- 110.1 Math.BitwiseAND 5839

### 71.260.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr6](#)





## 71.261 DynaPDF.GetViewerPreferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetViewerPreferences"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns list or error.

### Description

The plugin returns a list of the values set, e.g. "HideToolBar\$HideMenuBar\$NonFullScrUseNone".  
See DynaPDF help for list of options.  
See also [GetViewerPreferences](#) function in DynaPDF manual.

#### See also

- 71.294 DynaPDF.New 3032
- 71.444 DynaPDF.SetViewerPreferences 3300

### 71.261.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 19th March 2019, last changed 20th March 2019.

**71.262 DynaPDF.GetWMFDefExtent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.GetWMFDefExtent"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns both values as list or an error.

**Description**

See DynaPDF.InsertMetafile for further information.

Default value:

Width = 0

Height = 0

See also [GetWMFDefExtent](#) function in DynaPDF manual.

**See also**

- 71.282 DynaPDF.InsertMetafile 3010
- 71.294 DynaPDF.New 3032
- 71.445 DynaPDF.SetWMFDefExtent 3301

Created 18th May 2017, last changed 29th May 2017.

**71.263 DynaPDF.GetWMFPixelPerInch**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.GetWMFPixelPerInch"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

DynaPDF uses a corrected value to get exact proportions. See DynaPDF.InsertMetafile for further information.

Default value = 2400

See also [GetWMFPixelPerInch](#) function in DynaPDF manual.

**See also**

- 71.282 DynaPDF.InsertMetafile 3010
- 71.294 DynaPDF.New 3032
- 71.446 DynaPDF.SetWMFPixelPerInch 3302

Created 29th May 2017, last changed 29th May 2017.

## 71.264 DynaPDF.GetWordSpacing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetWordSpacing"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns value or error.

### Description

See also DynaPDF.SetWordSpacing.

See also [GetWordSpacing](#) function in DynaPDF manual.

#### See also

- 71.248 DynaPDF.GetTextScaling 2950
- 71.294 DynaPDF.New 3032
- 71.447 DynaPDF.SetWordSpacing 3303

Created 18th August 2014, last changed 18th August 2014.

## 71.265 DynaPDF.GetXFASStream

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetXFASStream"; PDF; Index; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Index

The index for the stream. From 0 to DynaPDF.GetXFASStreamCount-1.

0

#### Selector

Which value to query. BufSize: Size of stream in bytes. Buffer: The stream data as text. Container: The stream data as a container value. Name: The name of the stream.

"Buffer"

**Result** Returns OK or error.

### Description

The parameter Index is the array index. The function DynaPDF.GetXFASStreamCount returns the number of available streams.

An XFA form consist of several XML streams. The stream name must be used to determine which stream was returned.

See also [GetXFASStream](#) function in DynaPDF manual.

### See also

- [71.68 DynaPDF.CreateXFASStream](#) 2711
- [71.194 DynaPDF.GetInIsXFAForm](#) 2885
- [71.266 DynaPDF.GetXFASStreamCount](#) 2971
- [71.294 DynaPDF.New](#) 3032
- [71.448 DynaPDF.SetXFASStream](#) 3304

### Example Databases

- [DynaPDF/List XFA Fields](#)
- [DynaPDF/List XFA Streams](#)

### 71.265.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

**71.266 DynaPDF.GetXFASStreamCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.GetXFASStreamCount"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns number or error.

**Description**

XFA streams are available after a PDF file was imported.  
See also [GetXFAStreamCount](#) function in DynaPDF manual.

**See also**

- [71.265 DynaPDF.GetXFASStream](#) 2969
- [71.294 DynaPDF.New](#) 3032
- [71.448 DynaPDF.SetXFASStream](#) 3304

**Example Databases**

- [DynaPDF/List XFA Fields](#)
- [DynaPDF/List XFA Streams](#)

**71.266.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

## 71.267 DynaPDF.HaveOpenDocument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.HaveOpenDocument"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 1, 0 or error.

### Description

If an error occurred it is not always clear whether the PDF file was already deleted or if it is still in memory. Therefore, this function can be used to determine whether a PDF file is still in memory.

If an open PDF file is in memory the return value is 1. If no open PDF file is in memory the return value is 0.

### See also

- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.296 DynaPDF.OpenOutputFileEncrypted 3037

### 71.267.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 12nd February 2017, last changed 12nd February 2017.



**71.268 DynaPDF.HaveOpenPage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.HaveOpenPage"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 1, 0 or error.

**Description**

The function returns true (1) if an open page is in memory. Otherwise the return value is false (0).

See also [HaveOpenPage](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New

3032

**71.268.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 12nd February 2017, last changed 12nd February 2017.

**71.269 DynaPDF.HighlightAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.HighlightAnnot"; PDF; PosX; PosY; Width; Height; HighlightColor; Author; Subject; Comment )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-coordinate of the annotation

100

**PosY**

Y-coordinate of the annotation

100

**Width**

Width of the annotation

100

**Height**

Height of the annotation

100

**HighlightColor**

Highlight color.

200

**Author**

The author name. Can be empty.

"Christian Schmitz"

**Subject**

The subject to use. Can be empty.

**Comment**

The comment. Can be empty.

**Result** Returns annotation handle or error.

**Description**

Highlight annotations are used to mark text on a PDF page.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The parameter Color specifies the highlight color; it must be defined in RGB color space. The line width of a Strikout or Underline annotation is not adjustable. The line width depends on the size of the annotation

and is automatically calculated.

The active color space must be set to DeviceRGB before creating the annotation. See `DynaPDF.SetColorSpace` for further information.

See also [HighlightAnnot](#) function in DynaPDF manual.

**See also**

- 71.294 `DynaPDF.New` 3032
- 71.358 `DynaPDF.SetColorSpace` 3159

Created 28th November 2014, last changed 30th November 2014.

## 71.270 DynaPDF.HighlightPattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.HighlightPattern"; PDF; Text { ; HighlightColor; CaseInsensitive } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Text

The text to search.

"Hello"

#### HighlightColor

Optional

The highlight color. Default is yellow. Value is the RGB color as integer.  $\text{Blue} * 65536 + \text{Green} * 256 + \text{Red}$  with each color channel having a range from 0 to 255.

```
MBS( "DynaPDF.RGB"; 0; 0; 255 )
```

#### CaseInsensitive

Optional

Optional, if 1, the case of the letters is ignored (also umlauts).

1

**Result** Returns number of locations found.

### Description

You need to have an open page. you can use DynaPDF.EditPage to edit an existing one.

You can use DynaPDF.RGB function to calculate RGB color value.

This function uses the parser interface in DynaPDF and needs a Lite license.

### Examples

Highlight "Apple" with yellow:

```
MBS( "DynaPDF.HighlightPattern"; $PDF; "Apple"; MBS( "DynaPDF.RGB"; 0; 255; 255 ); 1 )
```

Same, but with color calculated ourself:

```
MBS("DynaPDF.HighlightPattern"; $pdf; "Apple"; 255+255*256; 1)
```

### See also

- 71.88 DynaPDF.EditPage

71.270. <i>DYNAPDF.HIGHLIGHTPATTERN</i>	2977
• 71.277 DynaPDF.Initialize	2992
• 71.294 DynaPDF.New	3032
• 71.312 DynaPDF.RGB	3079

### Example Databases

- [DynaPDF/DynaPDF Highlight Text](#)
- [DynaPDF/PDF Library](#)

### 71.270.1 Blog Entries

- [DynaPDF Screenshot](#)
- [MBS FileMaker Plugin, version 7.4pr1](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)
- [MBS Filemaker Plugin, version 3.5pr10](#)

Created 18th August 2014, last changed 19th March 2019.

## 71.271 DynaPDF.ImportEncryptionSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ImportEncryptionSettings"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error.

### Description

If the PDF file is not encrypted, the function does nothing. To determine whether the open PDF file is encrypted call DynaPDF.GetInIsEncrypted.

The encryption settings should be imported to make sure that the PDF file can be saved with the same settings after it was edited. The user rights should be considered if the file was opened with the open password, also if the password was just an empty string. See DynaPDF.GetUserRights for further information.

If the file was opened with the owner password, then all editing rights should be granted. The PDF file must be closed with DynaPDF.CloseFile or DynaPDF.CloseAndSignFile for example. Don't use DynaPDF.CloseFileEx for example since this function would override the encryption settings. If the file should be saved unencrypted call DynaPDF.ResetEncryptionSettings() before closing the file. If the function succeeds the return value is 1. If the function fails the return value is 0.

See also [ImportEncryptionSettings](#) function in DynaPDF manual.

### See also

- 71.191 DynaPDF.GetInIsEncrypted 2882
- 71.258 DynaPDF.GetUserRights 2961
- 71.294 DynaPDF.New 3032
- 71.323 DynaPDF.ResetEncryptionSettings 3103

Created 19th January 2017, last changed 19th January 2017.

## 71.272 DynaPDF.ImportPDFFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ImportPDFFile"; PDF; DestPage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestPage

The first number of the first imported page. Use this to insert pages at some position in new PDF. Default is 1.

1

**Result** Returns error message or last page number.

### Description

The function imports an external PDF file including interactive objects such as annotations, bookmarks, form fields, and so on. DynaPDF supports a large set of flags to enable import of required objects only. Unwanted objects can be removed by the function if necessary.

The parameter DestPage specifies the destination page on which the new pages will be inserted or added if the pages already exist. It is possible to import multiple PDF files on the same or overlapping destination page.

If the function succeeds the return value is the last page number that was touched. For example, if the document in memory contains already 20 pages, and if we import a PDF file with 23 pages, and if the destination page is 21 the return value should be 43 because this is the last page that was invoked during import.

If the function fails the return value is a negative error code.

To open the import PDF, please use DynaPDF.OpenPDFFromFile or DynaPDF.OpenPDFFromContainer. See also [ImportPDFFile](#) function in DynaPDF manual.

### Examples

Imports all pages from import PDF and put in current PDF starting at page 5

```
$r = MBS( "DynaPDF.ImportPDFFile"; $PDF; 5 )
```

Load PDF and extract text of page 2:

```
# initialize DynaPDF before running this:
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
```

```
# import all pages
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile";$pdf) ]
# extra text of page 2
Set Field [ Test::PageText; MBS("DynaPDF.ExtractPageText"; $pdf; 2) ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

Import and Export PDF:

```
# Start new PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# set import flags
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags"; $pdf; "ImportAll ImportAsPage PrepareFor-
PDFA" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags2"; $pdf; "DuplicateCheck" ) ]
# Import PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; MyTable::InputPDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Save back
Set Field [ MyTable::OutputPDF; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.273 DynaPDF.ImportPDFPage 2982
- 71.302 DynaPDF.PageStatistics 3059
- 71.307 DynaPDF.Print 3070
- 71.310 DynaPDF.Print.SetDevMode 3076
- 71.316 DynaPDF.Release 3086
- 71.318 DynaPDF.RenderPDFFile 3089
- 71.329 DynaPDF.Save 3116
- 71.407 DynaPDF.SetMetadata 3238
- 71.413 DynaPDF.SetOrientationEx 3247
- 71.506 DynaPDF.WebLink 3401

### Example Databases

- [DynaPDF/Change Separation Colorant](#)
- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/List ColorSpaces](#)



- [DynaPDF/List Images](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/Merge PDFs to File](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/PDF Font Info](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Extract XML](#)

### **71.272.1 Blog Entries**

- [Merge PDF with table of contents](#)
- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [MBS FileMaker Plugin, version 8.3pr5](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [Optimize PDF Script](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### **71.272.2 FileMaker Magazin**

- [Ausgabe 3/2019, Seite 37](#)
- [Ausgabe 2/2019, Seite 27](#)
- [Ausgabe 2/2019, Seite 26](#)
- [Ausgabe 1/2018, Seite 26](#)
- [Ausgabe 1/2018, Seite 24](#)
- [Ausgabe 6/2017, Seite 26](#)
- [Ausgabe 6/2016, Seite 24](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.273 DynaPDF.ImportPDFPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ImportPDFPage"; PDF; PageIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The source page number from 1 to DynaPDF.GetImportPageCount.

1

**Result** Returns OK or error message.

### Description

See also pdfImportPDFPage in dynapdf manual.

To open the import PDF, please use DynaPDF.OpenPDFFromFile or DynaPDF.OpenPDFFromContainer.

Requires DynaPDF Pro license.

Use DynaPDF.SetImportFlags including AllPageObjects option to preserve links.

### Examples

Import a single page:

```
Set Variable [ $r; Value: MBS( "DynaPDF.SetImportFlags"; $pdf; "ImportAll$ImportAsPage$AllPageObjects" ) ]
```

```
Set Variable [ $r; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Invoice::PDF Template) ]
```

```
Set Variable [ $r; Value: MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
```

Import selected pages from one PDF and write into a new one:

```
# New PDF
```

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
```

```
# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
```

```
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]
```

```
# Query page count
```

```
Set Variable [ $pageCount; Value:MBS( "DynaPDF.GetImportPageCount"; $pdf ) ]
```

```
# Import the pages you need
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
```

```

Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 2) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 3) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 2) ]

```

```

# Set output to this file path
# MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/output.pdf" )

```

```

# Write PDF
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]

```

```

# release memory
Set Variable [ $r1; Value:MBS("DynaPDF.Release"; $pdf) ]

```

Split first page from a PDF:

```

# New PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]

```

```

# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]

```

```

# Import one page
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]

```

```

# Write PDF
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]

```

```

# release memory
Set Variable [ $r1; Value:MBS("DynaPDF.Release"; $pdf) ]

```

### See also

- 71.187 DynaPDF.GetImportPageCount 2876
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.277 DynaPDF.Initialize 2992
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.307 DynaPDF.Print 3070
- 71.316 DynaPDF.Release 3086
- 71.320 DynaPDF.RenderPage 3093
- 71.329 DynaPDF.Save 3116

- 71.398 DynaPDF.SetImportFlags

### Example Databases

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Click Points](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/DynaPDF Replace Text](#)
- [DynaPDF/DynaPDF Test](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/PDF Differences](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/Split PDF](#)

### 71.273.1 Blog Entries

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### 71.273.2 FileMaker Magazin

- [Ausgabe 1/2018, Seite 25](#)

Created 18th August 2014, last changed 8th May 2020.

**71.274 DynaPDF.ImportPageAsTemplate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ImportPageAsTemplate"; PDF; PageNumber )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**PageNumber**

The page number in the open import PDF.  
1

**Result** Returns template reference number or error.

**Description**

See also pdfImportPage function in dynapdf manual.

Requires DynaPDF Pro license.

**Examples**

Import 5th page:

MBS( "DynaPDF.ImportPageAsTemplate"; \$PDF; 5 )

**See also**

- [71.277 DynaPDF.Initialize](#) 2992
- [71.294 DynaPDF.New](#) 3032
- [71.305 DynaPDF.PlaceTemplate](#) 3066
- [71.306 DynaPDF.PlaceTemplateEx](#) 3068
- [71.326 DynaPDF.RotateTemplate](#) 3109
- [71.486 DynaPDF.Table.SetCellTemplate](#) 3365

**Example Databases**

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)

- [DynaPDF/Generate Previews](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Tables](#)

### 71.274.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 18th August 2014, last changed 9th February 2015.

## 71.275 DynaPDF.InitColorManagement

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InitColorManagement"; PDF { ; DestSpace; Flags; DefInGray; DefInRGB; DefInCMYK; DeviceProfile; SoftProof } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestSpace

Optional

Destination color space. Can be DeviceRGB, DeviceCMYK or DeviceGray. Default is DeviceRGB. "DeviceRGB"

#### Flags

Optional

Flags for color management initialization. Can be Default or a combination of BPCompensation (1), Check-BlackPoint (2) or both (3).

"BPCompensation"

#### DefInGray

Optional

Path to gray profile. You can pass empty text if you have no gray profile.

"/Users/cs/Desktop/Generic Gray Profile.icc"

#### DefInRGB

Optional

Path to RGB profile. You can pass empty text if you have no RGB profile.

"/Users/cs/Desktop/Generic RGB Profile.icc"

#### DefInCMYK

Optional

Path to CMYK profile. You can pass empty text if you have no CMYK profile.

"/Users/cs/Desktop/Generic CMYK Profile.icc"

#### DeviceProfile

Optional

Path to Device profile, must be compatible with the output color space. Default is sRGB. You can pass empty text if you have no device profile.

#### SoftProof

Optional

Path to output profile for emulating output device. You can pass empty text if you have no soft proof profile.

**Result** Returns OK or error.

### Description

All color profiles are optional. Default profiles for DeviceGray and DeviceRGB color spaces (sRGB is default) are automatically created if not provided.

The most important color profile is the CMYK profile because it is not possible to create such a profile with build-in functions. If no CMYK profile is set DynaPDF renders CMYK only with color management if the file contains corresponding ICCBased color spaces or an embedded CMYK output intent.

The SoftProof profile specifies an arbitrary output color space that should be simulated.

Although Black Point Compensation (BPC) is not enabled by default, it is recommended to enable it because it improves the rendering quality of CMYK images a lot.

All profile paths must be absolute paths. Otherwise it is maybe not possible to reload a profile if necessary. DynaPDF must be able to reload the profiles if a PDF file contains ICCBased color spaces.

Initializing the color management requires a considerable amount of processing time. It is strongly recommended to use one PDF instance as long as possible so that it must not be initialized again when another PDF file will be rendered.

The color management can be initialized right after the PDF instance was created. If you want to initialize it on demand then make sure that you call the function before `OpenImportFile`. Otherwise it is possible that certain objects will be rendered without color management.

Returns OK on success.

See also `DynaPDF.InitColorManagementEx`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

See also [InitColorManagement](#) function in DynaPDF manual.

### Examples

Initialize with only a CMYK profile:

```
MBS("DynaPDF.InitColorManagement"; $pdf; "DeviceCMYK"; 3; ""; ""; "/Users/cs/Desktop/PDF_to_JPEG
Test/Generic CMYK Profile.icc")
```

Initialize for output to CMYK:

```
MBS("DynaPDF.InitColorManagement"; $pdf; "DeviceCMYK";
3;
"/Users/cs/Desktop/PDF_to_JPEG Test/Generic Gray Profile.icc";
"/Users/cs/Desktop/PDF_to_JPEG Test/Generic RGB Profile.icc";
"/Users/cs/Desktop/PDF_to_JPEG Test/Generic CMYK Profile.icc";
"/Users/cs/Desktop/PDF_to_JPEG Test/Generic CMYK Profile.icc"
)
```

### See also

- 71.276 `DynaPDF.InitColorManagementEx` 2990
- 71.294 `DynaPDF.New` 3032
- 71.320 `DynaPDF.RenderPage` 3093



71.275. *DYNAPDF.INITCOLORMANAGEMENT*

2989

- 124.2 Path.FileMakerPathToNativePath

6247

### **71.275.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 17th August 2015, last changed 21st September 2017.

## 71.276 DynaPDF.InitColorManagementEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InitColorManagementEx"; PDF { ; DestSpace; Flags; DefInGray; DefInRGB; DefInCMYK; DeviceProfile; SoftProof } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### DestSpace

Optional

Destination color space. Can be DeviceRGB, DeviceCMYK or DeviceGray. Default is DeviceRGB.

"DeviceRGB"

#### Flags

Optional

Flags for color management initialization. Can be Default or a combination of BPCompensation (1), Check-BlackPoint (2) or both (3).

"BPCompensation"

#### DefInGray

Optional

The gray profile as Container. You can pass empty text/value if you have no gray profile.

MyTable::gDefInGray

#### DefInRGB

Optional

The RGB profile as container. You can pass empty text/value if you have no RGB profile.

MyTable::gDefInRGB

#### DefInCMYK

Optional

The CMYK profile as container. You can pass empty text/value if you have no CMYK profile.

MyTable::gDefInCMYK

#### DeviceProfile

Optional

The Device profile as container, must be compatible with the output color space. Default is sRGB. You can pass empty text/value if you have no device profile.

MyTable::gDeviceProfile

#### SoftProof

Optional

The output profile as container for emulating output device. You can pass empty text/value if you have no soft proof profile.

MyTable::gSoftProof

**Result** Returns OK or error.

### **Description**

Enables color management the functions `DynaPDF.RenderPage`, `DynaPDF.RenderPDFFile` exactly like `DynaPDF.InitColorManagement` but accepts ICC profile as containers instead of file paths. See `DynaPDF.InitColorManagement` for further information.

Initializing the color management requires a considerable amount of processing time. It is strongly recommended to use one PDF instance as long as possible so that it must not be initialized again when another PDF file will be rendered.

The color management can be initialized right after the PDF instance was created.

See also [InitColorManagementEx](#) function in DynaPDF manual.

### **See also**

- 71.275 `DynaPDF.InitColorManagement` 2987
- 71.294 `DynaPDF.New` 3032
- 71.320 `DynaPDF.RenderPage` 3093
- 71.318 `DynaPDF.RenderPDFFile` 3089

### **Example Databases**

- [DynaPDF/Optimize PDF](#)

Created 27th January 2016, last changed 27th January 2016.

## 71.277 DynaPDF.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Initialize"; LibraryPath { ; SerialNumber } )

### Parameters

#### LibraryPath

The native file path to the DynaPDF library file. Can be empty for default file name with file in same folder as plugin.

\$path

#### SerialNumber

Optional

The DynaPDF serial number. If you don't provide a serial number, you run DynaPDF in demo mode.

\$serial

### Result

#### Description

You need to pass the path to the dynapdf library and the plugin loads it.

The DynaPDF dll/dylib files are included with the plugin archive in the examples folder. Please check our example projects on sample scripts to load and initialize DynaPDF.

If you provide a serial number, the plugin will also register DynaPDF. If you need a serial number, please order one from Monkeybread Software.

Starting with version 4.4, you can pass just the filename of library and the plugin finds it in the Extensions folder or in FileMaker's application folder.

Pro license is required for the following functions:

- BeginTransparencyGroup
- ConvertColors
- Create3DAnnot
- CreateSoftMask
- DynaPDF.FlattenForm
- DynaPDF.ImportPageAsTemplate
- DynaPDF.ImportPDFPage
- DynaPDF.Optimize
- DynaPDF.ParseContent

- DynaPDF.Print
- DynaPDF.RenderPage
- DynaPDF.RenderPDFFile and DynaPDF.RenderPDFFileEx
- DynaPDF.SetCMapDir
- DynaPDF.SetExtColorSpace, DynaPDF.SetExtFillColorSpace and DynaPDF.SetExtStrokeColorSpace.
- DynaPDF.SetUseGlobalImpFiles
- RenderAnnotOrField
- DynaPDF.PageStatistics
- DynaPDF.ListImages
- DynaPDF.ExtractImages

Lite is required for:

- AddRenderingIntent and AddRenderingIntentEx
- GetPageText
- Create form fields
- CloseFileEx
- ConvertEMFSpool
- CreateCollection
- CreateExtGState
- DynaPDF.SetAlpha
- DynaPDF.InsertMetafile and DynaPDF.InsertMetafileEx
- DynaPDF.OpenPDFFromFile and DynaPDF.OpenPDFFromContainer
- DynaPDF.SetPDFVersion for PDF/A and PDF/X
- DynaPDF.FindText
- DynaPDF.HighlightPattern

And all functions relying on those functions internally.

For testing you can pass "Lite", "Pro" or "Starter" for the license key. DynaPDF runs in demo mode, but will returners if you use functions which are not covered by the license.

Windows error 193 means that 64-bit FileMaker tried to load 32-bit library or 32-bit FileMaker tried to load 64-bit library. The bit level must match between app and library. For Mac OS X the error message will tell you about wrong architecture.

If you download the library files directly from dynaforms.com website, you can use the libdynapdf.dylib, libdynapdf.so or dynapdf.dll files, too.

For iOS with plugin version 7.3, you can just pass name of the dynapdf.framework or full file path. Please add the dynapdf.framework for the right platform (device vs. simulator) to your iOS SDK application and add it to the frameworks to link to in order to get it added to the app.

Starting version 9.5, the plugin will look into the same folder for the DLL as the plugin resides. And we still look for 32/64 suffixes to DLL name. If no name is provided, we look for dynapdf/dylib/so files.

If you get a crash here on MacOS, please check if crash report says Code Signature Invalid. Then you may need to code sign the dylib yourself to match the code signature of your runtime application. The dylib from MBS is normally code signed already and should work as is.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

#### **Examples**

Initialize with path for demo:

```
MBS( "DynaPDF.Initialize"; $path)
```

Initialize with path and serial for real usage:

```
MBS( "DynaPDF.Initialize"; $path; $serial)
```

Initialize on server with dynapdf.dylib in Server folder on Mac:

```
MBS( "DynaPDF.Initialize"; "/Library/FileMaker Server/dynapdf.dylib"; $serial)
```

Initialize on server with dynapdf.dylib in Server folder on Windows:

```
MBS( "DynaPDF.Initialize"; "C:\Programs\FileMaker Server\dynapdf.dll"; $serial)
```

Initialize when needed:

```
# Initialize DynaPDF
If [ MBS( "DynaPDF.IsInitialized" ) = 1 ]
If [ Get ( SystemPlatform ) = -3 ]
# iOS
```

```

Exit Script [ ]
Else If [ Get ( SystemPlatform ) = -2 ]
# Windows
Set Variable [ $path; Value: "dynapdf.dll" ]
Else
# Mac
Set Variable [ $path; Value: "dynapdf.dylib" ]
End If
Set Variable [ $r; Value: MBS( "DynaPDF.Initialize"; $path; "12345..." ) ]
If [ $r "OK" ]
Show Custom Dialog [ "DynaPDF failed to initialize"; $r ]
End If
End If

```

Initialize with check for server:

```

If [ MBS("IsServer") ]
# locate with absolute path
Set Variable [ $path; Value: "/Library/FileMaker Server/Database Server/Extensions/dynapdf.dylib" ]
Else
# locate with name in extensions folder
Set Variable [ $path; Value: "dynapdf.dylib" ]
End If

```

```

# initialize dynapdf
Set Variable [ $r; Value: MBS( "DynaPDF.Initialize"; $path ) ]

```

Write library to disk from container and initialize:

```

# your license key if you have one
Set Variable [ $SerialNumber; Value:"" ]
# where we store the library file
Set Variable [ $tempFolder; Value:MBS( "Folders.UserTemporary" ) ]
If [ MBS( "IsMacOSX" ) ]
# library for Mac from Container
Set Variable [ $container; Value:DynaPDF::DynaPDFLibMacContainer ]
Set Variable [ $filename; Value:"dynapdf.dylib" ]
Else If [ MBS( "IsWindows" ) ]
# library for Win from Container
Set Variable [ $container; Value:DynaPDF::DynaPDFLibWinContainer ]
Set Variable [ $filename; Value:"dynapdf.dll" ]
Else
Exit Script [ ]
End If
Set Variable [ $filepath; Value:MBS( "Path.AddPathComponent"; $tempFolder; $filename ) ]
# write file
Set Variable [ $r; Value:MBS( "Files.WriteFile"; $container; $filepath ) ]

```

```

If [ $r "OK" ]
Show Custom Dialog [ "Writing file failed"; $r ]
End If
# now initialize
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; $filepath; $SerialNumber) ]
If [ $r "OK" ]
Show Custom Dialog [ "DynaPDF initialization failed"; $r ]
End If

```

Register with Startup script for server and client:

Startup Script:

```

# Register for client
Perform Script [ "InitMBS" ]
# Register for server. Will be ignored if no server or no plugin installed on server
Perform Script on Server [ "InitMBS" ]

```

InitMBS script:

```

# Enable debug logging. Shows messages in DebugView/Console.app
Set Variable [ $r; Value:MBS("Trace") ]
# Register if needed for right platform
If [ MBS("IsRegistered") = 0 ]
If [ MBS("IsRuntime") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Runtime"; 123; 123) ]
Else If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Server"; 123; 123) ]
Else If [ MBS("IsClient") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "5 Seats"; 123; 123) ]
Else
Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If
# May initialize other stuff
# like dynapdf with library in extensions folder
If [ MBS("DynaPDF.IsInitialized") = 0 ]
Set Variable [ $DynaPDFLicense; Value:"1003637-16022016-3-8-12-685C57F..." ]
If [ MBS("IsWindows") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dll"; $DynaPDFLicense) ]
Else If [ MBS("IsMacOSX") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dylib"; $DynaPDFLicense) ]
Else

```



```

Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If

```

Initialize on server with dynapdf.so in Server folder on FileMaker Cloud (Linux):

```
MBS( "DynaPDF.Initialize"; "/opt/FileMaker/FileMaker Server/dynapdf.so"; $serial)
```

Initialize in iOS:

```

MBS("DynaPDF.Initialize"; "DynaPDF.framework")
# framework or dylib in Frameworks folder inside app, name case sensitive!

```

Write DynaPDF library to same folder as plugin:

```

Goto Layout [ "MBS Update" (MBS Update) ; Animation: None ]
Go to Record/Query/Page [ First ]
Set Variable [ $folder ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $folder ; Value: MBS( "Path.RemoveLastPathComponent"; $folder ) ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "dynapdf.dylib" ) ]
Set Variable [ $Plat ; Value: MBS("Files.MoveToTrash"; $path) ]
Set Variable [ $Plat ; Value: MBS("Files.WriteFile"; MBS Update::dynaPdfMac; $path) ]

```

Initialize automatically and look in same folder as plugin for the DLL/dylib/so file:

```
MBS("DynaPDF.Initialize"; ""; $license)
```

### See also

- 71.286 DynaPDF.IsInitialized 3017
- 71.504 DynaPDF.Uninitialize 3398
- 82.16 Folders.UserTemporary 4245
- 127.5 IsClient 6373
- 127.13 IsRegistered 6382
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.8 Path.RemoveLastPathComponent 6257

- 127.49 Register 6428
- 127.52 Trace 6434

### Example Databases

- [CURL/CURL Download PDF and add preview with DynaPDF](#)
- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Click Points](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/Create DeviceN ColorSpace](#)
- [DynaPDF/DynaPDF Test](#)
- [DynaPDF/Extract Text](#)
- [DynaPDF/Fill Form Fields](#)
- [DynaPDF/Print PDF with options](#)
- [DynaPDF/Signature Appearance](#)

### 71.277.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr3](#)
- [MBS FileMaker Plugin, version 9.5pr6](#)
- [DynaPDF for iOS](#)
- [Neues MBS FileMaker Plugin 9.2](#)
- [MBS FileMaker Plugin 9.2 - More than 5800 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 8.5pr6](#)
- [DynaPDF for iOS](#)
- [MBS FileMaker Plugin, version 8.0pr7](#)
- [Properly register MBS FileMaker Plugin](#)

### 71.277.2 FileMaker Magazin

- [Ausgabe 1/2018, Seite 24](#)
- [Ausgabe 6/2016, Seite 25](#)

## 71.278 DynaPDF.InsertBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InsertBookmark"; PDF; Title; Parent; DestPage { ; Open; AddChildren } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Title

Bookmark title

"Chapter 2"

#### Parent

Immediate parent bookmark

-1

#### DestPage

Destination page that should be opened.

5

#### Open

Optional

Optionally, open or close the node when it contains children. Default 0.

0

#### AddChildren

Optional

Optionally, add all bookmarks below the new one as children. Default 0.

0

**Result** Returns new bookmark handle or error.

### Description

It sets also the page mode to UseOutlines (see DynaPDF.SetPageMode). If the outline tree should not be shown when opening the document then set the page mode back to UseNone or another value before closing the document.

Parent can be the handle of the parent bookmark after the new bookmark should be inserted or -1. If Parent is set to -1 the bookmark is inserted as the first root node in the outline tree.

If the parameter AddChildren is set to true, the bookmarks below the new one are added as children to the new bookmark. This can be useful when merging PDF files and if the bookmarks from each PDF file should be separated.

Notice: When inserting a bookmark the handles of all bookmarks below the new one are incremented by one.

See also [InsertBookmark](#) function in DynaPDF manual.

**See also**

• 71.3 DynaPDF.AddBookmark	2595
• 71.32 DynaPDF.ChangeBookmark	2642
• 71.72 DynaPDF.DeleteBookmark	2715
• 71.111 DynaPDF.FindNextBookmark	2775
• 71.128 DynaPDF.GetBookmark	2803
• 71.279 DynaPDF.InsertBookmarkEx	3001
• 71.294 DynaPDF.New	3032
• 71.420 DynaPDF.SetPageMode	3262

Created 18th August 2014, last changed 18th August 2014.

**71.279 DynaPDF.InsertBookmarkEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InsertBookmarkEx"; PDF; Title; Parent; NamedDest { ; Open; AddChildren } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Title**

The Bookmark title.

"Chapter 1"

**Parent**

Immediate parent bookmark. Must be a valid bookmark handle or -1.

-1

**NamedDest**

Named Destination handle

\$Dest

**Open**

Optional

Optional, whether to open or close the node when it contains children. Default is 0 to close.

1

**AddChildren**

Optional

Optionally, add all bookmarks below the new one as children. Default 0.

0

**Result** Returns new bookmark handle or error.

**Description**

It sets also the page mode to UseOutlines (see DynaPDF.SetPageMode). If the outline tree should not be shown when opening the document then set the page mode back to UseNone or another value before closing the document.

Parent can be the handle of the parent bookmark after the new bookmark should be inserted or -1. If Parent is set to -1 the bookmark is inserted as the first root node in the outline tree.

If the parameter AddChildren is set to 1, the bookmarks below the new one are added as children to the new bookmark. This can be useful when merging PDF files and if the bookmarks from each PDF file should be separated.

NamedDest must be a valid handle from a named destination, see DynaPDF.CreateNamedDest for further information. If the destination lies in another document then insert the bookmark with DynaPDF.InsertBookmark, create an extended Go To Remote Action with DynaPDF.CreateGoToRActionEx, and add the action finally to the bookmark with DynaPDF.AddActionToObj.

Notice: When inserting a bookmark the handles of all bookmarks below the new one are incremented by one.

See also [InsertBookmarkEx](#) function in DynaPDF manual.

**See also**

- 71.1 DynaPDF.AddActionToObj 2591
- 71.3 DynaPDF.AddBookmark 2595
- 71.4 DynaPDF.AddBookmarkEx 2597
- 71.55 DynaPDF.CreateGoToRAction 2681
- 71.56 DynaPDF.CreateGoToRActionEx 2683
- 71.60 DynaPDF.CreateNamedDest 2693
- 71.111 DynaPDF.FindNextBookmark 2775
- 71.278 DynaPDF.InsertBookmark 2999
- 71.294 DynaPDF.New 3032
- 71.420 DynaPDF.SetPageMode 3262

Created 18th August 2014, last changed 18th August 2014.

**71.280 DynaPDF.InsertImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InsertImage"; PDF; Container; PosX; PosY; ScaleWidth; ScaleHeight { ; Index } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Container**

The image container value. Pass the container field or a variable with the container content.

\$image

**PosX**

The X position (from left of page)

0

**PosY**

The Y position (from bottom of page)

0

**ScaleWidth**

The scaled width of the image.

\$width

**ScaleHeight**

The scaled height of the image.

\$height

**Index**

Optional

The index of the image for multi image files.

1

**Result** Returns image handle number or error message.

**Description**

Same as DynaPDF.InsertImageFile, but reading from container. A specific image of a multi-page image can be selected with the parameter Index; the first image is denoted by the index 1. If the image file is not a multi-page image, the parameter Index is ignored. To determine the number of images stored in an image file use the function DynaPDF.GetImageCount. The usage of the function is described in detail at DynaPDF.InsertImageFile.

See also pdfInsertImage in dynapdf manual.

Please use DynaPDF.SetCompressionFilter to define the compression of your images. Use "flate" there for no jpeg compression. Use DynaPDF.SetJPEGQuality to define JPEG compression quality. also use Dy-

naPDF.SetSaveNewImageFormat with parameter 0 to embed JPEGs to PDF without recompression. Also you should turn off transparency by key color using DynaPDF.SetUseTransparency. You can use DynaPDF.SetAlpha to set fill transparency to affect how images gain extra transparency.

Coordinates in PDF are by default in a 72dpi raster with lower left being 0/0 point. You can query page size by DynaPDF.GetPageWidth and DynaPDF.GetPageHeight functions.

### Examples

Set a few options and insert image from file:

```
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "flate" )
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 0 )
MBS( "DynaPDF.SetResolution"; $PDF; 300 )
MBS( "DynaPDF.SetUseTransparency"; $PDF; 0 )
MBS( "DynaPDF.InsertImage"; $PDF; MyDatabase::ImageContainer; 72; 72; 300; 200; 1 )
```

Insert and reduce quality to save space:

```
MBS( "DynaPDF.SetJPEGQuality"; $PDF; 75 )
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "jpeg" )
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 1 )
MBS( "DynaPDF.SetResolution"; $PDF; 100 )
MBS( "DynaPDF.SetUseTransparency"; $PDF; 0 )
MBS( "DynaPDF.InsertImage"; $PDF; MyDatabase::ImageContainer; 72; 72; 300; 200; 1 )
```

Loop over all pages and insert an image on each page:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitDynaPDF" ; Parameter: ]
End If
# Start new PDF environment
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Watermark pages::InputPDF) ]
# import a page
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# now edit all pages
Set Variable [ $count ; Value: MBS("DynaPDF.GetPageCount"; $pdf) ]
Set Variable [ $index ; Value: 1 ]
Loop
Set Variable [ $r ; Value: MBS("DynaPDF.EditPage"; $pdf; $index) ]
Set Variable [ $index ; Value: $index + 1 ]
# Options for saving image
Set Variable [ $r ; Value: MBS("DynaPDF.SetSaveNewImageFormat"; $pdf; ,5) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetCompressionFilter"; $pdf; "jpeg") ]
# Insert image
```



```

Set Variable [ $w ; Value: 200 ]
Set Variable [ $h ; Value: 200 ]
Set Variable [ $x ; Value: (MBS("DynaPDF.GetPageWidth"; $pdf) - $w)/2 ]
Set Variable [ $y ; Value: (MBS("DynaPDF.GetPageHeight"; $pdf) - $h)/2 ]
Set Variable [ $r ; Value: MBS("DynaPDF.InsertImage"; $pdf; Watermark pages::WatermarkPicture; $x;
$y; $w; $h) ]
# End page
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
Exit Loop If [ $count <$index ]
End Loop
# Set title
Set Variable [ $r ; Value: MBS("DynaPDF.SetDocInfo"; $pdf; "Title"; "Test PDF") ]
# Save
Set Variable [ $PDFData ; Value: MBS("DynaPDF.Save"; $pdf; "hello.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
Set Field [ Watermark pages::OutputPDF ; $PDFData ]

```

Place an image centered on the page with border:

```

Set Variable [ $r ; Value: MBS("DynaPDF.AppendPage"; $pdf) ]
# put a background in
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; ,8; ,8; ,8) ]
Set Variable [ $r ; Value: MBS("DynaPDF.Rectangle"; $pdf; 0; 0; MBS( "DynaPDF.GetPageWidth"; $PDF
); MBS( "DynaPDF.GetPageHeight"; $PDF ); "fill") ]
# options for saving image
Set Variable [ $r ; Value: MBS("DynaPDF.SetSaveNewImageFormat"; $pdf; 0) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetResolution"; $pdf; 300) ]
# read size of image
Set Variable [ $r ; Value: MBS("DynaPDF.ReadImageFormat"; $pdf; Merge PDFs::InputImage) ]
Set Variable [ $ImageWidth ; Value: GetAsNumber (LeftValues ( $r ; 1 )) ]
Set Variable [ $ImageHeight ; Value: GetAsNumber (MiddleValues ( $r ; 2; 1 )) ]
# The destination area where to put PDF
Set Variable [ $TargetX ; Value: 50 ]
Set Variable [ $TargetY ; Value: 50 ]
Set Variable [ $TargetWidth ; Value: MBS( "DynaPDF.GetPageWidth"; $PDF ) - 100 ]
Set Variable [ $TargetHeight ; Value: MBS( "DynaPDF.GetPageHeight"; $PDF ) - 100 ]
# calculate scale factor
Set Variable [ $factor ; Value: Min( $TargetHeight / $ImageHeight; $TargetWidth / $ImageWidth) ]
# calculate output size
Set Variable [ $DestWidth ; Value: $ImageWidth * $factor ]
Set Variable [ $DestHeight ; Value: $ImageHeight * $factor ]
# Center in target area
Set Variable [ $DestX ; Value: $TargetX + ($TargetWidth-$DestWidth) / 2 ]
Set Variable [ $DestY ; Value: $TargetY + ($TargetHeight-$DestHeight) / 2 ]
# insert the image
Set Variable [ $r ; Value: MBS("DynaPDF.InsertImage"; $pdf; Merge PDFs::InputImage; $DestX; $DestY;
$DestWidth; $DestHeight) ]

```

```
# close page and move to next record  
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
```

**See also**

- [71.281 DynaPDF.InsertImageFile](#) 3007
- [71.290 DynaPDF.ListImages](#) 3025
- [71.329 DynaPDF.Save](#) 3116
- [71.359 DynaPDF.SetCompressionFilter](#) 3161
- [71.362 DynaPDF.SetDocInfo](#) 3165
- [71.389 DynaPDF.SetFillColor](#) 3204
- [71.400 DynaPDF.SetJPEGQuality](#) 3226
- [71.425 DynaPDF.SetResolution](#) 3272
- [71.441 DynaPDF.SetUseTransparency](#) 3296
- [123.19 OCR.WriteToPDF](#) 6240

**Example Databases**

- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/PSD Conversion](#)
- [DynaPDF/Watermark pages](#)
- [OCR/OCR with DynaPDF](#)

**71.280.1 Blog Entries**

- [QR Codes for Invoices in Switzerland](#)
- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 18th August 2014, last changed 2nd December 2019.

**71.281 DynaPDF.InsertImageFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.InsertImageFile"; PDF; FilePath; PosX; PosY; ScaleWidth; ScaleHeight { ; Index } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**FilePath**

The native file path to the image file.

\$path

**PosX**

The X position (from left of page)

0

**PosY**

The Y position (from bottom of page)

0

**ScaleWidth**

The scaled width of the image.

\$width

**ScaleHeight**

The scaled height of the image.

\$height

**Index**

Optional

The index of the image for multi image files.

1

**Result** Returns image handle number or error message.

**Description**

The parameter Index specifies the image index of a multi- page image. The first image index is denoted by 1. If the image file is not a multi-page image, the parameter Index will be ignored. To determine the number of images stored in an image file call the function DynaPDF.GetImageCount.

See also DynaPDF Manual for pdfInsertImageEx function.

Positions and sizes are in PDF coordinates which normally is 72 dpi.

Please use DynaPDF.SetCompressionFilter to define the compression of your images. Use "flate" there for no jpeg compression. Use DynaPDF.SetJPEGQuality to define JPEG compression quality. also use DynaPDF.SetSaveNewImageFormat with parameter 0 to embed JPEGs to PDF without recompression. Also

you should turn off transparency by key color using `DynaPDF.SetUseTransparency`.  
You can use `DynaPDF.SetAlpha` to set fill transparency to affect how images gain extra transparency.

Coordinates in PDF are by default in a 72dpi raster with lower left being 0/0 point. You can query page size by `DynaPDF.GetPageWidth` and `DynaPDF.GetPageHeight` functions.

### Examples

Set a few options and insert image from file:

```
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "flate" )
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 0 )
MBS( "DynaPDF.SetResolution"; $PDF; 300 )
MBS( "DynaPDF.SetUseTransparency"; $PDF; 0 )
MBS( "DynaPDF.InsertImageFile"; $PDF; "C:\test.jpg"; 72; 72; 300; 200; 1 )
```

Insert and reduce quality to save space:

```
MBS( "DynaPDF.SetJPEGQuality"; $PDF; 75 )
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "jpeg" )
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 1 )
MBS( "DynaPDF.SetResolution"; $PDF; 100 )
MBS( "DynaPDF.SetUseTransparency"; $PDF; 0 )
MBS( "DynaPDF.InsertImageFile"; $PDF; "C:\test.jpg"; 72; 72; 300; 200; 1 )
```

### See also

- 71.179 `DynaPDF.GetImage` 2862
- 71.180 `DynaPDF.GetImageCount` 2866
- 71.228 `DynaPDF.GetPageHeight` 2927
- 71.234 `DynaPDF.GetPageWidth` 2935
- 71.280 `DynaPDF.InsertImage` 3003
- 71.282 `DynaPDF.InsertMetafile` 3010
- 71.294 `DynaPDF.New` 3032
- 71.359 `DynaPDF.SetCompressionFilter` 3161
- 71.425 `DynaPDF.SetResolution` 3272
- 71.441 `DynaPDF.SetUseTransparency` 3296

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)

### **71.281.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 18th August 2014, last changed 1st February 2015.

**71.282 DynaPDF.InsertMetafile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.InsertMetafile"; PDF; Filename; PosX; PosY; Width; Height { ; ViewLeft; ViewTop; ViewRight; ViewBottom } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Filename**

The native file path to the EMF file.

"C:\test.wmf"

**PosX**

X-Coordinate of output rectangle

100

**PosY**

Y-Coordinate of output rectangle.

100

**Width**

Width of output rectangle.

**Height**

Height of output rectangle.

**ViewLeft**

Optional

The left coordinate of the view rectangle.

**ViewTop**

Optional

The top coordinate of the view rectangle.

**ViewRight**

Optional

The right coordinate of the view rectangle.

**ViewBottom**

Optional

The bottom coordinate of the view rectangle.

**Result** Returns OK or error.

**Description**

The function converts an Enhanced Meta File (EMF) or Windows Meta File (WMF) to native PDF vector

graphics.

EMF+ files do not work.

Requires DynaPDF Lite license.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer. See also [InsertMetafile](#) function in DynaPDF manual.

**See also**

- 71.262 `DynaPDF.GetWMFDefExtent` 2966
- 71.263 `DynaPDF.GetWMFPixelPerInch` 2967
- 71.277 `DynaPDF.Initialize` 2992
- 71.281 `DynaPDF.InsertImageFile` 3007
- 71.283 `DynaPDF.InsertMetafileEx` 3012
- 71.294 `DynaPDF.New` 3032
- 124.2 `Path.FileMakerPathToNativePath` 6247

Created 18th May 2017, last changed 27th July 2018.

**71.283 DynaPDF.InsertMetafileEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.InsertMetafileEx"; PDF; Data; PosX; PosY; Width; Height { ; ViewLeft; ViewTop; ViewRight; ViewBottom } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Data**

The container value with EMF or WMF file inside.

**PosX**

X-Coordinate of output rectangle  
100

**PosY**

Y-Coordinate of output rectangle.  
100

**Width**

Width of output rectangle.

**Height**

Height of output rectangle.

**ViewLeft**

Optional  
The left coordinate of the view rectangle.

**ViewTop**

Optional  
The top coordinate of the view rectangle.

**ViewRight**

Optional  
The right coordinate of the view rectangle.

**ViewBottom**

Optional  
The bottom coordinate of the view rectangle.

**Result** Returns OK or error.

**Description**

The function converts an Enhanced Meta File (EMF) or Windows Meta File (WMF) to native PDF vector graphics.



The view is optional, see `InsertMetafileExtEx` in DynaPDF help file.  
EMF+ files do not work.

Requires DynaPDF Lite license.

See also [InsertMetafileEx](#) function in DynaPDF manual.

**See also**

- 71.277 `DynaPDF.Initialize` 2992
- 71.282 `DynaPDF.InsertMetafile` 3010
- 71.294 `DynaPDF.New` 3032

Created 18th May 2017, last changed 27th July 2018.

## 71.284 DynaPDF.IsColorPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.IsColorPage"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error.

### Description

If the parameter GrayIsColor is true, gray shades are treated as color. The page which should be checked must be opened with the function DynaPDF.EditPage beforehand.

Complex color spaces such as Lab, Separation, DeviceN, Colored Tiling Patterns, and Shadings are always treated as color. The function does not return when a color is set, the color must be used by an object.

If an object of the page uses a color, the return value is 1. If no object uses a color the return value is 0.

See also [IsColorPage](#) function in DynaPDF manual.

### Examples

Check if first page has color:

```
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Start::SourcePDF) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# Query image list
Set Variable [ $r ; Value: MBS("DynaPDF.EditPage"; $pdf; 1) ]
Show Custom Dialog [ MBS( "DynaPDF.IsColorPage"; $PDF ) ]
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.46 DynaPDF.ConvertColors 2662
- 71.88 DynaPDF.EditPage 2736
- 71.94 DynaPDF.EndPage 2747
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.285 DynaPDF.IsEmptyPage 3016
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039

71.284. *DYNAPDF.ISCOLORPAGE*

3015

- 71.316 DynaPDF.Release

3086

### **71.284.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr4](#)

Created 6th February 2015, last changed 14th May 2019.

## 71.285 DynaPDF.IsEmptyPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.IsEmptyPage"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 1, 0 or error.

### Description

The page which should be checked must be opened with the function DynaPDF.EditPage beforehand. The function does not check whether the buffer size of a page is zero to determine whether a page is empty. Instead, the content stream will be parsed until a visible object can be found.

If no visible object can be found the return value is 1. If a visible object can be found the return value is 0. See also [IsEmptyPage](#) function in DynaPDF manual.

### See also

- [71.88 DynaPDF.EditPage](#) 2736
- [71.284 DynaPDF.IsColorPage](#) 3014
- [71.294 DynaPDF.New](#) 3032

### 71.285.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr2](#)

Created 6th February 2015, last changed 5th October 2016.

**71.286 DynaPDF.IsInitialized**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.IsInitialized" )

**Result** Returns 1 or 0.

**Description**

If value is 1, everything is okay.

If value is zero, the library is not initialized and you need to call DynaPDF.Initialize function.

On a hosted database this function is better than using a global variable, as the variable can't see if initialization was made on server or client side.

**Examples**

Initialize when needed:

```
# Initialize DynaPDF
If [ MBS( "DynaPDF.IsInitialized" ) = 1 ]
If [ Get ( SystemPlatform ) = -3 ]
# iOS
Exit Script [ ]
Else If [ Get ( SystemPlatform ) = -2 ]
# Windows
Set Variable [ $path; Value: "dynapdf.dll" ]
Else
# Mac
Set Variable [ $path; Value: "dynapdf.dylib" ]
End If
Set Variable [ $r; Value: MBS( "DynaPDF.Initialize"; $path; "12345..." ) ]
If [ $r = "OK" ]
Show Custom Dialog [ "DynaPDF failed to initialize"; $r ]
End If
End If
```

**See also**

- 71.92 DynaPDF.EnableEncryption 2743
- 71.299 DynaPDF.Optimize 3046
- 71.307 DynaPDF.Print 3070
- 71.310 DynaPDF.Print.SetDevMode 3076
- 71.321 DynaPDF.ReplaceImage 3097
- 71.461 DynaPDF.Table.Create 3326

- 71.465 DynaPDF.Table.Draw 3332
- 71.504 DynaPDF.Uninitialize 3398
- 127.13 IsRegistered 6382
- 125.7 PDFKit.GeneratePreview 6272

### Example Databases

- [Barcode/QRCode PDF](#)
- [DynaPDF/Bookmarks](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Extract Text](#)
- [DynaPDF/Fill Form Fields](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)

### 71.286.1 Blog Entries

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Properly register MBS FileMaker Plugin](#)
- [When to initialize plugin libraries](#)
- [MBS Filemaker Plugin, version 4.2pr6](#)

### 71.286.2 FileMaker Magazin

- [Ausgabe 3/2019, Seite 36](#)
- [Ausgabe 2/2019, Seite 27](#)
- [Ausgabe 2/2019, Seite 25](#)
- [Ausgabe 1/2018, Seite 24](#)

- Ausgabe 1/2018, Seite 23
- Ausgabe 6/2017, Seite 26
- Ausgabe 6/2016, Seite 24
- Ausgabe 6/2016, Seite 23

Created 18th August 2014, last changed 18th December 2015.

**71.287 DynaPDF.LineAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.LineAnnot"; PDF; x1; y1; x2; y2; LineWidth; LineEndStyleStart; LineEndStyleEnd; FillColor; StrokeColor; ColorSpace; Author; Subject; Comment )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**x1**

X-Coordinate of the start point

100

**y1**

Y-Coordinate of the start point

100

**x2**

X-Coordinate of the end point

100

**y2**

Y-Coordinate of the end point

100

**LineWidth**

Line width of the circle or ellipse

2

**LineEndStyleStart**

End line style of the start point. Can be None, Butt, Circle, ClosedArrow, Diamon, OpenArrow, RClosedArrow, ROpenArrow, Slash or Square.

"Circle"

**LineEndStyleEnd**

End line style of the end point.

"Circle"

**FillColor**

Fill color for line.

200

**StrokeColor**

Stroke color for line.

255

**ColorSpace**



Color space of the fill and stroke colors.  
"RGB"

**Author**

The author name. Can be empty.  
"Christian Schmitz"

**Subject**

The subject to use. Can be empty.

**Comment**

The comment. Can be empty.

**Result** Returns annotation handle or error.

**Description**

The simplest form of a line annotation represents a simple straight line that has an associated PopUp annotation to display the string Content in a floating window.

The initial window state of the associated PopUp annotation is closed by default but the state can be changed with `DynaPDF.SetAnnotOpenState` if necessary.

The coordinates are interpreted in current user space. Any transformation that was applied on the coordinate system will be taken into account.

The parameter `FillColor` is only used if the line end style of the start or end point has an interior that can be filled. The special constant `NO_COLOR` (4294967281) represents a transparent interior.

The stroke color is required and must not be set to `NO_COLOR` (4294967281).

**Measure lines**

A measure line is an extended line annotation that has additional properties. To create a measure line create first the line annotation and set then the measure line specific properties with `DynaPDF.SetLineAnnotParms`. The parameter `LineWidth` must be in the range 0 through 12 units. Values outside the valid range will be adjusted to the nearest allowed value. A zero line width produces a 1 pixel wide line.

The line end styles can be changed if necessary with `DynaPDF.SetAnnotLineEndStyle`.

See also [LineAnnot](#) function in DynaPDF manual.

**See also**

- 71.41 `DynaPDF.CircleAnnot` 2654
- 71.110 `DynaPDF.FindLinkAnnot` 2774
- 71.288 `DynaPDF.LineTo` 3022
- 71.294 `DynaPDF.New` 3032
- 71.344 `DynaPDF.SetAnnotLineEndStyle` 3142
- 71.346 `DynaPDF.SetAnnotOpenState` 3144
- 71.451 `DynaPDF.SquareAnnot` 3309
- 71.452 `DynaPDF.StampAnnot` 3311
- 71.500 `DynaPDF.TextAnnot` 3391

## 71.288 DynaPDF.LineTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.LineTo"; PDF; PosX; PosY )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

The x-coordinate.

\$x

#### PosY

The y-coordinate.

\$y

**Result** Returns OK or error.

### Description

The start point must be set with another vector graphic function beforehand, such as DynaPDF.MoveTo or other functions which draw an open path segment.

In PDF all vector graphics are defined as paths, a path is invisible as long it was not stroked, filled or both. See also Path construction and Painting.

See also [LineTo](#) function in DynaPDF manual.

### Examples

Draw two lines in black:

```
Set Variable [ $r; Value:MBS ( "DynaPDF.SetStrokeColor" ; $pdf ; 0; 0; 0 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.SetLineWidth" ; $pdf ; 1 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 20; 20 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 20; 40 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 30; 30 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 30; 50 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.StrokePath" ; $pdf ) ]
```

Draw triangle path:

```
# blue color
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 0; 0; 1) ]
# go to start point
Set Variable [ $r ; Value: MBS("DynaPDF.MoveTo"; $pdf; 100; 100) ]
# add more points
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 200; 100) ]
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 100; 200) ]
```

71.288. *DYNAPDF.LINETO* 3023

# and fill

Set Variable [ \$r ; Value: MBS("DynaPDF.ClosePath"; \$pdf; "fill") ]

#### See also

- 71.26 DynaPDF.Bezier123 2634
- 71.43 DynaPDF.ClipPath 2657
- 71.45 DynaPDF.ClosePath 2660
- 71.287 DynaPDF.LineAnnot 3020
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032
- 71.389 DynaPDF.SetFillColor 3204
- 71.404 DynaPDF.SetLineWidth 3232
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.453 DynaPDF.StrokePath 3313

#### 71.288.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 7th March 2020.

## 71.289 DynaPDF.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.List" )

**Result** Returns list or error.

### Description

Returns IDs for all DynaPDF objects in memory. If this list is growing, you may have forgotten to call DynaPDF.Release in your scripts.

Normally after all scripts are done, this list should be empty.

### See also

- 71.180 DynaPDF.GetImageCount 2866
- 71.277 DynaPDF.Initialize 2992
- 71.307 DynaPDF.Print 3070
- 71.316 DynaPDF.Release 3086

### 71.289.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr3](#)

Created 12nd February 2018, last changed 12nd February 2018.

**71.290 DynaPDF.ListImages**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ListImages"; PDF { ; Flags; Page } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Flags**

Optional

Optional, various flags for PDF parsing.

0

**Page**

Optional

The page number to look at. If missing or empty, we process all pages.

123

**Result** Returns list or error.

**Description**

This is similar to DynaPDF.ExtractImages, but does not write to disk, but returns information. For the flags, please check the pf flags in dynapdf manual.

The result is a list of values.

First value is the number of images.

Then for each image you get

- Index of image.
- Page Numbers this image is on separated by space.
- Type of image file we would write when extracting: TIFF, JPEG or JPEG2000.
- Size of image in bytes
- Bits per Pixel, e.g. 8
- Number of Components, e.g. 3 for RGB, 4 for CMYK
- Width in Pixel
- Height in Pixel
- 1 for inline graphic, else 0.

- 1 for interpolation enabled, else 0.
- 1 for transparency enabled, else 0.
- Rendering Intent, e.g. AbsoluteColorimetric, Perceptual, RelativeColorimetric, Saturation or None.
- Size of metadata stream (XMP)
- Color Space Type, e.g. DeviceRGB
- ICC Color Profile Type if one exists, else none.
- ICC Color Profile alternate color space.
- Size of ICC Profile data
- Number of input components
- Number of output components
- Number of colors (for palettes)
- Colorants Count
- Colorants names separated by tab.
- Horizontal resolution of JPEG if available.
- Vertical resolution of JPEG if available.
- Display Width
- Display Height

The ICC Profile is often not part of the PDF as most software converts to DeviceCMYK or uses current profile set in PDF. Display width and height is calculated by the plugin. That is the size of points on the page the PDF is drawn. If Display width and pixel width are the same, the image is displayed with 72 dpi.

This function uses the parser interface in DynaPDF and needs a Pro license.

**See also**

- |                                |      |
|--------------------------------|------|
| • 71.100 DynaPDF.ExtractImages | 2755 |
| • 71.179 DynaPDF.GetImage      | 2862 |
| • 71.180 DynaPDF.GetImageCount | 2866 |
| • 71.277 DynaPDF.Initialize    | 2992 |
| • 71.280 DynaPDF.InsertImage   | 3003 |
| • 71.294 DynaPDF.New           | 3032 |

### Example Databases

- [DynaPDF/List Images](#)

### 71.290.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 19th July 2016, last changed 19th March 2019.

## 71.291 DynaPDF.LockLayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.LockLayer"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

### Description

The state of a locked layer cannot be changed through the user interface of a PDF viewer. However, the state of locked layers can still be changed via Javascript or DynaPDF.SetOCGState actions. See also [LockLayer](#) function in DynaPDF manual.

### See also

- 71.23 DynaPDF.BeginLayer 2631
- 71.93 DynaPDF.EndLayer 2746
- 71.294 DynaPDF.New 3032
- 71.410 DynaPDF.SetOCGState 3243
- 71.503 DynaPDF.UnLockLayer 3397

Created 6th February 2015, last changed 6th February 2015.



## 71.292 DynaPDF.MovePage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.MovePage"; PDF; SourcePage; DestPage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### SourcePage

Source page number. From 1 to DynaPDF.PageCount.  
1

#### DestPage

Destination page number. From 1 to DynaPDF.PageCount.  
2

**Result** Returns OK or error.

### Description

Moving a page requires some processing time if the document contains many bookmarks or page links because the destinations of all links and bookmarks must be modified so that they refer still to the correct page. For example, if the first page of a document should be moved to the last page, all pages of the document must be reordered. If the document is large and if it contains a few thousands page links as well as bookmarks, this action can take a while.

The parameter Source must be a valid page number in the document. Page numbering starts at one. If the destination page is larger than the source page, the page number can be greater than the number of pages currently available in the document. The document is then filled with empty pages until the destination page becomes valid.

If the destination page is smaller than the source page number, both page numbers must already exist in the document.

It is also possible to exchange two pages with DynaPDF.ExchangePage.

See also [MovePage](#) function in DynaPDF manual.

### See also

- 71.88 DynaPDF.EditPage 2736
- 71.94 DynaPDF.EndPage 2747
- 71.98 DynaPDF.ExchangePages 2752
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032

Created 2nd September 2014, last changed 16th December 2019.

## 71.293 DynaPDF.MoveTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.MoveTo"; PDF; PosX; PosY )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

The x-coordinate.

\$x

#### PosY

The y-coordinate.

\$y

**Result** Returns OK or error.

### Description

This function must be called before a line or curved path segment can be drawn. See also DynaPDF.LineTo, DynaPDF.Bezier\_1\_2\_3.

See also [MoveTo](#) function in DynaPDF manual.

### Examples

Draw two lines in black:

```
Set Variable [ $r; Value:MBS ( "DynaPDF.SetStrokeColor" ; $pdf ; 0; 0; 0 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.SetLineWidth" ; $pdf ; 1 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 20; 20 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 20; 40 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 30; 30 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 30; 50 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.StrokePath" ; $pdf ) ]
```

Draw triangle path:

```
# blue color
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 0; 0; 1) ]
# go to start point
Set Variable [ $r ; Value: MBS("DynaPDF.MoveTo"; $pdf; 100; 100) ]
# add more points
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 200; 100) ]
Set Variable [ $r ; Value: MBS("DynaPDF.LineTo"; $pdf; 100; 200) ]
# and fill
Set Variable [ $r ; Value: MBS("DynaPDF.ClosePath"; $pdf; "fill") ]
```

71.293. *DYNAPDF.MOVETO*

3031

**See also**

- 71.27 DynaPDF.Bezier13 2636
- 71.28 DynaPDF.Bezier23 2637
- 71.43 DynaPDF.ClipPath 2657
- 71.45 DynaPDF.ClosePath 2660
- 71.288 DynaPDF.LineTo 3022
- 71.292 DynaPDF.MovePage 3029
- 71.294 DynaPDF.New 3032
- 71.389 DynaPDF.SetFillColor 3204
- 71.404 DynaPDF.SetLineWidth 3232
- 71.428 DynaPDF.SetStrokeColor 3277

**Example Databases**

- [DynaPDF/Create PDF with Bezier Curves](#)

**71.293.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 7th March 2020.

## 71.294 DynaPDF.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.New" { ; SerialNumber } )

### Parameters

#### SerialNumber

Optional

The DynaPDF serial number. If you don't provide a serial number, you run DynaPDF in demo mode. If you passed license key to DynaPDF.Initialize function already, you don't need to pass it here a second time.  
\$serial

**Result** Returns reference number or error.

### Description

This instance can only be used on one thread, so please don't use it in two scripts at the same time on a server.

Must be paired with call to DynaPDF.Release to avoid running out of memory.

If this function returns "OK", you have an older plugin version (before 3.5).

For DynaPDF, you need an extra license as this is not included in the MBS FileMaker Plugin license. You can order DynaPDF add-on for our plugin from Monkeybread Software.

Before you can create DynaPDF instances to work with the DynaPDF commands, you need to use DynaPDF.Initialize function to initialize the library.

DynaPDF context reference numbers are starting at 20000 and counting up for each new context.

Please use DynaPDF.AppendPage to create a new page.

### Examples

Work with PDF:

```
$pdf = MBS("DynaPDF.New")
# do your work
$r = MBS( "DynaPDF.Release"; $pdf )
```

### See also

- 71.321 DynaPDF.ReplaceImage 3097
- 71.312 DynaPDF.RGB 3079
- 71.326 DynaPDF.RotateTemplate 3109
- 71.398 DynaPDF.SetImportFlags 3220

71.294. <i>DYNAPDF.NEW</i>	3033
• 71.407 DynaPDF.SetMetadata	3238
• 71.451 DynaPDF.SquareAnnot	3309
• 71.461 DynaPDF.Table.Create	3326
• 71.510 DynaPDF.WriteFTextExRotated	3412
• 71.512 DynaPDF.WriteStyledTextEx	3416
• 71.514 DynaPDF.WriteText	3420

### Example Databases

- [Barcode/QRCode PDF](#)
- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/DynaPDF Highlight Text](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Print PDF with options](#)
- [DynaPDF/Watermark pages](#)

### 71.294.1 Blog Entries

- [Merge PDF with table of contents](#)
- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [Optimize PDF Script](#)
- [MBS Filemaker Plugin, version 3.5pr4](#)
- [MBS Filemaker Plugin, version 3.3pr6](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

**71.294.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 36
- Ausgabe 2/2019, Seite 27
- Ausgabe 2/2019, Seite 26
- Ausgabe 2/2019, Seite 25
- Ausgabe 5/2018, Seite 28
- Ausgabe 1/2018, Seite 26
- Ausgabe 1/2018, Seite 24
- Ausgabe 6/2017, Seite 26
- Ausgabe 6/2016, Seite 24
- Ausgabe 6/2016, Seite 23

Created 18th August 2014, last changed 12nd October 2019.

## 71.295 DynaPDF.OpenOutputFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.OpenOutputFile"; PDF; Path )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Path

The file path to create the PDF. The file name should include pdf file extension.

"C:\Test.pdf"

**Result** Returns OK on success.

### Description

The PDF file must be created in memory if this function should be used. This is the case if you called DynaPDF.New without a file path.

It is strongly recommended to check with DynaPDF.HaveOpenDocument whether a PDF file is still in memory before calling this function.

If you get back an error "Cannot open file!", please check if you didn't open the file before with DynaPDF.OpenPDFFromFile. In that case a call to DynaPDF.CloseImportFile may be needed.

See also [OpenOutputFile](#) function in DynaPDF manual.

### Examples

Adds three picture pages:

```
Set Variable [ $r; Value:MBS( "DynaPDF.AppendImagePages"; $pdf; "/Users/cs/Desktop/Auto2.JPG$/Users/cs/Desktop/Auto4.JPG$/Users/cs/Desktop/Auto1.JPG" ) ]
```

Import selected pages from one PDF and write into a new one:

```
# New PDF
```

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
```

```
# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
```

```
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]
```

```
# Query page count
```

```
Set Variable [ $pageCount; Value:MBS( "DynaPDF.GetImportPageCount"; $pdf ) ]
```

```
# Import the pages you need
```

```

Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 2) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 3) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 2) ]

# Set output to this file path
# MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/output.pdf" )

# Write PDF
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]

# release memory
Set Variable [ $r1; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.15 DynaPDF.AppendImagePages 2617
- 71.44 DynaPDF.CloseImportFile 2659
- 71.117 DynaPDF.FlushPages 2784
- 71.187 DynaPDF.GetImportPageCount 2876
- 71.267 DynaPDF.HaveOpenDocument 2972
- 71.273 DynaPDF.ImportPDFPage 2982
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.299 DynaPDF.Optimize 3046
- 71.329 DynaPDF.Save 3116

**Example Databases**

- [DynaPDF/Form/Form](#)
- [DynaPDF/Merge PDFs to File](#)
- [DynaPDF/Merge PDFs](#)

**71.295.1 Blog Entries**

- [Optimize PDF Script](#)

Created 18th August 2014, last changed 9th January 2020.



**71.296 DynaPDF.OpenOutputFileEncrypted**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.OpenOutputFileEncrypted"; PDF; Path; OpenPwd; OwnerPwd; Encryption { ; RestrictFlags } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Path**

The file path to create the PDF. The file name should include pdf file extension.

"C:\Test.pdf"

**OpenPwd**

Open password.

""

**OwnerPwd**

Owner password.

"Hello"

**Encryption**

Which encryption to use. Can be 40bit, 128bit, 128bitEx, AES128, AES256 or AESRev6.

"AES256"

**RestrictFlags**

Optional

What restrictions to apply. See above.

4+8

**Result** Returns OK or error.

**Description**

The PDF file must be created in memory if this function should be used. This is the case if you called DynaPDF.New without a file path.

It is strongly recommended to check with DynaPDF.HaveOpenDocument whether a PDF file is still in memory before calling this function.

See also [OpenOutputFileEncrypted](#) function in DynaPDF manual.

**See also**

- 71.267 DynaPDF.HaveOpenDocument 2972
- 71.294 DynaPDF.New 3032
- 71.329 DynaPDF.Save 3116

**71.296.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 16th July 2016, last changed 9th April 2017.

**71.297 DynaPDF.OpenPDFFromContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.OpenPDFFromContainer"; PDF; containerValue { ; PasswordType; Password } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**containerValue**

The container value to use. Should contain a PDF file.

\$PDF

**PasswordType**

Optional

The password type and flags. Flag kann be 1 for owner password and 0 for open password. You can combine this with 2 to force repair.

0

**Password**

Optional

The password to decrypt the file.

\$password

**Result** Returns number or error message.

**Description**

Requires DynaPDF Lite license.

On success returns a number 0.

**Examples**

Opens PDF:

```
$r = MBS( "DynaPDF.OpenPDFFromContainer"; $PDF; $PDFFile )
```

```
$error = MBS( "DynaPDF.GetLastErrorMessage"; $PDF )
```

Load PDF and extract text of page 2:

```
# initialize DynaPDF before running this:
```

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
```

```
# load PDF from container
```

```
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer";$pdf; Test::data) ]
```

```
# import all pages
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile";$pdf) ]
```

```
# extra text of page 2
```

```
Set Field [ Test::PageText; MBS("DynaPDF.ExtractPageText"; $pdf; 2) ]
```

```

# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

Import a single page:

Set Variable [ $r; Value:MBS("DynaPDF.SetImportFlags"; $pdf; "ImportAll ImportAsPage") ]
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Invoice::PDF Template) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]

Import selected pages from one PDF and write into a new one:

# New PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]

# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]

# Query page count
Set Variable [ $pageCount; Value:MBS( "DynaPDF.GetImportPageCount"; $pdf ) ]

# Import the pages you need
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 2) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 3) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 2) ]

# Set output to this file path
# MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/output.pdf" )

# Write PDF
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]

# release memory
Set Variable [ $r1; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.302 DynaPDF.PageStatistics 3059
- 71.307 DynaPDF.Print 3070
- 71.316 DynaPDF.Release 3086
- 71.321 DynaPDF.ReplaceImage 3097
- 71.326 DynaPDF.RotateTemplate 3109
- 71.329 DynaPDF.Save 3116

71.297. <i>DYNAPDF.OPENPDFFROMCONTAINER</i>	3041
• 71.413 DynaPDF.SetOrientationEx	3247
• 71.438 DynaPDF.SetUseGlobalImpFiles	3291
• 71.506 DynaPDF.WebLink	3401
• 71.509 DynaPDF.WriteFTextEx	3408

### Example Databases

- [DynaPDF/Change Separation Colorant](#)
- [DynaPDF/Click Points](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/List Annotations](#)
- [DynaPDF/List Pages](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/Replace Image](#)
- [DynaPDF/Watermark pages](#)

### 71.297.1 Blog Entries

- [Merge PDF with table of contents](#)
- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [Optimize PDF Script](#)
- [MBS Filemaker Plugin, version 4.1pr1](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

**71.297.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 37
- Ausgabe 2/2019, Seite 27
- Ausgabe 2/2019, Seite 25
- Ausgabe 1/2018, Seite 26
- Ausgabe 1/2018, Seite 25
- Ausgabe 1/2018, Seite 24
- Ausgabe 6/2017, Seite 26
- Ausgabe 6/2016, Seite 24

Created 18th August 2014, last changed 12nd September 2016.

**71.298 DynaPDF.OpenPDFFromFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.OpenPDFFromFile"; PDF; Path { ; PasswordType; Password } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Path**

The path to use. Should contain a PDF file.

\$path

**PasswordType**

Optional

The password type and flags. Flag kann be 1 for owner password and 0 for open password. You can combine this with 2 to force repair.

0

**Password**

Optional

The password to decrypt the file.

\$password

**Result** Returns 0, file handle or error message.

**Description**

Use Path.FilemakerPathToNativePath to convert a FileMaker path to a native path if required.

Requires DynaPDF Lite license.

If the function succeeds the return value is zero or the file handle if the flag UseProxy is set (a value greater or equal zero). If the function fails the return value is an error message.

**Examples**

Import selected pages from one PDF and write into a new one:

```
# New PDF
```

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
```

```
# Open existing PDF file (or use DynaPDF.OpenPDFFromContainer for container)
```

```
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; $path ) ]
```

```
# Query page count
```

```
Set Variable [ $pageCount; Value:MBS( "DynaPDF.GetImportPageCount"; $pdf ) ]
```

```
# Import the pages you need
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 1) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 2) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; 3) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 1) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFPage"; $pdf; $pagecount - 2) ]
```

```
# Set output to this file path
```

```
# MBS( "DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/output.pdf" )
```

```
# Write PDF
```

```
Set Variable [ $r; Value:MBS("DynaPDF.Save"; $pdf) ]
```

```
# release memory
```

```
Set Variable [ $r1; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.195 DynaPDF.GetInMetadata 2886
- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.273 DynaPDF.ImportPDFPage 2982
- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.295 DynaPDF.OpenOutputFile 3035
- 71.316 DynaPDF.Release 3086
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291

### Example Databases

- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/Form/Form](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Tables](#)



### **71.298.1 Blog Entries**

- [Merge PDF with table of contents](#)
- [Optimize PDF Script](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

### **71.298.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 25

Created 18th August 2014, last changed 12nd September 2016.

## 71.299 DynaPDF.Optimize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.Optimize"; PDF { ; Flags; Min1BitRes; MinGrayRes; MinColorRes; Res1BitImages;
ResGrayImages; ResColorImages; Filter1Bit; FilterGray; FilterColor; JPEGQuality; JP2KQuality; Min-
LineWidth } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

Optional

The flags to use. Can be a number with values from dynapdf documentation, see table on this page.

"ConvertAllColors,ScaleImages"

#### Min1BitRes

Optional

Minimum resolution before scaling for one bit images. Default is 100. Can be zero to disable.

200

#### MinGrayRes

Optional

Minimum resolution before scaling for gray images. Default is 100. Can be zero to disable.

200

#### MinColorRes

Optional

Minimum resolution before scaling for color images. Default is 100. Can be zero to disable.

200

#### Res1BitImages

Optional

Resolution for 1 bit black & white images. Default is 150.

150

#### ResGrayImages

Optional

Resolution for gray images. Default is 150.

150

#### ResColorImages

Optional

Resolution for images with more than one color channel. Default is 150.

150

#### Filter1Bit

Optional

Filter for black & white images. Can be Flate, JPEG, CCITT3, CCITT4, LZW, FlateBW or JP2K. Default is JPEG.

"JPEG"

#### **FilterGray**

Optional

Filter for gray images. Can be Flate, JPEG, CCITT3, CCITT4, LZW, FlateBW or JP2K. Default is JPEG.

"JPEG"

#### **FilterColor**

Optional

Filter for multi-channel images. Can be Flate, JPEG, CCITT3, CCITT4, LZW, FlateBW or JP2K. Default is JPEG.

"JPEG"

#### **JPEGQuality**

Optional

JPEG quality. Default is 80.

80

#### **JP2KQuality**

Optional

JPEG 2000 quality Default is 80.

80

#### **MinLineWidth**

Optional

Minimum line width for lines. Zero means no hair line removal.

0

**Result** Returns OK or error.

#### **Description**

This repairs also a lot of errors in the PDF.

// If set, ignore line width operators with a value of zero (zero means one device unit).

// If set, change the line width of real hairlines only (a hairline is a one pixel width line ->LineWidth == 0).

// This flag is mainly a debug flag to compare the compression ratio with other JBIG2 implementations.

Optimizing can fix bug in FileMaker 14 with empty portals resulting in broken PDF files.

Added optimization parameters for version 4 of DynaPDF.

Requires a Pro license of DynaPDF.

Name	Value	Description
Default	0	Just rebuild the content streams.
InMemory	1	Optimize the file fully in memory. Only useful for small PDF files.
ConvertAllColors	2	If set, Separation, DeviceN, and NChannel color spaces will be converted to the device space.
IgnoreICCBased	4	If set, ICCBased color spaces will be left unchanged.
ScaleImages	8	Scale images as specified in the TOptimizeParams structure.
SkipMaskedImages	16	Meaningful only if ofScaleImages is set. If set, don't scale images with a color mask.
NewLinkNames	32	If set, rename all object links to short names like F1, F2 etc.
DeleteInvPaths	64	Delete invisible paths. An invisible path is a path that was finished with the no-op operator "n".
FlattenLayers	128	Flatten layers if any.
DeletePrivateData	256	Delete private data objects from pages, templates, and images.
DeleteThumbnails	512	Thumbnails can be deleted since PDF viewers can create thumbnails easily on demand.
DeleteAlternateImages	1024	If set, alternate images will be deleted.
NoImageSizeCheck	2048	Meaningful only if ofScaleImages is set. If set, do not check whether the scaled image is smaller as the original image.
IgnoreZeroLineWidth	4096	Meaningful only if the parameter MinLineWidth of the TOptimizeParams structure is greater zero.
AdjZeroLineWidthOnly	8192	Meaningful only if the parameter MinLineWidth of the TOptimizeParams structure is greater zero.

See also [Optimize](#) function in DynaPDF manual.

### Examples

Optimize by scaling images:

```
MBS( "DynaPDF.Optimize"; $pdf; "ScaleImages,IgnoreICCBased" )
```

Optimize with defaults:

```
MBS( "DynaPDF.Optimize"; $pdf)
```

Merge PDFs and optimize:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# Clear current PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# For writing to file instead of container, pass path here:
// Set Variable [ $r; Value:MBS("DynaPDF.OpenOutputFile"; $pdf; "/Users/cs/Desktop/test.pdf") ]
# Load PDF from container
```

CompressWithJBIG2	16384	If set, 1 bit images are compressed with JBIG2 if not already compressed with this filter.
NoFilterCheck	32768	Meaningful only, if the flag ofCompressWithJBIG2 is set. If set, re-compress all 1 bit images, also if already compressed with JBIG2.
ConvertGrayTo1Bit	65536	Useful for scanned faxes since many scanners create gray images for black & white input. Special color spaces like Separation, DeviceN, and NChannel are ignored unless the flag ConvertAllColors is set too.
ConvertToGray	131072	If set, images, text, and vector graphics are converted to DeviceGray.
ConvertToRGB	262144	If set, images, text, and vector graphics are converted to DeviceRGB.
ConvertToCMYK	524288	If set, images, text, and vector graphics are converted to DeviceCMYK.
ReplaceJP2KWithJPEG	1048576	Meaningful only, if the flag ofConvertToGray, ofConvertToRGB, or ofConvertToCMYK is set. If set, JPEG 2000 compressed images (which are converted to another color space) will be compressed with JPEG instead JPEG 2000. JPEG 2000 compression is very slow and requires much memory. JPEG compression is around 10 times faster and produces almost identical results.

```

Go to Record/Request/Page [ First ]
Set Variable [ $destPage; Value:1 ]
Loop
# Read from file
// Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromFile"; $pdf; "/Users/cs/Desktop/input.pdf") ]
# or container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Merge PDFs::InputPDF) ]
# Import all pages
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; $destpage) ]
If [ GetAsNumber($r) >0 ]
Set Variable [ $destPage; Value:$r+1 ]
End If
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
# Repair & Optimize PDF
Set Variable [ $r; Value:MBS("DynaPDF.Optimize"; $pdf) ]
# Save to container
Set Field [ Merge PDFs::FinalPDF; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

```

Custom function for easy optimization:

```

# Custom Function OptimizePDF(InputPDF)
#
# Optimizes PDF and returns either new one or old one in case of error.

```

```

Let ( [
PDF = MBS("DynaPDF.New");
OpenResult = MBS("DynaPDF.OpenPDFFromContainer"; PDF; InputPDF);

```

```

OpenError = MBS("IsError");
ImportResult = MBS("DynaPDF.ImportPDFFile"; PDF);
ImportError = MBS("IsError");
Options = "FlattenLayers DeleteInvPaths ScaleImages NewLinkNames DeletePrivateData IgnoreZeroLineWidth
DeleteAlternateImages DeleteThumbnails";
OptimizeResult = MBS("DynaPDF.Optimize"; PDF; Options; 50; 50; 50; 150; 150; 150; "JPEG"; "JPEG");
OptimizeError = MBS("IsError");
OutputPDF = MBS("DynaPDF.Save"; PDF; GetAsText(InputPDF));
SaveError = MBS("IsError");
ReleaseError = MBS("DynaPDF.Release"; PDF);

Result = If(
// all okay?
OpenError = 0 and ImportError = 0 and OptimizeError = 0 and SaveError = 0 and MBS( "Container.Get-
Size"; OutputPDF; "PDF " ) >0;
// than return new PDF
OutputPDF;
// return old PDF
InputPDF)

];
result )

```

Optimizes with files input/output:

```

# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# Clear current PDF document
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromFile"; $pdf; "C:\Users\Christian\Desktop\171206Y_C24555_An-
nie_PDFs\171206Y_C24555_Annie_WOprice.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.OpenOutputFile"; $pdf; "C:\Users\Christian\Desktop\171206Y_C24555_An-
nie_PDFs\171206Y_C24555_Annie_WOprice.optimized.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Optimize
Set Variable [ $r ; Value: MBS("DynaPDF.Optimize"; $pdf; "FlattenLayers$DeleteInvPaths$ScaleImages$NewLinkNames$De-
vateData$IgnoreZeroLineWidth$DeleteAlternateImages$DeleteThumbnails"; 50; 50; 50; 150; 150; 150; "JPEG";
"JPEG") ]
# Save
Set Field [ Optimize PDF::Output PDF ; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

71.299. <i>DYNAPDF.OPTIMIZE</i>	3051
• 56.19 Container.GetSize	1667
• 71.272 DynaPDF.ImportPDFFile	2979
• 71.277 DynaPDF.Initialize	2992
• 71.286 DynaPDF.IsInitialized	3017
• 71.294 DynaPDF.New	3032
• 71.295 DynaPDF.OpenOutputFile	3035
• 71.297 DynaPDF.OpenPDFFromContainer	3039
• 71.316 DynaPDF.Release	3086
• 71.329 DynaPDF.Save	3116
• 127.6 IsError	6374

### Example Databases

- [DynaPDF/Optimize PDF](#)

### 71.299.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr5](#)
- [MBS FileMaker Plugin, version 9.0pr9](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)
- [Optimize PDF Script](#)

Created 18th January 2016, last changed 13th July 2019.

## 71.300 DynaPDF.PageLink

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PageLink"; PDF; PosX; PosY; Width; Height; DestPage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of bounding rectangle

100

#### PosY

Y-Coordinate of bounding rectangle

100

#### Width

Width of bounding rectangle

100

#### Height

Height of bounding rectangle

20

#### DestPage

The destination page number.

5

**Result** Returns number or error.

### Description

The parameter DestPage specifies the destination page which should be opened (the page number). The function does not check whether the destination page exists; it can be created later. If the destination page does not exist when the document is closed it will be set to the first page.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The border of the link annotation is drawn by using the current line width, stroke color and line dash pattern. If the link should appear without a border set the line width to zero beforehand (with DynaPDF.SetLineWidth).

When clicking on a link annotation the rectangle is highlighted, that is a simple visual effect. Several highlight modes are supported, see DynaPDF.SetLinkHighlightMode for further information.

The destination page is always opened at the top corner. More precise destinations can be created with the function DynaPDF.PageLinkEx. Page links can also be used to execute an action. The destination page is ignored in the latter case, the annotation works then like a button.

If the function succeeds the return value is the annotation handle, a value greater or equal zero. If the



function fails the return value is an error message.

Use `DynaPDF.WebLink` for web links, `DynaPDF.FileLink` for file links, `DynaPDF.PageLink` or `DynaPDF.PageLinkEx` for page links and `DynaPDF.FindText` can help to find the location where to place the link.

See also [PageLink](#) function in DynaPDF manual.

### Examples

Add various links to a page:

```
# import page
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Add Page Numbers::Input) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]

# edit first page
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 20) ]
# Add web link
Set Variable [ $r; Value:MBS("DynaPDF.WriteFTextEx"; $PDF; 100; 100; 150; 20; "left"; "Go to MBS
Blog" ) ]
Set Variable [ $r; Value:MBS("DynaPDF.Weblink"; $PDF; 100; 80; 150; 20; "http://www.mbs-plugins.com/"
) ]
# Add page link
Set Variable [ $r; Value:MBS("DynaPDF.WriteFTextEx"; $PDF; 100; 150; 150; 20; "left"; "Jump to page
3" ) ]
Set Variable [ $r; Value:MBS("DynaPDF.PageLink"; $PDF; 100; 130; 150; 20; 3) ]
# Add page link with more options
Set Variable [ $r; Value:MBS("DynaPDF.WriteFTextEx"; $PDF; 100; 200; 200; 20; "left"; "Jump to Letter
D Zoomed" ) ]
Set Variable [ $r; Value:MBS("DynaPDF.PageLinkEx"; $PDF; 100; 180; 200; 20; "FitRect"; 4; 60; 590;
135; 160) ]
# Close page
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

### See also

- 71.94 `DynaPDF.EndPage` 2747
- 71.272 `DynaPDF.ImportPDFFile` 2979
- 71.294 `DynaPDF.New` 3032
- 71.297 `DynaPDF.OpenPDFFromContainer` 3039
- 71.301 `DynaPDF.PageLinkEx` 3055
- 71.391 `DynaPDF.SetFont` 3208
- 71.405 `DynaPDF.SetLinkHighlightMode` 3234
- 71.506 `DynaPDF.WebLink` 3401

- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408

### Example Databases

- [DynaPDF/Picture to PDF with navigation](#)

#### 71.300.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

#### 71.300.2 FileMaker Magazin

- Ausgabe 3/2019, Seite 38

Created 18th December 2016, last changed 9th December 2019.

**71.301 DynaPDF.PageLinkEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PageLinkEx"; PDF; PosX; PosY; Width; Height; DestinationType; DestPage { ; a; b; c; d } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**PosX**

X-Coordinate of bounding rectangle  
100

**PosY**

Y-Coordinate of bounding rectangle  
100

**Width**

Width of bounding rectangle  
100

**Height**

Height of bounding rectangle  
20

**DestinationType**

The destination type.

**DestPage**

The destination page number.  
5

**a**

Optional  
First parameter for destination type.

**b**

Optional  
Second parameter for destination type.

**c**

Optional  
Third parameter for destination type.

**d**

Optional  
Forth parameter for destination type.

**Result** Returns OK or error.

### Description

The parameter `DestPage` specifies the destination page which should be opened (the page number). The function does not check whether the destination page exists; it can be created later. If the destination page is not created before the document is closed, it will be set to the first page of the document.

If the coordinate system is bottom-up the point `PosX`, `PosY` defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The border of the link annotation is drawn by using the current line width, stroke color and line dash pattern. If the link should appear without a border set the line width to zero beforehand (with `DynaPDF.SetLineWidth`).

When clicking on a link annotation the rectangle is highlighted, that is a simple visual effect. Several highlight modes are supported, see `DynaPDF.SetLinkHighlightMode` for further information.

The destination created by this annotation allows jumping to a specific position in a document instead of simply opening the page such as `DynaPDF.PageLink` does.

Destination type	Description
<code>XYZZoom</code>	Display the page designated by page with the coordinates (left top) positioned at the top-left corner of the window and the contents of the page magnified by the factor <code>zoom</code> . A zero value for any of the parameters <code>left top</code> or <code>zoom</code> specifies that the current value of that parameter is to be retained unchanged.
<code>Fit</code>	Display the page designated by page with its contents magnified just enough to fit the entire page within the window both horizontally and vertically. If the required horizontal and vertical magnification factors are different, use the smaller of the two, centering the page within the window in the other dimension. This destination type has no parameters.
<code>FitHTop</code>	Display the page designated by page with the vertical coordinate top positioned at the top edge of the window and the contents of the page magnified just enough to fit the entire width of the page within the window.
<code>FitVLeft</code>	Display the page designated by page with the horizontal coordinate left positioned at the left edge of the window and the contents of the page magnified just enough to fit the entire height of the page within the window.
<code>FitRect</code>	Display the page designated by page with its contents magnified just enough to fit the rectangle specified by the coordinates <code>left bottom right</code> and <code>top</code> entirely within the window both horizontally and vertically. If the required horizontal and vertical magnification factors are different, use the smaller of the two, centering the rectangle within the window in the other dimension.

The destination types `FitB`, `FitBHTop` and `FitBVLeft` use the media box of the page to fit the page into the window. All other destination types use the crop box if any.

The destination types are the same as for a go-to actions and the function creates in fact a go-to action which is executed by the link annotation. However, the action is stored in a more compact format and cannot be shared with other objects.

If a destination should be used with multiple objects such as bookmarks, create a go-to action instead and add it to a normal page link (see `DynaPDF.PageLink`). The same action can then be added to other objects.

If the function succeeds the return value is the annotation handle, a value greater or equal zero. If the function fails the return value is an error message.

See also [PageLinkEx](#) function in DynaPDF manual.

### Examples

Add various links to a page:

```
# import page
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Add Page Numbers::Input) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]

# edit first page
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 20) ]
# Add web link
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 100; 150; 20; "left"; "Go to MBS
Blog" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.Weblink"; $PDF; 100; 80; 150; 20; "http://www.mbs-plugins.com/"
) ]
# Add page link
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 150; 150; 20; "left"; "Jump to page
3" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.PageLink"; $PDF; 100; 130; 150; 20; 3) ]
# Add page link with more options
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 200; 200; 20; "left"; "Jump to Letter
D Zoomed" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.PageLinkEx"; $PDF; 100; 180; 200; 20; "FitRect"; 4; 60; 590;
135; 160) ]
# Close page
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

### See also

- 71.88 `DynaPDF.EditPage` 2736
- 71.94 `DynaPDF.EndPage` 2747
- 71.106 `DynaPDF.FileLink` 2768
- 71.294 `DynaPDF.New` 3032
- 71.297 `DynaPDF.OpenPDFFromContainer` 3039
- 71.391 `DynaPDF.SetFont` 3208

- 71.405 DynaPDF.SetLinkHighlightMode 3234
- 71.506 DynaPDF.WebLink 3401
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408

### **71.301.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)

### **71.301.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 38

Created 18th December 2016, last changed 9th December 2019.

## 71.302 DynaPDF.PageStatistics

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PageStatistics"; PDF; PageIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page to check. Range is from one to DynaPDF.GetPageCount.

1

**Result** Returns statistics.

### Description

The statistics are returned as one value per line in a multi line text. The order of the values is:

- Number of patterns used.
- Number of templates
- Number of bezier curves
- Number of path clipping
- Number of path closing
- Number of shading drawings
- Number of images
- Number of lines
- Number of rectangles
- Number of texts
- Length of all texts together
- Number of layers
- Number of font loadings

This function uses the parser interface in DynaPDF and needs a Pro license.

### Examples

Query page statistics:

```

# start new
Set Variable [ $PDF; Value:MBS("DynaPDF.New") ]

# open PDF
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $PDF; Test::data) ]

# import pages
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $PDF) ]

# if query page statistics
Set Variable [ $stat; Value:MBS("DynaPDF.PageStatistics"; $PDF; Test::PageIndex) ]

# split values:
Set Variable [ $Count; Value:ValueCount ( $stat ) ]
Set Variable [ $PatternCount; Value:MiddleValues ( $stat ; 1 ; 1 ) ]
Set Variable [ $TemplateCount; Value:MiddleValues ( $stat ; 2 ; 1 ) ]
Set Variable [ $BezierCount; Value:MiddleValues ( $stat ; 3 ; 1 ) ]
Set Variable [ $ClipPathCount; Value:MiddleValues ( $stat ; 4 ; 1 ) ]
Set Variable [ $ClosePathCount; Value:MiddleValues ( $stat ; 5 ; 1 ) ]
Set Variable [ $DrawShadingCount; Value:MiddleValues ( $stat ; 6 ; 1 ) ]
Set Variable [ $ImageCount; Value:MiddleValues ( $stat ; 7 ; 1 ) ]
Set Variable [ $LineCount; Value:MiddleValues ( $stat ; 8 ; 1 ) ]
Set Variable [ $RectangleCount; Value:MiddleValues ( $stat ; 9 ; 1 ) ]
Set Variable [ $TextCount; Value:MiddleValues ( $stat ; 10 ; 1 ) ]
Set Variable [ $TextLength; Value:MiddleValues ( $stat ; 11 ; 1 ) ]
Set Variable [ $LayerCount; Value:MiddleValues ( $stat ; 12 ; 1 ) ]
Set Variable [ $FontCount; Value:MiddleValues ( $stat ; 13 ; 1 ) ]

# show in text field
Set Field [ Test::PageStats; "PatternCount: " & $PatternCount &
"TemplateCount: " & $TemplateCount &
"BezierCount: " & $BezierCount &
"ClipPathCount: " & $ClipPathCount &
"ClosePathCount: " & $ClosePathCount &
"DrawShadingCount: " & $DrawShadingCount &
"ImageCount: " & $ImageCount &
"LineCount: " & $LineCount &
"RectangleCount: " & $RectangleCount &
"TextCount: " & $TextCount &
"TextLength: " & $TextLength &
"LayerCount: " & $LayerCount &
"FontCount: " & $FontCount ]

```

**See also**

- 71.226 DynaPDF.GetPageCount 2924
- 71.272 DynaPDF.ImportPDFFile 2979



<i>71.302. DYNAPDF.PAGESTATISTICS</i>	3061
• 71.277 DynaPDF.Initialize	2992
• 71.294 DynaPDF.New	3032
• 71.297 DynaPDF.OpenPDFFromContainer	3039

### **Example Databases**

- [DynaPDF/DynaPDF Test](#)

### **71.302.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr10](#)

Created 18th August 2014, last changed 19th March 2019.

## 71.303 DynaPDF.ParseContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ParseContent"; PDF; PageIndex )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page to check. Range is from one to DynaPDF.GetPageCount.

1

**Result** Returns text or error.

### Description

Returns a list of text representations of the various PDF commands founds.

Output shows entries like this:

SaveGraphicState

Rectangle X: 0.000000 Y: 0.000000 W: 842.000000 H: 595.000000

ClipPath EvenOdd: 0 PathFillMode: 10

SetFillColor IColorSpace: 0x843e34d0 ExtColorSpace: 6 NumComps: 1 Color [ 0 ] : 1.000000

MulMatrix Matrix: 1.000000 0.000000 0.000000 -1.000000 0.000000 595.000000

Rectangle X: 19.842520 Y: 19.637820 W: 240.944900 H: 555.690600

SetFont FontType: 1 Embedded: 1 FontName: Cochin Style: 419430400, FontSize: 1.000000, Font: 0x86131e00

ShowTextArray Count: 1 Width: 1.500000 Matrix: 13.000000 0.000000 0.000000 -13.000000 63.150010

237.000000 SourceAdvance [ 0 ] : 0.000000 SourceLength [ 0 ] : 3 SourceText [ 0 ] : SourceAdvance [ 0 ] :

0.000000 SourceLength [ 0 ] : 3 SourceText [ 0 ] : +49 KerningAdvance [ 0 ] : 0.000000 KerningLength [ 0 ]

: 3 KerningWidth [ 0 ] : 1.500000 KerningText [ 0 ] : +49

This function uses the parser interface in DynaPDF and needs a Pro license.

See also [ParseContent](#) function in DynaPDF manual.

### Examples

Parse content of page 6:

MBS( "DynaPDF.ParseContent"; \$pdf; 6 )

### See also

- 71.141 DynaPDF.GetContent 2817
- 71.226 DynaPDF.GetPageCount 2924

<i>71.303. DYNAPDF.PARSECONTENT</i>	3063
• 71.277 DynaPDF.Initialize	2992
• 71.294 DynaPDF.New	3032
• 71.361 DynaPDF.SetContent	3164

### **71.303.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr1](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 19th March 2019.

## 71.304 DynaPDF.PlaceSigFieldValidateIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PlaceSigFieldValidateIcon"; PDF; SigField; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### SigField

Handle of a signature field

#### PosX

X-Coordinate of the icon

#### PosY

Y-Coordinate of the icon

#### Width

Icon width

#### Height

Icon height

**Result** Returns OK or error.

### Description

By default, the validation icon is scaled to the width or height of the signature field and it is horizontally and vertically centered. When creating a user defined appearance for a signature field it is sometimes required to place the validation icon on another position within the signature field so that no important contents will be overdrawn.

The unscaled size of the validation icon is 100 x 100 units. It can be scaled to every size you want but it is usually best to preserve the aspect ratio. The icon should normally be placed fully inside the signature field. If the validation icon should not be shown then place it outside the signature field.

See also DynaPDF.CreateSigFieldAP.

Please note that the position of the validation icon is no property that can be stored in the PDF file. The position and size that you set with this function can only be considered if the file will be signed later with DynaPDF (see DynaPDF.SaveAndSignFile for further information).

See also [PlaceSigFieldValidateIcon](#) function in DynaPDF manual.

### See also

- 71.64 DynaPDF.CreateSigField 2702
- 71.65 DynaPDF.CreateSigFieldAP 2705
- 71.294 DynaPDF.New 3032
- 71.329 DynaPDF.Save 3116

71.304. *DYNAPDF.PLACESIGFIELDVALIDATEICON*

3065

- 71.330 *DynaPDF.SaveAndSignFile*

3119

### **Example Databases**

- [DynaPDF/Signature Appearance](#)

#### **71.304.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr5](#)
- [Digitally signing PDF with DynaPDF and custom signature appearance](#)

Created 20th April 2020, last changed 20th April 2020.

## 71.305 DynaPDF.PlaceTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PlaceTemplate"; PDF; TemplateHandle; X; Y; W; H )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### TemplateHandle

The handle value returned from DynaPDF.ImportPageAsTemplate function.  
\$template

#### X

The x coordinate.  
\$x

#### Y

The y coordinate. Please notice that PDF coordinates start at bottom of page except you change that with DynaPDF.SetPageCoords functions.  
\$y

#### W

The width of the destination rectangle.  
\$w

#### H

The height of the destination rectangle.  
\$h

**Result** Returns OK or error message.

### Description

The parameter TemplateHandle must be a valid template handle that was returned by DynaPDF.BeginTemplate or DynaPDF.ImportPageAsTemplate.

Templates can be used multiple times on different pages or positions and with different sizes. Unlike images, a template can be scaled without losing quality as far as the template contains vector graphics and text objects only.

The calculation of the width and height is the same as for images:

- If Width or Height is -1 the function uses the mirrored original width or height from the template.
- If Width or Height is 0, the missing value is calculated in relation to the given value of Height or Width to preserve the template's aspect ratio. The resulting output is a template with exact proportions relative to its original size.

- If Width and Height are 0, the original size is used (same effect as -1 but the template is not mirrored).
- A negative value of Width or Height mirrors the template on the x- or y-axis.

Imported pages can contain non-normalized bounding boxes and the page can be rotated. The coordinate origin, crop box, and rotation angle of a page must be considered when placing a template on a page because templates do not support features like a crop box or individual orientation angles. The required calculations to find the correct coordinate origin and to de-rotate a template are relatively complex. Therefore, DynaPDF provides the function `DynaPDF.PlaceTemplateEx` which considers the, coordinate origin, orientation angle, and crop box automatically. `DynaPDF.PlaceTemplateEx` greatly simplifies the handling of templates. If possible, this function should be used when working with imported pages.

Remarks: A template is invisible as long it was not placed on a page, template, or pattern. Templates should not be used inside of patterns because this requires usually too much rendering time.

See also [PlaceTemplate](#) function in DynaPDF manual.

**See also**

- 71.80 `DynaPDF.DeleteTemplate` 2723
- 71.81 `DynaPDF.DeleteTemplateEx` 2724
- 71.89 `DynaPDF.EditTemplate` 2738
- 71.90 `DynaPDF.EditTemplate2` 2740
- 71.96 `DynaPDF.EndTemplate` 2750
- 71.117 `DynaPDF.FlushPages` 2784
- 71.294 `DynaPDF.New` 3032
- 71.306 `DynaPDF.PlaceTemplateEx` 3068
- 71.326 `DynaPDF.RotateTemplate` 3109
- 71.416 `DynaPDF.SetPageCoords` 3254

### 71.305.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 18th August 2014, last changed 26th May 2018.

## 71.306 DynaPDF.PlaceTemplateEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.PlaceTemplateEx"; PDF; TemplateHandle; X; Y; W; H )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### TemplateHandle

The handle value returned from DynaPDF.ImportPageAsTemplate function.

\$template

#### X

The x coordinate.

\$x

#### Y

The y coordinate. Please notice that PDF coordinates start at bottom of page except you change that with DynaPDF.SetPageCoords functions.

\$y

#### W

The width of the destination rectangle.

\$w

#### H

The height of the destination rectangle.

\$h

**Result** Returns OK or error message.

### Description

The parameter TemplateHandle must be a valid template handle that was returned by DynaPDF.BeginTemplate, DynaPDF.ImportPageAsTemplate.

The function was specifically designed to work with templates which were created from imported pages. A PDF page is converted to a template if it was imported with DynaPDF.ImportPageAsTemplate outside of an open page.

The calculation of the width and height is the same as for images:

- If Width or Height is -1 the function uses the mirrored original width or height from the template.
- If Width or Height is 0, the missing value is calculated in relation to the given value of Height or Width to preserve the template's aspect ratio. The resulting output is a template with exact proportions



relative to its original size.

- If Width and Height are 0, the original size is used (same effect as -1 but the template is not mirrored).
- A negative value of Width or Height mirrors the template on the x- or y-axis.

A template does not support a crop box or orientation angle. When placing a template on a page that was created from a PDF page, the coordinate origin must be adjusted according to the original media or crop box. In addition, the template must maybe be drawn into a clipping path (if the original page contained a crop box), and the template must maybe also be rotated so that the original orientation can be preserved.

All these considerations complicate the handling of imported templates. To make the usage of imported templates easier the function considers the coordinate origin, it draws the template automatically into a clipping rectangle if required, and it rotates the template according to the original page orientation.

The only thing that must be considered is that the original size of the template must be calculated from the crop box if present. In addition, the so computed width and height must be exchanged if the original page orientation was 90, -90, 270, or -270 degrees.

See also [PlaceTemplateEx](#) function in DynaPDF manual.

**See also**

- 71.25 DynaPDF.BeginTemplate 2633
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.274 DynaPDF.ImportPageAsTemplate 2985
- 71.294 DynaPDF.New 3032
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.326 DynaPDF.RotateTemplate 3109
- 71.416 DynaPDF.SetPageCoords 3254

### Example Databases

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Shrink PDF pages](#)

Created 18th August 2014, last changed 22nd April 2015.

## 71.307 DynaPDF.Print

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.4	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.Print"; PDF { ; printerName; TempPath; DocName; PrintFlags; MarginLeft; MarginTop; MarginRight; MarginBottom; ShowDialog; MaxRes } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### printerName

Optional

Printer name. Ignored if dialog is shown. See Printer.PrinterNames function for printer names.

"myPrinter"

#### TempPath

Optional

The path to temporary folder. Can be empty for default folder.

""

#### DocName

Optional

The name of the print job.

"My PDF Print"

#### PrintFlags

Optional

The flags for printing. Can be Default, 1bit, Color, AutoRotateAndCenter, PrintAsImage or ShrinkToPrintArea. Can be just the text name of an option or the sum of the numbers.

"Color"

#### MarginLeft

Optional

The margin for the left for the page. Pass zero if you don't need an extra margin.

#### MarginTop

Optional

The margin for the top for the page.

#### MarginRight

Optional

The margin for the right for the page.

#### MarginBottom

Optional

The margin for the bottom for the page.

#### ShowDialog

Optional

Available in MBS FileMaker Plugin 6.5 or newer.

Whether to show dialog. Default is 0 as we want no dialog. Pass 1 to show a dialog here.

0

### MaxRes

Optional

The maximum resolution to use. If value is zero or empty, we use default print resolution.

300

**Result** Returns OK or error.

### Description

At time of publication the function is implemented on Windows only and pages are printed as image.

The parameter DocName is optional but should be set if possible. The document name is set to "out" if no name is provided.

#### Output color format

It is possible to determine which color formats a printer supports as input, but it is not possible to determine whether a printer outputs black & white, gray shades, or color. The default should be set to gray or 1 bit but the user should be able to configure the color format.

#### Maximum output resolution

The maximum output resolution is 600 DPI to restrict the memory usage and to reduce the amount of data that must be send to the printer.

Name	Value	Description
Default	0	Gray printing
1Bit	1	B/W printing. Recommended for b& w printers
Color	2	Color printing
AutoRotateAndCenter	4	Rotate and center pages if necessary
PrintAsImage	8	Default on Windows
ShrinkToPrintArea	16	Useful if a page contains no margins
PrintPageAsIs	256	Print page as is, ignoring paper size.

Please use PDFKit.Print for Mac OS X.

If you only want to print a selection of pages, please only import those pages via DynaPDF.ImportPDFPage function. Or use DynaPDF.DeletePage to remove the pages you don't want to print.

Requires DynaPDF Pro license.

### Examples

Prints a PDF to printer

```
MBS( "DynaPDF.Print"; $PDF; "MyPrinter")
```

Import PDF and print:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# Clear current PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Print PDFs::InputPDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; $destpage) ]
# Print
Set Variable [ $r; Value:MBS("DynaPDF.Print"; $pdf; Print PDFs::Printer Name; 2+4+16) ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

Print with dialog:

```
MBS("DynaPDF.Print";
$pdf;
""; // printer name
""; // temp path
""; // job name
"Default"; // options
""; // margins
"";
"";
"";
1) // show dialog
```

### See also

- 71.77 DynaPDF.DeletePage 2720
- 71.277 DynaPDF.Initialize 2992
- 71.286 DynaPDF.IsInitialized 3017
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.309 DynaPDF.Print.GetDevNames 3075
- 71.310 DynaPDF.Print.SetDevMode 3076
- 71.311 DynaPDF.Print.SetDevNames 3078
- 131.13 Printer.PrinterName 6580

71.307. DYNAPDF.PRINT

3073

- 131.14 Printer.PrinterNames

6582

### Example Databases

- [DynaPDF/Print PDF with options](#)
- [DynaPDF/Print PDF](#)

### 71.307.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr3](#)
- [MBS FileMaker Plugin, version 8.4pr2](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [MBS FileMaker Plugin, version 7.6pr4](#)
- [MBS FileMaker Plugin, version 6.5pr6](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)
- [PDF Printing in FileMaker on Windows without PDF Reader](#)

### 71.307.2 FileMaker Magazin

- [Ausgabe 6/2017, Seite 26](#)

Created 21st October 2015, last changed 14th February 2019.

## 71.308 DynaPDF.Print.GetDevMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	No	Yes	No	No	No

MBS( "DynaPDF.Print.GetDevMode" )

**Result** Returns hex text or error.

### Description

This are the print settings for printing on Windows.  
The data is hex encoded and should not be modified, just stored.  
Only valid after you called DynaPDF.Print with showing dialog.

### See also

- [71.307 DynaPDF.Print](#) 3070
- [71.309 DynaPDF.Print.GetDevNames](#) 3075
- [71.310 DynaPDF.Print.SetDevMode](#) 3076
- [71.311 DynaPDF.Print.SetDevNames](#) 3078

### Example Databases

- [DynaPDF/Print PDF with options](#)

#### 71.308.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr4](#)

#### 71.308.2 FileMaker Magazin

- [Ausgabe 6/2017, Seite 26](#)

Created 16th January 2017, last changed 6th March 2017.

**71.309 DynaPDF.Print.GetDevNames**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	No	Yes	No	No	No

MBS( "DynaPDF.Print.GetDevNames" )

**Result** Returns text or error.

**Description**

Contains the selected driver name, name of the device and physical output medium and a flag whether this is default printer.

Only valid after you called DynaPDF.Print with showing dialog.

**See also**

- [71.307 DynaPDF.Print](#) 3070
- [71.308 DynaPDF.Print.GetDevMode](#) 3074
- [71.310 DynaPDF.Print.SetDevMode](#) 3076
- [71.311 DynaPDF.Print.SetDevNames](#) 3078

**Example Databases**

- [DynaPDF/Print PDF with options](#)

**71.309.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr4](#)

Created 16th January 2017, last changed 6th March 2017.

## 71.310 DynaPDF.Print.SetDevMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	No	Yes	No	No	No

MBS( "DynaPDF.Print.SetDevMode"; DevMode )

### Parameters

#### DevMode

The new device mode.

**Result** Returns OK or error.

### Description

Sets the print settings for printing on Windows with DynaPDF.Print function.

### Examples

Print with options

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# New PDF session
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Print PDFs::InputPDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Print
Set Variable [ $flags; Value:If ( Position ( Print PDFs::Options; "ShrinkToPrintArea"; 1; 1)>0; 16; 0) + If (
Position ( Print PDFs::Options; "AutoRotateAndCenter"; 1; 1)>0; 4; 0) + If ( Position ( Print PDFs::Op-
tions; "Color"; 1; 1)>0; 2; 0) + If ( ... ]
Set Variable [ $ShowDialog; Value:Position ( Print PDFs::Options ; "ShowDialog"; 1; 1)>0 ]
Set Variable [ $r; Value:MBS( "DynaPDF.Print.SetDevMode"; Print PDFs::Printer Device Mode) ]
Set Variable [ $r; Value:MBS( "DynaPDF.Print.SetDevNames"; Print PDFs::Printer Device Names) ]
Set Variable [ $r; Value:MBS("DynaPDF.Print"; $pdf; Print PDFs::Printer Name; ""; ""; $flags; ""; ""; "";
""; $ShowDialog) ]
Set Field [ Print PDFs::Printer Device Names; MBS( "DynaPDF.Print.GetDevNames" ) ]
Set Field [ Print PDFs::Printer Device Mode; MBS("DynaPDF.Print.GetDevMode") ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.272 DynaPDF.ImportPDFFile 2979
- 71.286 DynaPDF.IsInitialized 3017



<i>71.310. DYNAPDF.PRINT.SETDEVMODE</i>	3077
• 71.294 DynaPDF.New	3032
• 71.297 DynaPDF.OpenPDFFromContainer	3039
• 71.307 DynaPDF.Print	3070
• 71.308 DynaPDF.Print.GetDevMode	3074
• 71.309 DynaPDF.Print.GetDevNames	3075
• 71.311 DynaPDF.Print.SetDevNames	3078
• 71.316 DynaPDF.Release	3086

### **Example Databases**

- [DynaPDF/Print PDF with options](#)

#### **71.310.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr2](#)
- [MBS FileMaker Plugin, version 7.0pr4](#)

#### **71.310.2 FileMaker Magazin**

- Ausgabe 6/2017, Seite 26

Created 16th January 2017, last changed 16th January 2017.

## 71.311 DynaPDF.Print.SetDevNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	No	Yes	No	No	No

MBS( "DynaPDF.Print.SetDevNames"; DeviceNames )

### Parameters

#### DeviceNames

The list of device names. First item in list is optional driver name. Second item is optional devicen name. Third item is optional output port name. Forth item is optional flags value.

**Result** Returns OK or error.

### Description

Sets the printer for printing on Windows with DynaPDF.Print function.

### Examples

Set PDF printer:

```
MBS( "DynaPDF.Print.SetDevNames"; "winspool$Microsoft Print to PDF" )
```

### See also

- [71.307 DynaPDF.Print](#) 3070
- [71.308 DynaPDF.Print.GetDevMode](#) 3074
- [71.309 DynaPDF.Print.GetDevNames](#) 3075
- [71.310 DynaPDF.Print.SetDevMode](#) 3076

### Example Databases

- [DynaPDF/Print PDF with options](#)

### 71.311.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr4](#)

Created 16th January 2017, last changed 16th January 2017.

**71.312 DynaPDF.RGB**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RGB"; Red; Green; Blue )

**Parameters****Red**

The red color component from 0 to 255.

0

**Green**

The green color component from 0 to 255.

255

**Blue**

The blue color component from 0 to 255.

255

**Result** Returns color value as number.

**Description**

For use with functions which take a color as a big number.

Calculation is Blue \* 65536 + Green \* 256 + Red.

Use it only if the color space is RGB.

**Examples**

Get a blue color value:

MBS( "DynaPDF.RGB"; 0; 0; 255 )

Example result: 16711680

Get a red color value:

MBS( "DynaPDF.RGB"; 255 )

Example result: 255

**See also**

- 71.270 DynaPDF.HighlightPattern 2976
- 71.294 DynaPDF.New 3032
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.373 DynaPDF.SetFieldColor 3181

- 71.387 DynaPDF.SetFieldTextColor 3202
- 71.451 DynaPDF.SquareAnnot 3309

### Example Databases

- [DynaPDF/Form/Form](#)
- [DynaPDF/Signature Appearance](#)

### 71.312.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 11st December 2016.

## 71.313 DynaPDF.ReadImageFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ReadImageFormat"; PDF; Container { ; Index } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Container

The image container value. Pass the container field or a variable with the container content.  
\$image

#### Index

Optional

The index of the image for multi image files.

1

**Result** Returns image format or error message.

### Description

The function reads only the image header to improve processing speed. If the parameter BitsPerPixel is 32 the image is a CMYK image. Note that TIFF images support color depths up to 64 bits per pixel. The parameter Index specifies the array index of a multi-page image that should be read in; numbering starts at 1. The parameter is ignored for non-multi-page image formats.

Image format is returned as a text with width, height and bits per pixel separated by newline.

### Examples

Place an image centered on the page with border:

```
Set Variable [ $r ; Value: MBS("DynaPDF.AppendPage"; $pdf) ]
# put a background in
Set Variable [ $r ; Value: MBS("DynaPDF.SetFillColor"; $pdf; ,8; ,8; ,8) ]
Set Variable [ $r ; Value: MBS("DynaPDF.Rectangle"; $pdf; 0; 0; MBS( "DynaPDF.GetPageWidth"; $PDF
); MBS( "DynaPDF.GetPageHeight"; $PDF ); "fill" ) ]
# options for saving image
Set Variable [ $r ; Value: MBS("DynaPDF.SetSaveNewImageFormat"; $pdf; 0) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetResolution"; $pdf; 300) ]
# read size of image
Set Variable [ $r ; Value: MBS("DynaPDF.ReadImageFormat"; $pdf; Merge PDFs::InputImage) ]
Set Variable [ $ImageWidth ; Value: GetAsNumber (LeftValues ( $r ; 1 )) ]
Set Variable [ $ImageHeight ; Value: GetAsNumber (MiddleValues ( $r ; 2; 1 )) ]
# The destination area where to put PDF
Set Variable [ $TargetX ; Value: 50 ]
Set Variable [ $TargetY ; Value: 50 ]
Set Variable [ $TargetWidth ; Value: MBS( "DynaPDF.GetPageWidth"; $PDF ) - 100 ]
```

```

Set Variable [ $TargetHeight ; Value: MBS( "DynaPDF.GetPageHeight"; $PDF ) - 100 ]
# calculate scale factor
Set Variable [ $factor ; Value: Min( $TargetHeight / $ImageHeight; $TargetWidth / $ImageWidth) ]
# calculate output size
Set Variable [ $DestWidth ; Value: $ImageWidth * $factor ]
Set Variable [ $DestHeight ; Value: $ImageHeight * $factor ]
# Center in target area
Set Variable [ $DestX ; Value: $TargetX + ($TargetWidth-$DestWidth) / 2 ]
Set Variable [ $DestY ; Value: $TargetY + ($TargetHeight-$DestHeight) / 2 ]
# insert the image
Set Variable [ $r ; Value: MBS("DynaPDF.InsertImage"; $pdf; Merge PDFs::InputImage; $DestX; $DestY;
$DestWidth; $DestHeight) ]
# close page and move to next record
Set Variable [ $r ; Value: MBS("DynaPDF.EndPage"; $pdf) ]

```

**See also**

- 71.15 DynaPDF.AppendImagePages 2617
- 71.16 DynaPDF.AppendPage 2619
- 71.94 DynaPDF.EndPage 2747
- 71.228 DynaPDF.GetPageHeight 2927
- 71.280 DynaPDF.InsertImage 3003
- 71.315 DynaPDF.Rectangle 3084
- 71.389 DynaPDF.SetFillColor 3204
- 71.417 DynaPDF.SetPageFormat 3256
- 71.425 DynaPDF.SetResolution 3272
- 71.426 DynaPDF.SetSaveNewImageFormat 3274

**Example Databases**

- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/PSD Conversion](#)
- [OCR/OCR with DynaPDF](#)

## 71.314 DynaPDF.ReadImageResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ReadImageResolution"; PDF; Container { ; Index } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Container

The image container value. Pass the container field or a variable with the container content.

\$image

#### Index

Optional

The index of the image for multi image files.

1

**Result** Returns the x and y resolution values as text separated by newline character.

### Description

The image resolution is a user defined value that can be stored in certain image formats such as Bitmap or TIFF.

The function returns zero values if the image format does not support a resolution record or if no values are stored in the image file, the image resolution is then 72 DPI.

See also [ReadImageResolution](#) function in DynaPDF manual.

### See also

- [71.14 DynaPDF.AppendImagePage](#) 2615
- [71.15 DynaPDF.AppendImagePages](#) 2617
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [OCR/OCR with DynaPDF](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.315 DynaPDF.Rectangle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Rectangle"; PDF; PosX; PosY; Width; Height; FillMode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of rectangle

\$x

#### PosY

Y-Coordinate of rectangle

\$y

#### Width

Width of the rectangle

\$w

#### Height

Height of the rectangle

\$h

#### FillMode

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error message.

### Description

See also [Rectangle](#) function in DynaPDF manual.

### Examples

Fills a rectangle:

```
MBS( "DynaPDF.Rectangle"; $PDF; 100; 200; 200; 200; "fill" )
```

Draws a rectangle:

```
MBS( "DynaPDF.Rectangle"; $PDF; 100; 200; 200; 200; "stroke" )
```

**See also**



<i>71.315. DYNAPDF.RECTANGLE</i>	3085
• 71.8 DynaPDF.AddDeviceNSeparations	2604
• 71.63 DynaPDF.CreateSeparationCS	2699
• 71.280 DynaPDF.InsertImage	3003
• 71.294 DynaPDF.New	3032
• 71.313 DynaPDF.ReadImageFormat	3081
• 71.325 DynaPDF.RotateCoords	3106
• 71.365 DynaPDF.SetExtColorSpace	3170
• 71.450 DynaPDF.SkewCoords	3307
• 71.501 DynaPDF.TranslateCoords	3393
• 71.502 DynaPDF.Triangle	3395

### **Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Create DeviceN ColorSpace](#)
- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Signature Appearance](#)

Created 18th August 2014, last changed 18th August 2014.

**71.316 DynaPDF.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Release"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK.

**Description**

This will free all memory used for this PDF instance.

**See also**

- 71.326 DynaPDF.RotateTemplate 3109
- 71.331 DynaPDF.SaveAndSignFileWinCrypt 3121
- 71.332 DynaPDF.SaveAndSignFileWinCryptDialog 3123
- 71.399 DynaPDF.SetImportFlags2 3224
- 71.407 DynaPDF.SetMetadata 3238
- 71.413 DynaPDF.SetOrientationEx 3247
- 71.461 DynaPDF.Table.Create 3326
- 71.465 DynaPDF.Table.Draw 3332
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.509 DynaPDF.WriteFTextEx 3408

**Example Databases**

- [DynaPDF/Apply Letter Paper to PDF](#)
- [DynaPDF/Create Form](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/List XFA Fields](#)
- [DynaPDF/List XFA Streams](#)
- [DynaPDF/Picture to PDF with navigation](#)

- [DynaPDF/Report](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/WMF Conversion](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Extract XML](#)

### 71.316.1 Blog Entries

- [Merge PDF with table of contents](#)
- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [Optimize PDF Script](#)
- [MBS Filemaker Plugin, version 3.5pr4](#)

### 71.316.2 FileMaker Magazin

- [Ausgabe 3/2019, Seite 39](#)
- [Ausgabe 2/2019, Seite 27](#)
- [Ausgabe 2/2019, Seite 26](#)
- [Ausgabe 5/2018, Seite 28](#)
- [Ausgabe 1/2018, Seite 26](#)
- [Ausgabe 1/2018, Seite 25](#)
- [Ausgabe 6/2017, Seite 26](#)
- [Ausgabe 6/2016, Seite 25](#)
- [Ausgabe 6/2016, Seite 24](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.317 DynaPDF.RenameSpotColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RenameSpotColor"; PDF; Colorant { ; NewName } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Colorant

Colorant name to change.

"PANTONE 376 C"

#### NewName

Optional

New name or empty.

"Cyan"

**Result** Returns number or error.

### Description

Renames the spot color Colorant to NewName in all Separation, DeviceN, and NChannel color spaces in which the colorant can be found. If the parameter NewName is set to empty, the function renames the colorant to the special value None which produces no visible output.

The representation of the colorant in the alternate color space is left unchanged, also if the colorant is set to the special value None or All.

The function returns the number of color spaces in which the colorant has been changed. If the function fails the return value is the error message.

See also [RenameSpotColor](#) function in DynaPDF manual.

**See also**

- [71.294 DynaPDF.New](#)

3032

### Example Databases

- [DynaPDF/Change Separation Colorant](#)

#### 71.317.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 22nd March 2017, last changed 22nd March 2017.

**71.318 DynaPDF.RenderPDFFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RenderPDFFile"; PDF; DestPath; Resolution; Flags; PixelFormat; Filter; Format )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**DestPath**

A file path for storing images. Can be folder for multiple images files or file for one file. If a folder, it must exist.

"/Users/cs/Desktop/test.jpg"

**Resolution**

The resolution you'd like to have for the image. If you pass zero, we use default resolution (72).

150

**Flags**

Flags for rendering. Use 0 for the default flags. For other values, please look into dynapdf manual. With version 6.4 of our plugin, you can also specify this by passing in text string, e.g. "Rotate90\$ClipToTrimBox"

0

**PixelFormat**

The pixel format. Can be 1bit, gray, RGB, BGR, RGBA, BGRA, ARGB, ABGR, CMYK, CMYKA and GrayA. Default is RGB.

"RGB"

**Filter**

The compression filter to use. Can be Flate, JPEG, CCITT3, CCITT4, LZW or JP2K. Default is JPEG.

"JPEG"

**Format**

The image format to use. Can be TIFF, JPEG, PNG, BMP or JPC. Default is JPEG.

"JPEG"

**Result** Returns OK or error.

**Description**

You can choose the format and filter, but please make sure they match as not all combinations are valid. This can write multipage tiff files or a folder of image files.

Requires DynaPDF Pro license for the raster engine to create bitmaps from PDF pages.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Render PDF to desktop with several JPEG pages:

```
$result = MBS( "DynaPDF.RenderPDFFile"; $PDF; "/Users/cs/Desktop"; 150; 0; "RGB"; "JPEG"; "JPEG" )
```

Render TIFF with higher resolution:

```
$result = MBS( "DynaPDF.RenderPDFFile"; $PDF; "c:\test.tif"; 150; 0; "RGB"; "Flate"; "TIFF" )
```

### See also

- 71.272 DynaPDF.ImportPDFFile 2979
- 71.276 DynaPDF.InitColorManagementEx 2990
- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.320 DynaPDF.RenderPage 3093
- 71.319 DynaPDF.RenderPDFFileEx 3091
- 71.410 DynaPDF.SetOCGState 3243
- 124.2 Path.FileMakerPathToNativePath 6247

### 71.318.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)
- [MBS FileMaker Plugin, version 5.3pr1](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 12nd December 2014, last changed 26th September 2019.

**71.319 DynaPDF.RenderPDFFileEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RenderPDFFileEx"; PDF; DestPath; Resolution; Width; Height; Flags; PixelFormat; Filter; Format )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**DestPath**

A file path for storing images. Can be folder for multiple images files or file for one file. If a folder, it must exist.

"/Users/cs/Desktop/test.jpg"

**Resolution**

The resolution you'd like to have for the image. If you pass zero, we use default resolution (72).

150

**Width**

Desired width.

600

**Height**

Desired height.

800

**Flags**

Flags for rendering. Use 0 for the default flags. For other values, please look into dynapdf manual. With version 6.4 of our plugin, you can also specify this by passing in text string, e.g. "Rotate90\$ClipToTrimBox"

0

**PixelFormat**

The pixel format. Can be 1bit, gray, RGB, BGR, RGBA, BGRA, ARGB, ABGR, CMYK, CMYKA and GrayA. Default is RGB.

"RGB"

**Filter**

The compression filter to use. Can be Flate, JPEG, CCITT3, CCITT4, LZW or JP2K. Default is JPEG.

"JPEG"

**Format**

The image format to use. Can be TIFF, JPEG, PNG, BMP or JPC. Default is JPEG.

"JPEG"

**Result** Returns OK or error.

**Description**

The pages in memory could be imported from one or more external PDF files, e.g. with `ImportPDFFile()`, created with DynaPDF functions, or a combination of both.

The parameter `DestPath` can be a path to an existing directory or the file name of the output image. The latter type can be used with TIFF images because this format supports multi-page output. When a file path is used with a single page image format only the first page will be rendered.

The function checks whether the path is a directory or a file name.

The function can render pages in a specific resolution, or scale them to a given width or height.

Depending on which parameters are set the image size is calculated as follows:

- Resolution  $>0$  and Width  $== 0$  and Height  $== 0$ : Pages are rendered according to the given resolution. Note that PDF pages can be very large. Therefore, it is maybe not possible to render all pages in the wished resolution.
- Resolution  $>0$  and Width  $<0$  and or Height  $<0$ : Pages are rendered according to the given resolution. Negative values of Width and Height are interpreted as maximum width or height if Resolution is greater zero. Since PDF pages can be very large, it is recommended to set the maximum width and height to a value that is low enough so that no out of memory exception occurs, e.g. 5000 x 5000 pixels.
- Resolution  $== 0$  and Width  $>0$  or Height  $>0$ : Pages are scaled to the given Width or Height. If Width and Height are greater zero then pages are scaled to that size independent of the original page format (not recommended). It is usually best to set the width or height to zero so that the function can calculate the missing value to preserve the aspect ratio.

On a 32 bit system it is possible to render PDF pages in RGB with up to around 1200 DPI, depending on the page format and available memory. The resolution of gray images can be higher but the encoder must be able to handle such large images. The PNG and bitmap encoders accept images in almost arbitrary resolutions but all other encoders can fail when the resolution is larger than about 2000 DPI.

Requires DynaPDF Pro license for the raster engine to create bitmaps from PDF pages.

See also [RenderPDFFileEx](#) function in DynaPDF manual.

**See also**

- 71.277 `DynaPDF.Initialize` 2992
- 71.294 `DynaPDF.New` 3032
- 71.318 `DynaPDF.RenderPDFFile` 3089

### 71.319.1 Blog Entries

- [MBS FileMaker Plugin 8.0 - More than 5000 Functions In One Plugin](#)
- [MBS FileMaker Plug-in 8.0 - Über 5000 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 26th September 2019.



## 71.320 DynaPDF.RenderPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RenderPage"; PDF; PageIndex; Resolution; Width; Height; Flags; PixelFormat; Filter; Format { ; Filename; DestPath } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page number between 1 and DynaPDF.GetPageCount.

1

#### Resolution

The resolution you'd like to have for the image. If you pass zero, we use default resolution (72).

150

#### Width

The width of the output image. Can be zero to use page width or to scale based on height.

800

#### Height

The height of the output image. Can be zero to use page height or to scale based on width.

600

#### Flags

Flags for rendering. Use 0 for the default flags. For other values, please look into dynapdf manual. With version 6.4 of our plugin, you can also specify this by passing in text string, e.g. "Rotate90\$ClipToTrimBox"

0

#### PixelFormat

The pixel format. Can be 1bit, gray, RGB, BGR, RGBA, BGRA, ARGB, ABGR, CMYK, CMYKA and GrayA. Default is RGB.

"RGB"

#### Filter

The compression filter to use. Can be Flate, JPEG, CCITT3, CCITT4, LZW or JP2K. Default is JPEG.

"JPEG"

#### Format

The image format to use. Can be TIFF, JPEG, PNG, BMP or JPC. Default is JPEG.

"JPEG"

#### Filename

Optional

The file name to use for the container value. Default is page with right file extensions for image. Pass any value if you use DestPath parameter.

\$name

### DestPath

Optional

Optional, a file path for storing image instead of a container.

"/Users/cs/Desktop/test.jpg"

**Result** Returns container value with image or error message.

### Description

You can choose the format and filter, but please make sure they match as not all combinations are valid.

Requires DynaPDF Pro license for the raster engine to create bitmaps from PDF pages.

Please use `DynaPDF.InitColorManagementEx` to initialize color management, so conversions to other colorspaces like CMYK work better.

### Examples

Render page 5 with default options:

```
$ImageData = MBS( "DynaPDF.RenderPage"; $PDF; 5 )
```

Render page 5 with higher resolution:

```
$ImageData = MBS( "DynaPDF.RenderPage"; $PDF; 5; 150 )
```

Render page 5 to file:

```
$result = MBS( "DynaPDF.RenderPage"; $PDF; 5; 150; 0; 0; 0; "RGB"; "JPEG"; "JPEG"; ""; "/Users/cs/Desktop/test.jpg" )
```

Open PDF and render page as image to container:

```
# Start new PDF workspace
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Test::data) ]
# Import all pages
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# Render one page as Picture
Set Variable [ $r; Value:MBS("DynaPDF.RenderPage"; $pdf; Test::PageIndex) ]
# Put in Container
Set Field [ Test::PageImage; $r ]
# cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
```

Render in one formula:

```
// input: PDFDocumentContainer
Let (
[
~PDFObject = MBS("DynaPDF.New");
~error = MBS("IsError");

~x = MBS("DynaPDF.OpenPDFFromContainer"; ~PDFObject; PDFDocumentContainer);
~error = ~error OR MBS("IsError");

~x = MBS("DynaPDF.ImportPDFPage"; ~PDFObject; 1);
~error = ~error OR MBS("IsError");

~PageIndex = 1;
~Resolution = 150 ;
~Width = 0;
~Height = 0;
~Flags = 0;
~PixelFormat = "RGB";
~Filter = "JPEG";
~Format = "PNG";
~Result = MBS("DynaPDF.RenderPage"; ~PDFObject; ~PageIndex ; ~Resolution; ~Width; ~Height; ~Flags;
~PixelFormat; ~Filter; ~Format);
~error = ~error OR MBS("IsError");

~x = MBS("DynaPDF.Release"; ~PDFObject) ] ;
If(~error; "" ; ~Result)
```

**See also**

- 71.16 DynaPDF.AppendPage 2619
- 71.94 DynaPDF.EndPage 2747
- 71.226 DynaPDF.GetPageCount 2924
- 71.276 DynaPDF.InitColorManagementEx 2990
- 71.277 DynaPDF.Initialize 2992
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.410 DynaPDF.SetOCGState 3243
- 127.6 IsError 6374
- 123.14 OCR.SetImage 6233
- 125.15 PDFKit.GetPDFPageImage 6285

**Example Databases**

- [DynaPDF/Click Points](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/DynaPDF Highlight Text](#)
- [DynaPDF/DynaPDF Test](#)
- [DynaPDF/List Annotations](#)
- [DynaPDF/PDF Differences](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/PSD Conversion](#)
- [DynaPDF/Render Page](#)
- [DynaPDF/WMF Conversion](#)

### 71.320.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)
- [MBS FileMaker Plugin, version 5.3pr1](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)
- [MBS Filemaker Plugin, version 4.2pr6](#)
- [Introducing DynaPDF to MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 7th May 2020.

## 71.321 DynaPDF.ReplaceImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ReplaceImage"; PDF; ImageIndex; Image { ; ImageIndex; Colorspace; ColorSpaceHandle; Flags } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ImageIndex

The index of the image to replace. From 0 to DynaPDF.GetImageCount-1.

\$index

#### Image

The new image. Can be container or native file path.

Images::ImageContainer

#### ImageIndex

Optional

The index of the image. This is for a multi picture tiff file to pick the image. Default is 1 for first image.

1

#### Colorspace

Optional

The color space to use. Can be DeviceRGB, DeviceCMYK, DeviceGray, CalGray, CalRGB, Lab, ICCBased, Pattern, Indexed, Separation, DeviceN or NChannel. Default is DeviceRGB.

"DeviceRGB"

#### ColorSpaceHandle

Optional

The color space handle. Can be empty if you want to use device colorspace.

""

#### Flags

Optional

The flags. Can be number or text with various flags. Can be set to DeleteAltImages, DeleteMetadata, DeleteOCG and/or DeleteSoftMask.

"DeleteAltImages\$DeleteMetadata"

**Result** Returns OK or error.

### Description

The resolution, aspect ratio, color space and so on can be freely chosen. However, note that this function does not change the output position or size. If the aspect ratio of the new image is different, then it will be stretched or shrunken to fit into the output rectangle.

The parameter CS specifies the destination color space into which the image should be converted or saved,

if the image is already defined in that color space. CSHandle must be the handle of that color space if a non-device space is used. The will be ignored for devices spaces.

The function works in the very same way as DynaPDF.InsertImage with the following differences:

- The color of an image mask cannot be set or changed because this would require changes on the content stream in which the image is used. An image mask will be created if the image color depth is 1 bit and if color key masking is enabled (see SetUseTransparency()). SetUseTransparency() should normally be set to false before calling this function. \* The image will never be downscaled, independent of the current resolution, because the size of the output rectangle is not known. If the image that should be replaced is a soft mask of another base image, then make sure that the destination color space is set to DeviceGray, CalGray, or to a one channel ICC based color space because a soft mask must not contain more than one color channel. The flags UseImageColorSpace, IgnoreICCProfiles, RealPassThrough, and NoBitmapAlpha are all supported. See DynaPDF.SetGStateFlags for further information.

See also [ReplaceImage](#) function in DynaPDF manual.

### Examples

Replace image:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If
# Start new PDF session
Set Variable [ $pdf ; Value: MBS("DynaPDF.New") ]
# Import pages
Set Variable [ $r ; Value: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Replace Image::Input PDF) ]
Set Variable [ $r ; Value: MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Replace Image
Set Variable [ $r ; Value: MBS("DynaPDF.ReplaceImage"; $pdf; 0; Replace Image::New Image) ]
# Save PDF
Set Field [ Replace Image::Output PDF ; MBS("DynaPDF.Save"; $pdf) ]
# Cleanup
Set Variable [ $r ; Value: MBS( "DynaPDF.Release"; $pdf ) ]
```

### See also

- 71.179 DynaPDF.GetImage 2862
- 71.180 DynaPDF.GetImageCount 2866
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.280 DynaPDF.InsertImage 3003
- 71.286 DynaPDF.IsInitialized 3017
- 71.294 DynaPDF.New 3032

<i>71.321. DYNAPDF.REPLACEIMAGE</i>	3099
• 71.297 DynaPDF.OpenPDFFromContainer	3039
• 71.316 DynaPDF.Release	3086
• 71.329 DynaPDF.Save	3116
• 71.397 DynaPDF.SetGStateFlags	3218

### **Example Databases**

- [DynaPDF/Replace Image](#)

### **71.321.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr1](#)
- [Replace Image in PDF](#)

Created 30th September 2017, last changed 30th September 2017.

## 71.322 DynaPDF.ReplacePattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ReplacePattern"; PDF; Text; NewText { ; Alignment; NewFontSize; NewFontStyle; NewCharacterSpacing; NewTextScaling; NewTextRise; NewTextColor } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Text

The text to search.  
"Hello"

#### NewText

The text to replace the found location with.  
"World"

#### Alignment

Optional  
The new alignment you want. 0 = Left, 1 = Center and 2 = Right. May not work with rotated text.  
0

#### NewFontSize

Optional  
The new font size to use. Use -1 to keep whatever it is. Due to matrix scaling in pdf, the size here may be far off.

#### NewFontStyle

Optional  
The new font style. Use -1 to keep whatever it is. e.g. 4 for underline, 2 for bold, 1 for italic or a combination. See dynapdf manual for more values for font styles.  
0

#### NewCharacterSpacing

Optional  
The new character spacing value. See also DynaPDF.SetCharacterSpacing. If undefined, keeps current character spacing.  
2

#### NewTextScaling

Optional  
The text scaling to use.

#### NewTextRise

Optional  
The text rise to use. In percent of text height as plugin multiplies y by given factor.



**NewTextColor**

Optional

Available in MBS FileMaker Plugin 9.1 or newer.

The new stroke &amp; fill color. Pass negative number to keep existing color.

MBS( "DynaPDF.RGB"; 0; 0; 255 )

**Result** Returns number of locations found.**Description**

You need to have an open page. you can use DynaPDF.EditPage to edit an existing one.

**Examples**

Replace placeholder with text:

MBS("DynaPDF.ReplacePattern"; \$pdf; "«PLZ Ort»"; "56645 Nickenich")

Replace some texts with different alignment:

Set Variable [ \$r1 ; Value: MBS("DynaPDF.ReplacePattern"; \$pdf; "Hello1"; "Hello World"; 0) ]

Set Variable [ \$r2 ; Value: MBS("DynaPDF.ReplacePattern"; \$pdf; "Hello3"; "Hello World"; 1) ]

Set Variable [ \$r3 ; Value: MBS("DynaPDF.ReplacePattern"; \$pdf; "Hello5"; "Hello World"; 2) ]

Replace text, make it centered and underlined:

MBS("DynaPDF.ReplacePattern"; \$pdf; "Hello3"; "Hello World"; 1; -1; 4)

**See also**

- 71.88 DynaPDF.EditPage 2736
- 71.294 DynaPDF.New 3032
- 71.354 DynaPDF.SetCharacterSpacing 3155

**Example Databases**

- [DynaPDF/DynaPDF Replace Text](#)

**71.322.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr1](#)
- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)

- MBS FileMaker Plugin, version 6.5pr6
- MBS FileMaker Plugin, version 5.5pr4
- MBS FileMaker Plugin, version 5.2pr1
- MBS Filemaker Plugin, version 3.4pr2

Created 18th August 2014, last changed 6th February 2019.

**71.323 DynaPDF.ResetEncryptionSettings**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ResetEncryptionSettings"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns 1, 0 or error.

**Description**

If the function succeeds the return value is 1. If the function fails the return value is 0.

See also [ResetEncryptionSettings](#) function in DynaPDF manual.

**See also**

- 71.271 DynaPDF.ImportEncryptionSettings 2978
- 71.294 DynaPDF.New 3032

Created 19th January 2017, last changed 19th January 2017.

## 71.324 DynaPDF.RestoreGraphicState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RestoreGraphicState"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error message.

### Description

See also DynaPDF.SaveGraphicState.

See also [RestoreGraphicState](#) function in DynaPDF manual.

### See also

- [71.43 DynaPDF.ClipPath](#) 2657
- [71.86 DynaPDF.DrawCircle](#) 2732
- [71.294 DynaPDF.New](#) 3032
- [71.325 DynaPDF.RotateCoords](#) 3106
- [71.329 DynaPDF.Save](#) 3116
- [71.333 DynaPDF.SaveGraphicState](#) 3125
- [71.334 DynaPDF.ScaleCoords](#) 3126
- [71.335 DynaPDF.SetAlpha](#) 3128
- [71.450 DynaPDF.SkewCoords](#) 3307
- [71.501 DynaPDF.TranslateCoords](#) 3393

### Example Databases

- [Barcode/DynaPDF Barcode](#)
- [Barcode/QRCode PDF](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Signature Appearance](#)

- [DynaPDF/Watermark pages](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.325 DynaPDF.RotateCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.RotateCoords"; PDF; a; x; y { ; RotateCoords } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### a

Angle alpha in degrees

30

#### x

Origin of the x-axis

\$x

#### y

Origin of the y-axis

\$y

#### RotateCoords

Optional

Whether to rotate coordinate system. This is now done by DynaPDF automatically, so for current version of the library, this must be zero. But older versions need the 1.

0

**Result** Returns OK on success and error on failure.

### Description

It is highly recommended to save the graphics state beforehand, otherwise it is very difficult or impossible to restore the coordinate system later.

After the coordinate system was changed by the function, bottom-up coordinates are active. It is not possible to use top-down coordinates with a skewed coordinate system.

To rotate a page you can use DynaPDF.SetOrientation or DynaPDF.SetOrientationEx.

See also [RotateCoords](#) function in DynaPDF manual.

### Examples

Rotate and draw rectangle:

```
MBS( "DynaPDF.SaveGraphicState"; $PDF )
MBS( "DynaPDF.RotateCoords"; $PDF; 30; 150; 450)
MBS( "DynaPDF.Rectangle"; $PDF; 0; 0; 200; 100; "stroke" )
MBS( "DynaPDF.RestoreGraphicState"; $PDF )
```

Rotate graphics system 270° for whole page:

```
MBS("DynaPDF.TranslateCoords"; $pdf; MBS("DynaPDF.GetPageWidth"; $pdf)/2; MBS("DynaPDF.GetPageHeight"; $pdf)/2)
MBS("DynaPDF.RotateCoords"; $pdf; 270; 0; 0)
MBS("DynaPDF.TranslateCoords"; $pdf; -MBS("DynaPDF.GetPageHeight"; $pdf)/2; -MBS("DynaPDF.GetPageWidth"; $pdf)/2)
```

Draw text rotated:

```
# save
Set Variable [ $r; Value: MBS("DynaPDF.SaveGraphicState"; $pdf) ]
# get page size
Set Variable [ $w; Value: MBS("DynaPDF.GetPageWidth"; $pdf) ]
Set Variable [ $h; Value: MBS("DynaPDF.GetPageHeight"; $pdf) ]
# move center to middle of page
Set Variable [ $r; Value: MBS("DynaPDF.TranslateCoords"; $PDF; $w/2; $h/2) ]
# rotate here by 30 degree
Set Variable [ $r; Value: MBS("DynaPDF.RotateCoords"; $PDF; 30; 0; 0) ]
# move center back
Set Variable [ $r; Value: MBS("DynaPDF.TranslateCoords"; $PDF; -$w/2; -$h/2) ]
# now draw some text
Set Variable [ $r; Value: MBS("DynaPDF.SetTextRect"; $pdf; 0; 500; MBS("DynaPDF.GetPageWidth"; $pdf); -1) ]
Set Variable [ $r; Value: MBS("DynaPDF.WriteFText"; $pdf; "center"; Watermark pages::WatermarkText ) ]
# restore
Set Variable [ $r; Value: MBS("DynaPDF.RestoreGraphicState"; $pdf) ]
```

### See also

- 71.225 DynaPDF.GetPageCoords 2923
- 71.234 DynaPDF.GetPageWidth 2935
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.329 DynaPDF.Save 3116
- 71.333 DynaPDF.SaveGraphicState 3125
- 71.334 DynaPDF.ScaleCoords 3126
- 71.412 DynaPDF.SetOrientation 3246
- 71.413 DynaPDF.SetOrientationEx 3247
- 71.508 DynaPDF.WriteFText 3406

### Example Databases

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)

Created 18th August 2014, last changed 4th December 2018.



## 71.326 DynaPDF.RotateTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RotateTemplate"; PDF; Template; Rotation )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Template

The handle to the template of a page.  
\$template

#### Rotation

The rotation angle. Can be 0, 90, 180 or 270.  
90

**Result** Returns template handle or error.

### Description

Returns a new template handle.

This is a convenience function which creates a new template and draws the existing template there with rotation.

### Examples

Import, rotate and place:

```
# Create new PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; DynaPDF PlaceTemplate::InputPDF) ]
# Import first page as template
Set Variable [ $template; Value:MBS("DynaPDF.ImportPageAsTemplate"; $pdf; 1) ]
# Create 4 rotations:
Set Variable [ $template0; Value:MBS("DynaPDF.RotateTemplate"; $pdf; $template; 0) ]
Set Variable [ $template90; Value:MBS("DynaPDF.RotateTemplate"; $pdf; $template; 90) ]
Set Variable [ $template180; Value:MBS("DynaPDF.RotateTemplate"; $pdf; $template; 180) ]
Set Variable [ $template270; Value:MBS("DynaPDF.RotateTemplate"; $pdf; $template; 270) ]
# Make new page and place PDF there in original size (0/0) in position (0/0)
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.PlaceTemplate"; $pdf; $template; 100; 100; 200; 300) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetStrokeColor"; $pdf; 255; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Rectangle"; $pdf; 100-1; 100-1; 200+2; 300+2; "Stroke") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
```

```

Set Variable [ $r; Value:MBS("DynaPDF.PlaceTemplate"; $pdf; $template0; 100; 100; 200; 300) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetStrokeColor"; $pdf; 255; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Rectangle"; $pdf; 100-1; 100-1; 200+2; 300+2; "Stroke") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.PlaceTemplate"; $pdf; $template90; 100; 100; 300; 200) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetStrokeColor"; $pdf; 255; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Rectangle"; $pdf; 100-1; 100-1; 300+2; 200+2; "Stroke") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.PlaceTemplate"; $pdf; $template180; 100; 100; 200; 300) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetStrokeColor"; $pdf; 255; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Rectangle"; $pdf; 100-1; 100-1; 200+2; 300+2; "Stroke") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.PlaceTemplate"; $pdf; $template270; 100; 100; 300; 200) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetStrokeColor"; $pdf; 255; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Rectangle"; $pdf; 100-1; 100-1; 300+2; 200+2; "Stroke") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
# done, save to container
Set Field [ DynaPDF.PlaceTemplate::OutputPDF; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
# done, save to container
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.25 DynaPDF.BeginTemplate 2633
- 71.80 DynaPDF.DeleteTemplate 2723
- 71.81 DynaPDF.DeleteTemplateEx 2724
- 71.89 DynaPDF.EditTemplate 2738
- 71.94 DynaPDF.EndPage 2747
- 71.274 DynaPDF.ImportPageAsTemplate 2985
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.329 DynaPDF.Save 3116
- 71.428 DynaPDF.SetStrokeColor 3277

**Example Databases**

- [DynaPDF/Generate Previews](#)

### **71.326.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr3](#)
- [MBS FileMaker Plugin, version 8.6pr2](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 7th January 2017, last changed 7th January 2017.

**71.327 DynaPDF.RoundRect**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RoundRect"; PDF; PosX; PosY; Width; Height; Radius; FillMode )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of rectangle

\$x

**PosY**

Y-Coordinate of rectangle

\$y

**Width**

Width of the rectangle

\$w

**Height**

Height of the rectangle

\$h

**Radius**

Radius of rounded corners.

20

**FillMode**

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

**Description**

The radius must not be greater than the half with or height of the rectangle.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the rectangle. If the coordinate system is top-down it defines the upper left corner.

The draw direction can be changed with the function DynaPDF.SetDrawDirection.

A rectangle is a closed path that can be filled, stroked or both. It is also possible to draw a rectangle invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under DynaPDF.ClipPath. The parameter FillMode is ignored if the rectangle is drawn inside a clipping path. The fill modes are described under DynaPDF.ClosePath.

See also [RoundRect](#) function in DynaPDF manual.

**See also**

<i>71.327. DYNAPDF.ROUNDRECT</i>	3113
• 71.43 DynaPDF.ClipPath	2657
• 71.45 DynaPDF.ClosePath	2660
• 71.294 DynaPDF.New	3032
• 71.328 DynaPDF.RoundRectEx	3114
• 71.364 DynaPDF.SetDrawDirection	3169

### **71.327.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

**71.328 DynaPDF.RoundRectEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.RoundRectEx"; PDF; PosX; PosY; Width; Height; RadiusWidth; RadiusHeight; FillMode )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of rectangle

\$x

**PosY**

Y-Coordinate of rectangle

\$y

**Width**

Width of the rectangle

\$w

**Height**

Height of the rectangle

\$h

**RadiusWidth**

The radius for width.

20

**RadiusHeight**

The radius for height.

30

**FillMode**

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error.

**Description**

The parameter RadiusWidth must not be greater than the half width of the rectangle and the parameter RadiusHeight must not be greater than the half height of the rectangle.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the rectangle. If the coordinate system is top-down it defines the upper left corner.

The draw direction can be changed with the function DynaPDF.SetDrawDirection.

A rectangle is a closed path that can be filled, stroked or both. It is also possible to draw a rectangle invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under `DynaPDF.ClipPath`. The parameter `FillMode` is ignored if the rectangle is drawn inside a clipping path. The fill modes are described under `DynaPDF.ClosePath`.

See also [RoundRectEx](#) function in DynaPDF manual.

**See also**

- 71.43 `DynaPDF.ClipPath` 2657
- 71.45 `DynaPDF.ClosePath` 2660
- 71.294 `DynaPDF.New` 3032
- 71.327 `DynaPDF.RoundRect` 3112
- 71.364 `DynaPDF.SetDrawDirection` 3169

### 71.328.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

**71.329 DynaPDF.Save**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Save"; PDF { ; filename; Preview } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**filename**

Optional

Optionally the file name to be associated with the container value. The file name should include pdf file extension.

"hello.pdf"

**Preview**

Optional

Optional, whether to include a preview JPEG. Default is 1 for including one. Pass zero to disable preview.

1

**Result** Returns container value with PDF file.

**Description**

The plugin also renders a JPEG for preview and includes it (with DynaPDF Pro).

If you created PDF to a file path and not in memory, this method just returns OK after closing the file. Before you call this function, you can call DynaPDF.OpenOutputFile or DynaPDF.OpenOutputFileEncrypted to open a destination file for the PDF.

**Examples**

Save PDF:

```
Set Field [ MyTable::ContainerField; MBS( "DynaPDF.Save"; $PDF; "report.pdf" ) ]
```

**See also**

- 71.294 DynaPDF.New 3032
- 71.331 DynaPDF.SaveAndSignFileWinCrypt 3121
- 71.332 DynaPDF.SaveAndSignFileWinCryptDialog 3123
- 71.334 DynaPDF.ScaleCoords 3126
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224



71.329. DYNAPDF.SAVE	3117
• 71.407 DynaPDF.SetMetadata	3238
• 71.461 DynaPDF.Table.Create	3326
• 71.509 DynaPDF.WriteFTextEx	3408
• 71.511 DynaPDF.WriteStyledText	3414

## Example Databases

- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/DynaPDF Highlight Text](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Optimize PDF](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Report](#)
- [DynaPDF/Split PDF](#)
- [OCR/OCR with DynaPDF](#)

### 71.329.1 Blog Entries

- [Merge PDF with table of contents](#)
- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Custom function to optimize PDF in FileMaker via DynaPDF](#)
- [Optimize PDF Script](#)
- [MBS FileMaker Plugin, version 5.1pr9](#)
- [MBS Filemaker Plugin, version 3.0pr10](#)

**71.329.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 39
- Ausgabe 2/2019, Seite 27
- Ausgabe 2/2019, Seite 26
- Ausgabe 5/2018, Seite 28
- Ausgabe 1/2018, Seite 25

Created 18th August 2014, last changed 9th April 2017.

**71.330 DynaPDF.SaveAndSignFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SaveAndSignFile"; PDF; CertFilePath; Password { ; Reason; Location; filename; Preview } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**CertFilePath**

File path to a PKCS# 12 certificate file.

"C:\test.pfx"

**Password**

Password to decrypt the cert's private key.

\$password

**Reason**

Optional

Optional reason string.

\$reason

**Location**

Optional

Optional signers location string

\$location

**filename**

Optional

Optionally the file name to be associated with the container value. The file name should include pdf file extension.

"hello.pdf"

**Preview**

Optional

Optional, whether to include a preview JPEG. Default is 1 for including one. Pass zero to disable preview.

1

**Result** Returns container value with PDF file.

**Description**

On success you either get back the PDF as container value (in memory PDF) or it returns OK after writing PDF to file (file based PDF).

The plugin also renders a JPEG for preview and includes it within the container value (with DynaPDF Pro).

On Windows you can use WinCrypt with DynaPDF.SaveAndSignFileWinCrypt function and optionally use dialog to pick the certificate with DynaPDF.SaveAndSignFileWinCryptDialog from the certificate store.

### Examples

Save PDF:

```
Set Field [ MyTable::ContainerField; MBS( "DynaPDF.SaveAndSignFile"; $PDF; "/Users/cs/Desktop/test.pfx";  
$password; "Test"; ""; "report.pdf" ) ]
```

### See also

- [71.294 DynaPDF.New](#) 3032
- [71.304 DynaPDF.PlaceSigFieldValidateIcon](#) 3064
- [71.329 DynaPDF.Save](#) 3116
- [71.331 DynaPDF.SaveAndSignFileWinCrypt](#) 3121
- [71.332 DynaPDF.SaveAndSignFileWinCryptDialog](#) 3123

### Example Databases

- [DynaPDF/Merge PDFs to File](#)
- [DynaPDF/Signature Appearance](#)

#### 71.330.1 Blog Entries

- [Digitally signing PDF with DynaPDF and custom signature appearance](#)
- [MBS Filemaker Plugin, version 3.3pr7](#)

Created 18th August 2014, last changed 31st January 2020.

**71.331 DynaPDF.SaveAndSignFileWinCrypt**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.1	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.SaveAndSignFileWinCrypt"; PDF; SignatureContainer { ; Password; ContactInfo; Location; Reason; filename; Preview } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**SignatureContainer**

The container with the PKCS# 12 file.

**Password**

Optional

The password to read the signature. Leave empty if not encrypted.

"123456"

**ContactInfo**

Optional

Optional contact info.

**Location**

Optional

Optional signers location string

\$location

**Reason**

Optional

Optional reason string.

\$reason

**filename**

Optional

Optionally the file name to be associated with the container value. The file name should include pdf file extension.

"hello.pdf"

**Preview**

Optional

Optional, whether to include a preview JPEG. Default is 1 for including one. Pass zero to disable preview.

1

**Result** Returns OK or error.

**Description**

On success you either get back the PDF as container value (in memory PDF) or it returns OK after writing

PDF to file (file based PDF).

The plugin also renders a JPEG for preview and includes it within the container value (with DynaPDF Pro).

On Windows you can use WinCrypt with DynaPDF.SaveAndSignFileWinCrypt function and optionally use dialog to pick the certificate with DynaPDF.SaveAndSignFileWinCryptDialog from the certificate store.

Use DynaPDF.SaveAndSignFile for cross platform signing.

### Examples

Save and sign a PDF after you assembled it:

```
Set Variable [ $PDFData ; Value: MBS("DynaPDF.SaveAndSignFileWinCrypt"; $pdf; "C:\Users\Chris-
tian\Desktop\test_cert.pfx"; "123456") ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
Set Field [ Create Text::PDF ; $PDFData ]
```

### See also

- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 71.330 DynaPDF.SaveAndSignFile 3119
- 71.332 DynaPDF.SaveAndSignFileWinCryptDialog 3123

#### 71.331.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 31st January 2020, last changed 31st January 2020.

**71.332 DynaPDF.SaveAndSignFileWinCryptDialog**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.1	No	Yes	No	No	No

MBS( "DynaPDF.SaveAndSignFileWinCryptDialog"; PDF { ; StoreName; ContactInfo; Location; Reason; filename; Preview } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**StoreName**

Optional

The name of the certificate store.

**ContactInfo**

Optional

Optional contact info.

**Location**

Optional

Optional signers location string

\$location

**Reason**

Optional

Optional reason string.

\$reason

**filename**

Optional

Optionally the file name to be associated with the container value. The file name should include pdf file extension.

"hello.pdf"

**Preview**

Optional

Optional, whether to include a preview JPEG. Default is 1 for including one. Pass zero to disable preview.

1

**Result** Returns OK or error.

**Description**

On success you either get back the PDF as container value (in memory PDF) or it returns OK after writing PDF to file (file based PDF).

The plugin also renders a JPEG for preview and includes it within the container value (with DynaPDF Pro).

On Windows you can use WinCrypt with DynaPDF.SaveAndSignFileWinCrypt function and optionally use dialog to pick the certificate with DynaPDF.SaveAndSignFileWinCryptDialog from the certificate store. Use DynaPDF.SaveAndSignFile for cross platform signing.

### Examples

Save and sign a PDF after you assembled it:

```
Set Variable [ $PDFData ; Value: MBS("DynaPDF.SaveAndSignFileWinCryptDialog"; $pdf; "" ; "MY" ) ]
Set Variable [ $r ; Value: MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
Set Field [ Create Text::PDF ; $PDFData ]
```

### See also

- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 71.330 DynaPDF.SaveAndSignFile 3119
- 71.331 DynaPDF.SaveAndSignFileWinCrypt 3121

### 71.332.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 31st January 2020, last changed 31st January 2020.



**71.333 DynaPDF.SaveGraphicState**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SaveGraphicState"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error message.

**Description**

A saved graphics state must be restored before the page, template or pattern will be closed.

see also DynaPDF.RestoreGraphicState.

See also [SaveGraphicState](#) function in DynaPDF manual.

**See also**

- [71.43 DynaPDF.ClipPath](#) 2657
- [71.86 DynaPDF.DrawCircle](#) 2732
- [71.294 DynaPDF.New](#) 3032
- [71.324 DynaPDF.RestoreGraphicState](#) 3104
- [71.325 DynaPDF.RotateCoords](#) 3106
- [71.334 DynaPDF.ScaleCoords](#) 3126
- [71.335 DynaPDF.SetAlpha](#) 3128
- [71.450 DynaPDF.SkewCoords](#) 3307
- [71.501 DynaPDF.TranslateCoords](#) 3393

**Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/Watermark pages](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.334 DynaPDF.ScaleCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ScaleCoords"; PDF; x; y )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### x

Scale factor of the x-axis

\$x

#### y

Scale factor of the y-axis

\$y

**Result** Returns OK on success and error on failure.

### Description

It is highly recommended to save the graphics state beforehand, otherwise it is very difficult or impossible to restore the coordinate system later.

After scaling the coordinate system, bottom-up coordinates are active. It is not possible to use top- down coordinates inside a scaled coordinate system.

Please do not try to scale/skew/translate back later. use DynaPDF.SaveGraphicState and DynaPDF.RestoreGraphicState.

See also [ScaleCoords](#) function in DynaPDF manual.

### Examples

Scale and draw rectangle:

```
MBS( "DynaPDF.SaveGraphicState"; $PDF )
```

```
MBS( "DynaPDF.ScaleCoords"; $PDF; 2; 2)
```

```
MBS( "DynaPDF.Rectangle"; $PDF; 0; 0; 200; 100; "stroke" )
```

```
MBS( "DynaPDF.RestoreGraphicState"; $PDF )
```

### See also

- 71.225 DynaPDF.GetPageCoords 2923
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.325 DynaPDF.RotateCoords 3106

71.334. <i>DYNAPDF.SCALECOORDS</i>	3127
• 71.329 DynaPDF.Save	3116
• 71.333 DynaPDF.SaveGraphicState	3125
• 71.416 DynaPDF.SetPageCoords	3254
• 71.450 DynaPDF.SkewCoords	3307

### **Example Databases**

- [DynaPDF/DynaPDF Coordinates](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.335 DynaPDF.SetAlpha

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAlpha"; PDF; FillAlpha; StrokeAlpha )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### FillAlpha

The new alpha between 0.0 and 1.0. Value of -1 will not change fill alpha.

0.5

#### StrokeAlpha

The new alpha between 0.0 and 1.0. Value of -1 will not change stroke alpha.

0.5

**Result** Returns OK or error message.

### Description

See also DynaPDF.SaveGraphicState and DynaPDF.RestoreGraphicState.

Requires DynaPDF Lite license.

### Examples

Make all drawings 50% transparent:

```
MBS( "DynaPDF.SetAlpha"; $PDF; 0.5; 0.5 )
```

Make just lines 50% transparent and don't change fill transparency:

```
MBS( "DynaPDF.SetAlpha"; $PDF; -1; 0.5 )
```

Make fill transparency 50% , so images draw half transparent:

```
MBS( "DynaPDF.SetAlpha"; $PDF; 0.5; -1 )
```

### See also

- 71.277 DynaPDF.Initialize 2992
- 71.280 DynaPDF.InsertImage 3003
- 71.281 DynaPDF.InsertImageFile 3007
- 71.294 DynaPDF.New 3032

71.335. <i>DYNAPDF.SETALPHA</i>	3129
• 71.324 DynaPDF.RestoreGraphicState	3104
• 71.329 DynaPDF.Save	3116
• 71.333 DynaPDF.SaveGraphicState	3125
• 71.507 DynaPDF.WriteDemoText	3404
• 125.45 PDFKit.Watermark	6338

### **Example Databases**

- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Watermark pages](#)
- [OCR/OCR with DynaPDF](#)

Created 18th August 2014, last changed 27th July 2018.

## 71.336 DynaPDF.SetAnnotBorderStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotBorderStyle"; PDF; AnnotationHandle; BorderStyle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### BorderStyle

The new border style. Can be Solid, Bevelled, Inset, Underline, Dashed or UserDefined.

"Solid"

**Result** Returns OK or error.

### Description

Note that the border style has no effect if the border width is set to zero or if the border color is set to NO\_COLOR (=4294967281) (see DynaPDF.SetAnnotColor, DynaPDF.SetAnnotBorderWidth).

Note also that not all styles are meaningful for all annotation types. For example, while link annotations support all border styles, FreeText annotations support the styles Solid and Dashed only. File Attach, Sound, Stamp, or Text annotations for example support no border style because these annotation types contain no appearance on which a border style could be applied.

Setting the border style to an unsupported value causes no error; the value will be ignored instead.

When changing the border style of a Free Text annotation DynaPDF must rebuild the appearance stream of the annotation. The text position can slightly change especially if the border width was changed too. See also DynaPDF.FreeTextAnnot.

See also [SetAnnotBorderStyle](#) function in DynaPDF manual.

### See also

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.294 DynaPDF.New 3032
- 71.337 DynaPDF.SetAnnotBorderWidth 3132
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.344 DynaPDF.SetAnnotLineEndStyle 3142
- 71.346 DynaPDF.SetAnnotOpenState 3144

71.336. <i>DYNAPDF.SETANNOTBORDERSTYLE</i>	3131
• 71.352 DynaPDF.SetBorderStyle	3153
• 71.371 DynaPDF.SetFieldBorderStyle	3178

Created 25th November 2014, last changed 25th November 2014.

## 71.337 DynaPDF.SetAnnotBorderWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotBorderWidth"; PDF; AnnotationHandle; LineWidth )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

#### LineWidth

Line width of the border.  
2

**Result** Returns OK or error.

### Description

Although the line width can be set to any positive floating point number, it should be set to full integer values between 0 through 12.

If no border should be drawn set the line width to zero.

When changing the border width of a Free Text annotation DynaPDF must rebuild the appearance stream of the annotation. The text position depends on the line width of the border. Changing the border width changes also the position of the text. See also DynaPDF.FreeTextAnnot.

See also [SetAnnotBorderWidth](#) function in DynaPDF manual.

### See also

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.372 DynaPDF.SetFieldBorderWidth 3179
- 71.477 DynaPDF.Table.SetBorderWidth 3346

Created 25th November 2014, last changed 25th November 2014.



**71.338 DynaPDF.SetAnnotColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotColor"; PDF; AnnotationHandle; ColorSelector; ColorSpace; ColorValue )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**AnnotationHandle**

The annotation index.

5

**ColorSelector**

Which color to change. Can be BackColor, BorderColor or TextColor.

"TextColor"

**ColorSpace**

The color space to use. Can be DeviceRGB, DeviceCMYK or DeviceGray.

"DeviceRGB"

**ColorValue**

The color value as number.

255

**Result** Returns OK or error.

**Description**

The color can be defined in any device color space. However, at time of publication the function converts the color back to DeviceRGB.

Note that not all annotation types support a background or border color. For example, link annotations support a border color but no background or text color.

When changing a color of a Free Text annotation DynaPDF must rebuild the appearance stream of the annotation. This can cause slightly changes in the text position. See also DynaPDF.FreeTextAnnot.

See also [SetAnnotColor](#) function in DynaPDF manual.

**See also**

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.158 DynaPDF.GetFieldColor 2840
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.340 DynaPDF.SetAnnotFlags 3137

- 71.347 DynaPDF.SetAnnotString 3145
- 71.373 DynaPDF.SetFieldColor 3181
- 71.389 DynaPDF.SetFillColor 3204
- 71.428 DynaPDF.SetStrokeColor 3277

Created 25th November 2014, last changed 25th November 2014.

**71.339 DynaPDF.SetAnnotDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotDate"; PDF; AnnotationHandle; DateType; Value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**AnnotationHandle**

The annotation index.  
5

**DateType**

The type of date. Can be CreationDate (Markup annotations only) or ModificationDate.  
"ModificationDate"

**Value**

The new date value. Can be a timestamp or the number of seconds from 1st Jan 1970.  
Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description**

The following annotation types are markup annotations:

- Care
- Circle, Square
- FileAttach
- FreeText
- Highlight, Squiggly, Strikeout, Underline
- Ink
- Line
- PolyLine, Polygon
- Projection
- Redact
- Sound

- Stamp
- Text

The function `DynaPDF.GetAnnotation` can also be used to determine whether an annotation is a markup annotation.

**See also**

- 71.125 `DynaPDF.GetAnnotation` 2798
- 71.122 `DynaPDF.GetAnnotFlags` 2794
- 71.123 `DynaPDF.GetAnnotLink` 2795
- 71.124 `DynaPDF.GetAnnotType` 2796
- 71.294 `DynaPDF.New` 3032
- 71.338 `DynaPDF.SetAnnotColor` 3133
- 71.340 `DynaPDF.SetAnnotFlags` 3137
- 71.343 `DynaPDF.SetAnnotIcon` 3141
- 71.345 `DynaPDF.SetAnnotOpacity` 3143
- 71.410 `DynaPDF.SetOCGState` 3243

Created 25th November 2014, last changed 25th November 2014.

## 71.340 DynaPDF.SetAnnotFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotFlags"; PDF; Flags )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Flags

The new flags value.

4

**Result** Returns OK or error.

### Description

The parameter Flags is a bit mask; multiple flags can be set with a binary or operator (e.g. afPrint (4) + afReadOnly (64)). It is also possible to add each flag separately; the previous flags are only deleted if the flag afNone (=0) is used.

See also [SetAnnotFlags](#) function in DynaPDF manual.

### See also

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.294 DynaPDF.New 3032
- 71.341 DynaPDF.SetAnnotFlagsEx 3139
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.347 DynaPDF.SetAnnotString 3145
- 71.397 DynaPDF.SetGStateFlags 3218
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224

Created 25th November 2014, last changed 6th October 2015.

Flag	Description
afNone	No flags are set.
afInvisible	If set, do not display the annotation if it does not belong to one of the standard annotation types and no annotation handler is available.
afHidden	(PDF 1.2) If set, do not display or print the annotation or allow it to interact with the user, regardless of its annotation type or whether an annotation handler is available.
afPrint	(PDF 1.2) If set, print the annotation when the page is printed. If clear, never print the annotation, regardless of whether it is displayed on the screen. This can be useful, for example, for annotations representing interactive pushbuttons, which would serve no meaningful purpose on the printed page.
afNoZoom	(PDF 1.3) If set, do not scale the annotation's appearance to match the magnification of the page. The location of the annotation on the page (defined by the upper-left corner of its annotation rectangle) remains fixed, regardless of the page magnification.
afNoRotate	(PDF 1.3) If set, do not rotate the annotation's appearance to match the rotation of the page. The upper-left corner of the annotation rectangle remains in a fixed location on the page, regardless of the page rotation.
afNoView	(PDF 1.3) If set, do not display the annotation on the screen or allow it to interact with the user. The annotation may be printed (depending on the setting of the afPrint flag), but should be considered hidden for purposes of on-screen display and user interaction.
afReadOnly	(PDF 1.3) If set, do not allow the annotation to interact with the user. The annotation may be displayed or printed (depending on the settings of the afNoView and afPrint flags), but should not respond to mouse clicks or change its appearance in response to mouse motions.

**71.341 DynaPDF.SetAnnotFlagsEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotFlagsEx"; PDF; AnnotationHandle; Flags )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**AnnotationHandle**

The annotation index.  
5

**Flags**

The new flags.  
4

**Result** Returns OK or error.

**Description**

See also [SetAnnotFlagsEx](#) function in DynaPDF manual.

**See also**

- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.294 DynaPDF.New 3032
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224

Created 25th November 2014, last changed 27th May 2017.

## 71.342 DynaPDF.SetAnnotHighlightMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotHighlightMode"; PDF; AnnotationHandle; Mode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

#### Mode

The new highlight mode. Can be None, Invert, Outline, Push or PushUpd.  
"Invert"

**Result** Returns OK or error.

### Description

The highlight mode is applied when clicking with the mouse on the annotation. Only link annotations support a highlight mode. However, setting the mode to other annotation types causes no error; the value will be ignored instead.

See also [SetAnnotHighlightMode](#) function in DynaPDF manual.

### See also

- 71.165 DynaPDF.GetFieldHighlightMode 2848
- 71.208 DynaPDF.GetLinkHighlightMode 2900
- 71.294 DynaPDF.New 3032
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.405 DynaPDF.SetLinkHighlightMode 3234

Created 25th November 2014, last changed 25th November 2014.



## 71.343 DynaPDF.SetAnnotIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotIcon"; PDF; AnnotationHandle; Icon )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AnnotationHandle

The annotation index.  
5

#### Icon

The new icon. Can be Comment, Help, Insert, Key, NewParagraph, Note, Paragraph or UserDefined.  
"Comment"

**Result** Returns OK or error.

### Description

The parameter AnnotationHandle must be a valid handle of a Text annotation. See also DynaPDF.TextAnnot.

See also [SetAnnotIcon](#) function in DynaPDF manual.

### See also

- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.124 DynaPDF.GetAnnotType 2796
- 71.294 DynaPDF.New 3032
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.347 DynaPDF.SetAnnotString 3145
- 71.500 DynaPDF.TextAnnot 3391

Created 25th November 2014, last changed 25th November 2014.

## 71.344 DynaPDF.SetAnnotLineEndStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotLineEndStyle"; PDF; AnnotationHandle; StartPointLineEndStyle; EndPointLineEndStyle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### StartPointLineEndStyle

Can be None, Butt, Circle, ClosedArrow, Diamond, OpenArrow, RClosedArrow, ROpenArrow, Slash or Square.

"Diamond"

#### EndPointLineEndStyle

Can be None, Butt, Circle, ClosedArrow, Diamond, OpenArrow, RClosedArrow, ROpenArrow, Slash or Square.

"Diamond"

**Result** Returns OK or error.

### Description

See also [SetAnnotLineEndStyle](#) function in DynaPDF manual.

### See also

- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.346 DynaPDF.SetAnnotOpenState 3144

Created 25th November 2014, last changed 25th November 2014.

**71.345 DynaPDF.SetAnnotOpacity**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotOpacity"; PDF; AnnotationHandle; Opacity )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**AnnotationHandle**

The annotation index.  
5

**Opacity**

The new opacity value.  
1.0

**Result** Returns OK or error.

**Description**

The function DynaPDF.GetAnnotation can be used to determine whether an annotation is a markup annotation.

See also [SetAnnotOpacity](#) function in DynaPDF manual.

**See also**

- 71.125 DynaPDF.GetAnnotation 2798
- 71.294 DynaPDF.New 3032
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.341 DynaPDF.SetAnnotFlagsEx 3139
- 71.346 DynaPDF.SetAnnotOpenState 3144
- 71.347 DynaPDF.SetAnnotString 3145
- 71.411 DynaPDF.SetOpacity 3245

Created 27th January 2016, last changed 27th January 2016.

## 71.346 DynaPDF.SetAnnotOpenState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotOpenState"; PDF; AnnotationHandle; State )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### State

The new state. Can be 0 (closed) or 1 (open)

1.

**Result** Returns OK or error.

### Description

Markup annotations can be connected with a PopUp annotation that displays additional comments in a window (like a Text annotation). The open state can only be changed if the base annotation is connected with a PopUp annotation. If the base annotation contains no PopUp annotation or if the handle refers to a non- markup annotation the function does nothing.

All annotation types with exception of 3D, Link, Movie, Screen, PrinterMark, TrapNet, and Watermark are markup annotations.

See also [SetAnnotOpenState](#) function in DynaPDF manual.

### See also

- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.344 DynaPDF.SetAnnotLineEndStyle 3142
- 71.345 DynaPDF.SetAnnotOpacity 3143

Created 25th November 2014, last changed 25th November 2014.

**71.347 DynaPDF.SetAnnotString**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotString"; PDF; AnnotationHandle; StringType; Value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**AnnotationHandle**

The annotation index.

5

**StringType**

Which string to change. Can be Author, Comment, Name or Subject.

"Name"

**Value**

The new value.

"Joe Miller"

**Result** Returns OK or error.

**Description**

See also [SetAnnotString](#) function in DynaPDF manual.

**See also**

- 71.125 DynaPDF.GetAnnotation 2798
- 71.121 DynaPDF.GetAnnotCount 2793
- 71.123 DynaPDF.GetAnnotLink 2795
- 71.294 DynaPDF.New 3032
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.348 DynaPDF.SetAnnotSubject 3146

Created 25th November 2014, last changed 25th November 2014.

## 71.348 DynaPDF.SetAnnotSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetAnnotSubject"; PDF; AnnotationHandle; Subject )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### AnnotationHandle

The annotation index.

5

#### Subject

The subject to be set.

"Hello World"

**Result** Returns OK or error.

### Description

The subject is defined since PDF 1.5. The function adjusts the PDF version automatically if it is lower than PDF 1.5.

The annotation types FileLink, PageLink, PopUp and WebLink do not support a subject string. The function returns with an error when trying to set the subject on these annotation types.

If the parameter Value an empty string the subject string is deleted in the annotation.

See also [SetAnnotSubject](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.347 DynaPDF.SetAnnotString 3145

Created 25th November 2014, last changed 25th November 2014.

**71.349 DynaPDF.SetBBox**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetBBox"; PDF; box; left; top; right; bottom )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**box**

Which box to set. Can be Art, Bleed, Crop, Trim or Media.  
"Media"

**left**

The lower left x value.

0

**top**

The lower left y.

0

**right**

The upper right x.

595

**bottom**

The upper right y.

895

**Result** Returns OK or error.

**Description**

A PDF page may be prepared either for a finished medium, such as a sheet of paper, or as part of a prepress process in which the content of the page is placed on an intermediate medium, such as film or an imposed reproduction plate.

See also SetBBox function in dynapdf\_help.pdf.

See also [SetBBox](#) function in DynaPDF manual.

**See also**

- 71.127 DynaPDF.GetBBox 2801
- 71.257 DynaPDF.GetUseVisibleCoords 2960
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.412 DynaPDF.SetOrientation 3246

- 71.415 DynaPDF.SetPageBBox 3252
- 71.417 DynaPDF.SetPageFormat 3256
- 71.418 DynaPDF.SetPageHeight 3258
- 71.421 DynaPDF.SetPageWidth 3263
- 71.442 DynaPDF.SetUseVisibleCoords 3298

### Example Databases

- [DynaPDF/List Annotations](#)
- [DynaPDF/PDF Crop](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Shrink PDF pages](#)

### 71.349.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.350 DynaPDF.SetBookmarkDest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetBookmarkDest"; PDF; BookmarkHandle; DestType; a; b; c; d )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### BookmarkHandle

The reference number for the bookmark. Either returned by one of the add/insert functions or just counting from 0 to DynaPDF.GetBookmarkCount-1.

\$BookmarkHandle

#### DestType

The destination type. Must be XY\_Zoom, Fit, FitH\_Top, FitV\_Left, Fit\_Rect, FitB, FitBH\_Top or FitBV\_Left.

#### a

The first parameter.

\$a

#### b

The first parameter.

\$b

#### c

The first parameter.

\$c

#### d

The first parameter.

\$d

**Result** Returns OK or error.

### Description

The parameter BookmarkHandle must be a valid bookmark handle. The destination page will not be changed by this function it must be set correctly with the function DynaPDF.AddBookmark. If it should be changed use the function DynaPDF.ChangeBookmark.

The destination created by this function allows jumping to a specific position in a document instead of simply opening a page such as a normal bookmark does.

See dynapdf\_help.pdf manual file for details.

See also [SetBookmarkDest](#) function in DynaPDF manual.

### See also

- 71.3 DynaPDF.AddBookmark

- 71.32 DynaPDF.ChangeBookmark 2642
- 71.128 DynaPDF.GetBookmark 2803
- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.294 DynaPDF.New 3032
- 71.351 DynaPDF.SetBookmarkStyle 3151

Created 18th August 2014, last changed 18th August 2014.

**71.351 DynaPDF.SetBookmarkStyle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetBookmarkStyle"; PDF; BookmarkHandle; Style; RGBColor )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**BookmarkHandle**

The reference number for the bookmark. Either returned by one of the add/insert functions or just counting from 0 to DynaPDF.GetBookmarkCount-1.

\$BookmarkHandle

**Style**

The new style. Can be "none", "italic", "bold" or a numeric representation.

"italic"

**RGBColor**

The RGB color value.

MBS( "DynaPDF.RGB"; 0; 0; 255 )

**Result** Returns OK or error.

**Description**

Since Acrobat 5 bookmarks support a user defined color and the text style can be changed to italic, bold and so on. Older versions of Adobe's Acrobat ignore the style information. Bookmarks support RGB colors only. The parameter Style is a bit mask, the flags can be combined, e.g. to create a bolditalic bookmark.

You can use DynaPDF.RGB function to calculate RGB color value.

See also [SetBookmarkStyle](#) function in DynaPDF manual.

**Examples**

Set bold:

MBS( "DynaPDF.SetBookmarkStyle"; \$PDF; 1; "bold"; 45\*65536+144\*256+54 )

Set bold and italic:

MBS( "DynaPDF.SetBookmarkStyle"; \$PDF; 1; 3; 45\*65536+144\*256+54 )

**See also**

- 71.3 DynaPDF.AddBookmark 2595
- 71.128 DynaPDF.GetBookmark 2803

- 71.129 DynaPDF.GetBookmarkCount 2805
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.294 DynaPDF.New 3032
- 71.312 DynaPDF.RGB 3079
- 71.350 DynaPDF.SetBookmarkDest 3149
- 71.352 DynaPDF.SetBorderStyle 3153

Created 18th August 2014, last changed 18th August 2014.

## 71.352 DynaPDF.SetBorderStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetBorderStyle"; PDF; BorderStyle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### BorderStyle

The new border style. Can be Solid, Bevelled, Inset, Underline or Dashed.

"Solid"

**Result** Returns OK or error.

### Description

It is also possible to change the style of a specific form field, see DynaPDF.SetFieldBorderStyle for further information.

See also [SetBorderStyle](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.51 DynaPDF.CreateComboBox 2672
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.64 DynaPDF.CreateSigField 2702
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.351 DynaPDF.SetBookmarkStyle 3151
- 71.371 DynaPDF.SetFieldBorderStyle 3178

### 71.352.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**71.353 DynaPDF.SetCMapDir**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCMapDir"; PDF; Path { ; Flags } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Path**

Absolute native path to the folder.  
\$path

**Flags**

Optional  
The flags to use. Can be Default, Recursive or Delayed.  
"Default"

**Result** Returns OK or error.

**Description**

You can use Path.FilemakerPathToNativePath to convert paths if needed.

Requires DynaPDF Pro license.

See also [SetCMapDir](#) function in DynaPDF manual.

**See also**

- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.378 DynaPDF.SetFieldFont 3190
- 71.436 DynaPDF.SetTrapped 3289
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th August 2014, last changed 27th May 2017.

## 71.354 DynaPDF.SetCharacterSpacing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCharacterSpacing"; PDF; CharacterSpacing )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### CharacterSpacing

The new value for character spacing. Default is zero.  
10

**Result** Returns OK or error.

### Description

The function requires an open page, template or pattern.  
See also [SetCharacterSpacing](#) function in DynaPDF manual.

### Examples

Set character spacing to 5:

```
MBS( "DynaPDF.SetCharacterSpacing"; $PDF; 5 )
```

### See also

- [71.132 DynaPDF.GetCharacterSpacing](#) 2808
- [71.294 DynaPDF.New](#) 3032
- [71.322 DynaPDF.ReplacePattern](#) 3100

### 71.354.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.355 DynaPDF.SetCheckBoxChar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCheckBoxChar"; PDF; CheckBoxChar )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### CheckBoxChar

The checkbox char to use: Check, Circle, Cross1, Cross2, Cross3, Cross4, Diamond, Square or Star.  
"check"

**Result** Returns OK or error.

### Description

Default is Check.

See also [SetCheckBoxChar](#) function in DynaPDF manual.

### See also

- [71.133 DynaPDF.GetCheckBoxChar](#) 2809
- [71.134 DynaPDF.GetCheckBoxCharEx](#) 2810
- [71.294 DynaPDF.New](#) 3032
- [71.357 DynaPDF.SetCheckBoxState](#) 3158

### 71.355.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.



## 71.356 DynaPDF.SetCheckBoxDefState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCheckBoxDefState"; PDF; Field; Checked )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### Checked

The new default state.

1

**Result** Returns OK or error.

### Description

It can differ from the current visible state of the check box. The default state is used when the form is reset with a Reset Form Action.

The default state of a new check box is always identical with the visible state.

See also [SetCheckBoxDefState](#) function in DynaPDF manual.

### See also

- [71.135 DynaPDF.GetCheckBoxDefState](#) 2811
- [71.294 DynaPDF.New](#) 3032
- [71.357 DynaPDF.SetCheckBoxState](#) 3158

### 71.356.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.

## 71.357 DynaPDF.SetCheckBoxState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCheckBoxState"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

**Result** Returns OK or error.

### Description

The parameter Field must be a valid check box handle.  
See also [SetCheckBoxState](#) function in DynaPDF manual.

### See also

- [71.133 DynaPDF.GetCheckBoxChar](#) 2809
- [71.134 DynaPDF.GetCheckBoxCharEx](#) 2810
- [71.135 DynaPDF.GetCheckBoxDefState](#) 2811
- [71.294 DynaPDF.New](#) 3032
- [71.355 DynaPDF.SetCheckBoxChar](#) 3156
- [71.356 DynaPDF.SetCheckBoxDefState](#) 3157

### Example Databases

- [DynaPDF/Fill Form Fields](#)

#### 71.357.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr10](#)

Created 5th November 2014, last changed 5th November 2014.

## 71.358 DynaPDF.SetColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetColorSpace"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new colorspace. Can be DeviceRGB, DeviceCMYK or DeviceGray.  
"DeviceGray"

**Result** Returns OK on success or error message.

### Description

All color values must be defined in the current color space. Images or EMF graphics are automatically converted to the current color space. The default color conversion rules can be modified with the function DynaPDF.SetGStateFlags.

Extended color spaces can be set with DynaPDF.SetExtColorSpace, DynaPDF.SetExtFillColorSpace, and DynaPDF.SetExtStrokeColorSpace.

See also DynaPDF.GetColorSpace.

See also [SetColorSpace](#) function in DynaPDF manual.

### Examples

Set to RGB:

```
MBS( "DynaPDF.SetColorSpace"; $PDF; "DeviceRGB" )
```

Set to CMYK:

```
MBS( "DynaPDF.SetColorSpace"; $PDF; "DeviceCMYK" )
```

Write in CMYK:

```
# switch to CMYK
Set Variable [ $r; Value:MBS( "DynaPDF.SetColorSpace"; $pdf; "DeviceCMYK" ) ]
# set color to Cyan
Set Variable [ $r; Value:MBS("DynaPDF.SetFillColor"; $pdf; 1; 0; 0; 0) ]
# Write some text
Set Variable [ $r; Value:MBS("DynaPDF.WriteText"; $pdf; 100; $x; "Some cyan text") ]
# now switch back to RGB
Set Variable [ $r; Value:MBS( "DynaPDF.SetColorSpace"; $pdf; "DeviceRGB" ) ]
```

**See also**

- 71.48 DynaPDF.CreateAxialShading 2665
- 71.61 DynaPDF.CreateRadialShading 2695
- 71.136 DynaPDF.GetColorSpace 2812
- 71.269 DynaPDF.HighlightAnnot 2974
- 71.294 DynaPDF.New 3032
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172
- 71.367 DynaPDF.SetExtStrokeColorSpace 3173
- 71.389 DynaPDF.SetFillColor 3204
- 71.514 DynaPDF.WriteText 3420

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Watermark pages](#)

Created 18th August 2014, last changed 12nd November 2018.

**71.359 DynaPDF.SetCompressionFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCompressionFilter"; PDF; Filter )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Filter**

The compression filter to use: Flate, JPEG, JP2K, CCITT3, CCITT4, LZW, LZWBW, FlateBW, JBIG2. "JPEG"

**Result** Returns OK on success.

**Description**

1 bit and 4 bit images are always compressed with Flate independent of the current compression filter. The filters are described in detail at InsertImage in DynaPDF help file.

See also [SetCompressionFilter](#) function in DynaPDF manual.

**Examples**

Compress images with 75% JPEG compression:

```
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "jpeg" )
```

```
MBS( "DynaPDF.SetJPEGQuality"; $PDF; 75 )
```

Disable compression for best results:

```
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "flate" )
```

**See also**

- 71.43 DynaPDF.ClipPath 2657
- 71.86 DynaPDF.DrawCircle 2732
- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.140 DynaPDF.GetCompressionLevel 2816
- 71.280 DynaPDF.InsertImage 3003
- 71.281 DynaPDF.InsertImageFile 3007
- 71.294 DynaPDF.New 3032
- 71.360 DynaPDF.SetCompressionLevel 3163

- 71.400 DynaPDF.SetJPEGQuality 3226
- 71.426 DynaPDF.SetSaveNewImageFormat 3274

**Example Databases**

- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/Watermark pages](#)

Created 18th August 2014, last changed 31st August 2018.

## 71.360 DynaPDF.SetCompressionLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetCompressionLevel"; PDF; CompressLevel )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### CompressLevel

The new compression level. Can be none, default, fastest or max.  
"none"

**Result** Returns OK or error.

### Description

If the compression level is None, content streams will be left uncompressed. This value is useful if a content stream must be debugged, the value will be ignored for image streams. The compression level is also used by certain image compression filters, see DynaPDF.InsertImage for further information.

See also DynaPDF.GetCompressionLevel.

See also [SetCompressionLevel](#) function in DynaPDF manual.

#### See also

- 71.139 DynaPDF.GetCompressionFilter 2815
- 71.140 DynaPDF.GetCompressionLevel 2816
- 71.280 DynaPDF.InsertImage 3003
- 71.294 DynaPDF.New 3032
- 71.359 DynaPDF.SetCompressionFilter 3161
- 54.38 ZipFile.SetCompressionLevel 1553

### Example Databases

- [DynaPDF/Signature Appearance](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)

### 71.360.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 30th November 2019.

## 71.361 DynaPDF.SetContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetContent"; PDF; Content )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Content

The new content data.

**Result** Returns OK or error.

### Description

If the parameter Buffer is empty the content stream of the page or template will be deleted. In the latter case page resources such as fonts, images and so on will be deleted from the page object too.

Use this function in combination with DynaPDF.GetContent if you need to change a content stream in a manner that DynaPDF does not supports. Do never change a content stream when you don't know exactly what you are doing.

See also [SetContent](#) function in DynaPDF manual.

### See also

- 71.126 DynaPDF.GetAscent 2800
- 71.141 DynaPDF.GetContent 2817
- 71.174 DynaPDF.GetFontCount 2857
- 71.294 DynaPDF.New 3032
- 71.303 DynaPDF.ParseContent 3062
- 71.391 DynaPDF.SetFont 3208
- 71.392 DynaPDF.SetFontEx 3210
- 71.396 DynaPDF.SetFontWeight 3216
- 71.432 DynaPDF.SetTextRect 3284

### 71.361.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 13th December 2016, last changed 13th December 2016.



**71.362 DynaPDF.SetDocInfo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetDocInfo"; PDF; DocInfo; value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**DocInfo**

The key to set. Can be Author, Creator, Keywords, Producer, Subject, Title or Company.

"Author"

**value**

The new value.

"Hello"

**Result** Returns OK or error message.

**Description**

See also [SetDocInfo](#) function in DynaPDF manual.

**Examples**

Set author name:

```
MBS( "DynaPDF.SetDocInfo"; $PDF; "Author"; "Christian" )
```

Set title of document:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetDocInfo"; $pdf; "Title"; "Test PDF") ]
```

Set keywords:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetImportDocInfo"; $pdf; "keywords"; "test, dynapdf, filemaker") ]
```

**See also**

- 71.142 DynaPDF.GetDocInfo 2818
- 71.280 DynaPDF.InsertImage 3003
- 71.294 DynaPDF.New 3032
- 71.363 DynaPDF.SetDocInfoEx 3167
- 71.454 DynaPDF.SysFontInfo 3315

**Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Bookmarks](#)
- [DynaPDF/Create DeviceN ColorSpace](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/DynaPDF Test](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/Watermark pages](#)
- [DynaPDF/WriteFText](#)
- [OCR/OCR with DynaPDF](#)

**71.362.1 Blog Entries**

- [Introducing DynaPDF to MBS Filemaker Plugin](#)

**71.362.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 28](#)

Created 18th August 2014, last changed 28th April 2018.

**71.363 DynaPDF.SetDocInfoEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetDocInfoEx"; PDF; DocInfo; Key; value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**DocInfo**

The key to set. Can be Author, Creator, Keywords, Producer, Subject, Title or Company.

"Author"

**Key**

The key name for custom keys.

"OurID"

**value**

The new value.

"Hello"

**Result** Returns OK or error.

**Description**

The function sets or changes a document info entry. This function supports also user defined keys which can be created or changed if necessary. If the parameter DocInfo is set to Custom the parameter Key must contain a unique key.

The following keywords are reserved and must not be used as user defined keys:

- Author\* CreationDate\* GTS\_PDFXVersion
- Keywords\* ModifyDate\* Producer\* Subject\* Title\* Trapped

Note that the function does not check whether a reserved key is used. Using such a key causes maybe errors which are mostly not reported in viewer applications.

User defined keys should be defined as 7 bit ASCII string and the usage of special characters like /, \, #, or character codes higher than 127 should be avoided. The value of the document info entry should not contain binary data.

Modification date can't be set and will always be updated when PDF is closed.

See also [SetDocInfoEx](#) function in DynaPDF manual.

**Examples**

Set creation date:

```
Set Variable [ $md ; Value: MBS( "DynaPDF.SetDocInfoEx"; $PDF; "CreationDate"; "" ; "D:20150418131854Z00'00"
```

) ]

**See also**

- 71.142 DynaPDF.GetDocInfo 2818
- 71.294 DynaPDF.New 3032
- 71.362 DynaPDF.SetDocInfo 3165
- 71.392 DynaPDF.SetFontEx 3210

**71.363.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr5](#)

Created 28th April 2018, last changed 26th April 2020.

**71.364 DynaPDF.SetDrawDirection**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetDrawDirection"; PDF; Direction )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Direction**

Draw direction. Can be CounterClockwise or Clockwise.

"Clockwise"

**Result** Returns OK or error message.

**Description**

The draw direction is important if a path should be filled with the nonzero winding number rule or even-odd rule. Both modes are described in detail under ClipPath().

See also [SetDrawDirection](#) function in DynaPDF manual.

**See also**

- 71.83 DynaPDF.DrawArc 2726
- 71.85 DynaPDF.DrawChord 2730
- 71.86 DynaPDF.DrawCircle 2732
- 71.87 DynaPDF.DrawPie 2734
- 71.91 DynaPDF.Ellipse 2741
- 71.145 DynaPDF.GetDrawDirection 2822
- 71.294 DynaPDF.New 3032
- 71.327 DynaPDF.RoundRect 3112
- 71.328 DynaPDF.RoundRectEx 3114
- 71.502 DynaPDF.Triangle 3395

Created 18th August 2014, last changed 18th August 2014.

## 71.365 DynaPDF.SetExtColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetExtColorSpace"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

Handle of an extended color space.

**Result** Returns OK or error.

### Description

An extended color spaces are non-device color spaces, such as ICCBased, Lab, Separation, DeviceN, and so on. The current fill and stroke color are initialised to black after the color space has been changed. Device color spaces can be set with DynaPDF.SetColorSpace. The fill and stroke color spaces can also be set separately with DynaPDF.SetExtFillColorSpace and DynaPDF.SetExtStrokeColorSpace.

Requires DynaPDF Pro license.

See also [SetExtColorSpace](#) function in DynaPDF manual.

### Examples

Draw line in a separation color:

```
# draw line in Cut Color
Set Variable [ $cs ; Value: MBS("DynaPDF.CreateSeparationCS"; $pdf; "Through Cut"; "DeviceCMYK";
-1; MBS("DynaPDF.CMYK"; 0; 255; 0; 0)) ]
Set Variable [ $r ; Value: MBS("DynaPDF.SetExtColorSpace"; $pdf; $cs) ]
Set Variable [ $f ; Value: MBS("DynaPDF.SetFillColor"; $pdf; 1) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.Rectangle"; $pdf; $x; $y; $w; $h; "Stroke" ) ]
```

### See also

- 71.8 DynaPDF.AddDeviceNSeparations 2604
- 71.29 DynaPDF.CMYK 2638
- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.136 DynaPDF.GetColorSpace 2812
- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032

<i>71.365. DYNAPDF.SETEXTCOLORSPACE</i>	3171
• 71.315 DynaPDF.Rectangle	3084
• 71.358 DynaPDF.SetColorSpace	3159
• 71.367 DynaPDF.SetExtStrokeColorSpace	3173
• 71.389 DynaPDF.SetFillColor	3204

### **Example Databases**

- [DynaPDF/Create DeviceN ColorSpace](#)

### **71.365.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 11st November 2018.

## 71.366 DynaPDF.SetExtFillColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetExtFillColorSpace"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Handle

Handle of an extended color space.

**Result** Returns OK or error.

### Description

The fill color is initialized to black after the color space has been changed. See also Color Spaces.

Requires DynaPDF Pro license.

See also [SetExtFillColorSpace](#) function in DynaPDF manual.

### See also

- [71.277 DynaPDF.Initialize](#) 2992
- [71.294 DynaPDF.New](#) 3032
- [71.358 DynaPDF.SetColorSpace](#) 3159
- [71.365 DynaPDF.SetExtColorSpace](#) 3170
- [71.367 DynaPDF.SetExtStrokeColorSpace](#) 3173

### 71.366.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th July 2018.



**71.367 DynaPDF.SetExtStrokeColorSpace**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetExtStrokeColorSpace"; PDF; Handle )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Handle**

Handle of an extended color space.

**Result** Returns OK or error.

**Description**

The stroke color is initialized to black after the color space has been changed. See also Color Spaces.

Requires DynaPDF Pro license.

See also [SetExtStrokeColorSpace](#) function in DynaPDF manual.

**See also**

- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159
- 71.365 DynaPDF.SetExtColorSpace 3170
- 71.366 DynaPDF.SetExtFillColorSpace 3172

**71.367.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th July 2018.

## 71.368 DynaPDF.SetFieldBBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldBBox"; PDF; Field; Left; Top; Right; Bottom )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Left

The top/left coordinate.

10

#### Top

The top/left coordinate.

10

#### Right

The right/bottom coordinate.

50

#### Bottom

The right/bottom coordinate.

30

**Result** Returns OK or error.

### Description

The bounding box must be defined in bottom up coordinates. The Top member of the structure BBox must be larger than Bottom as well as Right must be larger than the Left member.

See also [SetFieldBBox](#) function in DynaPDF manual.

### See also

- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190

71.368. <i>DYNAPDF.SETFIELDBBOX</i>	3175
• 71.379 DynaPDF.SetFieldFontEx	3192
• 71.382 DynaPDF.SetFieldIndex	3196
• 71.389 DynaPDF.SetFillColor	3204
• 71.415 DynaPDF.SetPageBBox	3252

Created 18th August 2014, last changed 18th August 2014.

## 71.369 DynaPDF.SetFieldBackColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldBackColor"; PDF; Color )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Color

The new color value.

MBS( "DynaPDF.RGB"; 0; 0; 255 )

**Result** Returns OK or error.

### Description

If the background should appear transparent set the color to NO\_COLOR (4294967281).

Default value = NO\_COLOR.

For RGB you can calculate color as  $\text{Blue} \times 65536 + \text{Green} \times 256 + \text{Red}$  with color channels in range 0 to 255.

You can use DynaPDF.RGB function to calculate RGB color value.

See also [SetFieldBackColor](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.158 DynaPDF.GetFieldColor 2840
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.312 DynaPDF.RGB 3079
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.373 DynaPDF.SetFieldColor 3181
- 71.387 DynaPDF.SetFieldTextColor 3202

### Example Databases

- [DynaPDF/Form/Form](#)

Created 18th August 2014, last changed 18th August 2014.

**71.370 DynaPDF.SetFieldBorderColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldBorderColor"; PDF; Color )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Color**

The new color value in current color space.

0

**Result** Returns OK or error.

**Description**

Normal annotations support RGB colors only. Form fields support the color spaces DeviceRGB, DeviceGray and DeviceCMYK. The color value must be defined in the current color space.

If the border should appear transparent set the color to NO\_COLOR (4294967281).

Default value = 0 // Black

See also [SetFieldBorderColor](#) function in DynaPDF manual.

**See also**

- 71.49 DynaPDF.CreateButton 2667
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.371 DynaPDF.SetFieldBorderStyle 3178
- 71.372 DynaPDF.SetFieldBorderWidth 3179
- 71.373 DynaPDF.SetFieldColor 3181
- 71.387 DynaPDF.SetFieldTextColor 3202

**Example Databases**

- [DynaPDF/Form/Form](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.371 DynaPDF.SetFieldBorderStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldBorderStyle"; PDF; Field; BorderStyle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### BorderStyle

The new border style. Can be Solid, Bevelled, Inset, Underline or Dashed.  
"Solid"

**Result** Returns OK or error.

### Description

It is not possible to change the border style of imported button fields. The global border style which is used for newly created fields can be set with the function DynaPDF.SetBorderStyle.

See also [SetFieldBorderStyle](#) function in DynaPDF manual.

### See also

- 71.51 DynaPDF.CreateComboBox 2672
- 71.62 DynaPDF.CreateRadioButton 2697
- 71.130 DynaPDF.GetBorderStyle 2806
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.294 DynaPDF.New 3032
- 71.336 DynaPDF.SetAnnotBorderStyle 3130
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.372 DynaPDF.SetFieldBorderWidth 3179

### Example Databases

- [DynaPDF/Form/Form](#)

Created 18th August 2014, last changed 18th August 2014.

**71.372 DynaPDF.SetFieldBorderWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldBorderWidth"; PDF; Field; LineWidth )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**LineWidth**

Line width of the border.  
4

**Result** Returns OK or error.

**Description**

The parameter LineWidth must not be negative and it should either be 0, 1, 2, or 3 units (no border, thin, medium, or thick). Note that Adobe's Acrobat supports only these values. It is possible to draw a field with any border width, but if the field is repainted due to a reset action or due to other changes, the field appearance will be changed in Adobe's Acrobat and the border width is adjusted to the nearest supported value.

See also [SetFieldBorderWidth](#) function in DynaPDF manual.

**See also**

- 71.1 DynaPDF.AddActionToObj 2591
- 71.58 DynaPDF.CreateJSAction 2687
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.155 DynaPDF.GetFieldBorderStyle 2837
- 71.156 DynaPDF.GetFieldBorderWidth 2838
- 71.294 DynaPDF.New 3032
- 71.337 DynaPDF.SetAnnotBorderWidth 3132
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.371 DynaPDF.SetFieldBorderStyle 3178

**Example Databases**

- [DynaPDF/Create PDF with sum form field](#)

### 71.372.1 Blog Entries

- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.373 DynaPDF.SetFieldColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldColor"; PDF; Field; ColorType; CS; Color )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### ColorType

The type of color. Can be BackColor, BorderColor or TextColor.

"TextColor"

#### CS

The color space. Can be DeviceRGB, DeviceCMYK or DeviceGray.

"DeviceRGB"

#### Color

The color value to use.

MBS( "DynaPDF.RGB"; 0; 0; 255 )

**Result** Returns OK or error.

### Description

The background and border color of a form field must be defined in the same color space. The color space for the text color can be defined in a separate color space (e.g. DeviceGray for the text and DeviceRGB for the background and border).

If the border or background should appear transparent set the value to NO\_COLOR (4294967281). The text color cannot be transparent.

You can use DynaPDF.RGB function to calculate RGB color value.

See also [SetFieldColor](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.158 DynaPDF.GetFieldColor 2840
- 71.312 DynaPDF.RGB 3079
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.379 DynaPDF.SetFieldFontEx 3192

- 71.382 DynaPDF.SetFieldIndex 3196
- 71.384 DynaPDF.SetFieldName 3198
- 71.387 DynaPDF.SetFieldTextColor 3202
- 71.388 DynaPDF.SetFieldToolTip 3203
- 71.389 DynaPDF.SetFillColor 3204

### Example Databases

- [DynaPDF/Signature Appearance](#)

Created 18th August 2014, last changed 18th August 2014.

**71.374 DynaPDF.SetFieldDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldDate"; PDF; Field; DateType; Value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**DateType**

The type of date. Must be ModificationDate.  
"ModificationDate"

**Value**

The new date value. Can be a timestamp or the number of seconds from 1st Jan 1970.  
Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description****See also**

- 71.168 DynaPDF.GetFieldName 2851
- 71.294 DynaPDF.New 3032
- 71.339 DynaPDF.SetAnnotDate 3135
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.373 DynaPDF.SetFieldColor 3181
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.383 DynaPDF.SetFieldMapName 3197

Created 25th November 2014, last changed 25th November 2014.

## 71.375 DynaPDF.SetFieldExpValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldExpValue"; PDF; Field; ValIndex; Value; ExpValue; Selected )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### ValIndex

The value index or -1.

-1

#### Value

The new value.

"Hello"

#### ExpValue

The export value.

"World"

#### Selected

Whether to select the value?

**Result** Returns OK or error.

### Description

In the latter case, the parameter ValIndex will be ignored. If the field handle refers to a radio button, ValIndex represents the index into the Kids array of the radio button.

To determine how many values are defined in a field call the function DynaPDF.GetFieldExpValCount or DynaPDF.GetFieldEx.

The parameter Value is ignored if the field is a check box or radio button. However, the parameter ExpValue is required for these field types.

If you don't need to change the value or export value then use the function DynaPDF.SetFieldExpValueEx instead.

If the field is either a combo box or list box, the parameter ExpValue is optional and can be empty. If the parameter Value is set to an empty string, the choice value will be deleted. Note that all choice values in a combo or list box must be unique. DynaPDF checks whether another choice value with the new name does already exist. If this is the case then the function will fail.

Combo boxes which have the field flag fEdit set accept a value that was directly typed into the field in a viewer. Such a value may or may not exist the list of choice values. In any case, a special handling is

required for this case because the value must be set as the field's value independent of whether it is already included in the list of choice value.

To achieve this, set the parameter ValIndex to PDF\_MAX\_INT (2147483647) or any index greater than the number of choice values in the field. The parameter Value can also be set to NULL or to an empty string to delete the field's value. If the string is set then it becomes the new field value but it is not added to the list of choice values if not included.

Note that the above handling is only valid for combo boxes which have the fFEEdit field flag set.

To enumerate the choice values of a combo box, list box or radio button use the function DynaPDF.GetFieldExpValueEx.

See also [SetFieldExpValue](#) function in DynaPDF manual.

**See also**

- 71.51 DynaPDF.CreateComboBox 2672
- 71.152 DynaPDF.GetField 2833
- 71.157 DynaPDF.GetFieldChoiceValue 2839
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.294 DynaPDF.New 3032
- 71.380 DynaPDF.SetFieldFontSize 3194
- 71.383 DynaPDF.SetFieldMapName 3197
- 71.387 DynaPDF.SetFieldTextColor 3202
- 71.430 DynaPDF.SetTextFieldValue 3281

**Example Databases**

- [DynaPDF/Fill Form Fields](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.376 DynaPDF.SetFieldExpValueEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldExpValueEx"; PDF; Field; ValIndex; Selected; DefSelected )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### ValIndex

The value index.  
0

#### Selected

The new state. Pass 1 to set or 0 to clear.  
0

#### DefSelected

New default state.  
0

**Result** Returns OK or error.

### Description

It can also be used to change the state of check boxes or the children of a radio button. The parameter ValIndex will be ignored if the field is a normal check box (no child of a radio button or field group).

To enumerate the choice values of a combo box, list box or radio button use the function DynaPDF.GetFieldExpValueEx.

See also [SetFieldExpValueEx](#) function in DynaPDF manual.

### See also

- 71.152 DynaPDF.GetField 2833
- 71.160 DynaPDF.GetFieldExpValCount 2842
- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.162 DynaPDF.GetFieldExpValueEx 2844
- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.431 DynaPDF.SetTextFieldValueEx 3283

71.376. *DYNAPDF.SETFIELDEXPVALUEEX*

3187

Created 18th August 2014, last changed 26th January 2016.

## 71.377 DynaPDF.SetFieldFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldFlags"; PDF; Field; Flags; Reset )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Flags

New field flags. You can pass a flag by name

1

#### Reset

Pass 1 to set flags to the ones you passed or pass 0 to add the flag.

1

**Result** Returns OK or error.

### Description

The parameter Flags is a bit mask, multiple flags can be set by adding the values or use a bitwise Or operator, e.g. Print + Multiline (4096+32 = 4128). If the parameter Reset is 1 the flags of the field are set to the ones specified. If Reset is 0, the flags are added by using a bitwise Or operator.

Possible flag names: ReadOnly, Required, NoExport, Invisible, Hidden, Print, NoZoom, NoRotate, NoView, Multiline, Password, NoToggleToOff, RadioIsUnion, CommitOnSelCh, Edit, Sorted, FileSelect, MultiSelect, DoNotSpellCheck, DoNotScroll or Comb.

See Dynapdf\_help.pdf for the meaning of the flags or their numerical value.

See also [SetFieldFlags](#) function in DynaPDF manual.

### See also

- 71.58 DynaPDF.CreateJSAction 2687
- 71.294 DynaPDF.New 3032
- 71.374 DynaPDF.SetFieldDate 3183
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.383 DynaPDF.SetFieldMapName 3197



<i>71.377. DYNAPDF.SETFIELDFLAGS</i>	3189
• 71.384 DynaPDF.SetFieldName	3198
• 71.388 DynaPDF.SetFieldToolTip	3203
• 71.397 DynaPDF.SetGStateFlags	3218
• 71.398 DynaPDF.SetImportFlags	3220

### **Example Databases**

- [DynaPDF/Create PDF with sum form field](#)
- [DynaPDF/Form/Form](#)

### **71.377.1 Blog Entries**

- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.378 DynaPDF.SetFieldFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldFont"; PDF; Field; Name; Style; Size; Embed; CodePage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Name

Font name for new font to set or empty text to deactivate current font.

"Arial"

#### Style

Font style value. Can be a combination of values 1 for italic, 2 for bold, 4 for underlined and 8 for striked.

3

#### Size

Font size in points.

12

#### Embed

Whether to embed font in PDF. Can be 1 to embed or 0 to not embed.

1

#### CodePage

The code page to use. Default is 1252 for Windows ANSI. Code page can be 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 8859-2, 8859-3, 8859-4, 8859-5, 8859-6, 8859-7, 8859-8, 8859-9, 8859-10, 8859-13, 8859-14, 8859-15, 8859-16, Symbol, 437, 737, 775, 850, 852, 855, 857, 860, 861, 862, 863, 864, 865, 866, 869, 874, Unicode

"Unicode"

**Result** Returns OK or error.

### Description

Form fields support natively only the code pages 1252 and MacRoman.

See `dynapdf_help` manual for details.

You need to set CMap directory first with `DynaPDF.SetCMapDir`.

See also [SetFieldFont](#) function in DynaPDF manual.

### Examples

Set unicode font:

```
Variable setzen [ $r ; Wert: MBS( "DynaPDF.SetCMapDir"; $pdf; "/Users/cs/Desktop/CMap"; "Recur-
```

71.378. *DYNAPDF.SETFIELDFONT* 3191

sive" ) ]

Variable setzen [ \$r ; Wert: MBS( "DynaPDF.SetFieldFont"; \$pdf; "Test"; "Arial"; 0; 12; 1; "Unicode") ]

Variable setzen [ \$r ; Wert: MBS("DynaPDF.SetTextFieldValue"; \$pdf; "Test"; ""; ""; "Left") ]

### See also

- 71.159 DynaPDF.GetFieldCount 2841
- 71.294 DynaPDF.New 3032
- 71.353 DynaPDF.SetCMapDir 3154
- 71.373 DynaPDF.SetFieldColor 3181
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.384 DynaPDF.SetFieldName 3198
- 71.430 DynaPDF.SetTextFieldValue 3281
- 71.439 DynaPDF.SetUseStdFonts 3292

### 71.378.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 19th March 2015, last changed 19th March 2015.

## 71.379 DynaPDF.SetFieldFontEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldFontEx"; PDF; Field; FontHandle; FontSize )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### FontHandle

The handle of the font returned from DynaPDF.SetFieldFont.

\$Font

#### FontSize

The desired font size.

12

**Result** Returns OK or error.

### Description

The function requires a font handle that was returned by DynaPDF.SetFieldFont.

See also [SetFieldFontEx](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New 3032
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.380 DynaPDF.SetFieldFontSize 3194
- 71.382 DynaPDF.SetFieldIndex 3196
- 71.388 DynaPDF.SetFieldToolTip 3203
- 71.392 DynaPDF.SetFontEx 3210
- 71.439 DynaPDF.SetUseStdFonts 3292

### 71.379.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 19th March 2015, last changed 19th March 2015.

**71.380 DynaPDF.SetFieldFontSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldFontSize"; PDF; Field; FontSize )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**FontSize**

The new font size.  
12

**Result** Returns OK or error.

**Description**

See also [SetFieldFontSize](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.386 DynaPDF.SetFieldTextAlign 3201
- 71.388 DynaPDF.SetFieldToolTip 3203

Created 18th August 2014, last changed 18th August 2014.

**71.381 DynaPDF.SetFieldHighlightMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldHighlightMode"; PDF; Field; Mode )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Field**

The field index or field name.

"FirstName"

**Mode**

The new highlight mode. Can be None, Invert, Outline, Push, PushUpd.

"Invert"

**Result** Returns OK or error.

**Description**

Supported field types are buttons, checkboxes, radio buttons, and signature fields. Other field types do not support this property.

See also [SetFieldHighlightMode](#) function in DynaPDF manual.

**See also**

- 71.165 DynaPDF.GetFieldHighlightMode 2848
- 71.208 DynaPDF.GetLinkHighlightMode 2900
- 71.294 DynaPDF.New 3032
- 71.342 DynaPDF.SetAnnotHighlightMode 3140
- 71.405 DynaPDF.SetLinkHighlightMode 3234

Created 18th August 2014, last changed 18th August 2014.

## 71.382 DynaPDF.SetFieldIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldIndex"; PDF; Field )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

**Result** Returns OK or error.

### Description

All fields, independently whether they are created with DynaPDF or imported from external documents, holds in internal index which can be used to reorder or sort the fields with this index.

The start index of a new field is not zero, it is 1000 instead. This makes it easier to set a field in front of all other fields without changing all field indices. However, changing a field index changes not the tab order directly, the fields of a page must be sorted before the page will be closed with the function DynaPDF.SortFieldByIndex.

The tab order of interactive form fields must be set for each page separately.

See also [SetFieldIndex](#) function in DynaPDF manual.

### See also

- 71.166 DynaPDF.GetFieldIndex 2849
- 71.168 DynaPDF.GetFieldName 2851
- 71.173 DynaPDF.GetFieldType 2856
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 18th August 2014.



**71.383 DynaPDF.SetFieldMapName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldMapName"; PDF; Field; Name )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Name**

The new mapping name.  
"FirstName1"

**Result** Returns OK or error.

**Description**

The mapping is used when exporting interactive form field data from the document.  
If the mapping name of the field should be deleted set the parameter Name to empty string.  
See also [SetFieldMapName](#) function in DynaPDF manual.

**See also**

- 71.161 DynaPDF.GetFieldExpValue 2843
- 71.167 DynaPDF.GetFieldMapName 2850
- 71.168 DynaPDF.GetFieldName 2851
- 71.294 DynaPDF.New 3032
- 71.374 DynaPDF.SetFieldDate 3183
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.384 DynaPDF.SetFieldName 3198

Created 18th August 2014, last changed 18th August 2014.

## 71.384 DynaPDF.SetFieldName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldName"; PDF; Field; NewName )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### NewName

The new name for the field.

"LastName"

**Result** Returns OK or error.

### Description

Field names must sometimes be changed when multiple interactive forms with identical field names are imported. The resulting form will be damaged if the names of such fields are not changed.

The function SetFieldName() does not check whether a field name is already in use by another field. Such a checking would not be useful, because the usage of the function would be much more complicated. Use the function DynaPDF.CheckFieldNames to check the integrity of the form after field names were changed.

Changing of field names can cause problems if the field was used in JavaScript action or global JavaScript. The JavaScript(s) must also be changed to avoid error messages in Adobe's Acrobat. Global JavaScripts can be accessed with the function DynaPDF.GetJavaScript and changed with the function DynaPDF.ChangeJavaScript. A JavaScript Action can be accessed with the function DynaPDF.GetJavaScriptAction and changed with the function DynaPDF.ChangeJavaScriptAction.

See also [SetFieldName](#) function in DynaPDF manual.

### See also

- 71.40 DynaPDF.CheckFieldNames 2653
- 71.167 DynaPDF.GetFieldMapName 2850
- 71.173 DynaPDF.GetFieldType 2856
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.373 DynaPDF.SetFieldColor 3181
- 71.374 DynaPDF.SetFieldDate 3183
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.378 DynaPDF.SetFieldFont 3190

71.384. <i>DYNAPDF.SETFIELDNAME</i>	3199
• 71.382 DynaPDF.SetFieldIndex	3196
• 71.383 DynaPDF.SetFieldMapName	3197

Created 18th August 2014, last changed 18th August 2014.

## 71.385 DynaPDF.SetFieldOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldOrientation"; PDF; Field; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Field

The field index or field name.  
"FirstName"

#### Value

The orientation value.  
90

**Result** Returns OK or error.

### Description

The parameter Value must a multiple of 90 or 0. Positive values rotate the field counter clockwise, negative values clockwise.

See also [SetFieldOrientation](#) function in DynaPDF manual.

### See also

- 71.169 DynaPDF.GetFieldOrientation 2852
- 71.184 DynaPDF.GetImportOrientation 2872
- 71.218 DynaPDF.GetOrientation 2914
- 71.294 DynaPDF.New 3032
- 71.386 DynaPDF.SetFieldTextAlign 3201
- 71.412 DynaPDF.SetOrientation 3246
- 71.413 DynaPDF.SetOrientationEx 3247

Created 18th August 2014, last changed 18th August 2014.

**71.386 DynaPDF.SetFieldTextAlign**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldTextAlign"; PDF; Field; Align )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Field**

The field index or field name.

"FirstName"

**Align**

The text alignment. Can be Left, Center, Right or Justify.

"Justify"

**Result** Returns OK or error.

**Description**

The parameter Field must be a valid reference to a text field or button field.

See also [SetFieldTextAlign](#) function in DynaPDF manual.

**See also**

- 71.170 DynaPDF.GetFieldTextAlign 2853
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.294 DynaPDF.New 3032
- 71.380 DynaPDF.SetFieldFontSize 3194
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.387 DynaPDF.SetFieldTextColor 3202

Created 18th August 2014, last changed 18th August 2014.

## 71.387 DynaPDF.SetFieldTextColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldTextColor"; PDF; Color )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Color

The color value to use.  
MBS( "DynaPDF.RGB"; 0; 0; 255 )

**Result** Returns OK or error.

### Description

The color value must be defined in the current color space. The color space must not be changed before the fields are created which should use this color.

With RGB colorspace, you would pass 65536\*blue+256\*green+red as number.

You can use DynaPDF.RGB function to calculate RGB color value.

See also [SetFieldTextColor](#) function in DynaPDF manual.

### See also

- 71.49 DynaPDF.CreateButton 2667
- 71.153 DynaPDF.GetFieldBackColor 2835
- 71.154 DynaPDF.GetFieldBorderColor 2836
- 71.158 DynaPDF.GetFieldColor 2840
- 71.170 DynaPDF.GetFieldTextAlign 2853
- 71.171 DynaPDF.GetFieldTextColor 2854
- 71.369 DynaPDF.SetFieldBackColor 3176
- 71.370 DynaPDF.SetFieldBorderColor 3177
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.386 DynaPDF.SetFieldTextAlign 3201

Created 18th August 2014, last changed 18th August 2014.

**71.388 DynaPDF.SetFieldToolTip**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFieldToolTip"; PDF; Field; Text )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Field**

The field index or field name.  
"FirstName"

**Text**

The tooltip text.  
"Hello World"

**Result** Returns OK or error.

**Description**

See also [SetFieldToolTip](#) function in DynaPDF manual.

**See also**

- 71.158 DynaPDF.GetFieldColor 2840
- 71.172 DynaPDF.GetFieldToolTip 2855
- 71.294 DynaPDF.New 3032
- 71.373 DynaPDF.SetFieldColor 3181
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.379 DynaPDF.SetFieldFontEx 3192
- 71.380 DynaPDF.SetFieldFontSize 3194

Created 18th August 2014, last changed 18th August 2014.

## 71.389 DynaPDF.SetFillColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFillColor"; PDF; values )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### values

The values for the colors.  
0

**Result** Returns OK or error message.

### Description

The components of non-Lab color spaces must be in the range from 0 through 1. The \*a and \*b components of a Lab color space are typically in a range from -128 through 127. The \*L component ranges from 0 through 100.

The number of components must match the number of components of the underlying color space. You can add an alpha value on the end.

For a grayscale color, please pass 3 times the gray level for a RGB color.

See also [SetFillColor](#) function in DynaPDF manual.

### Examples

Sets color to red:

```
MBS( "DynaPDF.SetFillColor"; $PDF; 1.0; 0.0; 0.0 )
```

Sets color to blue:

```
MBS( "DynaPDF.SetFillColor"; $PDF; 0.0; 0.0; 1.0 )
```

Sets color to middle level gray:

```
MBS( "DynaPDF.SetFillColor"; $PDF; 0.5; 0.5; 0.5 )
```

Write in CMYK:

```
# switch to CMYK
Variable setzen [ $r; Wert:MBS( "DynaPDF.SetColorSpace"; $pdf; "DeviceCMYK" ) ]
# set color to Cyan
Variable setzen [ $r; Wert:MBS("DynaPDF.SetFillColor"; $pdf; 1; 0; 0; 0) ]
# Write some text
Variable setzen [ $r; Wert:MBS("DynaPDF.WriteText"; $pdf; 100; $x; "Some cyan text") ]
```



# now switch back to RGB

Variable setzen [ \$r; Wert:MBS( "DynaPDF.SetColorSpace"; \$pdf; "DeviceRGB" ) ]

Draw line in a separation color:

# draw line in Cut Color

Set Variable [ \$cs ; Value: MBS("DynaPDF.CreateSeparationCS"; \$pdf; "Through Cut"; "DeviceCMYK"; -1; MBS("DynaPDF.CMYK"; 0; 255; 0; 0)) ]

Set Variable [ \$r ; Value: MBS("DynaPDF.SetExtColorSpace"; \$pdf; \$cs) ]

Set Variable [ \$r ; Value: MBS("DynaPDF.SetFillColor"; \$pdf; 1) ]

Set Variable [ \$r ; Value: MBS( "DynaPDF.Rectangle"; \$pdf; \$x; \$y; \$w; \$h; "Stroke" ) ]

Set RGB color:

# Red 247 Green 162 Blue 53

MBS( "DynaPDF.SetFillColor"; \$PDF; 247/255; 162/255; 53/255 )

Set color to white for RGB:

MBS( "DynaPDF.SetFillColor"; \$PDF; 1.0; 1.0; 1.0 )

Set color with integer values in range of 0 to 255:

MBS( "DynaPDF.SetFillColor"; \$PDF; \$red / 255.0; \$green / 255.0; /blue / 255.0 )

### See also

- 71.158 DynaPDF.GetFieldColor 2840
- 71.280 DynaPDF.InsertImage 3003
- 71.288 DynaPDF.LineTo 3022
- 71.293 DynaPDF.MoveTo 3030
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.315 DynaPDF.Rectangle 3084
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.368 DynaPDF.SetFieldBBox 3174
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.514 DynaPDF.WriteText 3420

### Example Databases

- [Barcode/DynaPDF Barcode](#)

- Barcode/QRCode PDF
- DynaPDF/Create PDF with Bezier Curves
- DynaPDF/Create Text as PDF/A
- DynaPDF/Picture to PDF with navigation
- DynaPDF/Picture to PDF
- DynaPDF/Shrink PDF pages
- DynaPDF/Signature Appearance
- DynaPDF/WriteFText
- OCR/OCR with DynaPDF

### **71.389.1 FileMaker Magazin**

- Ausgabe 5/2018, Seite 28

Created 18th August 2014, last changed 6th September 2019.

**71.390 DynaPDF.SetFloatPrecision**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFloatPrecision"; NumTextDecDigits; NumVectDecDigits )

**Parameters****NumTextDecDigits**

Number decimal digits for text object.

5

**NumVectDecDigits**

Number of decimal digits for vector objects.

5

**Result** Returns OK or error.

**Description**

The default precision for text and vector graphics is two decimal digits. This corresponds to 7200 DPI. The output precision of bezier curves is one higher as for vector graphics. The maximum output precision is 5 decimal digits.

Note that higher values increase the resulting file size.

See also [SetFloatPrecision](#) function in DynaPDF manual.

Created 23th November 2016, last changed 23th November 2016.

## 71.391 DynaPDF.SetFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFont"; PDF; Name; Style; Size; Embed; CodePage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Font name for new font to set or empty text to deactivate current font.

"Arial"

#### Style

Font style value. Can be a combination of values 1 for italic, 2 for bold, 4 for underlined and 8 for striked.

3

#### Size

Font size in points.

12

#### Embed

Whether to embed font in PDF. Can be 1 to embed or 0 to not embed.

1

#### CodePage

The code page to use. Default is 1252 for Windows ANSI. Code page can be 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 8859-2, 8859-3, 8859-4, 8859-5, 8859-6, 8859-7, 8859-8, 8859-9, 8859-10, 8859-13, 8859-14, 8859-15, 8859-16, Symbol, 437, 737, 775, 850, 852, 855, 857, 860, 861, 862, 863, 864, 865, 866, 869, 874, Unicode

"Unicode"

**Result** Returns font handle or error message.

### Description

See also [SetFont](#) function in DynaPDF manual.

### Examples

Sets a font:

```
MBS("DynaPDF.SetFont"; $pdf; "Zapf Dingbats"; 0; 12)
```

Sets italic font:

```
MBS("DynaPDF.SetFont"; $pdf; "Times"; 1; 40; 1; "unicode")
```

71.391. *DYNAPDF.SETFONT* 3209

**See also**

- 71.361 DynaPDF.SetContent 3164
- 71.392 DynaPDF.SetFontEx 3210
- 71.416 DynaPDF.SetPageCoords 3254
- 71.432 DynaPDF.SetTextRect 3284
- 71.439 DynaPDF.SetUseStdFonts 3292
- 71.440 DynaPDF.SetUseSystemFonts 3294
- 71.492 DynaPDF.Table.SetFont 3378
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.512 DynaPDF.WriteStyledTextEx 3416
- 71.514 DynaPDF.WriteText 3420

**Example Databases**

- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/WriteFText](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [OCR/OCR with DynaPDF](#)

**71.391.1 FileMaker Magazin**

- Ausgabe 3/2019, Seite 38
- Ausgabe 2/2019, Seite 27

Created 18th August 2014, last changed 27th May 2017.

## 71.392 DynaPDF.SetFontEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFontEx"; PDF; Name; Style; Size; Embed; CodePage )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Name

Font name for new font to set or empty text to deactivate current font.

"Arial"

#### Style

Font style value. Can be a combination of values 1 for italic, 2 for bold, 4 for underlined and 8 for striked.

3

#### Size

Font size in points.

12

#### Embed

Whether to embed font in PDF. Can be 1 to embed or 0 to not embed.

1

#### CodePage

The code page to use. Default is 1252 for Windows ANSI. Code page can be 1250, 1251, 1252, 1253, 1254, 1255, 1256, 1257, 1258, 8859-2, 8859-3, 8859-4, 8859-5, 8859-6, 8859-7, 8859-8, 8859-9, 8859-10, 8859-13, 8859-14, 8859-15, 8859-16, Symbol, 437, 737, 775, 850, 852, 855, 857, 860, 861, 862, 863, 864, 865, 866, 869, 874, Unicode

**Result** Returns font handle or error message.

### Description

See also [SetFontEx](#) function in DynaPDF manual.

### See also

- 71.33 DynaPDF.ChangeFont 2644
- 71.141 DynaPDF.GetContent 2817
- 71.294 DynaPDF.New 3032
- 71.361 DynaPDF.SetContent 3164
- 71.363 DynaPDF.SetDocInfoEx 3167
- 71.379 DynaPDF.SetFieldFontEx 3192

<i>71.392. DYNAPDF.SETFONTEX</i>	3211
• 71.391 DynaPDF.SetFont	3208
• 71.395 DynaPDF.SetFontSelMode	3215

Created 18th August 2014, last changed 27th May 2017.

## 71.393 DynaPDF.SetFontOrigin

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFontOrigin"; PDF; Origin )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Origin

Which origin to use: DownLeft or TopLeft  
"TopLeft"

**Result** Returns OK or error.

### Description

The font origin is automatically set to "TopLeft" or "DownLeft" if the coordinate system will be changed (see DynaPDF.SetPageCoords for further information).

See also [SetFontOrigin](#) function in DynaPDF manual.

### See also

- 71.22 DynaPDF.BeginContinueText 2629
- 71.175 DynaPDF.GetFontOrigin 2858
- 71.177 DynaPDF.GetFontWeight 2860
- 71.294 DynaPDF.New 3032
- 71.396 DynaPDF.SetFontWeight 3216
- 71.416 DynaPDF.SetPageCoords 3254

Created 21st October 2014, last changed 21st October 2014.



**71.394 DynaPDF.SetFontSearchOrder**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFontSearchOrder"; PDF { ; Type1; Type2; Type3; Type4 } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Type1**

Optional

The first type.

"TrueType"

**Type2**

Optional

The second type.

"Type1"

**Type3**

Optional

The third type.

"OpenType"

**Type4**

Optional

The forth type.

"StdFont"

**Result** Returns OK or error.

**Description**

The default search order is:

- TrueType
- OpenType (OpenType fonts with PostScript outlines)
- Type1

\* PDF Standard Fonts

Every font type can be disabled if necessary with the value "Disabled". You can pass no parameters, you reset the search order to the default order as described above. If you provide 4 types, you define a new search order.

See also [SetFontSearchOrder](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New

3032

Created 21st October 2014, last changed 21st October 2014.

**71.395 DynaPDF.SetFontSelMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFontSelMode"; PDF; Mode )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Mode**

The new mode. Can be FamilyName, PostScriptName or FullName.

"FamilyName"

**Result** Returns OK or error.

**Description**

Note that the font names that will be passed to DynaPDF.SetFont must correspond with the current font selection mode. If you don't know which font name you have in memory then use DynaPDF.SetFontEx to select fonts. The font selection mode can be changed at runtime whenever necessary.

See also [SetFontSelMode](#) function in DynaPDF manual.

**See also**

- 71.176 DynaPDF.GetFontSelMode 2859
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.392 DynaPDF.SetFontEx 3210
- 71.396 DynaPDF.SetFontWeight 3216
- 71.493 DynaPDF.Table.SetFontSelMode 3380

Created 21st October 2014, last changed 23th October 2014.

## 71.396 DynaPDF.SetFontWeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetFontWeight"; PDF; Weight )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Weight

The new weight value.

100

**Result** Returns OK or error.

### Description

The font weight specifies the thickness or boldness of a font. Not all fonts are available in a bold style; such a font style can then be emulated only. The property `FontWeight` specifies the weight that should be emulated. The visual weight of a font depends on the base weight in that the font was defined. For example, the glyphs of an ultra-light font look also light if an extrabold weight will be emulated.

However, a bold font will never be emulated if the font is already available in a bold style. To disable the emulation of bold fonts set the property to 100 or 0.

Font weights:

- 100 - 300 // Ultra-light, Light
- 400 - 500 // Standard
- 600 - 1000 // Bold, Extrabold

See also [SetFontWeight](#) function in DynaPDF manual.

### See also

- 71.175 DynaPDF.GetFontOrigin 2858
- 71.177 DynaPDF.GetFontWeight 2860
- 71.150 DynaPDF.GetFTextHeight 2829
- 71.228 DynaPDF.GetPageHeight 2927
- 71.294 DynaPDF.New 3032

71.396. <i>DYNAPDF.SETFONTWEIGHT</i>	3217
• 71.361 DynaPDF.SetContent	3164
• 71.393 DynaPDF.SetFontOrigin	3212
• 71.395 DynaPDF.SetFontSelMode	3215
• 71.418 DynaPDF.SetPageHeight	3258

Created 21st October 2014, last changed 23th October 2014.

## 71.397 DynaPDF.SetGStateFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "DynaPDF.SetGStateFlags"; PDF; Value { ; Reset } )
```

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new value. Can be a number or a list including one or more of the following words: Compatible, RestorePageCoords, RealTopDownCoords, NativeBlackWhite, UseImageColorSpace, IgnoreICCProfiles, AnsiStringIsUTF8, RealPassThrough, NoBitmapAlpha or NoImageDuplCheck.

3

#### Reset

Optional

If the parameter Reset is true, the new flags replace current flags. If set to false, the flags are combined with the current flags.

0

**Result** Returns OK or error.

### Description

If the parameter Reset is true, the new flags replace current flags. If set to false, the flags are combined with the current flags.

See also [SetGStateFlags](#) function in DynaPDF manual.

### Examples

Set two options:

```
MBS( "DynaPDF.SetGStateFlags"; $pdf; "RealPassThrough, UseImageColorSpace" )
```

### See also

- 71.122 DynaPDF.GetAnnotFlags 2794
- 71.178 DynaPDF.GetGStateFlags 2861
- 71.294 DynaPDF.New 3032
- 71.321 DynaPDF.ReplaceImage 3097
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.358 DynaPDF.SetColorSpace 3159

Flag	Description
RestorePageCoords	If set, the current base coordinate system like bottom or top down is saved and restored with the graphics state.
RealTopDownCoords	This flag is reserved for future extensions. It is not implemented yet.
NativeBlackWhite	If set, RGB black or white is not converted to DeviceGray. This flag affects text and vector graphics but no images.
UseImageColorSpace	If set, the active color space is ignored when inserting an image. The color space is taken from the image file instead. See also "Color spaces and Images" in DynaPDF help file.
IgnoreICCProfiles	If set, embedded ICC profiles in image files are ignored when inserting an image. The image is inserted in the base color space instead. This flag is not meaningful if the flag gfUseImageColorSpace is absent. See also "Color spaces and Images" in DynaPDF help file.
AnsiStringIsUTF8	If set, all Ansi functions interpret string parameters as UTF-8 encoded Unicode strings. Should not be used with MBS Plugin.
RealPassThrough	If set, JPEG images are inserted as is. JPEG images are normally rebuild, also in pass-through mode, to avoid issues with certain malformed JPEG images which cannot be displayed in Adobes Acrobat or Reader. If you know that your JPEG images work then set this flag to avoid unnecessary processing time.
NoBitmapAlpha	If set, the alpha channel in bitmaps files will be ignored. This is sometimes useful since many 32 bit bitmaps contain an invalid alpha channel that makes the image fully transparent.
NoImageDuplCheck	If set, no duplicate check for images will be performed. This can significantly improve processing speed especially for memory based images.
NoObjCompression	If set, object compression will be disabled.

- 71.377 DynaPDF.SetFieldFlags 3188
- 71.398 DynaPDF.SetImportFlags 3220
- 71.406 DynaPDF.SetMetaConvFlags 3236

## Example Databases

- [DynaPDF/Place Picture](#)

### 71.397.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 21st August 2015, last changed 27th May 2017.

## 71.398 DynaPDF.SetImportFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetImportFlags"; PDF; Flags )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Flags

The new flags value.  
268435454

**Result** Returns OK or error.

### Description

By default the plugin uses ifImportAll combined with ifImportAsPage.

Flag Description

See also [SetImportFlags](#) function in DynaPDF manual.

### Examples

Set import flags:

```
MBS( "DynaPDF.SetImportFlags"; $PDF; 268435454 + 2147483648 )
```

Set import flags with names:

```
MBS( "DynaPDF.SetImportFlags"; $pdf; "ImportAll$ImportAsPage$PrepareForPDFA" )
```

Import and Export PDF:

```
# Start new PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# set import flags
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags"; $pdf; "ImportAll ImportAsPage PrepareFor-
PDFA" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags2"; $pdf; "DuplicateCheck" ) ]
# Import PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; MyTable::InputPDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Save back
Set Field [ MyTable::OutputPDF; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
```



71.398. *DYNAPDF.SETIMPORTFLAGS* 3221  
Set Variable [ \$r; Value:MBS("DynaPDF.Release"; \$pdf) ]

#### See also

- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.273 DynaPDF.ImportPDFPage 2982
- 71.294 DynaPDF.New 3032
- 71.316 DynaPDF.Release 3086
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.377 DynaPDF.SetFieldFlags 3188
- 71.397 DynaPDF.SetGStateFlags 3218
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291

#### Example Databases

- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Add Weblinks](#)
- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/List ColorSpaces](#)
- [DynaPDF/PDF Library](#)
- [DynaPDF/Personalized PDFs](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factor-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

#### 71.398.1 Blog Entries

- [ZUGFeRD 2.0 and Factor-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [MBS FileMaker Plugin, version 6.1pr2](#)
- [MBS Filemaker Plugin, version 4.1pr4](#)

**71.398.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 36
- Ausgabe 2/2019, Seite 27
- Ausgabe 1/2018, Seite 24

Created 18th August 2014, last changed 27th May 2017.

ImportAll	268435454	If set, all objects of an external PDF file are imported.
ContentOnly	0	If set, interactive objects such as annotations, bookmarks or form fields are excluded from import.
NoContent	1	If set, the visual contents of external pages will not be imported. This flag can be used to copy interactive objects from one file into another, such as interactive form fields.
ImportAsPage	2147483648	If set, pages are not converted to templates. This flag is useful if an imported page must not be used multiple times. Conversion to templates is recommended if multiple imported pages should appear on the same page; such overlapping pages can cause resource conflicts which produces unpredictable output.
CatalogAction	2	If set, catalog actions will be imported if any. The documents catalog is the root object of a PDF file, which can trigger actions when the file will be opened, closed, or printed. See AddActionToObj() for further information.
PageActions	4	If set, page actions are imported if any. A page action is an action that was added to the page itself, not an object of a page.
Bookmarks	8	If set, bookmarks are imported if any.
Articles	16	If set, Articles are imported if any.
PageLabels	32	If set, page labels are imported if any. If multiple files are imported, DynaPDF imports the page labels of the first file only.
Thumbs	64	If set, thumb nail images are imported if any. Thumb nails can be dynamically created by Acrobat since Acrobat 5. The thumb nail images can be removed to reduce disk space.
TranspGroups	128	If set, transparency groups are imported if any. If transparency groups are removed the objects appear then opaque.
SeparationInfo	256	If set, the separation information dictionary will be imported if any.
BoxColorInfo	512	If set, the bounding boxes artbox, bleedbox and trimbox are shown in user defined color. Note that the cropbox represents the current page; the page is already cropped if a cropbox was defined.
StructureTree	1024	If set, structure trees are imported if any. A structure tree contains information about the logical structure of a document. This information can be used by screen readers and other accessibility plug-ins to enable certain features. The information of a structure tree is not required to view or print a PDF document.
Transition	2048	If set, transition settings are import. A transition dictionary contains information about how a presentation should be displayed. These settings can be removed if the document should not be used in presentation mode.
SearchIndex	4096	If set, the file path to an external search index will be imported if any.
JavaScript	8192	If set, global JavaScripts are imported if any. Note that JavaScript actions can use the functions defined in global JavaScripts. If these scripts are removed, JavaScript actions must normally also removed to avoid errors. However, it is often useful to remove the scripts for certain debug operations.
JSActions	16384	If set, JavaScript actions are imported if any. This flag is useful if an imported form contains JavaScripts which produces errors or warnings. For instance, a document can define certain scripts which may require specific settings such as a document info string and so on. It is then often difficult to determine which object produces the error or warning because it can be a JavaScript action or a global JavaScript. In such cases, JavaScript actions can be excluded temporarily to check whether the error still occurs.
DocInfo	32768	If set, document info entries are imported if any. Already existing entries are not overridden.
EmbeddedFiles	2097152	If set, embedded files are imported.
FileCollections	4194304	If set, the global definition of a collection is imported. The file attachments are still imported if the flag ifEmbeddedFiles is set. The PDF file is simply not longer marked as portable collection, also known as PDF Package. See also DynaPDF.CreateCollection.
AllAnnots	10420224	If set, all types of annotations are imported.
FreeText	65536	This flag is meaningful only if the flag ifAllAnnots is clear. If set, FreeText annotations are imported if any.
TextAnnot	131072	This flag is meaningful only if the flag ifAllAnnots is clear. If set, text annotations are imported if any.
Link	262144	This flag is meaningful only if the flag ifAllAnnots is clear. If set, link annotations are imported if any. This annotation type is used for weblinks, page links, and file links.
Stamp	524288	This flag is meaningful only if the flag ifAllAnnots is clear. If set, stamp annotations are imported if any.

## 71.399 DynaPDF.SetImportFlags2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetImportFlags2"; flags )

### Parameters

#### flags

The new import flags.  
16

**Result** Returns OK.

### Description

Flags to pass:

MergeLayers	1	If set, layers with identical name are merged. If this flag is absent DynaPDF imports such layers separately so that each layer refers still to the pages where it was originally used.
Normalize	2	Replace LZW compression with Flate, apply limit checks, repair errors if possible
UseProxy	4	Not meaningful for PDF files which are loaded from a memory buffer. If set, all streams are loaded from the file on demand but they are never hold in memory. This reduces drastically the memory usage and enables the processing of almost arbitrary large PDF files with minimal memory usage. The corresponding PDF file must not be deleted before DynaPDF.CloseFile or DynaPDF.CloseFileEx was called.
NoMetadata	8	Ignore metadata streams which are attached to fonts, pages, images, and so on.
DuplicateCheck	16	Perform a duplicate check on color spaces, fonts, images, patterns, and templates when merging PDF files.

See also [SetImportFlags2](#) function in DynaPDF manual.

### Examples

Activate duplicate check to reduce file size:

```
MBS("DynaPDF.SetImportFlags2"; $pdf; 16)
```

Activate normalization, duplicate check and layer merge:

```
MBS( "DynaPDF.SetImportFlags2"; $pdf; "MergeLayers$Normalize$DuplicateCheck" )
```

Import and Export PDF:

```

# Start new PDF
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# set import flags
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags"; $pdf; "ImportAll ImportAsPage PrepareFor-
PDFA" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetImportFlags2"; $pdf; "DuplicateCheck" ) ]
# Import PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; MyTable::InputPDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
# Save back
Set Field [ MyTable::OutputPDF; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.182 DynaPDF.GetImportFlags 2870
- 71.183 DynaPDF.GetImportFlags2 2871
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 71.340 DynaPDF.SetAnnotFlags 3137
- 71.341 DynaPDF.SetAnnotFlagsEx 3139
- 71.438 DynaPDF.SetUseGlobalImpFiles 3291

**71.399.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr2](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.400 DynaPDF.SetJPEGQuality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetJPEGQuality"; PDF; quality )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### quality

The new JPEG quality. From 0 to 100.  
75

**Result** Returns OK on success.

### Description

The function accepts also negative values. A negative value indicates that the pass-through mode for JPEG images should be disabled. Note that JPEG images are always recompressed if the pass-through mode is disabled.

If the JPEG2000 compression filter is used the value represents a divisor of the uncompressed image size to the wished compressed image size. The possible range is 0 to 1000. If the value is 0 or 1000 the loss-less variant of JPEG compression is used (see also DynaPDF.InsertImage). Lower values cause higher compression rates, however, worse image quality.

The default value is 70.

See also [SetJPEGQuality](#) function in DynaPDF manual.

### Examples

sets quality level:

```
MBS( "DynaPDF.SetJPEGQuality"; $PDF; 75 )
```

Save JPEG image to container as script:

```
Set Variable [ $Image ; Value: MBS("GMImage.NewFromContainer"; MyTable::BMPContainer) ]
Set Variable [ $r ; Value: MBS("GMImage.SetQuality";$Image; 90) ]
Set Field [ MyTable::JPEGContainer ; MBS("GMImage.WriteToJPEGContainer"; $Image) ]
Set Variable [ $r ; Value: MBS("GMImage.Release";$Image) ]
```

### See also

- 71.86 DynaPDF.DrawCircle 2732
- 71.200 DynaPDF.GetJPEGQuality 2892
- 71.281 DynaPDF.InsertImageFile 3007

71.400. <i>DYNAPDF.SETJPEGQUALITY</i>	3227
• 71.294 DynaPDF.New	3032
• 71.359 DynaPDF.SetCompressionFilter	3161
• 87.191 GImage.New	4642
• 87.193 GImage.NewFromContainer	4646
• 87.214 GImage.Release	4674
• 87.274 GImage.SetQuality	4754
• 87.338 GImage.WriteToJPEGContainer	4836

### **Example Databases**

- [DynaPDF/PDF Differences](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Scan with WIA to PDF](#)

Created 18th August 2014, last changed 21st December 2018.

## 71.401 DynaPDF.SetLanguage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetLanguage"; PDF; Language )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Language

The new language tag.  
"en-US"

**Result** Returns OK or error.

### Description

The document's language should always be set when creating Tagged PDF files or Interactive Forms. The spell check feature in Adobe's Acrobat depends on the properly defined document language. See [dynapdf\\_help.pdf](#) manual for details.

See also [SetLanguage](#) function in DynaPDF manual.

### Examples

Set language:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetLanguage"; $pdf; "en-US") ]
```

### See also

- [71.202 DynaPDF.GetLanguage](#) 2894
- [71.214 DynaPDF.GetOCGContUsage](#) 2909
- [71.294 DynaPDF.New](#) 3032

### Example Databases

- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)



### **71.401.1 Blog Entries**

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)
- [Creating PDF/A in FileMaker with ZUGFeRD standard](#)

### **71.401.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 24

Created 4th November 2014, last changed 18th June 2016.

## 71.402 DynaPDF.SetLeading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetLeading"; PDF; leading )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### leading

New leading size or zero.

0

**Result** Returns OK or error message.

### Description

The function sets the leading that is used by the functions DynaPDF.AddContinueText and DynaPDF.WriteF-Text to calculate the distance between two text lines. The default leading in PDF is the font size. A value of 0 determines that the font size should be used as leading, this is the default behavior.

See also [SetLeading](#) function in DynaPDF manual.

### Examples

Set line height:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetLeading"; $pdf; 18) ]
```

### See also

- [71.6 DynaPDF.AddContinueText](#) 2601
- [71.22 DynaPDF.BeginContinueText](#) 2629
- [71.206 DynaPDF.GetLeading](#) 2898
- [71.294 DynaPDF.New](#) 3032
- [71.407 DynaPDF.SetMetadata](#) 3238
- [71.411 DynaPDF.SetOpacity](#) 3245
- [71.508 DynaPDF.WriteFText](#) 3406

### Example Databases

- [DynaPDF/Invoice/Invoice](#)

Created 18th August 2014, last changed 27th May 2017.

**71.403 DynaPDF.SetLineStyle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetLineStyle"; PDF; Style )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Style**

The new line join style. Can be MiterJoin, RoundJoin or BevelJoin

**Result** Returns OK or error.

**Description**

The function sets the line join style which specifies how two line segments are connected. The property must be applied inside an open page, template or pattern.

See also SetLineStyle function in dynapdf\_help.pdf.

See also [SetLineStyle](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New

3032

**71.403.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.404 DynaPDF.SetLineWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetLineWidth"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new line width value.  
3

**Result** Returns OK or error message.

### Description

The line width is also used to specify the thickness of the border of annotations and interactive form fields. In the latter case, the line width should be a multiple of one (or zero) and not exceed 3 units. Larger values are still correctly rendered by Adobe's Acrobat but the appearance can be changed when a Reset Form Action is executed or when other changes are made to the document.

See also [SetLineWidth](#) function in DynaPDF manual.

### Examples

Draw two lines in black:

```
Set Variable [ $r; Value:MBS ( "DynaPDF.SetStrokeColor" ; $pdf ; 0; 0; 0 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.SetLineWidth" ; $pdf ; 1 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 20; 20 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 20; 40 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 30; 30 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 30; 50 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.StrokePath" ; $pdf ) ]
```

### See also

- 71.64 DynaPDF.CreateSigField 2702
- 71.207 DynaPDF.GetLineWidth 2899
- 71.234 DynaPDF.GetPageWidth 2935
- 71.249 DynaPDF.GetTextWidth 2951
- 71.293 DynaPDF.MoveTo 3030
- 71.300 DynaPDF.PageLink 3052

71.404. <i>DYNAPDF.SETLINEWIDTH</i>	3233
• 71.301 DynaPDF.PageLinkEx	3055
• 71.405 DynaPDF.SetLinkHighlightMode	3234
• 71.428 DynaPDF.SetStrokeColor	3277
• 71.506 DynaPDF.WebLink	3401

### **Example Databases**

- [DynaPDF/Add Weblinks](#)
- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Shrink PDF pages](#)

Created 18th August 2014, last changed 1st January 2017.

## 71.405 DynaPDF.SetLinkHighlightMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetLinkHighlightMode"; PDF; Mode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Mode

The new highlight mode. Can be None, Invert, Outline, Push or PushUpd.

"Invert"

**Result** Returns OK or error.

### Description

The highlight mode applies a visual effect when moving the mouse over a link annotation.

See also [SetLinkHighlightMode](#) function in DynaPDF manual.

### Examples

Setup drawing for links:

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetLineWidth"; $pdf; 1) ]
```

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetLinkHighlightMode"; $pdf; "invert") ]
```

### See also

- 71.106 DynaPDF.FileLink 2768
- 71.165 DynaPDF.GetFieldHighlightMode 2848
- 71.208 DynaPDF.GetLinkHighlightMode 2900
- 71.294 DynaPDF.New 3032
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.342 DynaPDF.SetAnnotHighlightMode 3140
- 71.381 DynaPDF.SetFieldHighlightMode 3195
- 71.404 DynaPDF.SetLineWidth 3232
- 71.506 DynaPDF.WebLink 3401

**Example Databases**

- [DynaPDF/Add Weblinks](#)

**71.405.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 18th December 2016, last changed 4th May 2020.

## 71.406 DynaPDF.SetMetaConvFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.SetMetaConvFlags"; PDF; Flags )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Flags

The flags.  
"Default"

**Result** Returns OK or error.

### Description

You can pass flags as text list of flag names or calculate the flag values.

See also [SetMetaConvFlags](#) function in DynaPDF manual.

### See also

- 71.211 DynaPDF.GetMetaConvFlags 2903
- 71.294 DynaPDF.New 3032
- 71.397 DynaPDF.SetGStateFlags 3218

Created 18th May 2017, last changed 18th May 2017.



Flag name	Hex Number value	Description
Default	00000000	Default conversion
Debug	00000001	Write debug information into the content stream
ShowBounds	00000002	Show the bounding boxes of text strings
NoTextScaling	00000004	Do not scale text
ClipView	00000008	Draw the file into a clipping rectangle
UseRclBounds	00000010	Use rclBounds instead of rclFrame
NoClippingRgn	00000040	Disables SelectClippingRegion, IntersectClipRect, and SelectClipPath
NoFontEmbedding	00000080	Do not embed fonts ->Fonts should be embedded!!!
NoImages	00000100	Ignore image records
NoStdPatterns	00000200	Ignore standard patterns
NoBmpPatterns	00000400	Ignore bitmap patterns
NoText	00000800	Ignore text records
UseUnicode	00001000	Ignore ANSI_CHARSET
UseTextScaling	00004000	Scale text instead of using the intercharacter spacing array
NoUnicode	00008000	Avoid usage of Unicode fonts ->recommended to enable PDF 1.2 compability
FullScale	00010000	Recommended if 32 bit coordinates are used
UseRclFrame	00020000	This flag should be set if the rclFrame rectangle is not properly set
DefBkModeTransp	00040000	Initialize the background mode to transparent (SetBkMode() overrides this state).
ApplyBidiAlgo	00080000	Apply the bidirectional algorithm on Unicode strings
GDIFontSelection	00100000	Use the GDI to select fonts
RclFrameEx	00200000	If set, and if the rclBounds rectangle is larger than rclFrame, the function extends the output rectangle according to rclBounds and uses the resulting bounding box to calculate the image size (rclBounds represents the unscaled image size). This is probably the correct way to calculate the image size. However, to preserve backward compatibility the default calculation cannot be changed.
NoTextClipping	00400000	If set, the ETO_CLIPPED flag in text records is ignored.
SrcCopy_Only	00800000	If set, images which use a ROP code other than SRCCOPY are ignored. This is useful when processing Excel 2007 spool files.
ClipRclBounds	01000000	If set, the graphic is drawn into a clipping path with the size of rclBounds. This flag is useful if the graphic contains content outside of its bounding box.
DisableRasterEMF	02000000	If set, EMF files which use unsupported ROP codes are not rastered.
NoBBoxCheck	04000000	If set, the rclBounds and rclFrame rectangles are used as is. DynaPDF uses normally the rclBounds rectangle to calculate the picture size if the resolution of the EMF file seems to be larger than 1800 DPI since this is mostly an indication that the rclFrame rectangle was incorrectly calculated. If you process EMF files in such a high resolution then this flag must be set. The flag can be set by default.
IgnoreEmbFonts	08000000	If set, embedded fonts in GDIComment records will be ignored. This flag must be set if the fonts of an EMF spool file were pre-loaded with ConvertEMF-Spool(). Spool fonts must always be loaded in a pre-processing step since required fonts are not necessarily embedded in the EMF files.

## 71.407 DynaPDF.SetMetadata

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetMetadata"; PDF; ObjType; Handle; XMP )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ObjType

The object type. Can be Catalog, Font, Image, Page or Template.

"Catalog"

#### Handle

Object handle or -1 for the catalog object.

-1

#### XMP

The XMP metadata as text.

**Result** Returns OK or error.

### Description

The function deletes the XMP stream if no buffer will be provided.

If the global XMP stream of the Catalog object should be replaced then proceed as follows:

- Set the wished output PDF version with DynaPDF.SetPDFVersion.
- Get a preview of the XMP stream with DynaPDF.GetMetadata.
- Modify the returned stream as needed and save it with DynaPDF.SetMetadata, finished!

The above steps make sure that the XMP metadata and document info contain the same values. This is especially important for PDF standards like PDF/A or PDF/X. DynaPDF makes sure that the creation and modification date will not be changed when closing the file.

See also [SetMetadata](#) function in DynaPDF manual.

### Examples

Read, change and write XMP metadata:

```
Variable setzen [ $pdf ; Wert: MBS("DynaPDF.New") ]
# Load PDF from container
Variable setzen [ $r ; Wert: MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Merge PDFs::InputPDF) ]
Variable setzen [ $r ; Wert: MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]
#
# get current XMP
```

## 71.407. DYNAPDF.SETMETADATA

3239

```
Variable setzen [ $xmp ; Wert: MBS("DynaPDF.GetMetaData"; $pdf; "catalog"; -1) ]  
#  
# delete XMP metadata  
// Variable setzen [ $r ; Wert: MBS("DynaPDF.SetMetaData"; $pdf; "") ]  
#  
# or write new XMP metadata  
Variable setzen [ $r ; Wert: MBS("DynaPDF.SetMetaData"; $pdf; "catalog"; -1; $XMP) ]  
#  
# save  
Feldwert setzen [ Merge PDFs::FinalPDF ; MBS("DynaPDF.Save"; $pdf; "Merged.pdf") ]  
Variable setzen [ $r ; Wert: MBS("DynaPDF.Release"; $pdf) ]
```

### See also

- 71.195 DynaPDF.GetInMetadata 2886
- 71.212 DynaPDF.GetMetadata 2904
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.316 DynaPDF.Release 3086
- 71.329 DynaPDF.Save 3116
- 71.402 DynaPDF.SetLeading 3230
- 71.414 DynaPDF.SetPDFVersion 3250

### 71.407.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 29th July 2015, last changed 7th March 2019.

## 71.408 DynaPDF.SetMiterLimit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetMiterLimit"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new miter limit.  
10.0

**Result** Returns OK or error.

### Description

When two line segments meet at a sharp angle and mitered joins have been specified as the line join style (see `SetLineJoinStyle()`), it is possible for the miter to extend far beyond the thickness of the line stroking the path. The miter limit imposes a maximum on the ratio of the miter length to the line width (see Figure below). When the limit is exceeded, the join is converted from a miter to a bevel.

Default value = 10.0

See also `SetMiterLimit` function in `dynapdf_help.pdf`.

See also [SetMiterLimit](#) function in DynaPDF manual.

### See also

- 71.294 DynaPDF.New

3032

### 71.408.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.409 DynaPDF.SetNumberFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetNumberFormat"; PDF; Field; Sep; DecPlaces; NegStyle { ; CurrStr; Prepend } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Sep

The decimal separator. Can be CommaDot, NoneDot, DotComma or NoneComma.

"CommaDot"

#### DecPlaces

Number of decimal places

2

#### NegStyle

Negative number format. Can be MinusBlack, Red, ParensBlack or ParensRed.

"ParensRed"

#### CurrStr

Optional

The currency string. Or empty for no currency.

"€"

#### Prepend

Optional

Position of Currency string. Pass 1 to prepend or 0 to append.

0

**Result** Returns OK or error.

### Description

The function restricts the allowed input characters of a text field to numbers and formats the resulting string as specified. A number format is represented as two separate JavaScript Actions in PDF which are automatically created and added to the text field by this function.

The same formats can also be applied manually by creating two JavaScript actions: one for the OnKeyStroke event, and one for the OnFormat event of the text field. See DynaPDF.AddActionToObj() for a description of the events.

DynaPDF uses the JavaScript functions AFDate\_Keystroke() / AFDate\_KeystrokeEx() or AFDate\_Format() / AFDate\_FormatEx() to apply a number or date format. The functions are described in the JavaScript scripting reference which is available at <http://www.adobe.com>.

See also [SetNumberFormat](#) function in DynaPDF manual.

### Examples

Create field for numbers:

```
Set Variable [ $f; Value:MBS("DynaPDF.CreateTextField"; $pdf; Create Form::Name; -1; Create Form::Multiline; Create Form::MaxLen; Create Form::PosX; Create Form::PosY; Create Form::Width; Create Form::Height) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetTextFieldValue"; $pdf; $f; Create Form::Value; Create Form::DefaultValue) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetNumberFormat"; $pdf; $f; "CommaDot"; 2; "Red"; "€"; 0) ]
```

### See also

- [71.1 DynaPDF.AddActionToObj](#) 2591
- [71.58 DynaPDF.CreateJSAction](#) 2687
- [71.59 DynaPDF.CreateListBox](#) 2690
- [71.67 DynaPDF.CreateTextField](#) 2709
- [71.294 DynaPDF.New](#) 3032
- [71.417 DynaPDF.SetPageFormat](#) 3256
- [71.430 DynaPDF.SetTextFieldValue](#) 3281

### Example Databases

- [DynaPDF/Create PDF with sum form field](#)

#### 71.409.1 Blog Entries

- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

Created 16th August 2016, last changed 16th August 2016.

**71.410 DynaPDF.SetOCGState**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetOCGState"; PDF; Handle; On { ; SaveState } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Handle**

The OCG handle. Index from 0 to DynaPDF.GetOCGCount-1.  
\$OCG

**On**

Wished state: 1 = visible, 0 = invisible  
1

**SaveState**

Optional  
Whether to save the state in the PDF file? Pass 1 to save or 0 to only switch temporarily. Default 0.  
1

**Result** Returns OK or error.

**Description**

If the parameter SaveState is 1, the new state is also saved in the PDF file. Otherwise, the state is only changed temporarily so that the wished state can be rendered with DynaPDF.RenderPage or DynaPDF.RenderPDFFile for example.

Note that only the new state of the current OCG will be saved. If the state of other OCGs were changed beforehand, while SaveState was set to 0, then these changes will not be considered.

See also [SetOCGState](#) function in DynaPDF manual.

**See also**

- 71.213 DynaPDF.GetOCG 2906
- 71.215 DynaPDF.GetOCGCount 2911
- 71.291 DynaPDF.LockLayer 3028
- 71.294 DynaPDF.New 3032
- 71.320 DynaPDF.RenderPage 3093
- 71.318 DynaPDF.RenderPDFFile 3089
- 71.339 DynaPDF.SetAnnotDate 3135

### 71.410.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 18th February 2019, last changed 18th February 2019.



**71.411 DynaPDF.SetOpacity**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetOpacity"; PDF; Value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Value**

The new value. 1.0 = opaque, 0.0 = invisible.  
0.5

**Result** Returns OK or error.

**Description**

The parameter Value must be in the range 0.0 to 1.0. If Value is zero the annotation is invisible, if Value is 1.0, the annotation is completely opaque.

At time of publication the opacity property is used for text annotations only. Later versions of DynaPDF use this property may be for other PDF objects too.

Default value = 1.0

See also [SetOpacity](#) function in DynaPDF manual.

**See also**

- 71.217 DynaPDF.GetOpacity 2913
- 71.294 DynaPDF.New 3032
- 71.345 DynaPDF.SetAnnotOpacity 3143
- 71.402 DynaPDF.SetLeading 3230

Created 18th August 2014, last changed 18th August 2014.

## 71.412 DynaPDF.SetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetOrientation"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new roatation value. From -360 to 360 in 90 degree steps.

90

**Result** Returns OK or error message.

### Description

The function sets the orientation of a page. The parameter Value must be a multiple of 90 or 0. Positive values rotate the page clockwise, negative counter counter clockwise.

Note that the page will be rotated entirely incl. all objects. The width and height of the page are left unchanged, including the coordinates. Creating landscape paper formats require further such as changing the coordinate system. This can be done with DynaPDF.SetOrientationEx. Another way to create a landscape paper format is to change the bounding box of the page, see DynaPDF.SetBBox.

Default is 0.

See also DynaPDF.SetOrientationEx.

See also [SetOrientation](#) function in DynaPDF manual.

### See also

- 71.125 DynaPDF.GetAnnotation 2798
- 71.169 DynaPDF.GetFieldOrientation 2852
- 71.218 DynaPDF.GetOrientation 2914
- 71.294 DynaPDF.New 3032
- 71.325 DynaPDF.RotateCoords 3106
- 71.349 DynaPDF.SetBBox 3147
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.413 DynaPDF.SetOrientationEx 3247

Created 18th August 2014, last changed 22nd January 2015.

## 71.413 DynaPDF.SetOrientationEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetOrientationEx"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new roatation value. From -360 to 360 in 90 degree steps.  
90

**Result** Returns OK or error message.

### Description

The function changes the orientation of a page, incl. important page properties such as the width and height, and the coordinate system. The parameter Value must be a multiple of 90 or 0. Positive values rotate the page clockwise, negative values counter clockwise.

The zero point of the coordinate system is set to the upper left or down left point depending on the current page coordinate system (top down or bottom up).

When using a landscape paper format the functions DynaPDF.GetPageWidth and DynaPDF.GetPageHeight return the logical width and height of the page. While the real paper format is not changed the functions return the paper format as if the page would have a landscape paper format (the width and height are exchanged).

The coordinate system is also changed so that you can work with the page as if it were not rotated. Form fields and annotations are automatically rotated with the page; there is no need to rotate them manually.

Pages which are rotated with this function appear in a viewer application always in the right orientation. Also if the page is rotated, e.g. by 180 degrees the page is shown as if it were not rotated.

Notice:

Since landscape or rotated paper formats require a changed coordinate system, care must be taken into account if further coordinate transformations must be applied. DynaPDF makes sure that one transformation can be applied without causing errors, e.g. rotating or translating the coordinate system, but coordinate transformations must not be nested.

See also DynaPDF.SetOrientation.

See also [SetOrientationEx](#) function in DynaPDF manual.

### Examples

Rotate page 1 of current PDF:

```
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetOrientationEx"; $pdf; 180) ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

Rotate a PDF to 90°:

```

Let ( [
# start new PDF
PDF = MBS("DynaPDF.New");
# read in existing PDF
OpenResult = MBS("DynaPDF.OpenPDFFromContainer"; PDF; Test::InputPDF);
OpenError = MBS("IsError");
ImportResult = MBS("DynaPDF.ImportPDFFile"; PDF );
ImportError = MBS("IsError");

# edit page and rotate
r = MBS("DynaPDF.EditPage"; PDF; 1) ;
r = MBS("DynaPDF.SetOrientationEx"; PDF; 90) ;
r = MBS("DynaPDF.EndPage"; PDF) ;

# save PDF
OutputPDF = MBS("DynaPDF.Save"; PDF; GetAsText(Test::InputPDF));
SaveError = MBS("IsError");
ReleaseError = MBS("DynaPDF.Release"; PDF);

Result = If(
// all okay?
OpenError = 0 and ImportError = 0 and /*rotateError = 0 UND*/ SaveError = 0 and MBS( "Con-
tainer.GetSize"; OutputPDF; "PDF " ) >0;
// than return new PDF
OutputPDF;
// return old PDF
Test::InputPDF)
];
result )

```

**See also**

- 56.19 Container.GetSize 1667
- 71.88 DynaPDF.EditPage 2736
- 71.94 DynaPDF.EndPage 2747
- 71.234 DynaPDF.GetPageWidth 2935
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.325 DynaPDF.RotateCoords 3106
- 71.329 DynaPDF.Save 3116
- 71.385 DynaPDF.SetFieldOrientation 3200
- 71.412 DynaPDF.SetOrientation 3246

71.413. *DYNAPDF.SETORIENTATIONEX*

3249

- 127.6 IsError

6374

Created 18th August 2014, last changed 5th January 2017.

## 71.414 DynaPDF.SetPDFVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPDFVersion"; PDF; version )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### version

The version number. Can be 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, PDF/X-1a:2001, PDF/X-1a:2003, PDF/X-3:2002, PDF/X-3:2003, PDF/A-1b and other values.

"1.3"

**Result** Returns OK or error message.

### Description

The function changes the output PDF file version. The default output version is PDF 1.4. If a PDF 1.5 or higher file will be opened for import, the output version will be changed if necessary to the version that the file requires.

Possible values in plugin version 4.4: 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 2.0, PDF/X-1a:2001, PDF/X-1a:2002, PDF/X-3:2002, PDF/X-3:2003, PDF/A-1b 2005, PDF/X-4, PDF/A 1a 2005, PDF/A 2a, PDF/A 2b, PDF/A 2u, PDF/A 3a, PDF/A 3b or PDF/A 3u.

DynaPDF Version 4.0 also supports ZUGFeRD Basic, ZUGFeRD Comfort and ZUGFeRD Extended.

DynaPDF Version 4.0.28.81 defines new formats: FacturX Minimum, FacturX Basic, FacturX Basic WL, FacturX Comfort, FacturX Extended, ZUGFeRD2 Minimum, ZUGFeRD2 Basic, ZUGFeRD2 Basic WL, ZUGFeRD2 Comfort and ZUGFeRD2 Extended.

Requires DynaPDF Lite license for PDF/A and PDF/X versions.

See also [SetPDFVersion](#) function in DynaPDF manual.

### Examples

Set PDF Version 1.3:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPDFVersion"; $pdf; "1.3") ]
```

Set basic ZUGFeRD version:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPDFVersion"; $pdf; "ZUGFeRD Basic") ]
```

# with PDF/A 3b

**See also**

71.414. <i>DYNAPDF.SETPDFVERSION</i>	3251
• 71.146 DynaPDF.GetDynaPDFVersion	2823
• 71.221 DynaPDF.GetPDFVersion	2918
• 71.277 DynaPDF.Initialize	2992
• 71.294 DynaPDF.New	3032
• 71.407 DynaPDF.SetMetadata	3238

### **Example Databases**

- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Scan with WIA to PDF](#)

### **71.414.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr1](#)

Created 18th August 2014, last changed 30th May 2019.

## 71.415 DynaPDF.SetPageBBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageBBox"; PDF; PageIndex; Box; Left; Bottom; Right; Top )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PageIndex

The page index in range from 1 to DynaPDF.GetPageCount.

1

#### Box

Optional, which box to use. Default is Mediabox. You can pass MediaBox, CropBox, ArtBox, BleedBox or TrimBox.

"MediaBox"

#### Left

The left coordinate of the rectangle.

0

#### Bottom

The bottom coordinate of the page.

0

#### Right

The right coordinate of the page.

595

#### Top

The top coordinate of the page.

842

**Result** Returns OK or error.

### Description

This function is intended to be fast as possible. It requires no open page like DynaPDF.SetBBox, it does not change the default media or crop box, and it does not adjust the current coordinate system if the media box will be changed.

The function is useful if only one or more bounding boxes must be changed, without editing a page, or when a specific area of a page should be rendered. In the latter case change the crop box and restore it to the previous value when finish.

To delete a bounding box set the bounding box to 0, 0, 0, 0.

See also [SetPageBBox](#) function in DynaPDF manual.

**See also**



71.415. DYNAPDF.SETPAGEBBOX	3253
• 71.224 DynaPDF.GetPageBBox	2921
• 71.226 DynaPDF.GetPageCount	2924
• 71.232 DynaPDF.GetPageMode	2933
• 71.233 DynaPDF.GetPageNum	2934
• 71.349 DynaPDF.SetBBox	3147
• 71.368 DynaPDF.SetFieldBBox	3174
• 71.416 DynaPDF.SetPageCoords	3254
• 71.419 DynaPDF.SetPageLayout	3261
• 71.420 DynaPDF.SetPageMode	3262
• 71.421 DynaPDF.SetPageWidth	3263

### 71.415.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr6](#)

Created 4th May 2018, last changed 4th May 2018.

## 71.416 DynaPDF.SetPageCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageCoords"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new setting. Can be BottomUp or TopDown.

"TopDown"

**Result** Returns OK on success or error message.

### Description

The native coordinate system of the Portable Document Format is bottom-up. However, DynaPDF supports also top-down coordinates to make the usage of the library easier. Top-down coordinates are then converted to bottom-up coordinates by DynaPDF, the coordinate system in the PDF file will not be changed by this function.

When changing the coordinate system to top-down, the coordinate origin of text (font origin) will also be changed to the top-left corner (see also DynaPDF.SetFontOrigin()). If the coordinate system will be changed to bottom-up, the font origin is also changed to the down-left corner too.

Default value is BottomUp.

The property PageCoords is a global property which can be changed at any time. When transforming the coordinate system, bottom-up coordinates must be used.

See also DynaPDF.GetPageCoords.

See also [SetPageCoords](#) function in DynaPDF manual.

### Examples

Set to top down:

MBS( "DynaPDF.SetPageCoords"; \$PDF; "TopDown" )

### See also

- 71.225 DynaPDF.GetPageCoords 2923
- 71.226 DynaPDF.GetPageCount 2924
- 71.232 DynaPDF.GetPageMode 2933
- 71.305 DynaPDF.PlaceTemplate 3066
- 71.325 DynaPDF.RotateCoords 3106
- 71.391 DynaPDF.SetFont 3208

71.416. <i>DYNAPDF.SETPAGECOORDS</i>	3255
• 71.415 DynaPDF.SetPageBBox	3252
• 71.419 DynaPDF.SetPageLayout	3261
• 71.420 DynaPDF.SetPageMode	3262
• 71.461 DynaPDF.Table.Create	3326

### **Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

#### **71.416.1 Blog Entries**

- [Merge PDF with table of contents](#)

#### **71.416.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 37
- Ausgabe 2/2019, Seite 27
- Ausgabe 5/2018, Seite 28

Created 18th August 2014, last changed 18th August 2014.

## 71.417 DynaPDF.SetPageFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageFormat"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new value.  
"DIN A4"

**Result** Returns OK on success or error message.

### Description

If an open page can be detected the format of the page will be changed, the new format will also be used for newly created pages. If no open page is detected, the default format for new pages will be set only. This function changes the media box of a page (see DynaPDF.SetBBox for further information).

Valid values are: DIN A3, DIN A4, DIN A5, DIN B4, DIN B5, DIN B6, DIN C3, DIN C4, DIN C5, DIN C6, DIN C65, DIN DL, DIN E4, DIN E5, DIN E6, DIN E65, DIN M5, DIN M65, US Legal or US Letter.

See also DynaPDF.GetPageWidth, DynaPDF.GetPageHeight, DynaPDF.SetPageHeight and DynaPDF.SetPageWidth.

Common paper formats and sizes in points:

See also [SetPageFormat](#) function in DynaPDF manual.

### Examples

Set to DIN A3:

```
MBS( "DynaPDF.SetPageFormat"; $PDF; "A3" )
```

Set to US letter:

```
MBS( "DynaPDF.SetPageFormat"; $PDF; "US Letter" )
```

### See also

- 71.16 DynaPDF.AppendPage 2619
- 71.228 DynaPDF.GetPageHeight 2927
- 71.234 DynaPDF.GetPageWidth 2935

Format	Size in units (Width x Height)
DIN A3	842.0 x 1191.0
DIN A4	595.0 x 842.0
DIN A5	419.0 x 595.0
DIN B4	709.0 x 1001.0
DIN B5	499.0 x 709.0
DIN B6	354.0 x 499.0
DIN C3	918.0 x 1298.0
DIN C4	649.0 x 918.0
DIN C5	459.0 x 649.0
DIN C6	323.0 x 459.0
DIN C65	323.0 x 649.0
DIN DL	312.0 x 624.0
DIN E4	623.0 x 879.0
DIN E5	439.0 x 624.0
DIN E6	312.0 x 439.0
DIN E65	312.0 x 624.0
DIN M5	439.0 x 632.0
DIN M65	317.0 x 632.0
US Legal	612.0 x 1008.0
US Letter	612.0 x 792.0

- 71.294 DynaPDF.New 3032
- 71.313 DynaPDF.ReadImageFormat 3081
- 71.349 DynaPDF.SetBBox 3147
- 71.409 DynaPDF.SetNumberFormat 3241
- 71.418 DynaPDF.SetPageHeight 3258
- 71.420 DynaPDF.SetPageMode 3262
- 71.421 DynaPDF.SetPageWidth 3263

### Example Databases

- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.418 DynaPDF.SetPageHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageHeight"; PDF; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Height

The new page height.

1000

**Result** Returns OK on success or error.

### Description

The function changes the height of the currently open page if any, or the default height for newly created pages. This function changes the media box of a page (see also DynaPDF.SetBBox). The page height must be greater zero. You can change the page of current page or outside a page the size of new pages.

10cm is about 283 points, unless you changed units (DynaPDF.SetUserUnit). Calculate with cm value divided by 2.54 cm/inch and multiplied with 72 points per inch.

See also DynaPDF.SetPageFormat and DynaPDF.SetPageWidth.

Common paper formats and sizes in points:

See also [SetPageHeight](#) function in DynaPDF manual.

### Examples

Sets page size:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPageWidth"; $pdf; 500) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPageHeight"; $pdf; 500) ]
```

### See also

- 71.16 DynaPDF.AppendPage 2619
- 71.228 DynaPDF.GetPageHeight 2927
- 71.231 DynaPDF.GetPageLayout 2932
- 71.234 DynaPDF.GetPageWidth 2935
- 71.242 DynaPDF.GetTemplHeight 2944
- 71.294 DynaPDF.New 3032

Format	Size in units (Width x Height)
DIN A3	842.0 x 1191.0
DIN A4	595.0 x 842.0
DIN A5	419.0 x 595.0
DIN B4	709.0 x 1001.0
DIN B5	499.0 x 709.0
DIN B6	354.0 x 499.0
DIN C3	918.0 x 1298.0
DIN C4	649.0 x 918.0
DIN C5	459.0 x 649.0
DIN C6	323.0 x 459.0
DIN C65	323.0 x 649.0
DIN DL	312.0 x 624.0
DIN E4	623.0 x 879.0
DIN E5	439.0 x 624.0
DIN E6	312.0 x 439.0
DIN E65	312.0 x 624.0
DIN M5	439.0 x 632.0
DIN M65	317.0 x 632.0
US Legal	612.0 x 1008.0
US Letter	612.0 x 792.0

- 71.416 DynaPDF.SetPageCoords 3254
- 71.417 DynaPDF.SetPageFormat 3256
- 71.419 DynaPDF.SetPageLayout 3261
- 71.443 DynaPDF.SetUserUnit 3299

### Example Databases

- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/PSD Conversion](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/WMF Conversion](#)
- [OCR/OCR with DynaPDF](#)

### 71.418.1 Blog Entries

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 18th August 2014, last changed 18th October 2016.



**71.419 DynaPDF.SetPageLayout**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageLayout"; PDF; Layout )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Layout**

The page layout can be SinglePage, OneColumn, TwoColumnLeft, TwoColumnRight, TwoPageLeft, TwoPageRight or Default.

"Default"

**Result** Returns OK or error message.

**Description**

See also [SetPageLayout](#) function in DynaPDF manual.

**See also**

- 71.226 DynaPDF.GetPageCount 2924
- 71.228 DynaPDF.GetPageHeight 2927
- 71.229 DynaPDF.GetPageLabel 2929
- 71.230 DynaPDF.GetPageLabelCount 2931
- 71.231 DynaPDF.GetPageLayout 2932
- 71.294 DynaPDF.New 3032
- 71.415 DynaPDF.SetPageBBox 3252
- 71.416 DynaPDF.SetPageCoords 3254
- 71.418 DynaPDF.SetPageHeight 3258
- 71.420 DynaPDF.SetPageMode 3262

Created 18th August 2014, last changed 18th August 2014.

## 71.420 DynaPDF.SetPageMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageMode"; PDF; Mode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Mode

The mode to use. Can be UseMode, UseOutlines, UseThumbs, Fullscreen, UseOC or UseAttachments. "Fullscreen"

**Result** Returns OK on success or error message.

### Description

See also [SetPageMode](#) function in DynaPDF manual.

#### See also

- 71.3 DynaPDF.AddBookmark 2595
- 71.226 DynaPDF.GetPageCount 2924
- 71.229 DynaPDF.GetPageLabel 2929
- 71.232 DynaPDF.GetPageMode 2933
- 71.233 DynaPDF.GetPageNum 2934
- 71.278 DynaPDF.InsertBookmark 2999
- 71.294 DynaPDF.New 3032
- 71.415 DynaPDF.SetPageBBox 3252
- 71.417 DynaPDF.SetPageFormat 3256
- 71.419 DynaPDF.SetPageLayout 3261

Created 18th August 2014, last changed 18th August 2014.

## 71.421 DynaPDF.SetPageWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPageWidth"; PDF; Width )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Width

The new page width.

800

**Result** Returns OK on success or error.

### Description

The function changes the width of the currently open page if any, or the default width for newly created pages. This function changes the media box of a page (see also DynaPDF.SetBBox). The page width must be greater zero. You can change the page of current page or outside a page the size of new pages.

10cm is about 283 points, unless you changed units (DynaPDF.SetUserUnit). Calculate with cm value divided by 2.54 cm/inch and multiplied with 72 points per inch.

See also DynaPDF.SetPageFormat and DynaPDF.SetPageHeight.

Common paper formats and sizes in points:

See also [SetPageWidth](#) function in DynaPDF manual.

### Examples

Sets page size:

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPageWidth"; $pdf; 500) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.SetPageHeight"; $pdf; 500) ]
```

### See also

- 71.207 DynaPDF.GetLineWidth 2899
- 71.228 DynaPDF.GetPageHeight 2927
- 71.232 DynaPDF.GetPageMode 2933
- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.349 DynaPDF.SetBBox 3147

Format	Size in units (Width x Height)
DIN A3	842.0 x 1191.0
DIN A4	595.0 x 842.0
DIN A5	419.0 x 595.0
DIN B4	709.0 x 1001.0
DIN B5	499.0 x 709.0
DIN B6	354.0 x 499.0
DIN C3	918.0 x 1298.0
DIN C4	649.0 x 918.0
DIN C5	459.0 x 649.0
DIN C6	323.0 x 459.0
DIN C65	323.0 x 649.0
DIN DL	312.0 x 624.0
DIN E4	623.0 x 879.0
DIN E5	439.0 x 624.0
DIN E6	312.0 x 439.0
DIN E65	312.0 x 624.0
DIN M5	439.0 x 632.0
DIN M65	317.0 x 632.0
US Legal	612.0 x 1008.0
US Letter	612.0 x 792.0

- 71.417 DynaPDF.SetPageFormat 3256
- 71.418 DynaPDF.SetPageHeight 3258
- 71.420 DynaPDF.SetPageMode 3262
- 71.443 DynaPDF.SetUserUnit 3299

### Example Databases

- [DynaPDF/Convert to 2 Pages](#)
- [DynaPDF/Generate Previews](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/PSD Conversion](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/WMF Conversion](#)
- [OCR/OCR with DynaPDF](#)

### 71.421.1 **Blog Entries**

- [Normalize PDF orientation with MBS Plugins and DynaPDF](#)

Created 18th August 2014, last changed 18th October 2016.

## 71.422 DynaPDF.SetPrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetPrintSettings"; PDF; DuplexMode; PickTrayByPDFSize; NumCopies; PrintScaling; PrintRanges )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### DuplexMode

The duplex mode. Can be FlipShortEdge, FlipLongEdge, Simplex or None.  
"FlipLongEdge"

#### PickTrayByPDFSize

Whether to pick tray by PDF size. Can be 1 = true, 0 = false or -1 = app default.  
1

#### NumCopies

The number of copies between 1 and 5. 0 is app default.  
2

#### PrintScaling

Can be None or AppDefault currently.  
"None"

#### PrintRanges

Defines the print ranges. For this pass one parameter for start number and one for end number with as many parameters as you want to pass arguments.

**Result** Returns OK or error.

### Description

Viewer applications use the print settings to initialize the print dialog. Print ranges, if set, consist of two numbers which define the start and end page number that should be printed. See also DynaPDF.GetPrintSettings and DynaPDF.GetInPrintSettings.

This settings are for Adobe Reader, not for printing the PDF in FileMaker!  
See also [SetPrintSettings](#) function in DynaPDF manual.

### Examples

Set to print duplex and from page 3 to 8 and 12 to 15.

```
MBS( "DynaPDF.SetPrinterSettings"; $PDF; "FlipLongEdge"; -1; 1; "None"; 3; 8; 12; 15 )
```

71.422. *DYNAPDF.SETPRINTSETTINGS*

3267

**See also**

- 71.196 DynaPDF.GetInPrintSettings 2888
- 71.235 DynaPDF.GetPrintSettings 2937
- 71.294 DynaPDF.New 3032

### **71.422.1 Blog Entries**

- [Tip of the day: PDF print settings](#)

Created 14th March 2015, last changed 13th February 2019.

## 71.423 DynaPDF.SetReplaceICCProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetReplaceICCProfile"; PDF; ICCProfileType; Path )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### ICCProfileType

The profile type. Can be Gray, RGB, CMYK or Lab.  
"Gray"

#### Path

The new native path.  
"c:/Windows/System32/spool/drivers/color/gray\_gamma2.2.icm"

**Result** Returns OK or error.

### Description

The plugin manages a list of replacement profiles which the DynaPDF library can query with the OnReplaceICCProfile callback. Needed for DynaPDF.CheckConformance.

This function fills the list, so the plugin can return the right profile for the right type when needed.

### Examples

Set gray profile:

```
MBS( "DynaPDF.SetReplaceICCProfile"; $pdf; "gray"; "c:/Windows/System32/spool/drivers/color/gray_gamma2.2.icm" )
```

Set RGB profile:

```
MBS( "DynaPDF.SetReplaceICCProfile"; $pdf; "RGB"; "c:/Windows/System32/spool/drivers/color/sRGB Color Space Profile.icm" )
```

Set CMYK profile:

```
MBS( "DynaPDF.SetReplaceICCProfile"; $pdf; "gray"; "c:/Windows/System32/spool/drivers/color/EuropeISOCoatedFOGRA27.icc" )
```

### See also

- 71.39 DynaPDF.CheckConformance 2650
- 71.236 DynaPDF.GetReplaceICCProfile 2938



<i>71.423. DYNAPDF.SETREPLACEICCPROFILE</i>	3269
• 71.237 DynaPDF.GetReplaceICCProfileData	2939
• 71.294 DynaPDF.New	3032
• 71.424 DynaPDF.SetReplaceICCProfileData	3270

### **71.423.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr6](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)

### **71.423.2 FileMaker Magazin**

- Ausgabe 1/2018, Seite 24

Created 8th March 2016, last changed 30th September 2017.

## 71.424 DynaPDF.SetReplaceICCProfileData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetReplaceICCProfileData"; PDF; ICCProfileType; ProfileData )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### ICCProfileType

The profile type. Can be Gray, RGB, CMYK or Lab.  
"Gray"

#### ProfileData

The container value with the profile data.  
MyTable::RGBProfile

**Result** Returns OK or error.

### Description

The plugin manages a list of replacement profiles which the DynaPDF library can query with the OnReplaceICCProfile callback. Needed for DynaPDF.CheckConformance.

This function fills the list, so the plugin can return the right profile for the right type when needed.

### Examples

Set replacements for missing ICC profiles:

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetReplaceICCProfileData"; $pdf; "rgb"; Create Text::RGB ICC Profile) ]
```

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetReplaceICCProfile"; $pdf; "gray"; Create Text::Gray ICC Profile) ]
```

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetReplaceICCProfileData"; $pdf; "cmyk"; Create Text::CMYK ICC Profile) ]
```

### See also

- 71.39 DynaPDF.CheckConformance 2650
- 71.236 DynaPDF.GetReplaceICCProfile 2938
- 71.237 DynaPDF.GetReplaceICCProfileData 2939
- 71.238 DynaPDF.GetReplaceICCProfilesCounter 2940
- 71.294 DynaPDF.New 3032
- 71.423 DynaPDF.SetReplaceICCProfile 3268

### Example Databases

- [DynaPDF/Convert to PDF/A](#)
- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

#### 71.424.1 Blog Entries

- [ZUGFeRD 2.0 and Factur-X for FileMaker](#)
- [MBS FileMaker Plugin, version 7.5pr1](#)

Created 30th September 2017, last changed 30th September 2017.

## 71.425 DynaPDF.SetResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetResolution"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

Image resolution in DPI.  
150

**Result** Returns OK on success.

### Description

The function sets the resolution in DPI (Dots per Inch), in which images are stored by DynaPDF. The property will be ignored if the property SaveNewImageFormat was set to false. 1 bit images are always stored in the original resolution. The image resolution must be in the range 72 to 2048 DPI.

Default value = 150 (DPI)

See also [SetResolution](#) function in DynaPDF manual.

### Examples

Limit images to a maximum of 300 dpi:

```
MBS( "DynaPDF.SetResolution"; $PDF; 300 )
```

### See also

- [71.125 DynaPDF.GetAnnotation](#) 2798
- [71.239 DynaPDF.GetResolution](#) 2941
- [71.280 DynaPDF.InsertImage](#) 3003
- [71.281 DynaPDF.InsertImageFile](#) 3007
- [71.294 DynaPDF.New](#) 3032
- [71.313 DynaPDF.ReadImageFormat](#) 3081
- [71.426 DynaPDF.SetSaveNewImageFormat](#) 3274

### Example Databases

- [DynaPDF/Picture to PDF with navigation](#)

- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.426 DynaPDF.SetSaveNewImageFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetSaveNewImageFormat"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

Whether to recompress images. Value can be 0 or 1.

0

**Result** Returns OK on success.

### Description

The property SaveNewImageFormat specifies whether images should be downscaled if the original resolution of the image is higher than the value of the property resolution (see also DynaPDF.SetResolution). If the property SaveNewImageFormat is false, JPEG compressed images will be inserted in pass-through mode as long as the image is not a CMYK JPEG (such images must be converted because Acrobat viewer require another byte order).

Default value = true

See also [SetSaveNewImageFormat](#) function in DynaPDF manual.

### Examples

Pass through JPEGs if possible:

```
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 0 )
```

Maximum 300 dpi, pass through preferred and otherwise 90% JPEG compression:

```
MBS( "DynaPDF.SetJPEGQuality"; $PDF; 90 )
MBS( "DynaPDF.SetCompressionFilter"; $PDF; "jpeg" )
MBS( "DynaPDF.SetSaveNewImageFormat"; $PDF; 0 )
MBS( "DynaPDF.SetResolution"; $PDF; 300 )
MBS( "DynaPDF.SetUseTransparency"; $PDF; 0 )
```

### See also

- 71.43 DynaPDF.ClipPath 2657
- 71.86 DynaPDF.DrawCircle 2732
- 71.240 DynaPDF.GetSaveNewImageFormat 2942
- 71.280 DynaPDF.InsertImage 3003

71.426. <i>DYNAPDF.SETSAVENEWIMAGEFORMAT</i>	3275
• 71.281 DynaPDF.InsertImageFile	3007
• 71.294 DynaPDF.New	3032
• 71.359 DynaPDF.SetCompressionFilter	3161
• 71.400 DynaPDF.SetJPEGQuality	3226
• 71.425 DynaPDF.SetResolution	3272
• 71.441 DynaPDF.SetUseTransparency	3296

### **Example Databases**

- [DynaPDF/DynaPDF PlaceTemplate](#)
- [DynaPDF/Picture to PDF with navigation](#)
- [DynaPDF/Picture to PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/PSD Conversion](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/Tables](#)
- [DynaPDF/Watermark pages](#)
- [OCR/OCR with DynaPDF](#)

Created 18th August 2014, last changed 30th April 2020.

## 71.427 DynaPDF.SetSeparationInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetSeparationInfo"; PDF; Handle )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

Separation color space handle.

**Result** Returns OK or error.

### Description

The parameter Handle must be a valid handle of a Separation color space.

In high-end printing workflows, pages are ultimately produced as sets of separations, one per colorant. Ordinarily, each page in a PDF file is treated as a composite page that paints graphics objects using all the process colorants and perhaps some spot colorants as well. In other words, all separations for a page are generated from a single PDF description of that page.

In some workflows, however, pages are pre-separated before generating the PDF file. In a pre-separated PDF file, the separations for a page are described as separate page objects, each painting only a single colorant (usually specified in the DeviceGray color space). When this is done, additional information is needed to identify the actual colorant associated with each separation and to group together the page objects representing all the separations for a given page. This information is contained in the separation info of each page object.

See also [SetSeparationInfo](#) function in DynaPDF manual.

#### See also

- 71.79 DynaPDF.DeleteSeparationInfo 2722
- 71.181 DynaPDF.GetImportDocInfo 2868
- 71.294 DynaPDF.New 3032

### 71.427.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 27th August 2017, last changed 27th August 2017.



## 71.428 DynaPDF.SetStrokeColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetStrokeColor"; PDF; values )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### values

The values for the colors.  
0

**Result** Returns OK or error message.

### Description

The components of non-Lab color spaces must be in the range from 0 through 1. The \*a and \*b components of a Lab color space are typically in a range from -128 though 127. The \*L component ranges from 0 through 100.

The number of components must match the number of components of the underlying color space.

See also DynaPDF.SetFillColor.

See also [SetStrokeColor](#) function in DynaPDF manual.

### Examples

Sets color to red:

```
MBS( "DynaPDF.SetStrokeColor"; $PDF; 1.0; 0.0; 0.0 )
```

Sets color to blue:

```
MBS( "DynaPDF.SetStrokeColor"; $PDF; 0.0; 0.0; 1.0 )
```

Draw two lines in black:

```
Set Variable [ $r; Value:MBS ( "DynaPDF.SetStrokeColor" ; $pdf ; 0; 0; 0 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.SetLineWidth" ; $pdf ; 1 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 20; 20 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 20; 40 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 30; 30 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 30; 50 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.StrokePath" ; $pdf ) ]
```

Set color with integer values in range of 0 to 255:

MBS( "DynaPDF.SetStrokeColor"; \$PDF; \$red / 255.0; \$green / 255.0; /blue / 255.0 )

### See also

- 71.63 DynaPDF.CreateSeparationCS 2699
- 71.288 DynaPDF.LineTo 3022
- 71.293 DynaPDF.MoveTo 3030
- 71.294 DynaPDF.New 3032
- 71.338 DynaPDF.SetAnnotColor 3133
- 71.373 DynaPDF.SetFieldColor 3181
- 71.389 DynaPDF.SetFillColor 3204
- 71.404 DynaPDF.SetLineWidth 3232
- 71.453 DynaPDF.StrokePath 3313
- 71.507 DynaPDF.WriteDemoText 3404

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Watermark pages](#)

Created 18th August 2014, last changed 6th September 2019.

## 71.429 DynaPDF.SetTextDrawMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextDrawMode"; PDF; Mode )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Mode

The new text draw mode.

"Invisible"

**Result** Returns OK or error.

### Description

The text draw mode specifies how text should be rendered. Texts can be used as clipping paths such as normal vector graphics; however, the usage is not the same. To use a text as clipping path save the graphics state, set the text draw mode to a clipping mode, paint the objects which should be clipped into the path and restore the graphics state.

Note that the functions DynaPDF.BeginClipPath and DynaPDF.ClipPath can not be used to define a text as clipping path.

Default value = Normal

See also [SetTextDrawMode](#) function in DynaPDF manual.

### Examples

Set stroke draw text mode:

```
MBS( "DynaPDF.SetTextDrawMode"; $pdf; "Stroke" )
```

### See also

- [71.43 DynaPDF.ClipPath](#) 2657
- [71.244 DynaPDF.GetTextDrawMode](#) 2946
- [71.294 DynaPDF.New](#) 3032

### 71.429.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr8](#)

Created 22nd January 2016, last changed 22nd January 2016.

Draw Mode	Description
Normal	Default, render the text in the usual way. The fill color is used as the text's color.
Stroke	Tread the glyph outlines as path to be stroked. The current line width and stroke color are used to paint the path.
FillStroke	Tread the glyph outlines as path to be stroked and filled. The current line width, fill color, and stroke color are used to paint the path.
Invisible	Neither fill nor stroke the text, the text is invisible.
FillClip	Tread the glyph outlines as path to be filled and add this path to the current clipping path. The settings of the current line width and fill color are used to paint the path.
StrokeClip	Tread the glyph outlines as path to be stroked and add this path to the current clipping path. The settings of the current line width and stroke color are used to paint the path.
FillStrokeClip	Tread the glyph outlines as path to be stroked and filled and add this path to the current clipping path. The settings of the current line width, fill color and stroke color are used to paint the path.
Clipping	Tread the glyph outlines as path and add this path to the current clipping path.

## 71.430 DynaPDF.SetTextFieldValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextFieldValue"; PDF; Field; Value; DefValue; Align )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Value

The new text field value.

"Andreas"

#### DefValue

The new default text field value.

""

#### Align

The text alignment. Can be Left, Center, Right or Justify.

"Justify"

**Result** Returns OK or error.

### Description

The parameters Value and DefValue can both be empty, if both values should be deleted. The parameter DefValue defines the default value of the field, this value is shown in Adobe's Acrobat as long as the field has no value; it will be hidden when entering the field.

The strings are drawn with the font that is associated with the field. The font size is taken from the field settings. If set to "auto", the font size is computed from the field's bounding box.

See also [SetTextFieldValue](#) function in DynaPDF manual.

### Examples

Sets text field value:

```
MBS( "DynaPDF.SetTextFieldValue"; $PDF; "FirstName"; "Geoff"; ""; "Left" )
```

### See also

- 71.1 DynaPDF.AddActionToObj 2591
- 71.58 DynaPDF.CreateJSAction 2687
- 71.246 DynaPDF.GetTextFieldValue 2948

- 71.294 DynaPDF.New 3032
- 71.375 DynaPDF.SetFieldExpValue 3184
- 71.378 DynaPDF.SetFieldFont 3190
- 71.409 DynaPDF.SetNumberFormat 3241
- 71.431 DynaPDF.SetTextFieldValueEx 3283

### Example Databases

- [DynaPDF/Create Form](#)
- [DynaPDF/Create PDF with sum form field](#)
- [DynaPDF/Fill Form Fields](#)
- [DynaPDF/Form/Form](#)

### 71.430.1 Blog Entries

- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)
- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.431 DynaPDF.SetTextFieldValueEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextFieldValueEx"; PDF; Field; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Field

The field index or field name.

"FirstName"

#### Value

New value or "" to delete it.

"Andreas"

**Result** Returns OK or error.

### Description

If the value is set to empty, the field's value will be deleted.

The strings are drawn with the font that is associated with the field. The font size is taken from the field settings. If set to "auto", the font size is computed from the field's bounding box.

See also [SetTextFieldValueEx](#) function in DynaPDF manual.

### Examples

Sets text field value:

MBS( "DynaPDF.SetTextFieldValueEx"; \$PDF; "FirstName"; "Jack" )

### See also

- 71.246 DynaPDF.GetTextFieldValue 2948
- 71.294 DynaPDF.New 3032
- 71.376 DynaPDF.SetFieldExpValueEx 3186
- 71.430 DynaPDF.SetTextFieldValue 3281

### 71.431.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.432 DynaPDF.SetTextRect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextRect"; PDF; PosX; PosY; Width; Height )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of output rectangle

\$x

#### PosY

Y-Coordinate of output rectangle

\$y

#### Width

Width of output rectangle

\$w

#### Height

Height of output rectangle or -1.

\$h

**Result** Returns OK or error message.

### Description

See also [SetTextRect](#) function in DynaPDF manual.

### Examples

Write some text in a rectangle area:

```
# Add page with some text
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetTextRect"; $pdf; 100; 100; 400; 200) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetFont"; $pdf; "Times"; 1; 40; 1; "cp1252") ]
Set Variable [ $r; Value:MBS("DynaPDF.WriteFText"; $pdf; "Center"; "Just a test PDF.") ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

### See also

- 71.94 DynaPDF.EndPage 2747
- 71.150 DynaPDF.GetFTextHeight 2829
- 71.247 DynaPDF.GetTextRise 2949



71.432. <i>DYNAPDF.SETTEXTRECT</i>	3285
• 71.249 DynaPDF.GetTextWidth	2951
• 71.294 DynaPDF.New	3032
• 71.325 DynaPDF.RotateCoords	3106
• 71.361 DynaPDF.SetContent	3164
• 71.391 DynaPDF.SetFont	3208
• 71.433 DynaPDF.SetTextRise	3286
• 71.511 DynaPDF.WriteStyledText	3414

### **Example Databases**

- [DynaPDF/Create Text as PDF/A](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Styled Text](#)
- [DynaPDF/Watermark pages](#)
- [DynaPDF/WriteFText](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factur-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

Created 18th August 2014, last changed 27th May 2017.

## 71.433 DynaPDF.SetTextRise

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextRise"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The Text rise in units.  
10

**Result** Returns OK or error.

### Description

Text rise specifies the distance, to move the baseline up or down from its default location. Positive values of text rise move the baseline up. Adjustments to the baseline are useful for drawing superscripts or subscripts. The default location of the baseline can be restored by setting the text rise to 0. The figure below illustrates the effect of the text rise. Text rise always applies to the vertical coordinate in text space. The text moves around the baseline.  
Default value = 0

See also DynaPDF.GetTextRise.

See also [SetTextRise](#) function in DynaPDF manual.

### Examples

Set text rise:

MBS( "DynaPDF.SetTextRise"; \$PDF; 10 )

### See also

- 71.247 DynaPDF.GetTextRise 2949
- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.432 DynaPDF.SetTextRect 3284

Created 18th August 2014, last changed 18th August 2014.

## 71.434 DynaPDF.SetTextScaling

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTextScaling"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The Horizontal text scaling.  
100

**Result** Returns OK or error.

### Description

The scaling value adjusts the width of glyphs by stretching or compressing them in the horizontal direction. Its value is specified as a percentage of the normal width of the glyphs, with 100 being the normal width. Default value = 100

See also DynaPDF.GetTextScaling.

See also [SetTextScaling](#) function in DynaPDF manual.

### Examples

Set scaling to 200%

MBS( "DynaPDF.SetTextScaling"; \$PDF; 200 )

### See also

- 71.248 DynaPDF.GetTextScaling 2950
- 71.294 DynaPDF.New 3032
- 71.447 DynaPDF.SetWordSpacing 3303

Created 18th August 2014, last changed 18th August 2014.

## 71.435 DynaPDF.SetTransparentColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTransparentColor"; PDF; ColorValue )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### ColorValue

Color value defined in current color space

MBS("DynaPDF.RGB"; 255; 0; 0)

**Result** Returns OK or error.

### Description

Due to color interpolation during decompression of JPEG images, it not always possible to mask JPEG compressed images correctly.

Default value = 16777215 (RGB White)

See also [SetTransparentColor](#) function in DynaPDF manual.

### See also

- 71.250 DynaPDF.GetTransparentColor 2953
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.294 DynaPDF.New 3032
- 71.441 DynaPDF.SetUseTransparency 3296

Created 6th February 2015, last changed 6th February 2015.

## 71.436 DynaPDF.SetTrapped

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetTrapped"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

1 or 0 to enable or disable.

1

**Result** Returns OK or error.

### Description

Trapping is a technique to avoid unwanted visual artifacts such as brightly colored gaps or bands around the edges of printed objects. In high- quality reproduction of color documents, such artifacts are commonly avoided by creating an overlap, called a trap, between areas of adjacent color.

The trapped key determines whether the document was trapped. The default value is unknown that means no value is written to the file. The trapped key should be set if possible.

See also [SetTrapped](#) function in DynaPDF manual.

### See also

- 71.193 DynaPDF.GetInIsTrapped 2884
- 71.251 DynaPDF.GetTrapped 2954
- 71.294 DynaPDF.New 3032
- 71.353 DynaPDF.SetCMapDir 3154

Created 6th February 2015, last changed 6th February 2015.

## 71.437 DynaPDF.SetUseExactPwd

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseExactPwd"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new setting. Pass 1 or 0.

1

**Result** Returns OK or error.

### Description

If the property UseExactPwd is false, an encrypted PDF file can always be decrypted, if either the open or owner password in the file is an empty string. If 1, the open or owner password must be known to open the PDF file.

Default value = 1

If your application should allow the modification of encrypted PDF files, you may check the access permissions to grant user rights, if the file was opened with the open password instead of the owner password (see also DynaPDF.GetUserRights).

Due to the license agreement of Adobe, all manufacturers of applications which make the treatment of encrypted PDF files possible, must respect the access permissions of a PDF file, if the file was opened with the open password.

Only if the file was opened with the owner password, all rights should be granted. See PDF Reference 1.5 for further information. This document is available at [www.adobe.com](http://www.adobe.com).

The property UseExactPwd should be 1, if the application is a commercial product.

See also [SetUseExactPwd](#) function in DynaPDF manual.

### See also

- 71.252 DynaPDF.GetUseExactPwd 2955
- 71.258 DynaPDF.GetUserRights 2961
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

**71.438 DynaPDF.SetUseGlobalImpFiles**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseGlobalImpFiles"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

The property can be used to load one or more external PDF files permanent into memory, e.g. to split a large PDF file into smaller pieces. The next PDF file that will be opened with the function DynaPDF.OpenPDFFromFile or DynaPDF.OpenPDFFromContainer will not be closed when DynaPDF.CloseFile or DynaPDF.FreePDF is called. When creating a new PDF file the previously opened import file is still open and it is possible to import pages from this file without loading the file again.

If more than one file should be loaded permanent into memory then set also the flag if2UseProxy with DynaPDF.SetImportFlags2. PDF files which are no longer needed can be closed with DynaPDF.CloseImportFile or DynaPDF.CloseImportFileEx.

Requires DynaPDF Pro license.

See also [SetUseGlobalImpFiles](#) function in DynaPDF manual.

**See also**

- 71.44 DynaPDF.CloseImportFile 2659
- 71.253 DynaPDF.GetUseGlobalImpFiles 2956
- 71.277 DynaPDF.Initialize 2992
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.298 DynaPDF.OpenPDFFromFile 3043
- 71.398 DynaPDF.SetImportFlags 3220
- 71.399 DynaPDF.SetImportFlags2 3224

Created 6th February 2015, last changed 1st April 2015.

## 71.439 DynaPDF.SetUseStdFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseStdFonts"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

the new setting. Can be 0 to turn off or 1 to turn on.  
1

**Result** Return OK or error.

### Description

PDF viewer applications support 14 standard fonts, these fonts are not embedded by default, also if the parameter Embed of the function DynaPDF.SetFont is true.

If certain standard fonts are available on the system, then they have typically a higher search priority but it is still possible to select a standard font. This can occur, for example, when the font weight of the system font does not exactly match the requested weight. If a standard font represents a better match, then this font would be selected.

To avoid unwanted font selections it is possible to disable the standard fonts from font selection. The value can be changed whenever necessary.

Default value = 1 (on)

See also DynaPDF.GetUseStdFonts.

See also [SetUseStdFonts](#) function in DynaPDF manual.

### Examples

Enable standard fonts:

MBS( "DynaPDF.SetUseStdFonts"; \$PDF; 1 )

### See also

- 71.254 DynaPDF.GetUseStdFonts 2957
- 71.255 DynaPDF.GetUseSystemFonts 2958
- 71.294 DynaPDF.New 3032
- 71.378 DynaPDF.SetFieldFont 3190
- 71.379 DynaPDF.SetFieldFontEx 3192



<i>71.439. DYNAPDF.SETUSESTDFONTS</i>	3293
• 71.391 DynaPDF.SetFont	3208
• 71.440 DynaPDF.SetUseSystemFonts	3294

Created 18th August 2014, last changed 18th August 2014.

## 71.440 DynaPDF.SetUseSystemFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseSystemFonts"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new setting, can be 0 or 1.

1

**Result** Returns OK or error.

### Description

On Windows all fonts in the Windows/Fonts directory will be loaded as well as shared fonts listed in the Registry. On Mac OS X the following font paths will be added to the list of font search paths:

/System/Library/Fonts

/Library/Fonts

~/Library/Fonts

Additional font paths can be added with DynaPDF.AddFontSearchPath. Default value = 1 (true)

The fonts are loaded when DynaPDF.SetFont is called the first time. The property is ignored on Linux or UNIX.

Please note that the internal font list is not automatically updated when the system's font pool changes. Windows operating systems send a WM\_FONTCHANGE message if the font pool was modified. In this case, the application should call DynaPDF.ClearHostFonts before calling SetFont() the next time so that the list of available system fonts can be updated.

On Mac OS X there is no notification when the font database changes. Mac OS X applications need to use functions of the font manager to determine whether font database has been modified.

See also DynaPDF.GetUseSystemFonts.

See also [SetUseSystemFonts](#) function in DynaPDF manual.

### Examples

Enable system fonts

```
MBS( "DynaPDF.SetUseSystemFonts"; $PDF; 1 )
```

### See also

71.440. <i>DYNAPDF.SETUSESYSTEMFONTS</i>	3295
• 71.9 DynaPDF.AddFontSearchPath	2607
• 71.42 DynaPDF.Clear	2656
• 71.254 DynaPDF.GetUseStdFonts	2957
• 71.255 DynaPDF.GetUseSystemFonts	2958
• 71.294 DynaPDF.New	3032
• 71.391 DynaPDF.SetFont	3208
• 71.439 DynaPDF.SetUseStdFonts	3292

Created 18th August 2014, last changed 18th August 2014.

## 71.441 DynaPDF.SetUseTransparency

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseTransparency"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

Whether to use transparency. Can be 0 to 1.

1

**Result** Returns OK on success or error.

### Description

The default transparent color is white. Please note that the color is changed to the appropriate value when changing the color space.

Alpha based transparency can be applied with an extended graphics state that must be active before inserting an image. See [CreateExtGState](#) for further information.

Default value = 1 (true)

Requires DynaPDF Lite license.

See also [SetUseTransparency](#) function in DynaPDF manual.

### Examples

Don't try to apply transparency by key color:

MBS( "DynaPDF.SetUseTransparency"; \$PDF; 0 )

### See also

- 71.5 DynaPDF.AddButtonImage 2599
- 71.144 DynaPDF.GetDocUsesTransparency 2821
- 71.260 DynaPDF.GetUsesTransparency 2963
- 71.256 DynaPDF.GetUseTransparency 2959
- 71.280 DynaPDF.InsertImage 3003
- 71.281 DynaPDF.InsertImageFile 3007
- 71.294 DynaPDF.New 3032
- 71.426 DynaPDF.SetSaveNewImageFormat 3274

71.441. *DYNAPDF.SETUSETRANSARENCY*

3297

- 71.435 DynaPDF.SetTransparentColor

3288

### **Example Databases**

- [DynaPDF/Scan with WIA to PDF](#)

Created 18th August 2014, last changed 9th February 2015.

## 71.442 DynaPDF.SetUseVisibleCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUseVisibleCoords"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The new setting. Can be 1 or 0.

1

**Result** Returns OK or error.

### Description

The crop box crops a page, but the paper format (media box) is left unchanged. To move the coordinates into the visible area, set the property to true. Coordinates can then be used as if no crop box were defined.

The bounding boxes are described in detail under DynaPDF.SetBBox.

Default value = 0

See also [SetUseVisibleCoords](#) function in DynaPDF manual.

### See also

- 71.257 DynaPDF.GetUseVisibleCoords 2960
- 71.294 DynaPDF.New 3032
- 71.349 DynaPDF.SetBBox 3147

Created 6th February 2015, last changed 28th November 2019.

## 71.443 DynaPDF.SetUserUnit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetUserUnit"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Value

The new scale.  
10.0

**Result** Returns OK on success or error message.

### Description

A user unit is a scaling factor. The page format and all page coordinates are multiplied with this factor in a viewer application. The default size of a PDF unit is 1/72 inch. User units can be useful if the page format would be too large to be expressed in standard PDF units. The largest page format in PDF is limited to 14,400 units or 200 inches. This limit can be extended with the user unit.

The largest value that is supported is 75.0 which results in a maximum page format of 15,000 x 15,000 inches or 1,800,000 units. Note that all functions which return page coordinates or page properties do not consider the user unit.

The page format must still be in the range 3..14400 units. It is also strongly recommended to set the user unit only if necessary. This is only the case if the required page format is larger 14400 units.

Default value = 1.0

See also [SetUserUnit](#) function in DynaPDF manual.

### See also

- 71.259 DynaPDF.GetUserUnit 2962
- 71.294 DynaPDF.New 3032
- 71.418 DynaPDF.SetPageHeight 3258
- 71.421 DynaPDF.SetPageWidth 3263

### 71.443.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.444 DynaPDF.SetViewerPreferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetViewerPreferences"; PDF; Value { ; AddVal } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

The preference to set. Can be number value or list of names.

"HideToolBar, HideMenuBar"

#### AddVal

Optional

Additional value for the preference.

**Result** Returns OK or error.

### Description

This controls certain features in PDF viewers, such as hiding the toolbar or menu bar.

The parameters Value and AddVal are both bitmasks or lists. Multiple values can be set by using a Math.BitwiseOR. It is also possible to call the function multiple times to set each preference separately; the flags are combined with already existing one in this case. Already defined flags can be deleted with the flag UseNone (0). A few flags require an additional parameter that must be added to AddVal.

See DynaPDF help for possible values.

See also [SetViewerPreferences](#) function in DynaPDF manual.

### Examples

Remove toolbar:

```
MBS( "DynaPDF.SetViewerPreferences"; $PDF; "HideToolBar" )
```

### See also

- 71.261 DynaPDF.GetViewerPreferences 2965
- 71.294 DynaPDF.New 3032
- 110.3 Math.BitwiseOR 5842

### 71.444.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 19th March 2019, last changed 20th March 2019.



**71.445 DynaPDF.SetWMFDefExtent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.SetWMFDefExtent"; PDF; Width; Height )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Width**

Width in 0.01 millimetres

**Height**

Height in 0.01 millimetres

**Result** Returns OK or error.

**Description**

DynaPDF uses a corrected value to get exact proportions. See `InsertMetafile()` for further information. The value must be in the range 2000 to 3000.

Default value = 2400

See also [SetWMFDefExtent](#) function in DynaPDF manual.

**See also**

- 71.209 DynaPDF.GetLogMetafileSize 2901
- 71.262 DynaPDF.GetWMFDefExtent 2966
- 71.294 DynaPDF.New 3032

Created 18th May 2017, last changed 29th May 2017.

## 71.446 DynaPDF.SetWMFPixelPerInch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.3	No	Yes	Yes, Windows only	No	No

MBS( "DynaPDF.SetWMFPixelPerInch"; PDF; Value )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Value

Pixels per inch of the y-axis

**Result** Returns OK or error.

### Description

DynaPDF uses a corrected value to get exact proportions. See `InsertMetafile()` for further information. The value must be in the range 2000 to 3000.

Default value = 2400

See also [SetWMFPixelPerInch](#) function in DynaPDF manual.

### See also

- 71.263 DynaPDF.GetWMFPixelPerInch 2967
- 71.294 DynaPDF.New 3032

Created 29th May 2017, last changed 29th May 2017.

**71.447 DynaPDF.SetWordSpacing**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetWordSpacing"; PDF; Value )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Value**

The new value.  
0

**Result** Returns Ok or error.

**Description**

See also DynaPDF.GetWordSpacing.  
See also [SetWordSpacing](#) function in DynaPDF manual.

**See also**

- 71.264 DynaPDF.GetWordSpacing 2968
- 71.294 DynaPDF.New 3032
- 71.434 DynaPDF.SetTextScaling 3287

Created 18th August 2014, last changed 18th August 2014.

## 71.448 DynaPDF.SetXFASStream

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SetXFASStream"; PDF; Index; XML )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### Index

The index for the stream. From 0 to DynaPDF.GetXFASStreamCount-1.  
0

#### XML

The XML to use.

**Result** Returns OK or error.

### Description

Index must be a valid XFA resource index. XFA streams can be enumerated with DynaPDF.GetXFASStream / DynaPDF.GetXFASStreamCount.

The function does not check whether the provided XFA buffer is valid. The buffer is written to the stream as is.

### See also

- 71.68 DynaPDF.CreateXFASStream 2711
- 71.265 DynaPDF.GetXFASStream 2969
- 71.266 DynaPDF.GetXFASStreamCount 2971
- 71.294 DynaPDF.New 3032

### 71.448.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 20th October 2019, last changed 20th October 2019.

## 71.449 DynaPDF.ShowDifferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.ShowDifferences"; PDF; pageIndex1; OtherPDF; pageIndex2 { ; CheckMoving; HighlightColor; Scale; ColorTolerance; Debug } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### pageIndex1

The page index in first PDF context.

1

#### OtherPDF

The other PDF reference. Can be same as PDF parameter, but allows you to use PDF imported in other PDF context.

\$pdf2

#### pageIndex2

The page index in second PDF context.

1

#### CheckMoving

Optional

Whether to check for moving parts, e.g. the big part of the page shifted up one line. Default is zero.

1

#### HighlightColor

Optional

Default is 65535 for yellow (Full red and green).

#### Scale

Optional

Scale of the raster. Default is to compare at 72dpi. If you pass 2 here, we use 144dpi.

1

#### ColorTolerance

Optional

The tolerance for color comparison. Colors where red, green or blue components are within given tolerance are considered equal. So FFFFFFF and FFFFFFFD are equal. Default is 3.

3

#### Debug

Optional

Whether to write debug images to temp folder. If 1, we write png files to temp folder. One image is before the check, one with all similar lines removed and one with result of comparison. Red pixels show you the

raster, green equal pixels.

0

**Result** Returns number of annotations or error.

### **Description**

Returns OK on success which means that highlight annotations have been added to both pages.

You can then render a page to show differences to user.

Requires a DynaPDF Pro license. Without a license, the DynaPDF watermark will reduce the accuracy.

**See also**

- [71.294 DynaPDF.New](#) 3032

### **Example Databases**

- [DynaPDF/PDF Differences](#)

### **71.449.1 Blog Entries**

- [DynaPDF Screenshot](#)
- [MBS FileMaker Plugin, version 7.3pr2](#)
- [MBS FileMaker Plugin, version 6.2pr4](#)
- [MBS FileMaker Plugin, version 5.4pr5](#)
- [MBS FileMaker Plugin, version 5.3pr4](#)

Created 22nd September 2015, last changed 23th July 2016.

## 71.450 DynaPDF.SkewCoords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SkewCoords"; PDF; a; b; x; y )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### a

Angle alpha in degrees

10

#### b

Angle beta in degrees

10

#### x

Origin of the x-axis

\$x

#### y

Origin of the y-axis

\$y

**Result** Returns OK on success and error on failure.

### Description

It is highly recommended to save the graphics state beforehand, otherwise it is very difficult or impossible to restore the coordinate system later.

After the coordinate system was changed by the function, bottom-up coordinates are active. It is not possible to use top-down coordinates with a skewed coordinate system.

Please do not try to scale/skew/translate back later. use DynaPDF.SaveGraphicState and DynaPDF.RestoreGraphicState.

See also [SkewCoords](#) function in DynaPDF manual.

### Examples

Skew and draw rectangle:

```
MBS( "DynaPDF.SaveGraphicState"; $PDF )
MBS( "DynaPDF.SkewCoords"; $PDF; 20; 20; 200;200)
MBS( "DynaPDF.Rectangle"; $PDF; 0; 0; 200; 100; "stroke" )
MBS( "DynaPDF.RestoreGraphicState"; $PDF )
```

**See also**

- 71.85 DynaPDF.DrawChord 2730
- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.329 DynaPDF.Save 3116
- 71.333 DynaPDF.SaveGraphicState 3125
- 71.334 DynaPDF.ScaleCoords 3126

### Example Databases

- [DynaPDF/DynaPDF Coordinates](#)

Created 18th August 2014, last changed 18th August 2014.



**71.451 DynaPDF.SquareAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SquareAnnot"; PDF; PosX; PosY; Width; Height; LineWidth; FillColor; StrokeColor; ColorSpace; Author; Subject; Comment )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-coordinate of the annotation

100

**PosY**

Y-coordinate of the annotation

100

**Width**

Width of the annotation

100

**Height**

Height of the annotation

100

**LineWidth**

Line width of the circle or ellipse

2

**FillColor**

Fill color for square.

200

**StrokeColor**

Stroke color for square.

255

**ColorSpace**

Color space of the fill and stroke colors.

"RGB"

**Author**

The author name. Can be empty.

"Christian Schmitz"

**Subject**

The subject to use. Can be empty.

**Comment**

The comment. Can be empty.

**Result** Returns annotation handle or error.

**Description**

If the parameters `Width` and `Height` are equal the function draws a square, a rectangle otherwise. If the annotation should be drawn without a border, set the parameter `LineWidth` to zero or `StrokeColor` to the special constant `NO_COLOR` (4294967281).

If the interior should be transparent set `FillColor` to the special constant `NO_COLOR` (4294967281).

Although the line width can be set to any positive floating point value, Adobe's Acrobat or Reader restrict the line width to 0 through 12 units. The line width should be restricted in the same way to avoid issues in Adobe viewer products.

See also [SquareAnnot](#) function in DynaPDF manual.

**Examples**

Add a rectangle annotation:

```
Set Variable [ $r ; Value: MBS("DynaPDF.EditPage"; $pdf;1) ]
Set Variable [ $r ; Value: MBS( "DynaPDF.SquareAnnot"; /* Draws a square annotation on the current
open page. */
$PDF; /* The PDF reference returned from DynaPDF.New. */
100; /* X-coordinate of the annotation.e.g. 100 */
100; /* Y-coordinate of the annotation.e.g. 100 */
300; /* Width of the annotation.e.g. 100 */
200; /* Height of the annotation.e.g. 100 */
5; /* Line width of the circle or ellipse.e.g. 2 */
4294967281; /* Fill color for square.e.g. 200 */
MBS( "DynaPDF.RGB"; 255; 0; 0 ); /* Stroke color for square.e.g. 255 */
"RGB"; /* Color space of the fill and stroke colors.e.g. "RGB" */
"Christian Schmitz"; /* The author name. Can be empty. */
"Hello World"; /* The subject to use. Can be empty. */
"Just testing") /* The comment. Can be empty. */ ]
```

**See also**

- 71.41 DynaPDF.CircleAnnot 2654
- 71.88 DynaPDF.EditPage 2736
- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032
- 71.312 DynaPDF.RGB 3079
- 71.452 DynaPDF.StampAnnot 3311

Created 28th November 2014, last changed 19th October 2019.

**71.452 DynaPDF.StampAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.StampAnnot"; PDF; PosX; PosY; Width; Height; Author; Subject; Comment; SubType )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

x-coordinate

100

**PosY**

y-coordinate

100

**Width**

Stamp width

100

**Height**

Stamp height

100

**Author**

The author name. Can be empty.

"Christian Schmitz"

**Subject**

The subject to use. Can be empty.

**Comment**

The comment. Can be empty.

**SubType**

The type of stamp. Can be Approved, AsIs, Confidential, Departmental, Draft, Experimental, Expired, Final, ForComment, ForPublicRelease, NotApproved, NotForPublicRelease, Sold, TopSecret or UserDefined.

"Approved"

**Result** Returns annotation handle or error.

**Description**

PDF viewers support a large set of predefined stamp types but it is also possible to create user defined stamps. A user defined stamp can be created as follows:

- Create the stamp with the SubType UserDefined.

- Call `DynaPDF.CreateAnnotAP` with the handle of the stamp annotation to create a user defined appearance stream.
- Draw arbitrary contents to the appearance stream and close it finally with `EndTemplate`, finish!

See also [StampAnnot](#) function in DynaPDF manual.

**See also**

- 71.287 `DynaPDF.LineAnnot` 3020
- 71.294 `DynaPDF.New` 3032
- 71.451 `DynaPDF.SquareAnnot` 3309
- 71.500 `DynaPDF.TextAnnot` 3391

Created 28th November 2014, last changed 2nd October 2019.

## 71.453 DynaPDF.StrokePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.StrokePath"; PDF )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error.

### Description

If no open path can be detected the function returns with a warning.

See also [StrokePath](#) function in DynaPDF manual.

### Examples

Draw two lines in black:

```
Set Variable [ $r; Value:MBS ( "DynaPDF.SetStrokeColor" ; $pdf ; 0; 0; 0 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.SetLineWidth" ; $pdf ; 1 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 20; 20 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 20; 40 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.MoveTo" ; $pdf ; 30; 30 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.LineTo" ; $pdf ; 30; 50 ) ]
Set Variable [ $r; Value:MBS ( "DynaPDF.StrokePath" ; $pdf ) ]
```

### See also

- [71.45 DynaPDF.ClosePath](#) 2660
- [71.288 DynaPDF.LineTo](#) 3022
- [71.293 DynaPDF.MoveTo](#) 3030
- [71.294 DynaPDF.New](#) 3032
- [71.404 DynaPDF.SetLineWidth](#) 3232
- [71.428 DynaPDF.SetStrokeColor](#) 3277

### Example Databases

- [DynaPDF/Create PDF with Bezier Curves](#)

### 71.453.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 1st January 2017.

## 71.454 DynaPDF.SysFontInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.SysFontInfo"; PDF; Handle; Selector )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Handle

Font Handle or zero for first call

0

#### Selector

Which value to return. Can be Result, BaseType, CIDOrdering, CIDRegistry, CIDSupplement, DataOffset, FamilyName, FilePath, FileSize, Flags, Embeddable, Editable, FullName, Length1, Length2, PostScriptName, Index, IsFixedPitch, Style, UnicodeRange1, UnicodeRange2, UnicodeRange3 or UnicodeRange4. "FamilyName"

**Result** Returns value or error.

### Description

For first call, please use zero for the handle. Than you can get with Selector "Result" the handle of the next font. Loop until this next handle is zero.

Embeddable returns 1 or 0 depending on whether the font can be embedded or not.

FamilyName, FullName, FilePath and PostScriptName are returned in unicode text if possible.

### Examples

Get Family name of first font:

```
MBS( "DynaPDF.SysFontInfo"; $pdf; 0; "FamilyName" )
```

List System Fonts by adding records to a table with font names:

```
Set Variable [ $Handle; Value:0 ]
```

```
Loop
```

```
# Get values
```

```
Set Variable [ $NextHandle; Value:MBS("DynaPDF.SysFontInfo"; $pdf; $Handle; "Result") ]
```

```
Exit Loop If [ $NextHandle = 0 ]
```

```
New Record/Request
```

```
Set Field [ System Font Info::FamilyName; MBS("DynaPDF.SysFontInfo"; $pdf; $Handle; "FamilyName")
```

```
]
```

```
Set Field [ System Font Info::Embeddable; MBS("DynaPDF.SysFontInfo"; $pdf; $Handle; "Embeddable") ]
```

```
Commit Records/Requests [ Skip data entry validation; No dialog ]
```

```
# Next
```

```
Set Variable [ $Handle; Value:$NextHandle ]
```

End Loop

**See also**

- [71.118 DynaPDF.FontInfo](#) 2786
- [71.294 DynaPDF.New](#) 3032
- [71.362 DynaPDF.SetDocInfo](#) 3165

**Example Databases**

- [DynaPDF/System Font Info](#)

**71.454.1 Blog Entries**

- [Strange looking PDF in Microsoft Edge and Apple Preview](#)
- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 21st March 2015, last changed 23th March 2015.



**71.455 DynaPDF.Table.AddColumn**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.AddColumn"; Table; Left; Width )

**Parameters****Table**

The identifier for the table.

\$Table

**Left**

Add the column on the left or right side?

0

**Width**

The new column width.

100

**Result** Returns number of columns or error.

**Description**

In most cases it is required to change the table width and the widths of the remaining columns after a new column was added. This can be done with `DynaPDF.Table.SetTableWidth` and `DynaPDF.Table.SetColWidth`.

If possible, create the table directly with the required number of columns.

If the function succeeds, the return value is new number of columns. If the function fails, the return value is a negative error code.

**See also**

- 71.456 `DynaPDF.Table.AddRow` 3318
- 71.457 `DynaPDF.Table.AddRows` 3320
- 71.458 `DynaPDF.Table.ClearColumn` 3321
- 71.489 `DynaPDF.Table.SetColor` 3372
- 71.488 `DynaPDF.Table.SetColWidth` 3370
- 71.499 `DynaPDF.Table.SetTableWidth` 3389

Created 18th August 2014, last changed 18th August 2014.

## 71.456 DynaPDF.Table.AddRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.AddRow"; Table; Height )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Height

Minimum height or -1 for default height.

10

**Result** Returns error or new row index.

### Description

The parameter Height can be set to a negative value to indicate that the default row height should be used. The default row height was specified in DynaPDF.Table.Create.

The specified height represents the minimum height of the row. If the height of a foreground object is larger than the height will be adjusted.

The height is sometimes required. This is the case when a cell is rotated by 90 or a multiple of 90 degrees and if the height cannot be computed from the cell contents, e.g. if a cell contains text and if the flag NoLineBreak is absent. See DynaPDF.Table.SetCellOrientation for further information.

If the function succeeds, the return value is the row index, a value greater or equal zero. If the function fails, the return value is a negative error code.

### Examples

Adds a row:

```
MBS("DynaPDF.Table.AddRow"; $table)
```

Adds a header row:

```
# Add header row
Set Variable [ $row; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 0; "right"; "top"; "Index") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 1; "left"; "top"; "Product") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 2; "right"; "top"; "Price") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 3; "right"; "top"; "Quantity") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 4; "right"; "top"; "Total Price") ]
]
# set flag for header row
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetFlags"; $table; $row; -1; "HeaderRow") ]
# make row bold
```

71.456. *DYNAPDF.TABLE.ADDROW* 3319  
Set Variable [ \$r; Value:MBS("DynaPDF.Table.SetFont"; \$table; \$row; -1; "Helvetica"; 2; 1; "unicode") ]

#### See also

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.457 DynaPDF.Table.AddRows 3320
- 71.460 DynaPDF.Table.ClearRow 3324
- 71.461 DynaPDF.Table.Create 3326
- 71.465 DynaPDF.Table.Draw 3332
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.482 DynaPDF.Table.SetCellOrientation 3357
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.491 DynaPDF.Table.SetFlags 3376
- 80.46 FM.Loop 4027

#### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

#### 71.456.1 Blog Entries

- [Merge PDF with table of contents](#)
- [New FM.Loop function](#)

Created 18th August 2014, last changed 2nd August 2018.

## 71.457 DynaPDF.Table.AddRows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.AddRows"; Table; Count; Height )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Count

Number of rows.

1

#### Height

The default height of the row. or -1 to

-1

**Result** If the function succeeds, the return value is new number of rows in the table. If the function fails, the return value is a negative error code.

### Description

The parameter Height can be set to a negative value to indicate that the default row height should be used. The default row height was specified in DynaPDF.Table.Create.

The specified height represents the minimum height of each row. If the height of a foreground object is larger, then the row height will be adjusted.

The height is sometimes required. This is the case if a cell is rotated by 90 or a multiple of 90 degrees and if the height cannot be computed from the cell contents, e.g. if a cell contains text and if the flag NoLineBreak is absent. See DynaPDF.Table.SetCellOrientation for further information.

### See also

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.456 DynaPDF.Table.AddRow 3318
- 71.460 DynaPDF.Table.ClearRow 3324
- 71.461 DynaPDF.Table.Create 3326
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.482 DynaPDF.Table.SetCellOrientation 3357
- 71.492 DynaPDF.Table.SetFont 3378

Created 18th August 2014, last changed 18th August 2014.

**71.458 DynaPDF.Table.ClearColumn**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.ClearColumn"; Table; Col; Types )

**Parameters****Table**

The identifier for the table.

\$Table

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1.

0

**Types**

What to clear. Can be Text, Template, Action, Table, ForeGround, BackGround, AllCont or Both. Or you pass numeric values combined from the hex values in the table below.

"AllCont"

**Description**

The parameter Types is described in DynaPDF.Table.ClearContent below.

Type	Hex Number	Description
Text	0x00000001	Text is always a foreground object
Image	0x00000002	Images
Template	0x00000004	Templates
Table	0x00000008	Sub tables are always foreground objects
AllCont	0x0000001F	Delete all content types
ForeGround	0x10000000	Only foreground objects?
BackGround	0x20000000	Only background objects?
Both	0x30000000	Delete both fore- and background objects

**See also**

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.459 DynaPDF.Table.ClearContent 3322
- 71.460 DynaPDF.Table.ClearRow 3324
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.491 DynaPDF.Table.SetFlags 3376

Created 18th August 2014, last changed 22nd February 2019.

## 71.459 DynaPDF.Table.ClearContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.ClearContent"; Table; Types )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Types

What to clear. Can be Text, Template, Table, Action, ForeGround, BackGround, AllCont or Both. Or you pass numeric values combined from the hex values in the table below.

"AllCont"

**Result** Returns OK or error.

### Description

The parameter Types is a bit mask. The content types and the fore- and background flags can be combined with a binary or operator. If the foreground and background flags are both absent, then nothing will be deleted!

Other programming languages require no type cast.

Note that it is not required to explicitly clear the contents of a table. Existing contents can be overridden at any time. However, when it is not known whether all cells get new values, then it is recommended to clear the table beforehand.

It is also possible to clear the contents of specific rows or columns only. See DynaPDF.Table.ClearColumn and DynaPDF.Table.ClearRow for further information.

Type	Hex Number	Description
Text	0x00000001	Text is always a foreground object
Image	0x00000002	Images
Template	0x00000004	Templates
Table	0x00000008	Sub tables are always foreground objects
AllCont	0x0000001F	Delete all content types
ForeGround	0x10000000	Only foreground objects?
BackGround	0x20000000	Only background objects?
Both	0x30000000	Delete both fore- and background objects

### See also

- 71.458 DynaPDF.Table.ClearColumn 3321
- 71.460 DynaPDF.Table.ClearRow 3324

71.459. *DYNAPDF.TABLE.CLEARCONTENT*

3323

- 71.491 DynaPDF.Table.SetFlags

3376

Created 18th August 2014, last changed 22nd February 2019.

## 71.460 DynaPDF.Table.ClearRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.ClearRow"; Table; Row; Types )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1.

0

#### Types

What to clear. Can be Text, Template, Table, Action, ForeGround, BackGround, AllCont or Both. Or you pass numeric values combined from the hex values in the table below.

"AllCont"

**Result** Returns OK or error.

### Description

The parameter Types is described in DynaPDF.Table.ClearContent.

Type	Hex Number	Description
Text	0x00000001	Text is always a foreground object
Image	0x00000002	Images
Template	0x00000004	Templates
Table	0x00000008	Sub tables are always foreground objects
AllCont	0x0000001F	Delete all content types
ForeGround	0x10000000	Only foreground objects?
BackGround	0x20000000	Only background objects?
Both	0x30000000	Delete both fore- and background objects

### See also

- 71.456 DynaPDF.Table.AddRow 3318
- 71.459 DynaPDF.Table.ClearContent 3322
- 71.461 DynaPDF.Table.Create 3326
- 71.462 DynaPDF.Table.DeleteCol 3329
- 71.463 DynaPDF.Table.DeleteRow 3330



<i>71.460. DYNAPDF.TABLE.CLEARROW</i>	3325
• 71.464 DynaPDF.Table.DeleteRows	3331
• 71.469 DynaPDF.Table.GetNextRow	3338
• 71.471 DynaPDF.Table.GetNumRows	3340
• 71.476 DynaPDF.Table.Release	3345
• 71.491 DynaPDF.Table.SetFlags	3376

Created 18th August 2014, last changed 22nd February 2019.

## 71.461 DynaPDF.Table.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.Create"; PDF; AllocRows; NumCols; Width; DefRowHeight )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### AllocRows

The number of rows to preallocate.  
10

#### NumCols

The number of columns.  
5

#### Width

The width of table.  
500

#### DefRowHeight

The default row height for a new row.  
30

**Result** Returns table identifier or error.

### Description

The parameter AllocRows specifies the number of rows which should be pre-allocated. The value should be large enough to avoid unnecessary memory reallocations. Note that this is just the size of the array that holds the rows which will be added later. Unused rows require 4 or 8 bytes memory (32 bit / 64 bit).

The default row height is used if the parameter Height of AddRow() or AddRows() is set to a negative value.

The widths of the columns is set to the table width divided by the number of columns (Width / NumCols).

The table must be deleted with DynaPDF.Table.Release when finish to avoid a memory leak.

DynaPDF table reference numbers are starting at 21000 and counting up for each new table.

### Examples

Create table with 10 preallocated rows, 2 columns, 500 point width and 10 point default row height:

```
MBS("DynaPDF.Table.Create"; $pdf; 10; 2; 500; 10)
```

Create table and set some properties:

```
Set Variable [ $table; Value:MBS("DynaPDF.Table.Create"; $pdf; 10; 2; 500; 10) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetBorderWidth"; $table; -1; -1; 1; 1; 1; 1) ]
```

```
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetRGBColor"; $table; -1; -1; "BorderColor"; 255; 255; 255) ]
```

```

Set Variable [ $r; Value:MBS("DynaPDF.Table.SetRGBColor"; $table; -1; -1; "GridHorzColor"; 255; 255; 255) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetRGBColor"; $table; -1; -1; "GridVertColor"; 255; 255; 255) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetRGBColor"; $table; -1; -1; "TextColor"; 0; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetGridWidth"; $table; 10; 10) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetColWidth"; $table; 0; 200;1) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetColWidth"; $table; 1; 300;1) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetFont"; $table; -1; -1; "Helvetica"; 0; 1; "unicode") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetFontSize"; $table; -1; -1; 10) ]

```

Complete example using a simple table on one page:

```

# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If

# Clear current PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# coordinates top down instead the default Bottom Up
Set Variable [ $r; Value:MBS("DynaPDF.SetPageCoords"; $pdf; "TopDown") ]

# Create Table
Set Variable [ $table; Value:MBS("DynaPDF.Table.Create"; $pdf; 3; 3; 500; 100) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetBorderWidth"; $table; -1; -1; 1; 1; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetGridWidth"; $table; 1; 1) ]

# Add Rows
Set Variable [ $text; Value:"The cell alignment can be set for text, images, and templates..." ]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "top"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "top"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "top"; $text) ]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "center"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "center"; $text) ]
]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "center"; $text) ]
]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "bottom"; $text) ]
]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "bottom"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "bottom"; $text) ]
]

```

```

# Draw Table (just one page without loop)
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.Draw"; $table; 50; 50; 742) ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]

# Cleanup
Set Field [ Tables::OutputPDF; MBS("DynaPDF.Save"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.Release"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- [71.316 DynaPDF.Release](#) 3086
- [71.329 DynaPDF.Save](#) 3116
- [71.416 DynaPDF.SetPageCoords](#) 3254
- [71.456 DynaPDF.Table.AddRow](#) 3318
- [71.457 DynaPDF.Table.AddRows](#) 3320
- [71.465 DynaPDF.Table.Draw](#) 3332
- [71.476 DynaPDF.Table.Release](#) 3345
- [71.488 DynaPDF.Table.SetColWidth](#) 3370
- [71.494 DynaPDF.Table.SetFontSize](#) 3381
- [71.497 DynaPDF.Table.SetRGBColor](#) 3386

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

**71.461.1 Blog Entries**

- [Merge PDF with table of contents](#)
- [DynaPDF Screenshot](#)
- [MBS FileMaker Plugin, version 8.4pr2](#)

**71.462 DynaPDF.Table.DeleteCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.DeleteCol"; Table; Col )

**Parameters****Table**

The identifier for the table.

\$Table

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1.

0

**Result** Returns OK or error.

**Description**

The new table width is the table width minus the width of the deleted column. It is not possible to delete all columns. One column must be left in the table.

If the column index is invalid or if the table contains only one column then the function does nothing.

**See also**

- 71.460 DynaPDF.Table.ClearRow 3324
- 71.463 DynaPDF.Table.DeleteRow 3330
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.476 DynaPDF.Table.Release 3345
- 71.489 DynaPDF.Table.SetColor 3372

Created 18th August 2014, last changed 18th August 2014.

**71.463 DynaPDF.Table.DeleteRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.DeleteRow"; Table; Row )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1.

0

**Result** Returns OK or error.

**Description**

If the row index is invalid then the function does nothing.

**See also**

- 71.460 DynaPDF.Table.ClearRow 3324
- 71.462 DynaPDF.Table.DeleteCol 3329
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.476 DynaPDF.Table.Release 3345

Created 18th August 2014, last changed 18th August 2014.

**71.464 DynaPDF.Table.DeleteRows**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.DeleteRows"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns OK or error.

**Description****See also**

- 71.457 DynaPDF.Table.AddRows 3320
- 71.460 DynaPDF.Table.ClearRow 3324
- 71.462 DynaPDF.Table.DeleteCol 3329
- 71.463 DynaPDF.Table.DeleteRow 3330
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340

Created 18th August 2014, last changed 18th August 2014.

**71.465 DynaPDF.Table.Draw**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.Draw"; Table; x; y; MaxHeight )

**Parameters****Table**

The identifier for the table.

\$Table

**x**

The x position where to draw the table.

100

**y**

The y position where to draw the table.

100

**MaxHeight**

The maximum height to use for the table.

600

**Result** Returns height or error.

**Description**

The x/y-coordinates specify the top left corner of the table. The table flows always from top to bottom.

The function must be executed in a while statement if the parameter MaxHeight is set to a value greater zero:

The function draws the header rows if any and at least one row to avoid an endless loop if the maximum height would be smaller as the first row height.

If the function succeeds the return value is the height of the table that was drawn so that additional contents can be drawn below the table if necessary. If the function fails the return value is -1.

**Examples**

Loop to draw table and add pages as needed:

```
Set Variable [ $h; Value:300 ]
Set Variable [ $y; Value:200 ]
Loop
# Draw something on page
Set Variable [ $r; Value:MBS("DynaPDF.Table.Draw"; $table; 58; $y; $h) ]
Set Variable [ $y; Value:$y + $r + 5 ]
# Add another page
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $h; Value:580 ]
```



```
Set Variable [ $y; Value:120 ]
End Loop
```

Complete example using a simple table on one page:

```
# Initialize DynaPDF if needed
If [ MBS("DynaPDF.IsInitialized") 1 ]
Perform Script [ "InitDynaPDF" ]
End If

# Clear current PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# coordinates top down instead the default Bottom Up
Set Variable [ $r; Value:MBS("DynaPDF.SetPageCoords"; $pdf; "TopDown") ]

# Create Table
Set Variable [ $table; Value:MBS("DynaPDF.Table.Create"; $pdf; 3; 3; 500; 100) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetBorderWidth"; $table; -1; -1; 1; 1; 1) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetGridWidth"; $table; 1; 1) ]

# Add Rows
Set Variable [ $text; Value:"The cell alignment can be set for text, images, and templates..." ]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "top"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "top"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "top"; $text) ]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "center"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "center"; $text) ]
]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "center"; $text) ]
]
Set Variable [ $rowNum; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 0; "left"; "bottom"; $text) ]
]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 1; "center"; "bottom"; $text) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $rowNum; 2; "right"; "bottom"; $text) ]
]

# Draw Table (just one page without loop)
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.Draw"; $table; 50; 50; 742) ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]

# Cleanup
Set Field [ Tables::OutputPDF; MBS("DynaPDF.Save"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.Release"; $table) ]
```

Set Variable [ \$r; Value:MBS("DynaPDF.Release"; \$pdf) ]

### See also

- [71.94 DynaPDF.EndPage](#) 2747
- [71.286 DynaPDF.IsInitialized](#) 3017
- [71.294 DynaPDF.New](#) 3032
- [71.316 DynaPDF.Release](#) 3086
- [71.329 DynaPDF.Save](#) 3116
- [71.466 DynaPDF.Table.GetFirstRow](#) 3335
- [71.469 DynaPDF.Table.GetNextRow](#) 3338
- [71.475 DynaPDF.Table.HaveMore](#) 3344
- [71.476 DynaPDF.Table.Release](#) 3345
- [71.487 DynaPDF.Table.SetCellText](#) 3368

### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

#### 71.465.1 Blog Entries

- [Merge PDF with table of contents](#)

Created 18th August 2014, last changed 17th January 2019.

**71.466 DynaPDF.Table.GetFirstRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetFirstRow"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns row number or error.

**Description**

The function returns the index of the first row that was drawn in the previous DrawTable() call. DynaPDF.Table.GetNextRow returns the next row index that will be drawn in the next DynaPDF.Table.Draw call. If the next row index equals the number of rows then the table was fully drawn.

**See also**

- 71.465 DynaPDF.Table.Draw 3332
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.471 DynaPDF.Table.GetNumRows 3340

**Example Databases**

- [DynaPDF/Invoice/Invoice](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.467 DynaPDF.Table.GetNextHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetNextHeight"; Table; MaxHeight )

### Parameters

#### Table

The identifier for the table.

\$Table

#### MaxHeight

Maximum height for the table.

500

**Result** Returns calculated height or error.

### Description

If the parameter MaxHeight is zero, then the full height will be returned. If MaxHeight is greater zero, then the height of the table is calculated that fits into the output height. This is the same height that DrawTable() would produce when drawing the table with the same parameters. This function can be useful if the height of the table must be known before it can be drawn. The function caches the result so that multiple calls with a different max height can be computed fast as possible.

The function must be called within an open page.

### See also

- 71.468 DynaPDF.Table.GetNextHeightRow 3337
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.498 DynaPDF.Table.SetRowHeight 3388

Created 18th August 2014, last changed 18th August 2014.

**71.468 DynaPDF.Table.GetNextHeightRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetNextHeightRow"; Table; MaxHeight )

**Parameters****Table**

The identifier for the table.

\$Table

**MaxHeight**

Maximum height for the table.

500

**Result** Returns next row or error.

**Description**

If the parameter MaxHeight is zero, then the full height will be returned. If MaxHeight is greater zero, then the height of the table is calculated that fits into the output height. This is the same height that DrawTable() would produce when drawing the table with the same parameters. This function can be useful if the height of the table must be known before it can be drawn. The function caches the result so that multiple calls with a different max height can be computed fast as possible.

The function must be called within an open page.

This function can be used together with DynaPDF.Table.GetNextHeight. While DynaPDF.Table.GetNextHeight returns the height, this function will return the next row after the given height has been used.

**See also**

- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.473 DynaPDF.Table.GetTableHeight 3342

Created 18th August 2014, last changed 18th August 2014.

## 71.469 DynaPDF.Table.GetNextRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetNextRow"; Table )

### Parameters

#### Table

The identifier for the table.

\$Table

**Result** Returns row number or error.

### Description

The function returns the index of the next row that will be drawn when DynaPDF.Table.Draw is called the next time. DynaPDF.Table.GetFirstRow returns the first row index that was drawn in the previous DynaPDF.Table.Draw call. If the next row index equals the number of rows then the table was fully drawn.

#### See also

- 71.460 DynaPDF.Table.ClearRow 3324
- 71.463 DynaPDF.Table.DeleteRow 3330
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.465 DynaPDF.Table.Draw 3332
- 71.466 DynaPDF.Table.GetFirstRow 3335
- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.468 DynaPDF.Table.GetNextHeightRow 3337
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340

### Example Databases

- [DynaPDF/Invoice/Invoice](#)

Created 18th August 2014, last changed 18th August 2014.

**71.470 DynaPDF.Table.GetNumCols**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetNumCols"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns column count or error.

**Description**

See also DynaPDF.Table.GetNumRows

**See also**

- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.489 DynaPDF.Table.SetColor 3372
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.492 DynaPDF.Table.SetFont 3378
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.497 DynaPDF.Table.SetRGBColor 3386

Created 18th August 2014, last changed 18th August 2014.

**71.471 DynaPDF.Table.GetNumRows**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetNumRows"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns row count or error.

**Description**

See also DynaPDF.Table.GetNumCols

**See also**

- 71.457 DynaPDF.Table.AddRows 3320
- 71.464 DynaPDF.Table.DeleteRows 3331
- 71.466 DynaPDF.Table.GetFirstRow 3335
- 71.469 DynaPDF.Table.GetNextRow 3338
- 71.482 DynaPDF.Table.SetCellOrientation 3357
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.492 DynaPDF.Table.SetFont 3378
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.494 DynaPDF.Table.SetFontSize 3381
- 71.498 DynaPDF.Table.SetRowHeight 3388

Created 18th August 2014, last changed 18th August 2014.



**71.472 DynaPDF.Table.GetPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetPDF"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns number or error.

**Description****See also**

- 71.492 DynaPDF.Table.SetFont 3378
- 71.496 DynaPDF.Table.SetPDF 3385

Created 18th August 2014, last changed 18th August 2014.

**71.473 DynaPDF.Table.GetTableHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetTableHeight"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns height or error.

**Description**

The function must be called within an open page.

**See also**

- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.468 DynaPDF.Table.GetNextHeightRow 3337
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.498 DynaPDF.Table.SetRowHeight 3388
- 71.499 DynaPDF.Table.SetTableWidth 3389

Created 18th August 2014, last changed 18th August 2014.

**71.474 DynaPDF.Table.GetTableWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.GetTableWidth"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns width or error.

**Description**

The function must be called within an open page.

If the function succeeds the return value is the width of the table. If the function fails the return value is -1.

**See also**

- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.499 DynaPDF.Table.SetTableWidth 3389

Created 18th August 2014, last changed 18th August 2014.

**71.475 DynaPDF.Table.HaveMore**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.HaveMore"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns 1, 0 or error.

**Description**

The return value is always false if the MaxHeight parameter of DynaPDF.Table.Draw was set to zero.

Result is 1 if more rows need to be drawn.

**See also**

- [71.465 DynaPDF.Table.Draw](#) 3332
- [71.476 DynaPDF.Table.Release](#) 3345

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

**71.476 DynaPDF.Table.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.Release"; Table )

**Parameters****Table**

The identifier for the table.

\$Table

**Result** Returns OK or error.

**Description**

You need to call this to free memory.

**See also**

- 71.460 DynaPDF.Table.ClearRow 3324
- 71.461 DynaPDF.Table.Create 3326
- 71.462 DynaPDF.Table.DeleteCol 3329
- 71.463 DynaPDF.Table.DeleteRow 3330
- 71.465 DynaPDF.Table.Draw 3332
- 71.475 DynaPDF.Table.HaveMore 3344
- 71.491 DynaPDF.Table.SetFlags 3376
- 71.492 DynaPDF.Table.SetFont 3378

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.477 DynaPDF.Table.SetBorderWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetBorderWidth"; Table; Row; Col; Left; Right; Top; Bottom )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### Left

Value for the left side.

0

#### Right

Value for the right side.

0

#### Top

Value for the top side.

0

#### Bottom

Value for the bottom side.

0

**Result** Returns OK or error.

### Description

The properties can be set to the table, rows, columns, and cells as follows:

Row	Col	Applies to
-1	-1	Table
-1	>=0	Column
>=0	-1	Row
>=0	>=0	Cell

The border with is inherited from columns and rows (in this order), but not from the table since the table has its own border.

Individual values can be set to each side of a cell. Note that the properties will be not be rotated with a cell. The left side is always left, independent of the cell orientation.

**Examples**

Set border width to 1 point:

```
MBS("DynaPDF.Table.SetBorderWidth"; $table; -1; -1; 1; 1; 1; 1)
```

**See also**

- 71.337 [DynaPDF.SetAnnotBorderWidth](#) 3132
- 71.461 [DynaPDF.Table.Create](#) 3326
- 71.465 [DynaPDF.Table.Draw](#) 3332
- 71.470 [DynaPDF.Table.GetNumCols](#) 3339
- 71.471 [DynaPDF.Table.GetNumRows](#) 3340
- 71.474 [DynaPDF.Table.GetTableWidth](#) 3343
- 71.478 [DynaPDF.Table.SetBoxProperty](#) 3348
- 71.488 [DynaPDF.Table.SetColWidth](#) 3370
- 71.495 [DynaPDF.Table.SetGridWidth](#) 3383
- 71.498 [DynaPDF.Table.SetRowHeight](#) 3388

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.478 DynaPDF.Table.SetBoxProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetBoxProperty"; Table; Row; Col; Type; Left; Right; Top; Bottom )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### Type

Can be BorderWidth, CellSpacing or CellPadding.

"CellPadding"

#### Left

Value for the left side.

0

#### Right

Value for the right side.

0

#### Top

Value for the top side.

0

#### Bottom

Value for the bottom side.

0

**Result** Returns OK or error.

### Description

The properties can be set to the table, rows, columns, and cells as follows:

Cell padding and cell spacing are inherited from the table, columns, and rows, in this order.

The border with is inherited from columns and rows (in this order), but not from the table since the table has its own border.

Individual values can be set to each side of a cell. Note that the properties will be not be rotated with a cell. The left side is always left, independent of the cell orientation.



71.478. *DYNAPDF.TABLE.SETBOXPROPERTY* 3349

Row	Col	Applies to
-1	-1	Table
-1	$\geq 0$	Column
$\geq 0$	-1	Row
$\geq 0$	$\geq 0$	Cell

**See also**

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.490 DynaPDF.Table.SetColorFloat 3374

Created 18th August 2014, last changed 18th August 2014.

## 71.479 DynaPDF.Table.SetCellAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellAction"; Table; Row; Col; ActionHandle; Mode )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### ActionHandle

The action handle

\$action

#### Mode

The new highlight mode. Can be None, Invert, Outline, Push or PushUpd.

"Invert"

**Result** Returns OK or error.

### Description

Creates an invisible link annotation for the specified cell or table and associates the provided action with that annotation. The result is an interactive area that executes the action if the user clicks on cell or table. A cell action is always a background object that is created in the size of the background area when the table is drawn.

Unlike other cell objects like images, text, and so on, a cell link is no persistent object because the action will be deleted when then PDF file in memory will be closed or when DynaPDF.Release will be called.

If the table should be drawn into more than one PDF file then re-create the actions and cell action before drawing the table into the next PDF file.

Actions can be created with functions like DynaPDF.CreateGoToAction, DynaPDF.CreateGoToRAction, and so on.

### Examples

Adds a go-to action for a cell in the table:

```
Set Variable [ $NamedDest ; Value: MBS( "DynaPDF.CreateNamedDest"; $pdf; "test"; 2; "Fit" ) ]
```

```
Set Variable [ $Action ; Value: MBS( "DynaPDF.CreateGoToActionEx"; $PDF; $NamedDest ) ]
```

```
Set Variable [ $r ; Value: MBS( "DynaPDF.Table.SetCellAction"; $Table; $rowNum; 0; $action; "Invert" ) ]
```

71.479. *DynaPDF.Table.SetCellAction* 3351

#### See also

- 71.53 *DynaPDF.CreateGoToAction* 2677
- 71.55 *DynaPDF.CreateGoToRAction* 2681
- 71.60 *DynaPDF.CreateNamedDest* 2693
- 71.470 *DynaPDF.Table.GetNumCols* 3339
- 71.480 *DynaPDF.Table.SetCellImage* 3352
- 71.481 *DynaPDF.Table.SetCellImageEx* 3355
- 71.482 *DynaPDF.Table.SetCellOrientation* 3357
- 71.484 *DynaPDF.Table.SetCellSpacing* 3361
- 71.487 *DynaPDF.Table.SetCellText* 3368
- 71.490 *DynaPDF.Table.SetColorFloat* 3374

#### Example Databases

- [DynaPDF/Merge PDFs](#)

#### 71.479.1 Blog Entries

- [Example Script for \*DynaPDF.FindText\* and \*DynaPDF.WebLink\*](#)
- [Merge PDF with table of contents](#)
- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 22nd February 2019, last changed 5th December 2019.

## 71.480 DynaPDF.Table.SetCellImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellImage"; Table; Row; Col; ForeGround; HAlign; VAlign; Width; Height; ImagePath { ; Index } )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### ForeGround

If 1, the cell will be expanded if necessary.

1

#### HAlign

The horizontal alignment. Can be left, center or right.

"center"

#### VAlign

The vertical alignment. Can be bottom, center or top.

"center"

#### Width

The image width. Must be greater or equal zero.

50

#### Height

The image height. Must be greater or equal zero.

50

#### ImagePath

The native path to the image file.

\$Path

#### Index

Optional

The index of the image in the file.

1

**Result** Returns OK or error.

**Description**

The image will be loaded when the table is drawn. Therefore, please use an absolute path.

If the image is inserted as a background object, then it will be clipped if it does not fit into the cell boundary.

A cell can contain a background and a foreground object.

An image can also be added to the table as background object.

Foreground objects have a strong width and height. That means the cell will be expanded if necessary.

Image formats which support no transparency are inserted opaque. Transparent GIF images are inserted transparent and alpha channels in images will be considered. Images should normally be inserted in the native image color space. To achieve this, set the flag UseImageCS with `DynaPDF.Table.SetFlags`.

Images can be scaled into the cell as follows:

- Width = 0 and Height = 0 ->The image is scaled to the cell width or height depending on the cell orientation. The aspect ratio will be preserved. If the flag `tfScaleToRect` is set, the image is scaled so that both sides fit into the cell width and height. The row height must be greater zero to achieve a meaningful result.
- Width >0 and Height = 0 or Width = 0 and Height >0 ->The image is scaled to the given width or height. The aspect ratio will be preserved. If the flag `tfScaleToRect` is set, the image is scaled so that both sides fit into the given width or height and into cell width or height depending on which side is missing. If the parameter Height and the row height are zero then the flag `tfScaleToRect` has no effect.
- Width >0 and Height >0 ->The image is scaled to the given width and height. The aspect ratio is not preserved. If the flag `tfScaleToRect` is set, the image is scaled so that both sides fit into the given width and height and the aspect ratio is preserved.

The parameters Width and Height are not exchanged if the cell uses a landscape orientation.

This function needs a native path. Please use `Path.FilemakerPathToNativePath` function in order to convert a FileMaker style path to a native path.

**Examples**

Add row and insert picture:

```
Set Variable [ $subrow; Value:MBS("DynaPDF.Table.AddRow"; $subtable) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellImageEx"; $subtable; $subrow; 0; 1; "left"; "top"; 200; 0; Images::Image) ]
```

**See also**

- 71.456 `DynaPDF.Table.AddRow` 3318
- 71.470 `DynaPDF.Table.GetNumCols` 3339
- 71.471 `DynaPDF.Table.GetNumRows` 3340
- 71.483 `DynaPDF.Table.SetCellPadding` 3359
- 71.484 `DynaPDF.Table.SetCellSpacing` 3361

- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th August 2014, last changed 18th October 2016.

**71.481 DynaPDF.Table.SetCellImageEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellImageEx"; Table; Row; Col; ForeGround; HAlign; VAlign; Width; Height; Image { ; Index } )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**ForeGround**

If 1, the cell will be expanded if necessary.

1

**HAlign**

The horizontal alignment. Can be left, center or right.

"center"

**VAlign**

The vertical alignment. Can be bottom, center or top.

"center"

**Width**

The image width. Must be greater or equal zero.

50

**Height**

The image height. Must be greater or equal zero.

50

**Image**

The container with the image.

\$Path

**Index**

Optional

The index of the image in the file.

1

**Result** Returns OK or error.

**Description**

Like DynaPDF.Table.SetCellImage.

**See also**

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.479 DynaPDF.Table.SetCellAction 3350
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.



**71.482 DynaPDF.Table.SetCellOrientation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellOrientation"; Table; Row; Col; Orientation )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Orientation**

The new orientation.

90

**Result** Returns OK or error.

**Description**

The cell orientation is inherited from the table, column, row, and finally from the cell. The contents in a cell can be rotated in 90 degrees steps. Positive values rotate the cell content counter clockwise and negative values clockwise.

The row height should be set to value greater zero if a cell uses a landscape orientation. This is important if the height cannot be computed from the cell contents. This is the case if a cell contains text and if the flag NoLineBreak was not set.

The orientation can be set to the table, rows, columns, and cells as follows:

Row	Col	Applies to
-1	-1	Table
-1	>= 0	Column
>= 0	-1	Row
>= 0	>= 0	Cell

**See also**

- 71.456 DynaPDF.Table.AddRow 3318
- 71.457 DynaPDF.Table.AddRows 3320

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.479 DynaPDF.Table.SetCellAction 3350

Created 18th August 2014, last changed 18th August 2014.

**71.483 DynaPDF.Table.SetCellPadding**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellPadding"; Table; Row; Col; Left; Right; Top; Bottom )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Left**

Value for the left side.

0

**Right**

Value for the right side.

0

**Top**

Value for the top side.

0

**Bottom**

Value for the bottom side.

0

**Result** Returns OK or error.

**Description**

The properties can be set to the table, rows, columns, and cells as follows:

Row	Col	Applies to
-1	-1	Table
-1	>=0	Column
>=0	-1	Row
>=0	>=0	Cell

Cell padding and cell spacing are inherited from the table, columns, and rows, in this order. Individual values can be set to each side of a cell. Note that the properties will be not be rotated with a cell. The left side is always left, independent of the cell orientation.

**Examples**

Set the cell padding for the whole table:

```
MBS("DynaPDF.Table.SetCellPadding"; $dtable; -1; -1; 1; 1; 1; 1)
```

**See also**

- 71.470 [DynaPDF.Table.GetNumCols](#) 3339
- 71.471 [DynaPDF.Table.GetNumRows](#) 3340
- 71.479 [DynaPDF.Table.SetCellAction](#) 3350
- 71.480 [DynaPDF.Table.SetCellImage](#) 3352
- 71.481 [DynaPDF.Table.SetCellImageEx](#) 3355
- 71.484 [DynaPDF.Table.SetCellSpacing](#) 3361
- 71.485 [DynaPDF.Table.SetCellTable](#) 3363
- 71.486 [DynaPDF.Table.SetCellTemplate](#) 3365
- 71.487 [DynaPDF.Table.SetCellText](#) 3368

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

**71.484 DynaPDF.Table.SetCellSpacing**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellSpacing"; Table; Row; Col; Left; Right; Top; Bottom )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Left**

Value for the left side.

0

**Right**

Value for the right side.

0

**Top**

Value for the top side.

0

**Bottom**

Value for the bottom side.

0

**Result** Returns OK or error.

**Description**

The properties can be set to the table, rows, columns, and cells as follows:

Row	Col	Applies to
-1	-1	Table
-1	>=0	Column
>=0	-1	Row
>=0	>=0	Cell

Cell padding and cell spacing are inherited from the table, columns, and rows, in this order.

Individual values can be set to each side of a cell. Note that the properties will be not be rotated with a cell. The left side is always left, independent of the cell orientation.

**See also**

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.479 DynaPDF.Table.SetCellAction 3350
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368

### Example Databases

- [DynaPDF/Report](#)

Created 18th August 2014, last changed 18th August 2014.

**71.485 DynaPDF.Table.SetCellTable**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellTable"; Table; Row; Col; HAlign; VAlign; SubTable )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1.

0

**HAlign**

The horizontal alignment. Can be left, center or right.

"center"

**VAlign**

The vertical alignment. Can be bottom, center or top.

"center"

**SubTable**

The identifier for the subtable.

\$SubTable

**Result** Returns OK or error.

**Description**

Note that the function creates no copy of the table. But the plugin keeps a reference from subtable attached to parent table.

**Examples**

Sets a table to be used as content of a bigger table:

MBS("DynaPDF.Table.SetCellTable"; \$table; \$row; \$col; "left"; "top"; \$subtable)

**See also**

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.479 DynaPDF.Table.SetCellAction 3350

- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.483 DynaPDF.Table.SetCellPadding 3359
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370

### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Report](#)

Created 18th August 2014, last changed 18th August 2014.



## 71.486 DynaPDF.Table.SetCellTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellTemplate"; Table; Row; Col; ForeGround; HAlign; VAlign; TmplHandle { ; Width; Height } )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Or -1 for whole table.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Or -1 for whole table.

0

#### ForeGround

1 = foreground, 0 = background.

1

#### HAlign

The horizontal alignment. Can be left, center or right.

"center"

#### VAlign

The vertical alignment. Can be bottom, center or top.

"center"

#### TmplHandle

The template handle as returned by DynaPDF.ImportPageAsTemplate function.

\$template

#### Width

Optional

The desired width.

0

#### Height

Optional

The desired height

0

**Result** Returns OK or error.

### Description

A template can contain contents from external sources like PDF or EMF pages as well as anything that can

be drawn on a page (with exception of interactive objects like form fields or annotations).

Please note that the table creates no copy of the template. Template handles are bound on the PDF instance in which they were created and all templates will be deleted when the PDF file in memory is closed or when `DynaPDF.Release` will be called.

Therefore, it is not possible to draw a table with templates into different PDF files.

If the template is inserted as a background object, then it will be clipped if it does not fit into the cell boundary. A cell can contain a background and a foreground object.

A template can also be added to the table as background object.

Foreground objects have a strong width and height. That means the cell will be expanded if necessary.

Templates can be scaled into the cell as follows:

- Width = 0 and Height = 0 ->The template is scaled to the cell width or height depending on the cell orientation. The aspect ratio will be preserved. If the flag `tfScaleToRect` is set, the template is scaled so that both sides fit into the cell width and height. The row height must be greater zero to achieve a meaningful result.
- Width >0 and Height = 0 or Width = 0 and Height >0 ->The template is scaled to the given width or height. The aspect ratio will be preserved. If the flag `tfScaleToRect` is set, the template is scaled so that both sides fit into the given width or height and into cell width or height depending on which side is missing. If the parameter Height and the row height are zero then the flag `tfScaleToRect` has no effect.
- Width >0 and Height >0 ->The template is scaled to the given width and height. The aspect ratio is not preserved. If the flag `tfScaleToRect` is set, the template is scaled so that both sides fit into the given width and height and the aspect ratio is preserved.

The parameters Width and Height are not exchanged if the cell uses a landscape orientation.

### Examples

Import a page as template and use it as content in a table:

```
Set Variable [ $tmpl; Value:MBS("DynaPDF.ImportPageAsTemplate"; $pdf; $i) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellTemplate"; $table; $rowNum; $x; 1; "center"; "center"; $tmpl; 0; 0) ]
```

### See also

- 71.470 `DynaPDF.Table.GetNumCols` 3339
- 71.471 `DynaPDF.Table.GetNumRows` 3340
- 71.479 `DynaPDF.Table.SetCellAction` 3350
- 71.480 `DynaPDF.Table.SetCellImage` 3352
- 71.481 `DynaPDF.Table.SetCellImageEx` 3355
- 71.483 `DynaPDF.Table.SetCellPadding` 3359
- 71.484 `DynaPDF.Table.SetCellSpacing` 3361

71.486. <i>DYNAPDF.TABLE.SETCELLTEMPLATE</i>	3367
• 71.485 DynaPDF.Table.SetCellTable	3363
• 71.487 DynaPDF.Table.SetCellText	3368
• 71.490 DynaPDF.Table.SetColorFloat	3374

### **Example Databases**

- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th October 2016.

## 71.487 DynaPDF.Table.SetCellText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetCellText"; Table; Row; Col; HAlign; VAlign; Text )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1.

0

#### HAlign

The horizontal alignment. Can be left, center or right.

"center"

#### VAlign

The vertical alignment. Can be bottom, center or top.

"center"

#### Text

The text for the cell.

"Hello World"

**Result** Returns OK or error.

### Description

Text is always a foreground object. The cell will be expanded if necessary.

Text can be processed in different ways. By default the text is output with WriteFText. WriteFText supports a lot of format tags. These tags are also supported in a table with exception of a page break tag.

To avoid line breaks it is possible to set the flag NoLineBreak with DynaPDF.Table.SetFlags. The flag is inherited from the table, column, row, and cell, in this order. If set, the text is output with WriteText instead. Since this function doesn't support format tags, the text is processed as plain text.

The font and font size can be set with DynaPDF.Table.SetFont and with DynaPDF.Table.SetFontSize. Note that a table has its own versions of these functions.

If the cell uses a landscape orientation then the text flows to left or to right depending on the orientation and if the flag NoLineBreak is not set. The row height must be set to value greater zero in this case. If the text does not fit into the cell then the column width will be expanded. If the flag NoLineBreak is set, then the height of the row will be expanded if necessary.

If the cell uses a portrait orientation and if the flag NoLineBreak is not set, then text flows from top to

71.487. *DYNAPDF.TABLE.SETCELLTEXT* 3369

bottom or bottom to top, depending on the orientation. The row height will be expanded if necessary. If the flag NoLineBreak is set, then the column width will be expanded if necessary.

#### Examples

Sets the cell text:

```
MBS("DynaPDF.Table.SetCellText"; $table; $row; $col; "left"; "top"; Articles::Description1)
```

#### See also

- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.479 DynaPDF.Table.SetCellAction 3350
- 71.481 DynaPDF.Table.SetCellImageEx 3355
- 71.484 DynaPDF.Table.SetCellSpacing 3361
- 71.485 DynaPDF.Table.SetCellTable 3363
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.491 DynaPDF.Table.SetFlags 3376
- 71.492 DynaPDF.Table.SetFont 3378
- 71.494 DynaPDF.Table.SetFontSize 3381

#### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

#### 71.487.1 Blog Entries

- [Merge PDF with table of contents](#)
- [New FM.Loop function](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.488 DynaPDF.Table.SetColWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetColWidth"; Table; Col; Width; ExtTable )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1.

0

#### Width

The new width.

100

#### ExtTable

Extend the table or adjust the other columns?

0

**Result** Returns OK or error.

### Description

The width of a column can be changed in two different ways. If the parameter ExtTable is set to 1, then the difference of the current and new column width is added to the table width and the widths of all other columns is left unchanged.

If ExtTable is set to 0, the difference is subtracted from the next columns until the gap is zero. If the width of the column is larger as the table width then the table width is adjusted too. All other columns get a zero width in this case.

The column widths should be set from lower to higher indexes and no value should be set for the last column. No column width should exceed the table width if ExtTable is set to false. Otherwise the widths of all other columns must be changed again. Change first the table width and then the column widths in such a case.

### Examples

Sets the column width for first column to 200 point:

```
MBS("DynaPDF.Table.SetColWidth"; $table; 0; 200; 1)
```

### See also

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.461 DynaPDF.Table.Create 3326
- 71.470 DynaPDF.Table.GetNumCols 3339

71.488. <i>DYNAPDF.TABLE.SETCOLWIDTH</i>	3371
• 71.480 DynaPDF.Table.SetCellImage	3352
• 71.485 DynaPDF.Table.SetCellTable	3363
• 71.487 DynaPDF.Table.SetCellText	3368
• 71.489 DynaPDF.Table.SetColor	3372
• 71.494 DynaPDF.Table.SetFontSize	3381
• 71.498 DynaPDF.Table.SetRowHeight	3388
• 71.499 DynaPDF.Table.SetTableWidth	3389

### **Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)

#### **71.488.1 Blog Entries**

- [Merge PDF with table of contents](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.489 DynaPDF.Table.SetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetColor"; Table; Row; Col; Type; CS; Color )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### Type

Which table color. Can be BackColor, BorderColor, GridHorzColor, GridVertColor, ImageColor or TextColor.

"TextColor"

#### CS

The colorspace to use. Can be DeviceRGB, DeviceCMYK, DeviceGray.

"DeviceRGB"

#### Color

The color value.

255

**Result** Returns OK or error.

### Description

Colors of an extended color space can be set with DynaPDF.Table.SetColorFloat.

The text color is inherited from the table, column, and row, in this order. The border color is inherited from columns and rows but not from the table since the table has its own border.

### Examples

Set green text color:

```
MBS( "DynaPDF.Table.SetColor"; $table; $Row; $Col; "TextColor"; "DeviceRGB"; 255*256 )
```

### See also

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.470 DynaPDF.Table.GetNumCols 3339



<i>71.489. DYNAPDF.TABLE.SETCOLOR</i>	3373
• 71.471 DynaPDF.Table.GetNumRows	3340
• 71.487 DynaPDF.Table.SetCellText	3368
• 71.490 DynaPDF.Table.SetColorFloat	3374
• 71.488 DynaPDF.Table.SetColWidth	3370
• 71.491 DynaPDF.Table.SetFlags	3376
• 71.492 DynaPDF.Table.SetFont	3378
• 71.495 DynaPDF.Table.SetGridWidth	3383
• 71.496 DynaPDF.Table.SetPDF	3385

Created 18th August 2014, last changed 18th August 2014.

**71.490 DynaPDF.Table.SetColorFloat**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetColorFloat"; Table; Row; Col; Type; CS; Colors )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Type**

Which table color. Can be BackColor, BorderColor, GridHorzColor, GridVertColor, ImageColor or TextColor.

"TextColor"

**CS**

The colorspace to use. Can be DeviceRGB, DeviceCMYK, DeviceGray.

"DeviceRGB"

**Colors**

Color values. Pass as many parameters as needed. Range from 0 to 1.

0

**Result** Returns OK or error.

**Description**

The number of color components must match the number of components of the color space. The text color is inherited from the table, column, and row, in this order. The border color is inherited from columns and rows but not from the table since the table has its own border.

Extended color spaces will be deleted when the PDF file in memory is closed or when DynaPDF.Release was called. The color spaces must be recreated when the table should be drawn in another PDF file. Color space handles may change when recreated in another PDF file. All such colors should be set again to avoid issues with invalid color space handles.

Width exception of Lab colors, color values are in the range 0 through 1. Lab colors support different ranges for the L\*, a\*, and b\* components:

L\* -> 0..100

a\* -> -128 .. 127

b\* -> -128 .. 127

**Examples**

71.490. *DYNAPDF.TABLE.SETCOLORFLOAT* 3375

Set green text color:

```
MBS( "DynaPDF.Table.SetColorFloat"; $table; $Row; $Col; "TextColor"; "DeviceRGB"; 0; 1; 0 )
```

**See also**

- 71.316 DynaPDF.Release 3086
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.478 DynaPDF.Table.SetBoxProperty 3348
- 71.486 DynaPDF.Table.SetCellTemplate 3365
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.489 DynaPDF.Table.SetColor 3372
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.497 DynaPDF.Table.SetRGBColor 3386

Created 18th August 2014, last changed 18th August 2014.

## 71.491 DynaPDF.Table.SetFlags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetFlags"; Table; Row; Col; Flags )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### Flags

The flags to set. Can be string identifier or the numerical values.

"HeaderRow"

**Result** Returns OK or error message.

### Description

Flags are inherited from the table, column, and rows, in this order.

Static	This flag avoids the deletion of cell contents when DynaPDF.Table.ClearContent, DynaPDF.Table.ClearColumn or DynaPDF.Table.ClearRow is called. The flag can be set to rows, columns, and cells.
HeaderRow	Header rows are the first rows which are drawn after a page break occurred. It is possible to mark more than one row as header row.
NoLineBreak	This flag avoids line breaks in cells which contain text. The flag is inherited from the table, columns, and rows. Text is output with WriteText() if this flag is set. See DynaPDF.Table.SetCellText for further information.
ScaleToRect	If set, images and templates are scaled into the cell so that both sides fit into the given width and height. The aspect ratio will be preserved. The flag is inherited from the table, columns, and rows.
UseImageCS	If set, images are inserted in the native image color space and embedded ICC profiles will be considered. The flag is inherited from the table, columns, and rows.

### Examples

Sets the HeaderRow flag for a row:

```
MBS("DynaPDF.Table.SetFlags"; $table; $row; -1; "HeaderRow")
```

Adds a header row:

```
# Add header row
Set Variable [ $row; Value:MBS("DynaPDF.Table.AddRow"; $table) ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 0; "right"; "top"; "Index") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 1; "left"; "top"; "Product") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 2; "right"; "top"; "Price") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 3; "right"; "top"; "Quantity") ]
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetCellText"; $table; $row; 4; "right"; "top"; "Total Price") ]
]
# set flag for header row
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetFlags"; $table; $row; -1; "HeaderRow") ]
# make row bold
Set Variable [ $r; Value:MBS("DynaPDF.Table.SetFont"; $table; $row; -1; "Helvetica"; 2; 1; "unicode") ]
```

### See also

- 71.456 DynaPDF.Table.AddRow 3318
- 71.459 DynaPDF.Table.ClearContent 3322
- 71.460 DynaPDF.Table.ClearRow 3324
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.480 DynaPDF.Table.SetCellImage 3352
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.489 DynaPDF.Table.SetColor 3372
- 71.492 DynaPDF.Table.SetFont 3378
- 71.496 DynaPDF.Table.SetPDF 3385

### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th June 2016.

## 71.492 DynaPDF.Table.SetFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetFont"; Table; Row; Col; Name; Style; Embed; CodePage )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### Name

The font name.

"Arial"

#### Style

The font style.

0

#### Embed

Whether to embed font. Can be 1 to embed or 0 to not embed font.

1

#### CodePage

The code page to use.

"Unicode"

**Result** Returns OK or error message.

### Description

The font is inherited from the table, column, and row, in this order. The font will be loaded when the table is drawn. The default font size is 10 units. It can be changed with DynaPDF.Table.SetFontSize. The default font selection mode is FamilyName. It can be changed with DynaPDF.Table.SetFontSelMode.

See also DynaPDF.SetFont for more details.

### Examples

Sets font for all cells to Helvetica:

```
MBS("DynaPDF.Table.SetFont"; $table; -1; -1; "Helvetica"; 0; 1; "unicode")
```

Sets row to bold:

## 71.492. *DYNAPDF.TABLE.SETFONT*

3379

Set Variable [ \$r; Value:MBS("DynaPDF.Table.SetFont"; \$table; \$row; -1; "Helvetica"; 2; 1; "unicode") ]

### See also

- 71.391 *DynaPDF.SetFont* 3208
- 71.461 *DynaPDF.Table.Create* 3326
- 71.470 *DynaPDF.Table.GetNumCols* 3339
- 71.471 *DynaPDF.Table.GetNumRows* 3340
- 71.472 *DynaPDF.Table.GetPDF* 3341
- 71.476 *DynaPDF.Table.Release* 3345
- 71.487 *DynaPDF.Table.SetCellText* 3368
- 71.488 *DynaPDF.Table.SetColWidth* 3370
- 71.493 *DynaPDF.Table.SetFontSelMode* 3380
- 71.494 *DynaPDF.Table.SetFontSize* 3381

### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)

#### 71.492.1 Blog Entries

- [Merge PDF with table of contents](#)

Created 18th August 2014, last changed 18th June 2016.

## 71.493 DynaPDF.Table.SetFontSelMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetFontSelMode"; Table; Row; Col; FontSelMode )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

#### Col

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

#### FontSelMode

The font selection mode. Can be FamilyName, PostscriptName or FullName.

"FamilyName"

**Result** Returns OK or error.

### Description

The font names used in the corresponding DynaPDF.Table.SetFont calls must coincide with the font selection mode. The font selection mode is inherited from the table, column, and row, in this order.

### See also

- 71.395 DynaPDF.SetFontSelMode 3215
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.492 DynaPDF.Table.SetFont 3378
- 71.494 DynaPDF.Table.SetFontSize 3381

Created 18th August 2014, last changed 18th August 2014.



**71.494 DynaPDF.Table.SetFontSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetFontSize"; Table; Row; Col; Value )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Value**

The new font size.

14

**Result** Returns OK or error.

**Description**

The font size is inherited from the table, column, and row, in this order.

**Examples**

Sets the font size to 10 for all cells:

```
MBS("DynaPDF.Table.SetFontSize"; $table; -1; -1; 10)
```

**See also**

- 71.461 DynaPDF.Table.Create 3326
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.487 DynaPDF.Table.SetCellText 3368
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.492 DynaPDF.Table.SetFont 3378
- 71.493 DynaPDF.Table.SetFontSelMode 3380
- 71.498 DynaPDF.Table.SetRowHeight 3388

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)

**71.494.1 Blog Entries**

- [Merge PDF with table of contents](#)

Created 18th August 2014, last changed 18th August 2014.

**71.495 DynaPDF.Table.SetGridWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetGridWidth"; Table; Horz; Vert )

**Parameters****Table**

The identifier for the table.

\$Table

**Horz**

Horizontal grid width or zero.

0

**Vert**

Vertical grid width or zero.

0

**Result** Returns OK or error.

**Description**

The table grid consists of horizontal and vertical lines which are drawn in the middle of two rows or columns. The grid lines cover always the entire width or height of the table. The line widths can be set to different values for the horizontal and vertical lines. If no lines should be drawn then set the value to zero. The colors of horizontal and vertical grid lines can be set with DynaPDF.Table.SetRGBColor, DynaPDF.Table.SetColor or DynaPDF.Table.SetColorFloat.

Only the table supports grid lines. The parameters Row and Col of DynaPDF.Table.SetRGBColor, DynaPDF.Table.SetColor or DynaPDF.Table.SetColorFloat must be set to -1.

**Examples**

Set grid width:

```
MBS("DynaPDF.Table.SetGridWidth"; $table; 1; 1)
```

**See also**

- 71.461 DynaPDF.Table.Create 3326
- 71.465 DynaPDF.Table.Draw 3332
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.489 DynaPDF.Table.SetColor 3372
- 71.490 DynaPDF.Table.SetColorFloat 3374

- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.497 DynaPDF.Table.SetRGBColor 3386
- 71.498 DynaPDF.Table.SetRowHeight 3388
- 71.499 DynaPDF.Table.SetTableWidth 3389

### Example Databases

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Tables](#)

Created 18th August 2014, last changed 18th August 2014.

**71.496 DynaPDF.Table.SetPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetPDF"; Table; PDF )

**Parameters****Table**

The identifier for the table.

\$Table

**PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Result** Returns OK or error.

**Description**

The PDF instance must be changed if the table should be drawn into another PDF instance as the one for which the table was created.

Note that extended color spaces and templates depend on the PDF instance in which these objects were created. If the table contains such objects then it is normally not possible to change the PDF instance.

**See also**

- 71.294 DynaPDF.New 3032
- 71.472 DynaPDF.Table.GetPDF 3341
- 71.489 DynaPDF.Table.SetColor 3372
- 71.491 DynaPDF.Table.SetFlags 3376
- 71.492 DynaPDF.Table.SetFont 3378

Created 18th August 2014, last changed 18th August 2014.

**71.497 DynaPDF.Table.SetRGBColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetRGBColor"; Table; Row; Col; Type; Red; Green; Blue )

**Parameters****Table**

The identifier for the table.

\$Table

**Row**

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1. Pass -1 for all rows.

0

**Col**

The column number. Range from 0 to DynaPDF.Table.GetNumCols-1. Pass -1 for all columns.

0

**Type**

Which table color. Can be BackColor, BorderColor, GridHorzColor, GridVertColor, ImageColor or TextColor.

"TextColor"

**Red**

The red color component. Range is from 0 to 255.

0

**Green**

The green color component. Range is from 0 to 255.

0

**Blue**

The blue color component. Range is from 0 to 255.

0

**Result** Returns OK or error.

**Description**

See also DynaPDF.Table.SetColorFloat.

**Examples**

Set green text color:

```
MBS( "DynaPDF.Table.SetRGBColor"; $table; $Row; $Col; "TextColor"; 0; 255; 0 )
```

Set white border color:

```
MBS("DynaPDF.Table.SetRGBColor"; $table; -1; -1; "BorderColor"; 255; 255; 255)
```

71.497. *DYNAPDF.TABLE.SETRGBCOLOR*

3387

**See also**

- 71.461 DynaPDF.Table.Create 3326
- 71.470 DynaPDF.Table.GetNumCols 3339
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.489 DynaPDF.Table.SetColor 3372
- 71.490 DynaPDF.Table.SetColorFloat 3374
- 71.495 DynaPDF.Table.SetGridWidth 3383

**Example Databases**

- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Report](#)

Created 18th August 2014, last changed 18th August 2014.

## 71.498 DynaPDF.Table.SetRowHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetRowHeight"; Table; Row; Height )

### Parameters

#### Table

The identifier for the table.

\$Table

#### Row

The row number. Range from 0 to DynaPDF.Table.GetNumRows-1.

0

#### Height

The new height.

20

**Result** Returns OK or error.

### Description

The value must be greater or equal zero. Foreground objects expand the height if necessary. The height must be greater zero if a cell uses a landscape orientation and if the height cannot be computed from the cell content. This is the case if a cell contains text and if the flag ScaleToRect is not set.

### See also

- 71.467 DynaPDF.Table.GetNextHeight 3336
- 71.471 DynaPDF.Table.GetNumRows 3340
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.477 DynaPDF.Table.SetBorderWidth 3346
- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.494 DynaPDF.Table.SetFontSize 3381
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.499 DynaPDF.Table.SetTableWidth 3389

Created 18th August 2014, last changed 18th August 2014.



**71.499 DynaPDF.Table.SetTableWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Table.SetTableWidth"; Table; Value; AdjustType; MinColWidth )

**Parameters****Table**

The identifier for the table.

\$Table

**Value**

The new value for the table width.

500

**AdjustType**

The adjustment type. Can be UniqueWidth, AdjLeft or AdjRight.

"AdjLeft"

**MinColWidth**

The optional minimum column width.

100

**Result** Returns OK on succes.

**Description**

At least one column must be modified when the width will be changed. The parameter AdjustType specifies how the column widths should be modified. If the new width is larger, then the difference can be added to the left or right column, or all columns can get a unique width (TableWidth / NumColumns). The parameter MinColWidth is ignored in this case.

If the new width is smaller, then the difference must be subtracted from the columns. The parameter MinColWidth specifies in this case the minimum width of columns that must be adjusted. It is only used if AdjustType is not set to coaUniqueWidth. The column widths are adjusted starting from the left or right side as specified. If the width of the first column is not large enough to subtract the entire difference, then the minimum width is set to the column and the adjustment continues with the next column until the gap is zero.

If the new table width is smaller as MinColWidth \* NumColumns then the widths of the remaining columns will be set to zero. Such cases should be avoided since the column widths must be adjusted again when the table is drawn.

**See also**

- 71.455 DynaPDF.Table.AddColumn 3317
- 71.473 DynaPDF.Table.GetTableHeight 3342
- 71.474 DynaPDF.Table.GetTableWidth 3343
- 71.477 DynaPDF.Table.SetBorderWidth 3346

- 71.488 DynaPDF.Table.SetColWidth 3370
- 71.495 DynaPDF.Table.SetGridWidth 3383
- 71.498 DynaPDF.Table.SetRowHeight 3388

Created 18th August 2014, last changed 18th August 2014.

**71.500 DynaPDF.TextAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.TextAnnot"; PDF; PosX; PosY; Width; Height; Author; Text; Icon; Open )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of the annotation

100

**PosY**

Y-Coordinate of the annotation

100

**Width**

Width of the window in open state

100

**Height**

Height of the window in open state

100

**Author**

The author name. Can be empty.

"Christian Schmitz"

**Text**

The text for the annotation.

"Hello World"

**Icon**

Which icon to use. Can be Help, Insert, Key, NewParagraph, Note, Paragraph or UserDefined.

"Help"

**Open**

Should the annotation appear open or closed? Pass 1 for open or 0 for close.

1

**Result** Returns annotation handle or error.

**Description**

The parameters Width and Height define the size of the annotation's window. The window is shown in the open state of the annotation.

If the parameter Open is true, the annotation appears in its open state when opening the document. If the annotation is closed, the annotation's icon appears on screen.

The parameters Author and Text are optional, they can be empty. DynaPDF does not embed the annotation icon. However, since Acrobat 5 they are available in Adobe's Acrobat or Reader.

See also [TextAnnot](#) function in DynaPDF manual.

### Examples

Add text annotation:

```
Set Variable [ $r ; Value: MBS( "DynaPDF.TextAnnot"; $pdf; 50; 50; 300; 200; "Christian Schmitz"; "Hello World"; "Help"; 1) ]
```

### See also

- 71.119 DynaPDF.FreeTextAnnot 2788
- 71.287 DynaPDF.LineAnnot 3020
- 71.294 DynaPDF.New 3032
- 71.343 DynaPDF.SetAnnotIcon 3141
- 71.452 DynaPDF.StampAnnot 3311

Created 28th November 2014, last changed 13th February 2018.

**71.501 DynaPDF.TranslateCoords**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.TranslateCoords"; PDF; x; y )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**x**

New coordinate origin of the x-axis  
\$x

**y**

New coordinate origin of the y-axis  
\$y

**Result** Returns OK on success and error on failure.

**Description**

Save the graphics state beforehand and restore it when finish.

After the coordinate system was changed by the function, bottom-up coordinates are active. It is not possible to use top-down coordinates with a transformed coordinate system.

Please do not try to scale/skew/translate back later. use DynaPDF.SaveGraphicState and DynaPDF.RestoreGraphicState.

See also [TranslateCoords](#) function in DynaPDF manual.

**Examples**

Translate and draw rectangle:

```
MBS( "DynaPDF.SaveGraphicState"; $PDF )
MBS( "DynaPDF.TranslateCoords"; $PDF; 200;200)
MBS( "DynaPDF.Rectangle"; $PDF; 0; 0; 200; 100; "stroke" )
MBS( "DynaPDF.RestoreGraphicState"; $PDF )
```

**See also**

- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.324 DynaPDF.RestoreGraphicState 3104
- 71.325 DynaPDF.RotateCoords 3106
- 71.329 DynaPDF.Save 3116

- 71.333 DynaPDF.SaveGraphicState

### Example Databases

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/DynaPDF Coordinates](#)
- [DynaPDF/DynaPDF PlaceTemplate](#)

Created 18th August 2014, last changed 18th August 2014.

**71.502 DynaPDF.Triangle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Triangle"; PDF; x1; y1; x2; y2; x3; y3; FillMode )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**x1**

X-Coordinate of the first point

**y1**

Y-Coordinate of the first point

**x2**

X-Coordinate of the second point

**y2**

y-Coordinate of the second point

**x3**

X-Coordinate of the third point

**y3**

Y-Coordinate of the third point

**FillMode**

Fill mode. Can be FillNoClose, StrokeNoClose, FillStrokeNoClose, Fill, Stroke, FillStroke, FillEvOdd, FillStrokeEvOdd, FillEvOddNoClose, FillStrokeEvOddNoClose, NoFill or Close.

"fill"

**Result** Returns OK or error message.

**Description**

The draw direction can be changed with the function DynaPDF.SetDrawDirection.

A triangle is a closed path that can be filled, stroked or both. It is also possible to draw a triangle invisible to apply the filling rules nonzero winding number or even-odd. The filling rules are described under ClipPath(). The parameter FillMode is ignored if the triangle is drawn inside a clipping path. The fill modes are described under ClosePath().

See also [Triangle](#) function in DynaPDF manual.

**See also**

- 71.294 DynaPDF.New 3032
- 71.315 DynaPDF.Rectangle 3084
- 71.364 DynaPDF.SetDrawDirection 3169





**71.503 DynaPDF.UnlockLayer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.UnlockLayer"; PDF )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.  
\$pdf

**Result** Returns OK or error.

**Description**

See also DynaPDF.LockLayer for further information.  
See also [UnlockLayer](#) function in DynaPDF manual.

**See also**

- 71.291 DynaPDF.LockLayer 3028
- 71.294 DynaPDF.New 3032

Created 6th February 2015, last changed 6th February 2015.

## 71.504 DynaPDF.Uninitialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.Uninitialize" )

**Result** Returns OK or error.

### Description

This will clear all DynaPDF objects, clear all function pointers and free the library. You only need to call this if you like to replace the Library file and load another version. The library is automatically unloaded when FileMaker quits.

### See also

- 71.277 DynaPDF.Initialize 2992
- 71.286 DynaPDF.IsInitialized 3017

### 71.504.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 28th February 2020, last changed 28th February 2020.

**71.505 DynaPDF.WatermarkAnnot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WatermarkAnnot"; PDF; PosX; PosY; Width; Height )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

The x position.

**PosY**

The y position.

**Width**

The width of the watermark annotation.

**Height**

The height of the watermark annotation.

**Result** Returns annotation index or error.

**Description**

Watermark annotations have no interactive elements like other annotation types. This property is useful in many cases because it is usually not possible to select or change the contents of a watermark annotation in viewer applications.

The annotation has no appearance after it was created. Call DynaPDF.CreateAnnotAP to create an appearance template for the annotation. After the appearance template was created you can draw text, images or vector graphics into it. The template must be closed with DynaPDF.EndTemplate when finished. It is also possible to import an external page or EMF contents into the template.

Watermark annotations can be shared on multiple pages. To place the annotation on other pages call DynaPDF.AddAnnotToPage.

If the function succeeds the return value is the annotation handle, a value greater or equal zero.

If the function fails the function returns an error.

See also [WatermarkAnnot](#) function in DynaPDF manual.

**See also**

- 71.2 DynaPDF.AddAnnotToPage 2594
- 71.96 DynaPDF.EndTemplate 2750
- 71.294 DynaPDF.New 3032

### 71.505.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 13th December 2016, last changed 13th December 2016.

**71.506 DynaPDF.WebLink**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WebLink"; PDF; PosX; PosY; Width; Height; URL )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of bounding rectangle

100

**PosY**

Y-Coordinate of bounding rectangle

100

**Width**

Width of bounding rectangle

100

**Height**

Height of bounding rectangle

20

**URL**

URL defined as null-terminated 7 bit ASCII string.

"http://www.mbsplugins.de"

**Result** Returns new handle or error.

**Description**

The parameter URL holds the URL defined as 7 bit ASCII string. A uniform resource locator (URL) is a string that resolves to a resource on the internet - typically a file that is the destination of a hypertext link, although it can also resolve to a query or other entity. A web link opens the standard browser to view the resource by default. The full version of Adobes Acrobat enables you also to embed a reverenced html resource in your document.

If the coordinate system is bottom-up the point PosX, PosY defines the lower left corner of the bounding rectangle. If the coordinate system is top-down it defines the upper left corner.

The border of the link annotation is drawn by using the current line width, stroke color and line dash pattern. If the link should appear without a border set the line width to zero beforehand (with DynaPDF.SetLineWidth).

When clicking on a link annotation the rectangle is highlighted, that is a simple visual effect. Several highlight modes are supported, see `DynaPDF.SetLinkHighlightMode` for further information.

If the function succeeds the return value is the annotation handle, a value greater or equal zero. If the function fails the return value is an error.

Please use `DynaPDF.WriteText` if you first want to add text to the page before you make it a clickable link.

Use `DynaPDF.WebLink` for web links, `DynaPDF.FileLink` for file links, `DynaPDF.PageLink` or `DynaPDF.PageLinkEx` for page links and `DynaPDF.FindText` can help to find the location where to place the link.

See also [WebLink](#) function in DynaPDF manual.

### Examples

Add a link to MBS Blog:

```
MBS( "DynaPDF.WebLink"; $PDF; 100; 100; 100; 20; "http://www.mbsplugins.de" )
```

Add various links to a page:

```
# import page
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; Add Page Numbers::Input) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf; 1) ]

# edit first page
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; 1) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 20) ]
# Add web link
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 100; 150; 20; "left"; "Go to MBS
Blog" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.Weblink"; $PDF; 100; 80; 150; 20; "http://www.mbs-plugins.com/"
) ]
# Add page link
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 150; 150; 20; "left"; "Jump to page
3" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.PageLink"; $PDF; 100; 130; 150; 20; 3) ]
# Add page link with more options
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 200; 200; 20; "left"; "Jump to Letter
D Zoomed" ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.PageLinkEx"; $PDF; 100; 180; 200; 20; "FitRect"; 4; 60; 590;
135; 160) ]
# Close page
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
```

Setup drawing for links:

```
Set Variable [ $r ; Value: MBS("DynaPDF.SetLineWidth"; $pdf; 1) ]
```

71.506. *DYNAPDF.WEBLINK* 3403  
Set Variable [ \$r ; Value: MBS("DynaPDF.SetLinkHighlightMode"; \$pdf; "invert") ]

#### See also

- 71.113 DynaPDF.FindText 2777
- 71.272 DynaPDF.ImportPDFFile 2979
- 71.294 DynaPDF.New 3032
- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.391 DynaPDF.SetFont 3208
- 71.405 DynaPDF.SetLinkHighlightMode 3234
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408

#### Example Databases

- [DynaPDF/Add Weblinks](#)

#### 71.506.1 Blog Entries

- [Example Script for DynaPDF.FindText and DynaPDF.WebLink](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

#### 71.506.2 FileMaker Magazin

- Ausgabe 3/2019, Seite 38

Created 18th August 2014, last changed 4th May 2020.

## 71.507 DynaPDF.WriteDemoText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteDemoText"; PDF; Text { ; Font } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Text

The text to use.

"Hello World"

#### Font

Optional

The font to use. If the font used does not support all characters, the text may not show. Default is Helvetica.

"Arial Unicode MS"

**Result** Returns OK or error.

### Description

This allows you to watermark PDFs with a text like "Confidential".

If you use DynaPDF.SetAlpha, you can change the transparency. With DynaPDF.SetStrokeColor you can change the color.

### Examples

Add chinese text:

```
Set Variable [ $r ; Value: MBS("DynaPDF.WriteDemoText"; $pdf; "" ; "Arial Unicode MS" ) ]
```

### See also

- 71.294 DynaPDF.New 3032
- 71.335 DynaPDF.SetAlpha 3128
- 71.428 DynaPDF.SetStrokeColor 3277
- 71.508 DynaPDF.WriteFText 3406
- 71.511 DynaPDF.WriteStyledText 3414
- 71.514 DynaPDF.WriteText 3420

### Example Databases

- [DynaPDF/Watermark pages](#)



### **71.507.1 Blog Entries**

- [DynaPDF Screenshot](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 15th October 2018.

**71.508 DynaPDF.WriteFText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteFText"; PDF; Align; Text { ; PlainText } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**Align**

The text alignment. Can be left, center, right or justify.

"left"

**Text**

The text to write.

"Hello World"

**PlainText**

Optional

Available in MBS FileMaker Plugin 9.1 or newer.

Pass 1 to ignore formatting commands and treat text as plain text. Default is 0 to interpret commands in text.

0

**Result** Returns OK or error message.

**Description**

Use DynaPDF.GetFTextHeightEx or DynaPDF.GetFTextHeight to calculate the space needed for the text if you want to create a matching text rectangle for vertical alignment.

See DynaPDF.AllowPageBreak for whether to do page breaks or not.

Please set a font first with DynaPDF.SetFont function before you write on the page.

See DynaPDF.WriteStyledText and DynaPDF.WriteStyledTextEx to convert FileMaker styles to DynaPDF commands.

See also [WriteFText](#) function in DynaPDF manual.

**Examples**

Writes some text:

```
MBS( "DynaPDF.WriteFText"; $PDF; "center"; "Hello World" )
```

Write text with font changing:

```
# Write some formatted text
```

## 71.508. DYNAPDF.WRITEFTEXT

3407

Set Variable [ \$text ; Value: "Some text. \FT [ Times-Bold ] Now Times in bold!\FT [ Times-Roman ] and back to normal Times." ]

Set Variable [ \$r ; Value: MBS("DynaPDF.SetTextRect"; \$pdf; 200; 200; 150; -1) ]

Set Variable [ \$r ; Value: MBS("DynaPDF.WriteFText"; \$pdf; "left"; \$text) ]

### See also

- 71.206 DynaPDF.GetLeading 2898
- 71.249 DynaPDF.GetTextWidth 2951
- 71.294 DynaPDF.New 3032
- 71.402 DynaPDF.SetLeading 3230
- 71.506 DynaPDF.WebLink 3401
- 71.507 DynaPDF.WriteDemoText 3404
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.510 DynaPDF.WriteFTextExRotated 3412
- 71.511 DynaPDF.WriteStyledText 3414
- 71.514 DynaPDF.WriteText 3420

### Example Databases

- [DynaPDF/Create Text as PDF](#)
- [DynaPDF/Place Picture](#)
- [DynaPDF/Signature Appearance](#)
- [DynaPDF/Watermark pages](#)
- [DynaPDF/WriteFText](#)
- [DynaPDF/ZUGFeRD/ZUGFeRD Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/Factor-X Invoice](#)
- [DynaPDF/ZUGFeRD 2.0/ZUGFeRD 2.0 Invoice](#)

### 71.508.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr2](#)
- [DynaPDF and Styled Text, Xojo vs. FileMaker](#)

Created 18th August 2014, last changed 6th February 2019.

**71.509 DynaPDF.WriteFTextEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteFTextEx"; PDF; PosX; PosY; Width; Height; Align; Text { ; PlainText } )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of output rectangle

\$x

**PosY**

Y-Coordinate of output rectangle

\$y

**Width**

Width of output rectangle

\$w

**Height**

Height of output rectangle or -1.

\$h

**Align**

The text alignment. Can be left, center, right or justify.

"left"

**Text**

The text to write.

"Hello World"

**PlainText**

Optional

Available in MBS FileMaker Plugin 9.1 or newer.

Pass 1 to ignore formatting commands and treat text as plain text. Default is 0 to interpret commands in text.

0

**Result** Returns OK or error message.

**Description**

Use DynaPDF.GetFTextHeightEx or DynaPDF.GetFTextHeight to calculate the space needed for the text if you want to create a matching text rectangle for vertical alignment.

See DynaPDF.AllowPageBreak for whether to do page breaks or not.

Please set a font first with DynaPDF.SetFont function before you write on the page.  
 See DynaPDF.WriteStyledTextEx to convert FileMaker styles to DynaPDF commands.  
 See also [WriteFTextEx](#) function in DynaPDF manual.

### Examples

Write text in a rectangle:

```
MBS( "DynaPDF.WriteFTextEx"; $PDF; 100; 500; 100; 100; "left"; "Hello World" )
```

Loop over pages and add page numbers:

```
Set Variable [ $PageCount; Value:MBS( "DynaPDF.GetPageCount"; $pdf ) ]
Set Variable [ $PageNumber; Value:1 ]
Set Variable [ $pageWidth; Value:MBS("DynaPDF.GetPageWidth"; $pdf) ]
Set Variable [ $pageHeight; Value:MBS("DynaPDF.GetPageHeight"; $pdf) ]
Loop
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; $PageNumber) ]
Set Variable [ $r; Value:MBS( "DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 12) ]
Set Variable [ $r; Value:MBS( "DynaPDF.WriteFTextEx"; $pdf; 50; $pageHeight - 50; $pageWidth-100; 30;
"right"; GetAsText($PageNumber) & " of " & $PageCount) ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $PageNumber; Value:$PageNumber + 1 ]
Exit Loop If [ $PageNumber >$PageCount ]
End Loop
```

Annotate PDF page with text on top center:

```
# make pdf
Set Field [ PDF::Annotated PDF; PDF::Original PDF ]
# Clear current PDF document
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Load PDF from container
Set Variable [ $r; Value:MBS("DynaPDF.OpenPDFFromContainer"; $pdf; PDF::Original PDF) ]
Set Variable [ $r; Value:MBS("DynaPDF.ImportPDFFile"; $pdf) ]
# write on each page a header
Set Variable [ $index; Value:1 ]
Set Variable [ $count; Value:MBS("DynaPDF.GetPageCount"; $pdf) ]
Loop
Set Variable [ $r; Value:MBS("DynaPDF.EditPage"; $pdf; $index) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetPageCoords"; $pdf; "topdown") ]
Set Variable [ $r; Value:MBS("DynaPDF.SetFont"; $pdf; "Arial"; 0; 10; 1; "unicode") ]
Set Variable [ $pageWidth; Value:MBS("DynaPDF.GetPageWidth"; $pdf) ]
Set Variable [ $print; Value:MBS("DynaPDF.WriteFTextEx"; $pdf; 0; 20; $pageWidth; -1; "center"; "Doc
- " & PDF::PK & "" ) ]
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index >$count ]
```

```

End Loop
# save
Set Field [ PDF::Annotated PDF; MBS( "DynaPDF.Save"; $PDF; "print.pdf" ) ]
# Cleanup
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]

```

**See also**

- 71.297 DynaPDF.OpenPDFFromContainer 3039
- 71.300 DynaPDF.PageLink 3052
- 71.301 DynaPDF.PageLinkEx 3055
- 71.329 DynaPDF.Save 3116
- 71.391 DynaPDF.SetFont 3208
- 71.416 DynaPDF.SetPageCoords 3254
- 71.506 DynaPDF.WebLink 3401
- 71.510 DynaPDF.WriteFTextExRotated 3412
- 71.511 DynaPDF.WriteStyledText 3414
- 71.514 DynaPDF.WriteText 3420

**Example Databases**

- [Barcode/DynaPDF Barcode](#)
- [DynaPDF/Add Page Numbers](#)
- [DynaPDF/Catalog with tables](#)
- [DynaPDF/Invoice/Invoice](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Personalized PDFs](#)
- [DynaPDF/Report](#)
- [DynaPDF/Shrink PDF pages](#)
- [DynaPDF/Signature Appearance](#)

**71.509.1 Blog Entries**

- [Example Script for DynaPDF.FindText and DynaPDF.WebLink](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)

## **71.509.2 FileMaker Magazin**

- Ausgabe 3/2019, Seite 38
- Ausgabe 2/2019, Seite 27

Created 18th August 2014, last changed 6th February 2019.

## 71.510 DynaPDF.WriteFTextExRotated

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteFTextExRotated"; PDF; PosX; PosY; Width; Height; Align; Text; Alpha { ; PlainText } )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of output rectangle

\$x

#### PosY

Y-Coordinate of output rectangle

\$y

#### Width

Width of output rectangle

\$w

#### Height

Height of output rectangle or -1.

\$h

#### Align

The text alignment. Can be left, center, right or justify.

"left"

#### Text

The text to write.

"Hello World"

#### Alpha

The rotation angle in degrees. From 0 to 360 degrees.

90

#### PlainText

Optional

Available in MBS FileMaker Plugin 9.1 or newer.

Pass 1 to ignore formatting commands and treat text as plain text. Default is 0 to interpret commands in text.

0

**Result** Returns OK or error message.

### Description



71.510. *DYNAPDF.WRITEFTEXTEXROTATED* 3413

Same as DynaPDF.WriteFTextEx, but with additional rotation in center of box.

See DynaPDF.WriteStyledTextExRotated to convert FileMaker styles to DynaPDF commands.

**See also**

- 71.294 DynaPDF.New 3032
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.511 DynaPDF.WriteStyledText 3414
- 71.512 DynaPDF.WriteStyledTextEx 3416
- 71.513 DynaPDF.WriteStyledTextExRotated 3418

### 71.510.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr2](#)
- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 10th August 2017, last changed 6th February 2019.

## 71.511 DynaPDF.WriteStyledText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteStyledText"; PDF; Align; Text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### Align

The text alignment. Can be left, center, right or justify.

"left"

#### Text

The text to write.

"Hello World"

**Result** Returns OK or error.

### Description

Converts for you the styled text to the formatted text commands from DynaPDF.

Use DynaPDF.GetFTextHeightEx or DynaPDF.GetFTextHeight to calculate the space needed for the text if you want to create a matching text rectangle for vertical alignment.

See DynaPDF.AllowPageBreak for whether to do page breaks or not.

Please set a font first with DynaPDF.SetFont function before you write on the page. As this function uses font settings from FileMaker field, it may ignore whatever font or style you loaded before.

Internally calls DynaPDF.ConvertStyledText and DynaPDF.WriteFText.

### Examples

Write some styled text on a PDF page:

```
Set Variable [ $pdf; Value:MBS("DynaPDF.New") ]
# Add page
Set Variable [ $r; Value:MBS("DynaPDF.AppendPage"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetFont"; $pdf; "Helvetica"; 0; 12) ]
# Write some text
Set Variable [ $pw; Value:MBS("DynaPDF.GetPageWidth"; $pdf) ]
Set Variable [ $ph; Value:MBS("DynaPDF.GetPageHeight"; $pdf) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetFillColor"; $pdf; 0; 0; 0) ]
Set Variable [ $r; Value:MBS("DynaPDF.SetTextRect"; $pdf; 100; $ph-100; $pw-200; $ph-200) ]
Set Variable [ $r; Value:MBS("DynaPDF.WriteStyledText"; $pdf; "left"; Create Text::Text) ]
```

71.511. *DYNAPDF.WRITESTYLEDTEXT* 3415

```
# End page
Set Variable [ $r; Value:MBS("DynaPDF.EndPage"; $pdf) ]
# Render one page as Picture
Set Variable [ $PDFData; Value:MBS("DynaPDF.Save"; $pdf; "hello.pdf") ]
Set Variable [ $r; Value:MBS("DynaPDF.Release"; $pdf) ]
# Put in Container
Set Field [ Create Text::PDF; $PDFData ]
```

#### See also

- 71.47 DynaPDF.ConvertStyledText 2664
- 71.228 DynaPDF.GetPageHeight 2927
- 71.294 DynaPDF.New 3032
- 71.391 DynaPDF.SetFont 3208
- 71.432 DynaPDF.SetTextRect 3284
- 71.507 DynaPDF.WriteDemoText 3404
- 71.508 DynaPDF.WriteFText 3406
- 71.509 DynaPDF.WriteFTextEx 3408
- 71.510 DynaPDF.WriteFTextExRotated 3412
- 71.512 DynaPDF.WriteStyledTextEx 3416

#### Example Databases

- [DynaPDF/Styled Text](#)

#### 71.511.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 13th October 2016, last changed 23th March 2020.

## 71.512 DynaPDF.WriteStyledTextEx

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteStyledTextEx"; PDF; PosX; PosY; Width; Height; Align; Text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.

\$pdf

#### PosX

X-Coordinate of output rectangle

\$x

#### PosY

Y-Coordinate of output rectangle

\$y

#### Width

Width of output rectangle

\$w

#### Height

Height of output rectangle or -1.

\$h

#### Align

The text alignment. Can be left, center, right or justify.

"left"

#### Text

The text to write.

"Hello World"

**Result** Returns OK or error.

### Description

Converts for you the styled text to the formatted text commands from DynaPDF.

Use DynaPDF.GetFTextHeightEx or DynaPDF.GetFTextHeight to calculate the space needed for the text if you want to create a matching text rectangle for vertical alignment.

See DynaPDF.AllowPageBreak for whether to do page breaks or not.

Please set a font first with DynaPDF.SetFont function before you write on the page. As this function uses font settings from FileMaker field, it may ignore whatever font or style you loaded before.

71.512. *DYNAPDF.WRITESTYLEDTEXT* 3417

Internally calls `DynaPDF.ConvertStyledText` and `DynaPDF.WriteFTextEx`.

**See also**

- 71.13 `DynaPDF.AllowPageBreak` 2613
- 71.47 `DynaPDF.ConvertStyledText` 2664
- 71.150 `DynaPDF.GetFTextHeight` 2829
- 71.151 `DynaPDF.GetFTextHeightEx` 2831
- 71.391 `DynaPDF.SetFont` 3208
- 71.508 `DynaPDF.WriteFText` 3406
- 71.509 `DynaPDF.WriteFTextEx` 3408
- 71.510 `DynaPDF.WriteFTextExRotated` 3412
- 71.511 `DynaPDF.WriteStyledText` 3414
- 71.513 `DynaPDF.WriteStyledTextExRotated` 3418

### 71.512.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 13th October 2016, last changed 23th March 2020.

**71.513 DynaPDF.WriteStyledTextExRotated**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteStyledTextExRotated"; PDF; PosX; PosY; Width; Height; Align; Text; Alpha )

**Parameters****PDF**

The PDF reference returned from DynaPDF.New.

\$pdf

**PosX**

X-Coordinate of output rectangle

\$x

**PosY**

Y-Coordinate of output rectangle

\$y

**Width**

Width of output rectangle

\$w

**Height**

Height of output rectangle or -1.

\$h

**Align**

The text alignment. Can be left, center, right or justify.

"left"

**Text**

The text to write.

"Hello World"

**Alpha**

The rotation angle in degrees. From 0 to 360 degrees.

90

**Result** Returns OK or error message.

**Description**

Same as DynaPDF.WriteStyledTextEx, but with additional rotation in center of box.

**See also**

- 71.294 DynaPDF.New 3032
- 71.510 DynaPDF.WriteFTextExRotated 3412
- 71.511 DynaPDF.WriteStyledText 3414

71.513. *DYNAPDF.WRITESTYLEDTEXTEXROTATED*

3419

- 71.512 DynaPDF.WriteStyledTextEx

3416

### **71.513.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 10th August 2017, last changed 10th August 2017.

## 71.514 DynaPDF.WriteText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
71 DynaPDF	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "DynaPDF.WriteText"; PDF; PosX; PosY; Text )

### Parameters

#### PDF

The PDF reference returned from DynaPDF.New.  
\$pdf

#### PosX

X-Coordinate of the text  
\$x

#### PosY

Y-Coordinate of the text  
\$y

#### Text

The text to write.  
"Hello World"

**Result** Returns OK or error message.

### Description

Please set a font first with DynaPDF.SetFont function before you write on the page.  
See also [WriteText](#) function in DynaPDF manual.

### Examples

Write something:

MBS("DynaPDF.WriteText"; \$pdf; 111; 323; Invoice::Invoice ID)

### See also

- 71.92 DynaPDF.EnableEncryption 2743
- 71.113 DynaPDF.FindText 2777
- 71.294 DynaPDF.New 3032
- 71.358 DynaPDF.SetColorSpace 3159
- 71.389 DynaPDF.SetFillColor 3204
- 71.391 DynaPDF.SetFont 3208
- 71.506 DynaPDF.WebLink 3401



<i>71.514. DYNAPDF.WRITETEXT</i>	3421
• 71.507 DynaPDF.WriteDemoText	3404
• 71.508 DynaPDF.WriteFText	3406
• 71.509 DynaPDF.WriteFTextEx	3408

### **Example Databases**

- [DynaPDF/Bookmarks](#)
- [DynaPDF/Create Text as PDF/A](#)

Created 18th August 2014, last changed 27th May 2017.



# Chapter 72

## EIDSDK

Functions to read eID cards with zetes bluetooth card reader on iOS.

### 72.1 EIDSDK.Address

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Address" )

**Result** Returns text or error.

#### Description

String containing street and number.

Created 13th November 2019, last changed 13th November 2019.

## 72.2 EIDSDK.BeginTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.BeginTransaction" )

**Result** Returns OK or error.

**Description**

**See also**

- 72.12 EIDSDK.EndTransaction

3434

Created 13th November 2019, last changed 13th November 2019.

## 72.3 EIDSDK.CardDeliveryMunicipality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.CardDeliveryMunicipality" )

**Result** Returns text or error.

### Description

This method reads the address data file from card and decodes municipality of delivery of the card.  
Created 13th November 2019, last changed 13th November 2019.

## 72.4 EIDSDK.CardNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.CardNumber" )

**Result** Returns text or error.

### Description

This method reads eID data file from card and decodes cardnumber.

### See also

- 72.7 EIDSDK.ChipNumber 3429
- 72.18 EIDSDK.NatNumber 3440

Created 13th November 2019, last changed 13th November 2019.

## 72.5 EIDSDK.CardValidFrom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.CardValidFrom" )

**Result** Returns text or error.

### Description

String containing start of validity period for eID card data.

### See also

- 72.6 EIDSDK.CardValidTo

3428

Created 13th November 2019, last changed 13th November 2019.

## 72.6 EIDSDK.CardValidTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.CardValidTo" )

**Result** Returns text or error.

### Description

String containing end of validity period for eID card data.

### See also

- 72.5 EIDSDK.CardValidFrom

3427

Created 13th November 2019, last changed 13th November 2019.



## 72.7 EIDSDK.ChipNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.ChipNumber" )

**Result** Returns text or error.

### Description

String containing chipnumber of eID card.

### See also

- 72.4 EIDSDK.CardNumber 3426
- 72.18 EIDSDK.NatNumber 3440

Created 13th November 2019, last changed 13th November 2019.

## 72.8 EIDSDK.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Close" )

**Result** Returns OK or error.

### Description

Created 13th November 2019, last changed 13th November 2019.

**72.9 EIDSDK.DateOfBirth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.DateOfBirth" { ; asDate } )

**Parameters****asDate**

Optional

Whether to return as date or text. Pass 1 for date (default). Pass 0 for text.

1

**Result** Returns OK or error.

**Description**

String containing the date of birth of eID Card owner. This string contains the string data as it is encoded on card.

**See also**

- 72.24 EIDSDK.PlaceOfBirth

3446

Created 13th November 2019, last changed 28th November 2019.

## 72.10 EIDSDK.DocTypeInt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

```
MBS( "EIDSDK.DocTypeInt" { ; asText } )
```

### Parameters

#### asText

Optional

Whether to return as text instead of numeric value. Pass 1 for text or 0 for number. Default is 0.

1

**Result** Returns number, text or error.

### Description

Created 13th November 2019, last changed 13th November 2019.

## 72.11 EIDSDK.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Duplicate" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if flag is set.

Created 13th November 2019, last changed 13th November 2019.

## 72.12 EIDSDK.EndTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.EndTransaction" )

**Result** Returns OK or error.

**Description**

**See also**

- 72.2 EIDSDK.BeginTransaction

3424

Created 13th November 2019, last changed 13th November 2019.

## 72.13 EIDSDK.FirstName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.FirstName" )

**Result** Returns text or error.

### Description

This method reads the ID data file from card and decodes the first name of the eID.

### Examples

Query full name:

```
Set Variable [ $Name ; Value: MBS( "EIDSDK.FirstName" ) & " from " & MBS( "EIDSDK.LastName" ) ]
```

### See also

- 72.15 EIDSDK.LastName 3437
- 72.35 EIDSDK.ThirdName 3457

Created 13th November 2019, last changed 13th November 2019.

## 72.14 EIDSDK.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Initialize" )

**Result** Returns OK or error.

### Description

This is for Zetes bluetooth card reader.

Please embed libeID-SDK.a into your FileMaker iOS SDK project.

Add bluetooth accessory devices to the provision profile, NSBluetoothPeripheralUsageDescription to info.plist as well as UISupportedExternalAccessoryProtocols with entry for "com.zetes.sipirom".

If needed we could add more functions to read certificates and raw ID files.

### Examples

Initialize in start script:

```
Set Variable [ $r ; Value: MBS( "EIDSDK.Initialize" ) ]
```

### See also

- 77.60 Events.Initialize

3626

Created 13th November 2019, last changed 13th November 2019.



## 72.15 EIDSDK.LastName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.LastName" )

**Result** Returns text or error.

### Description

This method reads the ID data file from card and decodes the last name of the eID.

### Examples

Query full name:

Set Variable [ \$Name ; Value: MBS( "EIDSDK.FirstName" ) & " from " & MBS( "EIDSDK.LastName" ) ]

### See also

- 72.13 EIDSDK.FirstName

3435

Created 13th November 2019, last changed 13th November 2019.

## 72.16 EIDSDK.MemberOfFamily

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.MemberOfFamily" )

**Result** Returns text or error.

### Description

Created 13th November 2019, last changed 13th November 2019.

## 72.17 EIDSDK.Municipality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Municipality" )

**Result** Returns text or error.

### Description

String containing the municipality of the eID card owner.  
Created 13th November 2019, last changed 13th November 2019.

**72.18 EIDSDK.NatNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.NatNumber" )

**Result** Returns text or error.

**Description**

The National security number should be used with caution.

Special permission from Belgian government is needed to use/store this number in databases related applications!

Returns string containing the national security number of the eID card owner.

**See also**

- 72.4 EIDSDK.CardNumber 3426
- 72.7 EIDSDK.ChipNumber 3429

Created 13th November 2019, last changed 13th November 2019.

## 72.19 EIDSDK.Nationality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Nationality" )

**Result** Returns text or error.

### Description

This method reads the id data of eID card and decodes the nationality of eID card owner. This string can be encoded in different languages, mostly depending on card delivery municipality. (e.g. België - Belgiëën - Belgique)  
Created 13th November 2019, last changed 13th November 2019.

## 72.20 EIDSDK.NobleCondition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.NobleCondition" )

**Result** Returns text or error.

### Description

Created 13th November 2019, last changed 13th November 2019.

## 72.21 EIDSDK.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Open" )

**Result** Returns OK or error.

### Description

Created 13th November 2019, last changed 13th November 2019.

## 72.22 EIDSDK.PhotoDigest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.PhotoDigest" )

**Result** Returns text or error.

### Description

Digest is returned base64 encoded.

Created 13th November 2019, last changed 13th November 2019.



## 72.23 EIDSDK.Picture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Picture" )

**Result** Returns container or error.

### Description

This is a JPEG picture returned as container value.

If no picture exists, we return empty result.

Picture in black and white is stored on eID card and is around 3kb in size.

Created 13th November 2019, last changed 13th November 2019.

## 72.24 EIDSDK.PlaceOfBirth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.PlaceOfBirth" )

**Result** Returns text or error.

### Description

String containing place of birth of eID card owner.

### See also

- 72.9 EIDSDK.DateOfBirth

3431

Created 13th November 2019, last changed 13th November 2019.

## 72.25 EIDSDK.PostalCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.PostalCode" )

**Result** Returns text or error.

### Description

String containing the postal code of the eID card owner.  
Created 13th November 2019, last changed 13th November 2019.

## 72.26 EIDSDK.SDKReleaseDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SDKReleaseDate" )

**Result** Returns text or error.

### Description

### Examples

Query version:

```
Set Variable [ $Version ; Value: MBS( "EIDSDK.SDKVersion" ) & " from " & MBS( "EIDSDK.SDKReleaseDate" ) ]
```

### See also

- 72.27 EIDSDK.SDKVersion

3449

Created 13th November 2019, last changed 13th November 2019.

**72.27 EIDSDK.SDKVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SDKVersion" )

**Result** Returns text or error.

**Description****Examples**

Query version:

```
Set Variable [ $Version ; Value: MBS( "EIDSDK.SDKVersion" ) & " from " & MBS( "EIDSDK.SDKReleaseDate" ) ]
```

**See also**

- [72.26 EIDSDK.SDKReleaseDate](#) 3448
- [72.36 EIDSDK.Version](#) 3458

Created 13th November 2019, last changed 13th November 2019.

## 72.28 EIDSDK.SetTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SetTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

Parameter to the script is CardFound, CardGone, ReaderFound or ReaderGone.

Created 13th November 2019, last changed 13th November 2019.

## 72.29 EIDSDK.Sex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Sex" )

**Result** Returns text or error.

### Description

String containing sex of eID card owner.

Created 13th November 2019, last changed 13th November 2019.

## 72.30 EIDSDK.SpecialOrganisation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SpecialOrganisation" )

**Result** Returns text or error.

### Description

Created 13th November 2019, last changed 13th November 2019.



## 72.31 EIDSDK.SpecialStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SpecialStatus" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if flag is set.

Created 13th November 2019, last changed 13th November 2019.

## 72.32 EIDSDK.StartScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.StartScan" )

**Result** Returns OK or error.

**Description**

**See also**

- 72.33 EIDSDK.StopScan

3455

Created 13th November 2019, last changed 13th November 2019.

## 72.33 EIDSDK.StopScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.StopScan" )

**Result** Returns OK or error.

**Description**

**See also**

- 72.32 EIDSDK.StartScan

3454

Created 13th November 2019, last changed 13th November 2019.

## 72.34 EIDSDK.SupportsPinPad

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.SupportsPinPad" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if supported, otherwise 0.

Created 13th November 2019, last changed 28th November 2019.

**72.35 EIDSDK.ThirdName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.ThirdName" )

**Result** Returns text or error.

**Description**

This method reads the ID data file from card and decodes the first character of the third name of the eID.

**See also**

- 72.13 EIDSDK.FirstName

3435

Created 13th November 2019, last changed 13th November 2019.

## 72.36 EIDSDK.Version

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
72 EIDSDK	10.0	No	No	No	No	Yes

MBS( "EIDSDK.Version" )

**Result** Returns text or error.

**Description**

**See also**

- 72.27 EIDSDK.SDKVersion

3449

Created 13th November 2019, last changed 13th November 2019.

# Chapter 73

## EmailParser

Functions to parse emails and extract text, addresses and attachments.

Use CURL functions to query POP and IMAP servers to obtain the email content or load it from eml/emlx files.

You can send or receive emails with our CURL functions. For sending the SendMail functions help to build an email and send it, while EmailParser functions help to parse an email.

### 73.1 EmailParser.Address

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Address"; EmailID; Index; Selector )

#### Parameters

##### EmailID

The ID fo the email parser.

\$Email

##### Index

The index from 0 to EmailParser.AddressCount-1.

0

##### Selector

Which value to return. Can be type, name or email.

"name"

**Result** Returns value or error.

#### Description

An address has a type which can be TO, CC, BCC, ReplyTo, Sender or From.  
Name is the label which can be empty. Email is the email address.

### Examples

Copy all addresses into records:

```
# find all addresses
Set Variable [ $EmailRecordID; Value:Get(RecordID) ]
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.AddressCount"; $email) ]
If [ $c > 0 ]
Go to Related Record [ Show only related records; From table: "Address"; Using layout: "Address" (Address) ]
Go to Layout [ "Address" (Address) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.Address"; $email; $i; "name") ]
Set Variable [ $EmailAddress; Value:MBS("EmailParser.Address"; $email; $i; "email") ]
Set Variable [ $type; Value:MBS("EmailParser.Address"; $email; $i; "type") ]
New Record/Request
Set Field [ Address::Type; $type ]
Set Field [ Address::Email; $EmailAddress ]
Set Field [ Address::Name; $name ]
Set Field [ Address::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
```

### See also

- 73.2 EmailParser.AddressCount 3461
- 73.18 EmailParser.Parse 3482

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 16th October 2015.



## 73.2 EmailParser.AddressCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.AddressCount"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns number or error.

### Description

This includes TO, CC, BCC, FROM, Reply-To and Sender entries.

### See also

- [73.1 EmailParser.Address](#) 3459
- [73.12 EmailParser.HeaderCount](#) 3475
- [73.18 EmailParser.Parse](#) 3482

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 24th September 2015.

## 73.3 EmailParser.AttachedEmails

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.AttachedEmails"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns list or error.

### Description

Sometimes Outlook may embed one email into another and this function returns the reference numbers for any email we got while parsing the email.

The list is empty usually, but may have one or more entries, if there are embedded emails with mime type message/rfc822.

If eml files are attached, they may show up as normal attachments.

### Example Databases

- [CURL/Email/IMAP Email](#)

### 73.3.1 Blog Entries

- [Neue Funktionen des MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin, version 9.4pr8](#)

Created 12nd September 2019, last changed 12nd September 2019.

## 73.4 EmailParser.Attachment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Attachment"; EmailID; Index; Selector { ; Extra } )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### Index

The index from 0 to EmailParser.AttachmentCount-1.

0

#### Selector

Which value to return. Can be Filename, MimeType, MimeVersion, ContentType, ContentTransferEncoding, ContentDisposition, ContentDescription, contentId, text or container.

"Filename"

#### Extra

Optional

For selector = container, you can pass an alternative file name. For selector = text, you can pass text encoding here.

**Result** Returns value or error.

### Description

You can query for example the file name or the mime type.

For storing in a container, you can query the container property. The attachment is decoded by the plugin.

If you need to directly write to a file, you can use the EmailParser.WriteAttachment function.

You can use Text.MimeTypeToFileExtension to find the file extension for mime type.

### Examples

Copy all attachments into records:

```
# find all attachments
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.AttachmentCount"; $email) ]
If [ $c >0 ]
Go to Related Record [ Show only related records; From table: "Attachment"; Using layout: "Attachment"
(Attachment) ]
Go to Layout [ "Attachment" (Attachment) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.attachment"; $email; $i; "filename") ]
Set Variable [ $content; Value:MBS("EmailParser.attachment"; $email; $i; "container") ]
```

```
New Record/Request
Set Field [ Attachment::Content; $content ]
Set Field [ Attachment::FileName; $name ]
Set Field [ Attachment::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
```

#### See also

- 73.5 EmailParser.AttachmentCount 3465
- 73.18 EmailParser.Parse 3482
- 73.28 EmailParser.WriteAttachment 3497
- 167.47 Text.MimeTypeToFileExtension 7969

#### Example Databases

- [Drag and Drop/DragTest](#)

#### 73.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 24th September 2015, last changed 14th July 2019.

## 73.5 EmailParser.AttachmentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.AttachmentCount"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns number or error.

### Description

#### See also

- [73.4 EmailParser.Attachment](#) 3463
- [73.18 EmailParser.Parse](#) 3482
- [73.28 EmailParser.WriteAttachment](#) 3497

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)
- [Drag and Drop/DragTest](#)

Created 24th September 2015, last changed 24th September 2015.

## 73.6 EmailParser.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Free"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns OK or error.

### Description

Please call this function always with the reference numbers you got from `CURL.GetResultAsEmail` or `EmailParser.Parse`.

### Examples

Parse Subject, PlainText and HTMLText from email:

```
Set Variable [ $email; Value:MBS("EmailParser.Parse"; Email Parser::Input) ]
If [ MBS("IsError") = 1 ]
Show Custom Dialog [ "Failed to parse email."; Middle($email; 7; Length($email)) ]
Exit Script [ ]
End If
# Show text:
Set Field [ Email Parser::Subject; MBS("EmailParser.Subject"; $email) ]
Set Field [ Email Parser::PlainText; MBS("EmailParser.plainText"; $email) ]
Set Field [ Email Parser::HTMLText; MBS("EmailParser.HTMLText"; $email) ]
# cleanup
Set Variable [ $r; Value:MBS("EmailParser.Free"; $email) ]
```

### See also

- 62.115 `CURL.GetResultAsEmail` 1951
- 62.118 `CURL.GetResultAsMime` 1957
- 73.10 `EmailParser.Hash` 3472
- 73.16 `EmailParser.List` 3480
- 73.18 `EmailParser.Parse` 3482
- 73.19 `EmailParser.ParseContainer` 3486
- 73.21 `EmailParser.PlainText` 3488
- 73.25 `EmailParser.Source` 3493

73.6. <i>EMAILPARSER.FREE</i>	3467
• 73.27 EmailParser.Subject	3495
• 127.6 IsError	6374

### **Example Databases**

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)
- [Drag and Drop/for Mac/DragTest Email](#)

Created 24th September 2015, last changed 16th October 2015.

## 73.7 EmailParser.HTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.HTMLText"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

May be empty for text only emails.

### Examples

Parse Subject, PlainText and HTMLText from email:

```
Set Variable [ $email; Value:MBS("EmailParser.Parse"; Email Parser::Input) ]
If [ MBS("IsError") = 1 ]
Show Custom Dialog [ "Failed to parse email."; Middle($email; 7; Length($email)) ]
Exit Script [ ]
End If
# Show text:
Set Field [ Email Parser::Subject; MBS("EmailParser.Subject"; $email) ]
Set Field [ Email Parser::PlainText; MBS("EmailParser.plainText"; $email) ]
Set Field [ Email Parser::HTMLText; MBS("EmailParser.HTMLText"; $email) ]
# cleanup
Set Variable [ $r; Value:MBS("EmailParser.Free"; $email) ]
```

### See also

- [73.6 EmailParser.Free](#) 3466
- [73.18 EmailParser.Parse](#) 3482
- [73.21 EmailParser.PlainText](#) 3488
- [73.27 EmailParser.Subject](#) 3495
- [127.6 IsError](#) 6374

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)



- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 16th October 2015.

## 73.8 EmailParser.HTMLToPlainText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.HTMLToPlainText"; HTML )

### Parameters

#### HTML

The HTML text to convert.

"<p>Hello World</p>"

**Result** Returns text or error.

### Description

This is used internally for HTML only emails.

Does not convert formatting. Just removes html tags, adds new line characters and translates html entities.

See also `Text.DecodeFromHTML` for just removing html entities.

### See also

- 73.21 `EmailParser.PlainText` 3488
- 167.16 `Text.DecodeFromHTML` 7926

### 73.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 24th September 2015, last changed 22nd August 2018.

## 73.9 EmailParser.HasHeader

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.HasHeader"; EmailID; HeaderName )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### HeaderName

The name of the header to look for.

"X-Priority"

**Result** Returns 1, 0 or error.

### Description

#### See also

- [73.11 EmailParser.Header](#)

3473

### 73.9.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 22nd August 2017, last changed 22nd August 2017.

## 73.10 EmailParser.Hash

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Hash"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

You can use this hash to identify an email and check for duplicates.

### See also

- [73.6 EmailParser.Free](#) 3466
- [73.11 EmailParser.Header](#) 3473
- [73.16 EmailParser.List](#) 3480
- [73.18 EmailParser.Parse](#) 3482

### Example Databases

- [CURL/Email/Email Client](#)

### 73.10.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 2nd October 2015, last changed 2nd October 2015.

## 73.11 EmailParser.Header

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Header"; EmailID; Index; Selector )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### Index

The index from 0 to EmailParser.HeaderCount-1.

0

#### Selector

Which value to return. Can be "name" or "value".

"name"

**Result** Returns text or error.

### Description

Common header values include Date, Subject, From and X-Mailer.

### Examples

Query first header entry:

```
$name = MBS( "EmailParser.Header"; $EmailID; 0; "name" )
```

```
$value = MBS( "EmailParser.Header"; $EmailID; 0; "value" )
```

Find a header value by name:

```
Set Variable [ $i; Value:0 ]
```

```
Set Variable [ $c; Value:MBS("EmailParser.HeaderCount"; $email) ]
```

```
If [ $c >0 ]
```

```
Loop
```

```
Set Variable [ $HeaderName; Value:MBS("EmailParser.Header"; $email; $i; "name") ]
```

```
If [ $HeaderName = "X-Mailer" ]
```

```
Set Variable [ $HeaderValue; Value:MBS("EmailParser.Header"; $email; $i; "value") ]
```

```
Set Field [ Email Parser::Mailer; $HeaderValue ]
```

```
End If
```

```
# next
```

```
Set Variable [ $i; Value:$i + 1 ]
```

```
Exit Loop If [ $i = $c ]
```

```
End Loop
```

```
End If
```

Copy all headers into records:

```

Set Variable [ $i ; Value: 0 ]
Set Variable [ $c ; Value: MBS("EmailParser.HeaderCount"; $email) ]
If [ $c >0 ]
Loop
Set Variable [ $HeaderName ; Value: MBS("EmailParser.Header"; $email; $i; "name") ]
Set Variable [ $HeaderValue ; Value: MBS("EmailParser.Header"; $email; $i; "value") ]
New Record/Request
Set Field [ EmailHeaders::EmailID ; $EmailRecordID ]
Set Field [ EmailHeaders::HeaderName ; $HeaderName ]
Set Field [ EmailHeaders::HeaderValue ; $HeaderValue ]
Commit Records/Requests [ With dialog: Off ]
# next
Set Variable [ $i ; Value: $i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If

```

#### See also

- [73.10 EmailParser.Hash](#) 3472
- [73.9 EmailParser.HasHeader](#) 3471
- [73.12 EmailParser.HeaderCount](#) 3475
- [73.13 EmailParser.HeaderValue](#) 3476
- [73.18 EmailParser.Parse](#) 3482

#### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 9th June 2017.

## 73.12 EmailParser.HeaderCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.HeaderCount"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns number or error.

### Description

#### See also

- [73.2 EmailParser.AddressCount](#) 3461
- [73.11 EmailParser.Header](#) 3473
- [73.13 EmailParser.HeaderValue](#) 3476
- [73.15 EmailParser.InlineCount](#) 3479
- [73.18 EmailParser.Parse](#) 3482

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 24th September 2015.

## 73.13 EmailParser.HeaderValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.HeaderValue"; EmailID; HeaderName )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### HeaderName

The name of the header to look for.

"X-Priority"

**Result** Returns value or error.

### Description

Returns empty value if header is not found.

Queries of course only first value in case the header is there multiple times!

### Examples

Query priority:

```
Set Variable [ $HeaderValue ; Value: MBS("EmailParser.HeaderValue"; $email; "X-Priority") ]
Show Custom Dialog [ "Subject" ; $HeaderValue ]
```

### See also

- [73.11 EmailParser.Header](#) 3473
- [73.12 EmailParser.HeaderCount](#) 3475

### 73.13.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 22nd August 2017, last changed 22nd August 2017.



## 73.14 EmailParser.Inline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Inline"; EmailID; Index; Selector { ; Extra } )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### Index

The index from 0 to EmailParser.InlineCount-1.

0

#### Selector

Which value to return. Can be Filename, MimeType, MimeVersion, ContentType, ContentTransferEncoding, ContentDisposition, ContentDescription, contentId, text or container.

"Filename"

#### Extra

Optional

For selector = container, you can pass an alternative file name. For selector = text, you can pass text encoding here.

**Result** Returns value or error.

### Description

You can query for example the file name or the mime type.

For storing in a container, you can query the container property. The inline graphics is decoded by the plugin.

You can use Text.MimeTypeToFileExtension to find the file extension for mime type.

### Examples

Copy all inline graphics into records:

```
# find all inline graphics
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.InlineCount"; $email) ]
If [ $c >0 ]
Go to Related Record [ Show only related records; From table: "InlineGraphics"; Using layout: "Inline-
Graphics" (InlineGraphics) ]
Go to Layout [ "InlineGraphics" (InlineGraphics) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.inline"; $email; $i; "filename") ]
Set Variable [ $content; Value:MBS("EmailParser.Inline"; $email; $i; "container") ]
New Record/Request
```

```
Set Field [ InlineGraphics::Content; $content ]
Set Field [ InlineGraphics::FileName; $name ]
Set Field [ InlineGraphics::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
```

**See also**

- 62.118 [CURL.GetResultAsMime](#) 1957
- 73.15 [EmailParser.InlineCount](#) 3479
- 73.18 [EmailParser.Parse](#) 3482
- 73.25 [EmailParser.Source](#) 3493
- 73.29 [EmailParser.WriteLine](#) 3498
- 167.47 [Text.MimeTypeToFileExtension](#) 7969

**Example Databases**

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

**73.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 24th September 2015, last changed 14th July 2019.

**73.15 EmailParser.InlineCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.InlineCount"; EmailID )

**Parameters****EmailID**

The ID fo the email parser.

\$Email

**Result** Returns number or error.

**Description**

Inline graphics are stored by plugin as inlines while attachments are stored separately.

**See also**

- [73.12 EmailParser.HeaderCount](#) 3475
- [73.14 EmailParser.Inline](#) 3477
- [73.18 EmailParser.Parse](#) 3482
- [73.29 EmailParser.WriteInline](#) 3498

**Example Databases**

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 24th September 2015.

## 73.16 EmailParser.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.List" )

**Result** Returns list of reference numbers or error.

### Description

#### See also

- [73.6 EmailParser.Free](#) 3466
- [73.10 EmailParser.Hash](#) 3472
- [73.18 EmailParser.Parse](#) 3482

Created 24th September 2015, last changed 24th September 2015.

## 73.17 EmailParser.MessageID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.MessageID"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns message ID or error.

### Description

#### 73.17.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)

Created 24th September 2015, last changed 24th September 2015.

## 73.18 EmailParser.Parse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Parse"; EmailSource { ; Encoding } )

### Parameters

#### EmailSource

The source code of an email as text. e.g. as downloaded via IMAP/POP3 functions in CURL.

\$EmailContent

#### Encoding

Optional

The text encoding for text parameter. Default is native.

UTF8

**Result** Returns Reference number or error.

### Description

If no error occurs, the parser will separate subject, html and plain text, attachments and inline graphics, all addresses and header entries. You can then use other functions to query values.

If you expect UTF-8 and you have the text in a field already, you may want to pass UTF-8 here for encoding.

If you have EMLX files, please use Text.ReadEMLXFile function first to unpack them and pass the email source to EmailParser.Parse function.

### Examples

Parse an email and copy data into records:

```
Set Variable [ $email; Value:MBS("EmailParser.Parse"; Email Parser::Input) ]
If [ MBS("IsError") = 1 ]
Show Custom Dialog [ "Failed to parse email."; Middle($email; 7; Length($email)) ]
Exit Script [ ]
End If
# Show text:
Set Field [ Email Parser::Subject; MBS("EmailParser.Subject"; $email) ]
Set Field [ Email Parser::PlainText; MBS("EmailParser.plainText"; $email) ]
Set Field [ Email Parser::HTMLText; MBS("EmailParser.HTMLText"; $email) ]
# find all addresses
Set Variable [ $EmailRecordID; Value:Get(RecordID) ]
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.AddressCount"; $email) ]
If [ $c >0 ]
Go to Related Record [ Show only related records; From table: "Address"; Using layout: "Address" (Address) ]
```

```

Go to Layout [ "Address" (Address) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.Address"; $email; $i; "name") ]
Set Variable [ $emailAddress; Value:MBS("EmailParser.Address"; $email; $i; "email") ]
Set Variable [ $type; Value:MBS("EmailParser.Address"; $email; $i; "type") ]
New Record/Request
Set Field [ Address::Type; $type ]
Set Field [ Address::Email; $emailAddress ]
Set Field [ Address::Name; $name ]
Set Field [ Address::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
# find all attachments
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.AttachmentCount"; $email) ]
If [ $c >0 ]
Go to Related Record [ Show only related records; From table: "Attachment"; Using layout: "Attachment"
(Attachment) ]
Go to Layout [ "Attachment" (Attachment) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.attachment"; $email; $i; "filename") ]
Set Variable [ $content; Value:MBS("EmailParser.attachment"; $email; $i; "container") ]
New Record/Request
Set Field [ Attachment::Content; $content ]
Set Field [ Attachment::FileName; $name ]
Set Field [ Attachment::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
# find all inline graphics
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.InlineCount"; $email) ]
If [ $c >0 ]
Go to Related Record [ Show only related records; From table: "InlineGraphics"; Using layout: "Inline-
Graphics" (InlineGraphics) ]
Go to Layout [ "InlineGraphics" (InlineGraphics) ]
Delete All Records [ No dialog ]
Loop
Set Variable [ $Name; Value:MBS("EmailParser.inline"; $email; $i; "filename") ]

```

```

Set Variable [ $content; Value:MBS("EmailParser.Inline"; $email; $i; "container") ]
New Record/Request
Set Field [ InlineGraphics::Content; $content ]
Set Field [ InlineGraphics::FileName; $name ]
Set Field [ InlineGraphics::EmailID; $EmailRecordID ]
Commit Records/Requests [ Skip data entry validation; No dialog ]
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
Go to Layout [ original layout ]
# find a header
Set Variable [ $i; Value:0 ]
Set Variable [ $c; Value:MBS("EmailParser.HeaderCount"; $email) ]
If [ $c >0 ]
Loop
Set Variable [ $HeaderName; Value:MBS("EmailParser.Header"; $email; $i; "name") ]
If [ $HeaderName = "X-Mailer" ]
Set Variable [ $HeaderValue; Value:MBS("EmailParser.Header"; $email; $i; "value") ]
Set Field [ Email Parser::Mailer; $HeaderValue ]
End If
# next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i = $c ]
End Loop
End If
# cleanup
Set Variable [ $r; Value:MBS("EmailParser.Free"; $email) ]

```

Extract email text:

```

Set Variable [ $EmailID; Value:MBS( "EmailParser.Parse"; email::raw) ]
Set Field [ email::raw_plainText; MBS( "EmailParser.PlainText"; $EmailID ) ]
Set Field [ email::raw_htmltext; MBS( "EmailParser.HTMLText"; $EmailID ) ]
Set Variable [ $r; Value:MBS( "EmailParser.Free"; $EmailID) ]

```

### See also

- 73.6 EmailParser.Free 3466
- 73.10 EmailParser.Hash 3472
- 73.16 EmailParser.List 3480
- 73.19 EmailParser.ParseContainer 3486
- 73.20 EmailParser.ParseFile 3487



73.18. <i>EMAILPARSER.PARSE</i>	3485
• 73.21 EmailParser.PlainText	3488
• 73.25 EmailParser.Source	3493
• 73.27 EmailParser.Subject	3495
• 127.6 IsError	6374
• 167.48 Text.ReadEMLXFile	7970

### **Example Databases**

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)

### **73.18.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.4pr1](#)

Created 24th September 2015, last changed 15th November 2019.

## 73.19 EmailParser.ParseContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.ParseContainer"; EmailSource )

### Parameters

#### EmailSource

The container field that holds the EML file to be parsed.

The container value, which embeds the email text as FILE data. e.g. you imported the eml file into the container with our plugin or Filemaker's import script step.

MyTable::myContainer

**Result** Returns OK or error.

### Description

Parses an email file stored in container and returns a reference that can be used by other EmailParser functions to extract specific data elements (e.g. EmailParser.subject to extract the email subject).

This function applies only to EML files. For EMLX files, please use the Text.ReadEMLXFile function to extract the source of the email file and then use the EmailParser.Parse function to get a reference for further parsing).

Be sure to use EmailParser.Free to release the reference once you have finished processing the email file. This frees up memory that is holding the parsed email.

If no error occurs, the parser will separate subject, html and plain text, attachments and inline graphics, all addresses and header entries. You can then use other EmailParser functions to query values.

### See also

- 73.6 EmailParser.Free 3466
- 73.18 EmailParser.Parse 3482
- 73.27 EmailParser.Subject 3495
- 167.48 Text.ReadEMLXFile 7970

### 73.19.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 4th June 2016, last changed 15th November 2019.

## 73.20 EmailParser.ParseFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.ParseFile"; Path )

### Parameters

#### Path

Native file path.

"C:\Documents\Test.eml"

**Result** Returns Reference number or error.

### Description

This is for emails stored as text file with eml file name extension.

If no error occurs, the parser will separate subject, html and plain text, attachments and inline graphics, all addresses and header entries. You can then use other functions to query values.

If you have EMLX files, please use Text.ReadEMLXFile function first to unpack them and pass the email source to EmailParser.Parse function.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 73.18 EmailParser.Parse 3482
- 124.2 Path.FileMakerPathToNativePath 6247
- 167.48 Text.ReadEMLXFile 7970

### Example Databases

- [CURL/Email/IMAP Email](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest Email](#)

Created 24th September 2015, last changed 15th November 2019.

## 73.21 EmailParser.PlainText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.PlainText"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

For HTML only email, the plugin will extract text. This text may be okay for full text search, but not necessarily good to display to user.

### Examples

Parse Subject, PlainText and HTMLText from email:

```
Set Variable [ $email; Value:MBS("EmailParser.Parse"; Email Parser::Input) ]
If [ MBS("IsError") = 1 ]
Show Custom Dialog [ "Failed to parse email."; Middle($email; 7; Length($email)) ]
Exit Script [ ]
End If
# Show text:
Set Field [ Email Parser::Subject; MBS("EmailParser.Subject"; $email) ]
Set Field [ Email Parser::PlainText; MBS("EmailParser.plainText"; $email) ]
Set Field [ Email Parser::HTMLText; MBS("EmailParser.HTMLText"; $email) ]
# cleanup
Set Variable [ $r; Value:MBS("EmailParser.Free"; $email) ]
```

### See also

- [73.6 EmailParser.Free](#) 3466
- [73.7 EmailParser.HTMLText](#) 3468
- [73.8 EmailParser.HTMLToPlainText](#) 3470
- [73.18 EmailParser.Parse](#) 3482
- [73.27 EmailParser.Subject](#) 3495
- [127.6 IsError](#) 6374

### Example Databases

- [Drag and Drop/for Mac/DragTest Email](#)

Created 24th September 2015, last changed 16th October 2015.

## 73.22 EmailParser.ProcessImageReferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.ProcessImageReferences"; HTMLText )

### Parameters

#### HTMLText

The HTML text from the email containing image references with "cid:" in the address.

**Result** Returns html or error.

### Description

All cid: links are found. : and / are replaced with dash.

You can write all inline graphics files to a directory with html and rename the files the same way.

Now you can point a webviewer to the html file and load it.

(see example database)

### Example Databases

- [CURL/Email/Email Parser and Preview](#)

Created 3th July 2016, last changed 4th July 2016.

## 73.23 EmailParser.ReceiveDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.ReceiveDate"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns timestamp or error.

### Description

Can be empty. This is for received time at server.

The plugin looks in email headers for a receive: header and parses the date.

The returned date is normalized to current time zone.

### Examples

Show dates:

```
Set Field [ Email Parser::Date1; MBS("EmailParser.SentDate"; $email) ]
```

```
Set Field [ Email Parser::Date2; MBS("EmailParser.ReceiveDate"; $email) ]
```

### See also

- [73.24 EmailParser.SentDate](#)

3492

### Example Databases

- [CURL/Email/IMAP Email](#)

### 73.23.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr2](#)

Created 25th July 2016, last changed 25th July 2016.

## 73.24 EmailParser.SentDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.SentDate"; EmailID )

(old name: EmailParser.Date)

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns timestamp or error.

### Description

Can be empty. This is the sent date from email client.

The plugin looks in email headers for a Date: header and parses the date.

The returned date is normalized to current time zone.

### Examples

Show dates:

```
Set Field [ Email Parser::Date1; MBS("EmailParser.SentDate"; $email) ]
```

```
Set Field [ Email Parser::Date2; MBS("EmailParser.ReceiveDate"; $email) ]
```

### See also

- [73.23 EmailParser.ReceiveDate](#)

3491

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)

#### 73.24.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr2](#)

Created 3th October 2015, last changed 7th February 2019.



## 73.25 EmailParser.Source

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Source"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

#### See also

- [73.6 EmailParser.Free](#) 3466
- [73.14 EmailParser.Inline](#) 3477
- [73.18 EmailParser.Parse](#) 3482
- [73.27 EmailParser.Subject](#) 3495

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/IMAP Email](#)

### 73.25.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 2nd October 2015, last changed 2nd October 2015.

## 73.26 EmailParser.SourceWithoutAttachments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.SourceWithoutAttachments"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

The plugin passes the email, removes attachments and produces this source for you.

Can be useful to archive emails without attachments.

### Example Databases

- [CURL/Email/Email Client](#)

### 73.26.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr8](#)
- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 2nd October 2015, last changed 2nd October 2015.

## 73.27 EmailParser.Subject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.Subject"; EmailID )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

**Result** Returns text or error.

### Description

### Examples

Parse Subject, PlainText and HTMLText from email:

```
Set Variable [ $email; Value:MBS("EmailParser.Parse"; Email Parser::Input) ]
If [ MBS("IsError") = 1 ]
Show Custom Dialog [ "Failed to parse email."; Middle($email; 7; Length($email)) ]
Exit Script [ ]
End If
# Show text:
Set Field [ Email Parser::Subject; MBS("EmailParser.Subject"; $email) ]
Set Field [ Email Parser::PlainText; MBS("EmailParser.plainText"; $email) ]
Set Field [ Email Parser::HTMLText; MBS("EmailParser.HTMLText"; $email) ]
# cleanup
Set Variable [ $r; Value:MBS("EmailParser.Free"; $email) ]
```

### See also

- [73.6 EmailParser.Free](#) 3466
- [73.7 EmailParser.HTMLText](#) 3468
- [73.18 EmailParser.Parse](#) 3482
- [73.19 EmailParser.ParseContainer](#) 3486
- [73.21 EmailParser.PlainText](#) 3488
- [73.25 EmailParser.Source](#) 3493
- [127.6 IsError](#) 6374

### Example Databases

- [CURL/Email/Email Client](#)
- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/Email Parser](#)
- [CURL/Email/IMAP Email](#)

Created 24th September 2015, last changed 16th October 2015.

## 73.28 EmailParser.WriteAttachment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.WriteAttachment"; EmailID; Index; Path )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### Index

The index from 0 to EmailParser.AttachmentCount-1.

0

#### Path

Native file path.

C:\Documents\Test.Txt

**Result** Returns OK or error.

### Description

Our plugin decodes attachments for you, so the file should be directly useable.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 73.4 EmailParser.Attachment 3463
- 73.5 EmailParser.AttachmentCount 3465
- 124.2 Path.FileMakerPathToNativePath 6247

Created 24th September 2015, last changed 24th September 2015.

## 73.29 EmailParser.WriteInline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
73 EmailParser	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "EmailParser.WriteInline"; EmailID; Index; Path )

### Parameters

#### EmailID

The ID fo the email parser.

\$Email

#### Index

The index from 0 to EmailParser.InlineCount-1.

0

#### Path

Native file path.

C:\Documents\Test.Txt

**Result** Returns OK or error.

### Description

Our plugin decodes inline graphics for you, so the file should be directly useable.

### See also

- 73.14 EmailParser.Inline 3477
- 73.15 EmailParser.InlineCount 3479

### 73.29.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)

Created 24th September 2015, last changed 24th September 2015.

# Chapter 74

## Encryption

Encrypt or Decrypt with AES or Blowfish

### 74.1 Encryption.Cipher

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.Cipher"; Direction; Algorithm; KeyType; KeyData; KeyEncoding; InputType; InputData; InputEncoding; OutputType { ; OutputInfo; IVType; IVData; IVEncoding; Padding } )

#### Parameters

##### Direction

Whether to encrypt or decrypt. Pass encrypt or decrypt.  
"encrypt"

##### Algorithm

Which algorithm to use. Can be for example RC2, blowfish, AES128, AES192, AES256.  
"AES-128-CFB"

##### KeyType

The type of input for key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

##### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes. If the key is text, please check what type of line ending you use and whether to trim the key.  
"Hello World"

##### KeyEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**InputType**

The type of input. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

**InputData**

The actual input data. Text, container or file path.

"Hello World"

**InputEncoding**

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**OutputType**

The output type. Can be Base64, Hex, Text, File, Path. Can be Auto in plugin version 7.3 to detect type for container from OutputInfo parameter.

"Hex"

**OutputInfo**

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.

""

**IVType**

Optional

The type of input. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex. In version 6.0 and newer you can pass Input here to take IV from input data.

"Text"

**IVData**

Optional

The actual input data for the IV. Text, container or file path. Must not be longer than the maximum IV length of the given algorithm. If IV is too short, we pad it with zero bytes.

"Hello World"

**IVEncoding**

Optional

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**Padding**

Optional

Whether to use padding. Pass 1 to enable padding (default). Pass 0 to disable.

0

**Result** Returns encrypted/decrypted value or text.

**Description**

Input can be one of different types:



- Text, you pass "text", your text and the text encoding. If no or invalid encoding name is passed, the native one is used. The encoding can be one of the following strings: ansi, windows, mac, latin1, utf8, dos or native.
- PDF, you pass the container with the PDF file inside.
- Image, you pass the container with an image file.
- Data, you pass container and plugin looks for the file data inside.
- Hex, you pass a hex encoded text.
- Base64, you pass a base64 encoded text.
- Path, you pass the file path to a file to read.
- Container, you pass a container which is serialized with all its content.
- JPEG, a container with a JPEG image.
- GIF, a container with a GIF image.
- TIFF, a container with a TIFF image.
- PNG, a container with a PNG image.

Now for output we can return the data in various ways:

- Text, we return the data as text in the encoding. This is not recommended for encrypted data. `OutputInfo` parameter is text encoding.
- Base64, the data is returned as base64 encoded text.
- Hex, the data is returned as hex encoded text.
- File, the data is returned as a container value with a file inside containing the data. `OutputInfo` parameter is the filename to be stored in the container value.
- Path, the data is written to a file. In the `OutputInfo` parameter you provide a native file path.
- Container, the data is unpacked as a container value (serialized container).
- GIF, the data is returned as a container with GIF image inside.
- TIFF, the data is returned as a container with TIFF image inside.
- JPEG, the data is returned as a container with JPEG image inside.
- PNG, the data is returned as a container with PNG image inside.
- PDF, the data is returned as a container with PDF document inside.
- Auto, only for returning data and detecting type by provided file name. (new in 7.3)



Encrypt with AES 256bit Counter (CTR) mode:

```
# Make a 256 bit key with a hash
Set Variable [ $hash; Value:MBS( "Hash.Digest"; "SHA256"; "Text"; "My Secret Password"; "UTF-8";
"Hex" ) ]
# now encrypt some text
Set Variable [ $encrypted; Value:MBS( "Encryption.Cipher"; "encrypt"; "AES-256-CTR"; "Hex"; $hash; "";
"Text"; "Hello World"; "UTF-8"; "Hex"; "" ) ]
# and show encrypted text
Show Custom Dialog [ $encrypted ]
```

Encrypt Umsatzzähler für Registrierkasse mit AES ICM/CTR:

```
MBS( "Encryption.Cipher"; "encrypt"; "AES-128-CTR"; "TEXT"; $Schlüssel; "UTF-8"; "Hex"; $KodierterUm-
satzzählers; ""; "Hex"; ""; "Text"; $Kassenidentifikationsnummer & $Belegnummer; "UTF-8" )
```

Decrypt Blowfish ECB:

```
MBS( "Encryption.Cipher"; "decrypt"; "bf-ecb"; "TEXT"; "strunzhasensalat"; "UTF-8"; "base64"; "TkfrF-
BRE0pkp3lzEX7YibCVnz+S79ckp"; ""; "Text"; "UTF-8" )
```

#### See also

- [74.2 Encryption.CipherNames](#) 3505
- [74.3 Encryption.DecryptAES](#) 3506
- [74.5 Encryption.DecryptContainerAES](#) 3510
- [74.8 Encryption.EncryptAES](#) 3515
- [74.9 Encryption.EncryptBlowfish](#) 3517
- [74.10 Encryption.EncryptContainerAES](#) 3519
- [74.11 Encryption.EncryptContainerBlowfish](#) 3521
- [88.2 Hash.Digest](#) 4851
- [74.13 RSA.EncryptPrivateKey](#) 3525
- [152.15 RSA.GeneratePrivateKey](#) 7191

#### Example Databases

- [Encryption and Hash/AES with PHP/AES with PHP](#)
- [Encryption and Hash/Encryption Cipher](#)
- [Third Party/FileMaker Snippet Storage](#)

### 74.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr4](#)
- [MBS FileMaker Plugin, version 9.5pr5](#)
- [MBS FileMaker Plugin, version 9.4pr3](#)
- [MBS FileMaker Plugin, version 7.3pr2](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS FileMaker Plugin, version 6.1pr3](#)
- [AES in FileMaker and PHP](#)
- [New universal Hash and Encrypt functions for MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.1pr2](#)

Created 18th August 2014, last changed 19th December 2019.

## 74.2 Encryption.CipherNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.CipherNames" )

**Result** Returns list or error.

### Description

The list is not the same for Mac/iOS, Windows and Linux.

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.7 Encryption.DigestNames](#) 3514

### 74.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 25th September 2018, last changed 25th September 2018.

## 74.3 Encryption.DecryptAES

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.DecryptAES"; key; text { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### text

The text to decrypt. Should be hex encoded bytes from Encryption.EncryptAES.

"1234567809ABCDEF"

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns decrypted text.

### Description

This function uses UTF-8 for key, text and iv parameters.

Keys shorter than 128 bit, 192 bit or 256 bit length are padded with null bytes to right size. This means that only the first 32 characters are used at most.

The plugin has no idea to verify if the key is correct. You need to make sure that you check if result is correct, e.g. by using a hash to verify if result is the expected value.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Simply decrypt a text:

MBS( "Encryption.DecryptAES"; \$key; \$encrypted )

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.8 Encryption.EncryptAES](#) 3515

### Example Databases

- [Encryption and Hash/AES](#)

### 74.3.1 **Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr4](#)

Created 18th August 2014, last changed 24th October 2018.

## 74.4 Encryption.DecryptBlowfish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.DecryptBlowfish"; key; text { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### text

The text to decrypt. Should be hex encoded bytes from Encryption.EncryptAES.

"1234567809ABCDEF"

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns decrypted text.

### Description

This function uses UTF-8 for key, text and iv parameters.

For blowfish the key length is limited to 72 characters.

The plugin has no idea to verify if the key is correct. You need to make sure that you check if result is correct, e.g. by using a hash to verify if result is the expected value.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Simply decrypt a text:

MBS( "Encryption.DecryptBlowfish"; \$key; \$encrypted )

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.8 Encryption.EncryptAES](#) 3515
- [74.9 Encryption.EncryptBlowfish](#) 3517

### Example Databases

- [Encryption and Hash/Blowfish](#)



### 74.4.1 **Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr4](#)

Created 18th August 2014, last changed 24th October 2018.

## 74.5 Encryption.DecryptContainerAES

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.DecryptContainerAES"; key; value { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### value

The container value to use.

\$inputData

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns error or decrypted container value.

### Description

The function expects you to use the same key as encryption and a container value produced by the Encryption.EncryptContainerAES function. The function does not store the key, but once the data is decrypted it can decide if they make sense and return an error about a wrong key if data is looking strange.

Keys shorter than 128 bit, 192 bit or 256 bit length are padded with null bytes to right size. This means that only the first 32 characters are used at most.

The plugin has no idea to verify if the key is correct. You need to make sure that you check if result is correct, e.g. by using a hash to verify if result is the expected value.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Encrypt and Decrypt:

```
set variable $key to "Hello"
```

```
set variable $encryptedData to MBS( "Encryption.EncryptContainerAES"; $key; $inputData )
```

```
set variable $decryptedData to MBS( "Encryption.DecryptContainerAES"; $key; $encryptedData )
```

### See also

- 74.1 Encryption.Cipher 3499
- 74.6 Encryption.DecryptContainerBlowfish 3512
- 74.10 Encryption.EncryptContainerAES 3519

### Example Databases

- [Encryption and Hash/Encrypt Containers](#)

### 74.5.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 11st September 2015.

## 74.6 Encryption.DecryptContainerBlowfish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.DecryptContainerBlowfish"; key; value { ; iv } )

### Parameters

#### key

The key you want to use.  
"Hello"

#### value

The container value to use.  
\$inputData

#### iv

Optional  
The initial vector as a text with up to 16 bytes length.  
"1234567890ABCDEF"

**Result** Returns error or decrypted container value.

### Description

The function expects you to use the same key as encryption and a container value produced by the Encryption.EncryptContainerBlowfish function. The function does not store the key, but once the data is decrypted it can decide if they make sense and return an error about a wrong key if data is looking strange.

For blowfish the key length is limited to 72 characters.

The plugin has no idea to verify if the key is correct. You need to make sure that you check if result is correct, e.g. by using a hash to verify if result is the expected value.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Encrypt and Decrypt:

```
set variable $key to "Hello"
set variable $encryptedData to MBS( "Encryption.EncryptContainerBlowfish"; $key; $inputData )
set variable $decryptedData to MBS( "Encryption.DecryptContainerBlowfish"; $key; $encryptedData )
```

### See also

- 74.1 Encryption.Cipher 3499
- 74.5 Encryption.DecryptContainerAES 3510
- 74.11 Encryption.EncryptContainerBlowfish 3521

### Example Databases

- [Encryption and Hash/Encrypt Containers](#)

### 74.6.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 11st July 2018.

## 74.7 Encryption.DigestNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.DigestNames" )

**Result** Returns list or error.

### Description

The list is not the same for Mac/iOS, Windows and Linux.

### See also

- 74.2 Encryption.CipherNames

3505

### 74.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)

Created 25th September 2018, last changed 25th September 2018.

## 74.8 Encryption.EncryptAES

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.EncryptAES"; key; text { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### text

The text to encrypt.

"Hello World"

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns encrypted text encoded as hex.

### Description

This function uses UTF-8 for key, text and iv parameters.

Keys shorter than 128 bit, 192 bit or 256 bit length are padded with null bytes to right size. This means that only the first 32 characters are used at most.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Simply encrypt a text:

MBS( "Encryption.EncryptAES"; \$key; \$text )

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.3 Encryption.DecryptAES](#) 3506
- [74.4 Encryption.DecryptBlowfish](#) 3508

### Example Databases

- [Encryption and Hash/AES](#)

### 74.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr4](#)

Created 18th August 2014, last changed 24th October 2018.



## 74.9 Encryption.EncryptBlowfish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.EncryptBlowfish"; key; text { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### text

The text to encrypt.

"Hello World"

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns encrypted text encoded as hex.

### Description

This function uses UTF-8 for key, text and iv parameters.

For blowfish the key length is limited to 72 characters.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Simply encrypt a text:

MBS( "Encryption.EncryptBlowfish"; \$key; \$text )

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.4 Encryption.DecryptBlowfish](#) 3508

### Example Databases

- [Encryption and Hash/Blowfish](#)
- [Utility functions/Generate and Verify License Key](#)

### 74.9.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)

- [MBS Filemaker Plugin, version 2.7pr4](#)

Created 18th August 2014, last changed 12nd May 2015.

## 74.10 Encryption.EncryptContainerAES

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.EncryptContainerAES"; key; value { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### value

The container value to use.

\$inputData

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns error or encrypted container value.

### Description

Input must be a container value (picture, file, PDF, movie or whatever you have). The encrypted data is returned as container value without file name.

Keys shorter than 128 bit, 192 bit or 256 bit length are padded with null bytes to right size. This means that only the first 32 characters are used at most.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Encrypt and Decrypt:

```
set variable $key to "Hello"
```

```
set variable $encryptedData to MBS( "Encryption.EncryptContainerAES"; $key; $inputData )
```

```
set variable $decryptedData to MBS( "Encryption.DecryptContainerAES"; $key; $encryptedData )
```

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.5 Encryption.DecryptContainerAES](#) 3510
- [74.11 Encryption.EncryptContainerBlowfish](#) 3521

### Example Databases

- [Encryption and Hash/Encrypt Containers](#)

### 74.10.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 12nd May 2015.

## 74.11 Encryption.EncryptContainerBlowfish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Encryption.EncryptContainerBlowfish"; key; value { ; iv } )

### Parameters

#### key

The key you want to use.

"Hello"

#### value

The container value to use.

\$inputData

#### iv

Optional

The initial vector as a text with up to 16 bytes length.

"1234567890ABCDEF"

**Result** Returns error or encrypted container value.

### Description

Input must be a container value (picture, file, PDF, movie or whatever you have). The encrypted data is returned as container value without file name.

For blowfish the key length is limited to 72 characters.

Deprecated. Please move to Encryption.Cipher for new projects.

### Examples

Encrypt and Decrypt:

```
set variable $key to "Hello"
```

```
set variable $encryptedData to MBS( "Encryption.EncryptContainerBlowfish"; $key; $inputData )
```

```
set variable $decryptedData to MBS( "Encryption.DecryptContainerBlowfish"; $key; $encryptedData )
```

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.6 Encryption.DecryptContainerBlowfish](#) 3512
- [74.10 Encryption.EncryptContainerAES](#) 3519

### Example Databases

- [Encryption and Hash/Encrypt Containers](#)

### 74.11.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 12nd May 2015.

## 74.12 RSA.DecryptPrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	7.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "RSA.DecryptPrivateKey"; KeyType; KeyData; KeyEncoding; PasswordType; PasswordData { ; PasswordEncoding } )
```

### Parameters

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### PasswordType

The type of input for optional password. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

The actual input data for the password. Text, container or file path.  
"Hello World"

#### PasswordEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

**Result** Returns key as text or error.

### Description

Returns error if key could not be read, e.g. due to invalid password.

### Examples

Encrypt private key and decrypt it:

```
Set Variable [ $key1 ; Value: MBS( "RSA.GeneratePrivateKey" ) ]
Set Variable [ $key2 ; Value: MBS( "RSA.EncryptPrivateKey"; "Text"; $key1; "UTF-8"; "AES-128-CFB"; "text"; "Hello" ) ]
Set Variable [ $key3 ; Value: MBS( "RSA.DecryptPrivateKey"; "Text"; $key1; "UTF-8"; "text"; "Hello" ) ]
```

### See also

- 74.13 RSA.EncryptPrivateKey

- 152.15 RSA.GeneratePrivateKey

### 74.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)

Created 15th October 2017, last changed 16th October 2017.



## 74.13 RSA.EncryptPrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.EncryptPrivateKey"; KeyType; KeyData; KeyEncoding; Algorithm; PasswordType; PasswordData { ; PasswordEncoding } )

### Parameters

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### Algorithm

Which algorithm to use. Can be for example RC2, blowfish, AES128, AES192, AES256. See Encryption.Cipher.

"AES-128-CFB"

#### PasswordType

The type of input for optional password. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

The actual input data for the password. Text, container or file path.

"Hello World"

#### PasswordEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**Result** Returns key as text or error.

### Description

Returns error if key could not be read, e.g. because it is already encrypted.

### Examples

Encrypt private key and decrypt it:

```
Set Variable [ $key1 ; Value: MBS( "RSA.GeneratePrivateKey" ) ]
Set Variable [ $key2 ; Value: MBS( "RSA.EncryptPrivateKey"; "Text"; $key1; "UTF-8"; "AES-128-CFB"; "text"; "Hello" ) ]
Set Variable [ $key3 ; Value: MBS( "RSA.DecryptPrivateKey"; "Text"; $key1; "UTF-8"; "text"; "Hello" ) ]
```

**See also**

- 74.1 Encryption.Cipher 3499
- 74.12 RSA.DecryptPrivateKey 3523
- 152.15 RSA.GeneratePrivateKey 7191

**74.13.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr2](#)

Created 15th October 2017, last changed 16th October 2017.

## 74.14 RSA.PrivateDecrypt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.PrivateDecrypt"; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; OutputType { ; OutputInfo; PasswordType; PasswordData; PasswordEncoding; Padding } )

### Parameters

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"base64"

#### InputData

The actual input data. Text, container or file path.  
\$EncryptedData

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.  
""

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.  
"Text"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.  
"UTF-8"

#### PasswordType

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"Hello World"

### PasswordEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

### Padding

Optional

Which padding to use. 1: PKCS # 1 v1.5 padding. This currently is the most widely used mode. 2: PKCS # 1 v1.5 padding with an SSL-specific modification that denotes that the server is SSL3 capable. 3: Raw RSA encryption. This mode should only be used to implement cryptographically sound padding modes in the application code. Encrypting user data directly with RSA is insecure. 4: EME-OAEP as defined in PKCS # 1 v2.0 with SHA-1, MGF1 and an empty encoding parameter. This mode is recommended for all new applications. 5: X931 padding. Default if not specified is 1.

1

**Result** Returns decrypted data or error.

### Description

Using RSA keys with any key size.  
Password is optional for decrypting encrypted keys.

You can decrypt the data here after encrypting it with `RSA.PublicEncrypt`.  
You can create a new private key using `RSA.GeneratePrivateKey` function.

### Examples

Decrypt with private key:

```
Set Variable [ $r; Value:MBS( "RSA.PrivateDecrypt"; "base64"; RSA Public Private Encryption::EncryptedText; ""; "Text"; RSA Public Private Encryption::PrivateKey; "UTF-8"; "Text"; "UTF-8" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ RSA Public Private Encryption::DecryptedText; $r ]
End If
```

### See also

- 127.6 IsError 6374
- 152.15 RSA.GeneratePrivateKey 7191
- 74.15 RSA.PrivateEncrypt 3530
- 74.17 RSA.PublicEncrypt 3536

### Example Databases

- [Encryption and Hash/RSA Public Private Encryption](#)

#### **74.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 21st April 2016, last changed 30th May 2016.

## 74.15 RSA.PrivateEncrypt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.PrivateEncrypt"; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; OutputType { ; OutputInfo; PasswordType; PasswordData; PasswordEncoding; Padding } )

### Parameters

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### InputData

The actual input data. Text, container or file path.  
"Hello World"

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.  
"Hex"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.  
""

#### PasswordType

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"Hello World"

**PasswordEncoding**

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

**Padding**

Optional

Which padding to use. 1: PKCS # 1 v1.5 padding. This currently is the most widely used mode. 2: PKCS # 1 v1.5 padding with an SSL-specific modification that denotes that the server is SSL3 capable. 3: Raw RSA encryption. This mode should only be used to implement cryptographically sound padding modes in the application code. Encrypting user data directly with RSA is insecure. 4: EME-OAEP as defined in PKCS # 1 v2.0 with SHA-1, MGF1 and an empty encoding parameter. This mode is recommended for all new applications. 5: X931 padding. Default if not specified is 1.

1

**Result** Returns encrypted data or error.

**Description**

Using RSA keys with any key size.

Password is optional for decrypting encrypted keys.

You can encrypt the data here and later decrypt with `RSA.PublicDecrypt`.

You can create a new private key using `RSA.GeneratePrivateKey` function.

**Examples**

Encrypt with private key:

```
Set Variable [ $r; Value:MBS( "RSA.PrivateEncrypt"; "Text"; RSA Public Private Encryption::InputText;
"UTF-8"; "Text"; RSA Public Private Encryption::PrivateKey; "UTF-8"; "Base64" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ RSA Public Private Encryption::EncryptedText; $r ]
End If
```

**See also**

- 127.6 IsError 6374
- 152.15 RSA.GeneratePrivateKey 7191
- 74.14 RSA.PrivateDecrypt 3527
- 74.16 RSA.PublicDecrypt 3533

**Example Databases**

- [Encryption and Hash/RSA Public Private Encryption](#)

### 74.15.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 21st April 2016, last changed 30th May 2016.



## 74.16 RSA.PublicDecrypt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.PublicDecrypt"; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; OutputType { ; OutputInfo; PasswordType; PasswordData; PasswordEncoding; Padding } )

### Parameters

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Base64"

#### InputData

The actual input data. Text, container or file path.  
\$EncryptedData

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.  
""

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.  
"Text"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.  
"UTF-8"

#### PasswordType

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"Hello World"

### PasswordEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

### Padding

Optional

Which padding to use. 1: PKCS # 1 v1.5 padding. This currently is the most widely used mode. 2: PKCS # 1 v1.5 padding with an SSL-specific modification that denotes that the server is SSL3 capable. 3: Raw RSA encryption. This mode should only be used to implement cryptographically sound padding modes in the application code. Encrypting user data directly with RSA is insecure. 4: EME-OAEP as defined in PKCS # 1 v2.0 with SHA-1, MGF1 and an empty encoding parameter. This mode is recommended for all new applications. 5: X931 padding. Default if not specified is 1.

1

**Result** Returns decrypted data or error.

### Description

Using RSA keys with any key size.

Password is optional for decrypting encrypted keys.

You can decrypt the data here after encrypting it with `RSA.PrivateEncrypt`.

You can create a new private key using `RSA.GeneratePrivateKey` function. The `RSA.GetPublicKey` function extracts the public key from a private key.

### Examples

Decrypt with public key:

```
Set Variable [ $r; Value:MBS( "RSA.PublicDecrypt"; "base64"; RSA Public Private Encryption::EncryptedText; ""; "Text"; RSA Public Private Encryption::PublicKey; "UTF-8"; "Text"; "UTF-8" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ RSA Public Private Encryption::DecryptedText; $r ]
End If
```

### See also

- 127.6 IsError 6374
- 152.15 RSA.GeneratePrivateKey 7191
- 152.16 RSA.GetPublicKey 7193
- 74.15 RSA.PrivateEncrypt 3530

74.16. *RSA.PUBLICDECRYPT*

3535

- 74.17 RSA.PublicEncrypt

3536

### **Example Databases**

- [Encryption and Hash/RSA Public Private Encryption](#)

#### **74.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 21st April 2016, last changed 30th May 2016.

## 74.17 RSA.PublicEncrypt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
74 Encryption	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.PublicEncrypt"; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; OutputType { ; OutputInfo; PasswordType; PasswordData; PasswordEncoding; Padding } )

### Parameters

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### InputData

The actual input data. Text, container or file path.  
"Hello World"

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.  
"Hex"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.  
""

#### PasswordType

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"Hello World"

### **PasswordEncoding**

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

### **Padding**

Optional

Which padding to use. 1: PKCS # 1 v1.5 padding. This currently is the most widely used mode. 2: PKCS # 1 v1.5 padding with an SSL-specific modification that denotes that the server is SSL3 capable. 3: Raw RSA encryption. This mode should only be used to implement cryptographically sound padding modes in the application code. Encrypting user data directly with RSA is insecure. 4: EME-OAEP as defined in PKCS # 1 v2.0 with SHA-1, MGF1 and an empty encoding parameter. This mode is recommended for all new applications. 5: X931 padding. Default if not specified is 1.

1

**Result** Returns encrypted data or error.

### **Description**

Using RSA keys with any key size.

Password is optional for decrypting encrypted keys.

You can encrypt the data here and later decrypt with `RSA.PrivateDecrypt`.

You can create a new private key using `RSA.GeneratePrivateKey` function. The `RSA.GetPublicKey` function extracts the public key from a private key.

### **Examples**

Encrypt with public key:

```
Set Variable [ $r; Value:MBS( "RSA.PublicEncrypt"; "Text"; RSA Public Private Encryption::InputText;
"UTF-8"; "Text"; RSA Public Private Encryption::PublicKey; "UTF-8"; "Base64" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ RSA Public Private Encryption::EncryptedText; $r ]
End If
```

### **See also**

- 127.6 IsError 6374
- 152.15 RSA.GeneratePrivateKey 7191
- 152.16 RSA.GetPublicKey 7193
- 74.14 RSA.PrivateDecrypt 3527

- 74.16 RSA.PublicDecrypt

### Example Databases

- [Encryption and Hash/RSA Public Private Encryption](#)

#### 74.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 21st April 2016, last changed 30th May 2016.

# Chapter 75

## Environment Variables

Set and query environment variables from operation system.

### 75.1 EnvironmentVariables.ClearValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.ClearValue"; Name )

#### Parameters

##### Name

The name of the environment variable.

"test"

**Result** Returns OK or error.

#### Description

Only visible within FileMaker application and subprocesses launched after the change.

#### Examples

Clear a variable:

MBS( "EnvironmentVariables.ClearValue"; "test" )

#### See also

- 75.5 EnvironmentVariables.SetValue 3544
- 75.6 EnvironmentVariables.Value 3545

**Example Databases**

- [Utility functions/Environment Variables](#)

Created 8th April 2015, last changed 8th April 2015.



## 75.2 EnvironmentVariables.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.Count" )

**Result** Returns number or error.

### Description

### Examples

Query count:

Set Variable [ \$count; Value:MBS("EnvironmentVariables.Count") ]

### See also

- [75.3 EnvironmentVariables.Name](#) 3542
- [75.4 EnvironmentVariables.Names](#) 3543
- [75.6 EnvironmentVariables.Value](#) 3545

### Example Databases

- [Utility functions/Environment Variables](#)

Created 8th April 2015, last changed 8th April 2015.

## 75.3 EnvironmentVariables.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.Name"; Index )

### Parameters

#### Index

The zero based index of the environment variable in range 0 to EnvironmentVariables.Count-1.

0

**Result** Returns text or error.

### Description

### Examples

Query name of first variable:

```
Set Variable [ $name; Value:MBS("EnvironmentVariables.Name"; 0) ]
```

### See also

- 75.2 EnvironmentVariables.Count 3541
- 75.4 EnvironmentVariables.Names 3543
- 75.5 EnvironmentVariables.SetValue 3544
- 75.6 EnvironmentVariables.Value 3545

### Example Databases

- [Utility functions/Environment Variables](#)

Created 8th April 2015, last changed 8th April 2015.

## 75.4 EnvironmentVariables.Names

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.Names" )

**Result** Returns list or error.

### Description

Returns empty list on Linux as the environment variables are not publicly listable. You can still query some, if you know the names.

### Examples

Query list of names:

MBS( "EnvironmentVariables.Names" )

### See also

- [75.2 EnvironmentVariables.Count](#) 3541
- [75.3 EnvironmentVariables.Name](#) 3542
- [75.5 EnvironmentVariables.Set Value](#) 3544
- [75.6 EnvironmentVariables.Value](#) 3545

### 75.4.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)
- [FileMaker Cloud Tipps & Tricks](#)

Created 8th April 2015, last changed 10th December 2017.

## 75.5 EnvironmentVariables.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.SetValue"; Name; Value )

### Parameters

#### Name

The name of the environment variable.

"test"

#### Value

The new value as text.

"Hello"

**Result** Returns OK or error.

### Description

Only visible within FileMaker application and subprocesses launched after the change.

### Examples

Set a new Variable:

MBS( "EnvironmentVariables.SetValue"; "test"; "Hello World" )

### See also

- [75.1 EnvironmentVariables.ClearValue](#) 3539
- [75.3 EnvironmentVariables.Name](#) 3542
- [75.4 EnvironmentVariables.Names](#) 3543
- [75.6 EnvironmentVariables.Value](#) 3545
- [126.6 PHP.Init](#) 6361

### Example Databases

- [Utility functions/Environment Variables](#)

Created 8th April 2015, last changed 8th April 2015.

## 75.6 EnvironmentVariables.Value

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
75 EnvironmentVariables	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "EnvironmentVariables.Value"; Name )

### Parameters

#### Name

The name of the environment variable.

"test"

**Result** Returns text or error.

### Description

#### Examples

Query user name on Mac:

MBS( "EnvironmentVariables.Value"; "USER" )

Query user name on Windows:

MBS( "EnvironmentVariables.Value"; "USERNAME" )

Query app data path on Windows:

MBS( "EnvironmentVariables.Value"; "APPDATA" )

Query language on FileMaker Cloud:

MBS( "EnvironmentVariables.Value"; "LANG" )

### See also

- [75.1 EnvironmentVariables.ClearValue](#) 3539
- [75.2 EnvironmentVariables.Count](#) 3541
- [75.3 EnvironmentVariables.Name](#) 3542
- [75.4 EnvironmentVariables.Names](#) 3543
- [75.5 EnvironmentVariables.SetValue](#) 3544

### Example Databases

- [Utility functions/Environment Variables](#)

### 75.6.1 Blog Entries

- [FileMaker Cloud Tipps & Tricks](#)

Created 8th April 2015, last changed 10th December 2017.

# Chapter 76

## EventMonitor

Watch events and query mouse button of last mouse click.

### 76.1 EventMonitor.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	5.2	Yes	Yes	No	No	No

MBS( "EventMonitor.Clear" )

**Result** Returns OK or error.

#### Description

You should not need to call this, except maybe on the end of the script to make sure you clear the last event for next script call.

This includes which button was last clicked. Plugin version 9.4 also forgets whether it was a double click.

#### See also

- [76.2 EventMonitor.ClearCardWindow](#) 3548
- [76.9 EventMonitor.SetCardWindow](#) 3555

#### 76.1.1 Blog Entries

- [EventMonitor](#)

Created 21st June 2015, last changed 24th July 2019.

## 76.2 EventMonitor.ClearCardWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	7.3	Yes	Yes	No	No	No

MBS( "EventMonitor.ClearCardWindow" )

**Result** Returns OK or error.

### Description

Please call in close trigger for the card layout and in script triggered by EventMonitor.SetCardWindow.

### Examples

Close script:

Close Window [ Name: "Card" ; Current file ]

Set Variable [ \$r ; Value: MBS("EventMonitor.ClearCardWindow") ]

### See also

- [76.1 EventMonitor.Clear](#) 3547
- [76.9 EventMonitor.SetCardWindow](#) 3555

### Example Databases

- [Window/Card Window Test](#)
- [Window/Popover CardWindow](#)

### 76.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [FileMaker 16 Card Window hacks with MBS Plugin](#)

Created 2nd June 2017, last changed 2nd June 2017.



## 76.3 EventMonitor.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	6.3	Yes	Yes	Yes	No	No

MBS( "EventMonitor.GetEnabled" )

**Result** Returns value or error.

### Description

Returns 1 if enabled and 0 if disabled.

### See also

- [76.10 EventMonitor.SetEnabled](#)

3558

### Example Databases

- [Window/Popover CardWindow](#)

### 76.3.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr1](#)

Created 30th May 2016, last changed 30th May 2016.

## 76.4 EventMonitor.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	5.2	Yes	Yes	No	No	No

MBS( "EventMonitor.Install" )

**Result** Returns OK or error.

### Description

This allows the plugin to keep track of mouse events, so the EventMonitor.LastMouseClickedButton function can know what mouse button was pressed.

### See also

- [76.5 EventMonitor.LastMouseClickedButton](#) 3551
- [76.6 EventMonitor.LastMouseClickedIsDoubleClick](#) 3552
- [76.9 EventMonitor.SetCardWindow](#) 3555
- [76.10 EventMonitor.SetEnabled](#) 3558
- [164.10 SystemInfo.IdleTime](#) 7789

### Example Databases

- [EventMonitor DoubleClick](#)
- [Window/Card Window Test](#)
- [Window/Popover CardWindow](#)

### 76.4.1 Blog Entries

- [EventMonitor](#)

Created 21st June 2015, last changed 21st June 2015.

**76.5 EventMonitor.LastMouseClickedButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	5.2	Yes	Yes	No	No	No

MBS( "EventMonitor.LastMouseClickedButton" )

**Result** Returns number or error.

**Description**

Returns 1 for left, 2 for right and 3 for other. (other is Mac only currently)

Please call EventMonitor.Install earlier in your scripts once on startup of solution.

Call this function in a script triggered by a mouse click (e.g. on a button) to see if mouse event triggering the script was using right or left mouse button.

**See also**

- [76.4 EventMonitor.Install](#) 3550
- [76.7 EventMonitor.LastMousePositionX](#) 3553
- [76.8 EventMonitor.LastMousePositionY](#) 3554
- [114.22 Menu.PopUp](#) 5982

**Example Databases**

- [EventMonitor DoubleClick](#)

**76.5.1 Blog Entries**

- [EventMonitor](#)

Created 21st June 2015, last changed 29th July 2015.

## 76.6 EventMonitor.LastMouseClickedIsDoubleClick

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	5.2	Yes	Yes	No	No	No

MBS( "EventMonitor.LastMouseClickedIsDoubleClick" )

**Result** Returns 0, 1 or error.

### Description

Returns 0 for single click and 1 for double click.

Please call EventMonitor.Install earlier in your scripts once on startup of solution.

Call this function in a script triggered by a mouse click (e.g. on a button) to see if mouse event triggering the script was a double click.

### See also

- [76.4 EventMonitor.Install](#) 3550

### Example Databases

- [EventMonitor DoubleClick](#)

### 76.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 29th July 2015, last changed 29th July 2015.

**76.7 EventMonitor.LastMousePositionX**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	7.3	Yes	Yes	No	No	No

MBS( "EventMonitor.LastMousePositionX"; PerWindow )

**Parameters****PerWindow**

Pass 1 to get coordinates relative to the window at mouse position (Mac) or front window (Win). Or pass 0 to get screen coordinates. (default)

1

**Result** Returns value or error.

**Description**

Relative to top/left of main screen.

See also RemoteControl.MouseX.

**See also**

- 76.5 EventMonitor.LastMouseClickedButton 3551
- 76.8 EventMonitor.LastMousePositionY 3554
- 140.5 RemoteControl.MouseX 6812

**76.7.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr2](#)
- [MBS FileMaker Plugin, version 7.3pr3](#)

Created 19th June 2017, last changed 20th December 2018.

## 76.8 EventMonitor.LastMousePositionY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	7.3	Yes	Yes	No	No	No

MBS( "EventMonitor.LastMousePositionY"; PerWindow )

### Parameters

#### PerWindow

Pass 1 to get coordinates relative to the window at mouse position (Mac) or front window (Win). Or pass 0 to get screen coordinates. (default)

1

**Result** Returns value or error.

### Description

Relative to top/left of main screen.

See also RemoteControl.MouseY.

### See also

- 76.5 EventMonitor.LastMouseClickedButton 3551
- 76.7 EventMonitor.LastMousePositionX 3553
- 140.6 RemoteControl.MouseY 6813

### 76.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr2](#)
- [MBS FileMaker Plugin, version 7.3pr3](#)

Created 19th June 2017, last changed 20th December 2018.

## 76.9 EventMonitor.SetCardWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	7.3	Yes	Yes	No	No	No

MBS( "EventMonitor.SetCardWindow"; WindowRef; X; Y; Width; Height; FileName; ScriptName { ; ScriptParameter; ScriptControl } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### X

X position of the card in the parent window. Can be negative for automatic center position.

-1

#### Y

Y position of the card in the parent window. Can be negative for automatic center position. You may need to include space for formatting, status toolbar and menu bar (inside window on Windows).

-1

#### Width

The width of the card window.

600

#### Height

The height of the card window.

400

#### FileName

The file name where to find the script.

Get(FileName)

#### ScriptName

The name of the script to trigger when a click is received outside the card area.

"Close Card Script"

#### ScriptParameter

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The text parameter to pass to the script.

"Close"

#### ScriptControl

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The script control mode. Can be Pause, Halt, Exit or Resume. Default is Pause.

"pause"

**Result** Returns OK or error.

### Description

You can show a card and have the MBS Plugin watch for mouse clicks outside the card area. The plugin can trigger a script. As script triggers are queued up, please make sure you handle various cases like several clicks queue up.

Please call `EventMonitor.Install` once before and make sure it's enabled.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "EventMonitor.Install" ) ]
Set Variable [ $$cardShowing ; Value: 1 ]
Set Variable [ $r ; Value: MBS( "EventMonitor.SetCardWindow"; Get(WindowName); -1; -1; 600; 400;
Get(FileName); "Close Script" ) ]
New Window [ Style: Card ; Name: "Card" ; Using layout: "Tabelle" ; Height: 400 ; Width: 600 ]
```

Close script:

```
If [ $$cardShowing ]
Set Variable [ $$cardShowing ; Value: 0 ]
Close Window [ Name: "Card" ; Current file ]
Set Variable [ $r ; Value: MBS("EventMonitor.ClearCardWindow") ]
End If
```

### See also

- [76.1 EventMonitor.Clear](#) 3547
- [76.2 EventMonitor.ClearCardWindow](#) 3548
- [76.4 EventMonitor.Install](#) 3550
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### Example Databases

- [Window/Card Window Test](#)
- [Window/Popover CardWindow](#)



### **76.9.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr1](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)
- [FileMaker 16 Card Window hacks with MBS Plugin](#)

Created 2nd June 2017, last changed 11st June 2019.

## 76.10 EventMonitor.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
76 EventMonitor	6.3	Yes	Yes	Yes	No	No

MBS( "EventMonitor.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

0

**Result** Returns OK or error.

### Description

This way you can temporary disable it and later enable it again.

You also need to call EventMonitor.Install once.

### Examples

Enable event monitor:

```
MBS("EventMonitor.SetEnabled"; 1)
```

Disable event monitor:

```
MBS("EventMonitor.SetEnabled"; 0)
```

### See also

- [76.3 EventMonitor.GetEnabled](#) 3549
- [76.4 EventMonitor.Install](#) 3550

### 76.10.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr1](#)

Created 30th May 2016, last changed 30th May 2016.

# Chapter 77

## Events

Newer OS X event functions to work with events and reminders.

You may have events or todo items in your FileMaker database. Our plugin can help you sync them into the calendar database on Mac, e.g. create events and reminders into specific calendars. If one Mac has a calendar subscribed for each member of staff and those sync via iCloud/Google/Exchange to their mobile phones, your solution can push events or reminders to your staff on one central routine.

Require 64-bit application, so use with FileMaker 14 and newer.

On Server you can only use calendar functions if you got a calendar for the user account where the server runs. Normally the server user account has no calendars.

Use this functions to sync events to iCal/Calendar app.

Please do not mix Calendar and Events calls as they use different IDs.

### 77.1 Events.Alarm.Copy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.Copy"; EKAlarm )

#### Parameters

##### EKAlarm

The reference to the alarm.

\$Alarm

**Result** Returns alarm ID or error.

#### Description

3560

CHAPTER 77. EVENTS

Returns a new alarm's ID.

**See also**

- 77.17 Events.Alarm.Type

3579

Created 10th March 2016, last changed 12nd March 2016.

**77.2 Events.Alarm.GetAbsoluteDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetAbsoluteDate"; EKAlarm )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns timestamp or error.

**Description****Examples**

Queries absolute date:

MBS( "Events.Alarm.GetAbsoluteDate"; \$r )

**See also**

- 77.9 Events.Alarm.SetAbsoluteDate 3568
- 77.90 Events.NewAlarmWithAbsoluteDate 3664

Created 10th March 2016, last changed 10th March 2016.

## 77.3 Events.Alarm.GetEmailAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetEmailAddress"; EKAlarm )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

**Result** Returns text or error.

### Description

An email address that is the recipient of an email alarm, which is an alarm that triggers an email message.

### See also

- 48.5 Calendar.Alarm.GetEmailAddress 1268
- 48.13 Calendar.Alarm.SetEmailAddress 1276
- 77.10 Events.Alarm.SetEmailAddress 3569

Created 10th March 2016, last changed 13th August 2016.

**77.4 Events.Alarm.GetProximity**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetProximity"; EKAlarm )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns OK or error.

**Description**

Defines whether this alarm triggers via entering/exiting a geofence as defined by structuredLocation.

**Examples**

Query proximity:

MBS( "Events.Alarm.GetProximity"; "56001" )

**See also**

- 77.11 Events.Alarm.SetProximity

3570

Created 10th March 2016, last changed 13th March 2016.

## 77.5 Events.Alarm.GetRelativeOffset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetRelativeOffset"; EKAlarm )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

**Result** Returns number or error.

### Description

Value is in seconds.

### Examples

Query relative offset:

MBS( "Events.Alarm.GetRelativeOffset"; \$alarm )

### See also

- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.91 Events.NewAlarmWithRelativeOffset 3665

Created 10th March 2016, last changed 10th March 2016.



**77.6 Events.Alarm.GetSound**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetSound"; EKAlarm )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns text or error.

**Description****See also**

- [48.8 Calendar.Alarm.GetSound](#) 1271
- [77.8 Events.Alarm.GetURL](#) 3567
- [77.13 Events.Alarm.SetSound](#) 3573

Created 10th March 2016, last changed 13th August 2016.

## 77.7 Events.Alarm.GetStructuredLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetStructuredLocation"; EKAlarm )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

**Result** Returns structured location reference number or error.

### Description

Allows you to set a structured location (a location with a potential geo-coordinate) on an alarm. This is used in conjunction with proximity to do geofence-based triggering of reminders.

### See also

- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.45 Events.Event.GetStructuredLocation 3609
- 77.53 Events.Event.SetStructuredLocation 3619

Created 10th March 2016, last changed 10th March 2016.

## 77.8 Events.Alarm.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.GetURL"; EKAlarm )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

**Result** Returns URL or error.

### Description

#### See also

- [77.6 Events.Alarm.GetSound](#) 3565
- [77.15 Events.Alarm.SetURL](#) 3577
- [77.73 Events.Item.GetURL](#) 3641
- [77.86 Events.Item.SetURL](#) 3658

Created 10th March 2016, last changed 13th August 2016.

## 77.9 Events.Alarm.SetAbsoluteDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetAbsoluteDate"; EKAlarm; TimeStamp )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

#### TimeStamp

The timestamp to fire the alarm.

Get(CurrentHostTimeStamp) + 24 \* 60 \* 60

**Result** Returns OK or error.

### Description

Set this property to a date to establish an absolute alarm trigger. Setting this clears any relative interval trigger.

### See also

- 77.2 Events.Alarm.GetAbsoluteDate 3561
- 77.90 Events.NewAlarmWithAbsoluteDate 3664

Created 10th March 2016, last changed 10th March 2016.

**77.10 Events.Alarm.SetEmailAddress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetEmailAddress"; EKAlarm; Email )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Email**

The new email address.

"alarm@test.test"

**Result** Returns OK or error.

**Description**

An email address that is the recipient of an email alarm, which is an alarm that triggers an email message. When you set the emailAddress, the type is set to Email, and the soundName and url are cleared.

**See also**

- 48.5 Calendar.Alarm.GetEmailAddress 1268
- 48.13 Calendar.Alarm.SetEmailAddress 1276
- 77.3 Events.Alarm.GetEmailAddress 3562

Created 10th March 2016, last changed 13th August 2016.

## 77.11 Events.Alarm.SetProximity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetProximity"; EKAlarm; Proximity )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

#### Proximity

The proximity. Can be None, Leave or Enter.

"Leave"

**Result** Returns OK or error.

### Description

Defines whether this alarm triggers via entering/exiting a geofence as defined by structuredLocation.

#### See also

- [77.4 Events.Alarm.GetProximity](#) 3563
- [77.12 Events.Alarm.SetRelativeOffset](#) 3571
- [77.14 Events.Alarm.SetStructuredLocation](#) 3575
- [77.61 Events.Item.AddAlarm](#) 3627
- [77.89 Events.NewAlarm](#) 3662
- [77.94 Events.NewReminder](#) 3669
- [77.155 Events.SaveReminder](#) 3739
- [77.167 Events.StructuredLocation.NewLocationWithTitle](#) 3754

### Example Databases

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 10th March 2016.

## 77.12 Events.Alarm.SetRelativeOffset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetRelativeOffset"; EKAlarm; TimeOffset )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

#### TimeOffset

The relative time offset in seconds.

-15\*60

**Result** Returns OK or error.

### Description

Set this property to an appropriate negative value to establish an alarm trigger relative to the start date/time of an event. Setting this clears any existing date trigger.

Value is in seconds.

### Examples

Add an alarm with relative offset:

```
Set Variable [ $alarm ; Value: MBS( "Events.NewAlarm" ) ]
If [ not IsEmpty(Test::AlarmSound) ]
Set Variable [ $r ; Value: MBS( "Events.Alarm.SetSound"; $alarm; Test::AlarmSound ) ]
End If
If [ not IsEmpty(Test::AlarmLocationTitle) ]
Set Variable [ $l ; Value: MBS( "Events.StructuredLocation.NewLocationWithTitle"; Test::AlarmLocation-
Title ) ]
Set Variable [ $r ; Value: MBS( "Events.StructuredLocation.SetRadius"; $l; Test::AlarmLocationRadius ) ]
Set Variable [ $r ; Value: MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Test::AlarmLocationGeo-
Lat; Test::AlarmLocationGeoLong ) ]
Set Variable [ $r ; Value: MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l ) ]
Set Variable [ $r ; Value: MBS( "Events.Alarm.SetProximity"; $alarm; Test::AlarmProximity ) ]
End If
# e.g. AlarmRelativeOffsetSeconds contains -9 * 60
Set Variable [ $r ; Value: MBS( "Events.Alarm.SetRelativeOffset"; $alarm; Evaluate( Test::AlarmRelative-
OffsetSeconds ) ) ]
Set Variable [ $r ; Value: MBS( "Events.Item.AddAlarm"; $item; $alarm ) ]
```

### See also

- 77.5 Events.Alarm.GetRelativeOffset

- 77.11 Events.Alarm.SetProximity 3570
- 77.13 Events.Alarm.SetSound 3573
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662
- 77.91 Events.NewAlarmWithRelativeOffset 3665
- 77.167 Events.StructuredLocation.NewLocationWithTitle 3754
- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757

Created 10th March 2016, last changed 23th March 2020.



**77.13 Events.Alarm.SetSound**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetSound"; EKAlarm; Sound )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Sound**

The name of the sound file. See /Library/Sounds and /System/Library/Sounds folders.

"Submarine"

**Result** Returns OK or error.

**Description**

The value of this property is the name of a system sound. When you set the soundName property, the action property is set to Audio, and the emailAddress and url properties are cleared.

**Examples**

Add alarm with sound 15 minutes before event:

```
Set Variable [ $alarm2; Value:MBS( "Events.NewAlarmWithRelativeOffset"; -15*60 ) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetSound"; $alarm2; "Submarine" ) ]
Set Variable [ $r; Value:MBS("Events.Item.AddAlarm"; $c; $alarm2) ]
```

**See also**

- 48.16 Calendar.Alarm.SetSound 1279
- 77.6 Events.Alarm.GetSound 3565
- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.15 Events.Alarm.SetURL 3577
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662
- 77.91 Events.NewAlarmWithRelativeOffset 3665
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th August 2016.

**77.14 Events.Alarm.SetStructuredLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetStructuredLocation"; EKAlarm; EKStructuredLocation )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Result** Returns OK or error.

**Description****Examples**

Create structured location for alarm:

```
Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-LocationTitle ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-LocationRadius ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProximity ) ]
```

**See also**

- [77.7 Events.Alarm.GetStructuredLocation](#) 3566
- [77.11 Events.Alarm.SetProximity](#) 3570
- [77.12 Events.Alarm.SetRelativeOffset](#) 3571
- [77.45 Events.Event.GetStructuredLocation](#) 3609
- [77.53 Events.Event.SetStructuredLocation](#) 3619
- [77.89 Events.NewAlarm](#) 3662
- [77.94 Events.NewReminder](#) 3669
- [77.155 Events.SaveReminder](#) 3739

- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.15 Events.Alarm.SetURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.SetURL"; EKAlarm )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns OK or error.

**Description**

When you set the url property, the action property is set to Procedure, and the emailAddress and soundName properties are cleared.

Note: Starting with OS X 10.9, it is not possible to create new procedure alarms or view URLs for existing procedure alarms.

Trying to save or modify a procedure alarm will result in a save error.

Editing other aspects of events or reminders that have existing procedure alarms is allowed as long as the alarm isn't modified.

**See also**

- 77.8 Events.Alarm.GetURL 3567
- 77.13 Events.Alarm.SetSound 3573
- 77.73 Events.Item.GetURL 3641
- 77.86 Events.Item.SetURL 3658

Created 10th March 2016, last changed 13th August 2016.

## 77.16 Events.Alarm.TriggerDateRelativeTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.TriggerDateRelativeTo"; EKAlarm { ; Timestamp } )

### Parameters

#### EKAlarm

The reference to the alarm.

\$Alarm

#### Timestamp

Optional

The timestamp to use for finding next trigger time. Default is now.

Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

### Description

You can pass a timestamp to calculate relative to it.

### Examples

Query next alarm time:

```
MBS( "Events.Alarm.TriggerDateRelativeTo"; "56004"; Get(CurrentHostTimeStamp) )
```

### See also

- 48.18 Calendar.Alarm.TriggerDateRelativeTo

1281

Created 10th March 2016, last changed 10th March 2016.

**77.17 Events.Alarm.Type**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Alarm.Type"; EKAlarm )

**Parameters****EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns text or error.

**Description**

Can be Display, Email, Procedure or Sound.

Display The alarm displays a message.

Sound The alarm plays a sound.

URL The alarm opens a URL.

Email The alarm sends an email.

This field is read-only; to change the type of alarm, set emailAddress, sound or URL.

Setting all of those to empty text will change it to type Display.

**See also**

- 77.1 Events.Alarm.Copy 3559
- 77.161 Events.Source.Type 3748

Created 10th March 2016, last changed 13th August 2016.

## 77.18 Events.AuthorizationStatusForEntityType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.AuthorizationStatusForEntityType"; Type )

### Parameters

#### Type

Which entity type you like to check: Event or Reminder.

"Event"

**Result** Returns status or error.

### Description

You can check and see if your solution is allowed to use the calendar.

Value is NotDetermined, Restricted, Denied or Authorized.

You can use Events.requestAccessToEntityType to request access.

### Examples

Query authorization:

```

Set Variable [ $r; Value:MBS("Events.AuthorizationStatusForEntityType"; "Reminder") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "We have a problem"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Else If [ $r = "NotDetermined" ]
Set Variable [ $r; Value:MBS( "Events.requestAccessToEntityType"; "Reminder" ) ]
If [ $r = "Wait" ]
# dialog is showing.
Else If [ $r = "OK" ]
Show Custom Dialog [ "Success"; "We are authorized and ready to go." ]
Else
Show Custom Dialog [ "We have a problem"; $r ]
End If
Else If [ $r = "Restricted" ]
Show Custom Dialog [ "Success"; "We are authorized for a restricted access and ready to go." ]
Else If [ $r = "Denied" ]
Show Custom Dialog [ "Problem"; "We are denied for calendar access. Please go to system preferences and enable us." ]
Else If [ $r = "Authorized" ]
Show Custom Dialog [ "Success"; "We are authorized and ready to go." ]
Else
Show Custom Dialog [ "We have a problem"; $r ]
End If

```

**See also**



77.18. <i>EVENTS.AUTHORIZATIONSTATUSFORENTITYTYPE</i>	3581
• 77.60 Events.Initialize	3626
• 77.173 Events.requestAccessToEntityType	3761
• 127.6 IsError	6374
• 167.57 Text.RemovePrefix	7982

### **Example Databases**

- [Mac and iOS/Events/Events Changes](#)
- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

#### **77.18.1 Blog Entries**

- [Calendar access in FileMaker 18](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.19 Events.Calendar.AllowsContentModifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.AllowsContentModifications"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns 1, 0 or error.

### Description

Returns 1 if you can modify the calendar.

Created 10th March 2016, last changed 12nd March 2016.

## 77.20 Events.Calendar.CalendarIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.CalendarIdentifier"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns ID or error.

### Description

It is not sync-proof in that a fullsync will lose this identifier, so you should always have a back up plan for dealing with a calendar that is no longer fetchable by this property, e.g. by title, type, color, etc.

This function should not needed unless you want to map a plugin given ID to a real calendar ID.

### Examples

Query ID by name:

MBS( "Events.Calendar.CalendarIdentifier"; "Firma" )

Created 10th March 2016, last changed 22nd May 2016.

## 77.21 Events.Calendar.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.Duplicate"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns ID or error.

### Description

Returns a new ID for the new calendar.

### See also

- 48.22 Calendar.Calendar.Duplicate 1285
- 77.24 Events.Calendar.GetTitle 3588
- 77.29 Events.Calendar.SetTitle 3593

Created 10th March 2016, last changed 12nd March 2016.

**77.22 Events.Calendar.GetColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.GetColor"; EKCalendar { ; ReturnAsNumbers } )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**ReturnAsNumbers**

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123§234§56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color value or error.

**Description****Examples**

Returns color for calendar:

```
MBS( "Events.Calendar.GetColor"; "Firma" )
```

Returns for calendar identified by ID:

```
MBS( "Events.Calendar.GetColor"; "51AC6CC1-C4AB-40D0-BB30-A8AAFB280ABD")
```

**See also**

- 48.23 Calendar.Calendar.GetColor 1286
- 48.29 Calendar.Calendar.SetColor 1294
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589
- 77.27 Events.Calendar.SetColor 3591
- 77.28 Events.Calendar.SetSource 3592
- 77.29 Events.Calendar.SetTitle 3593

### 77.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 10th March 2016, last changed 13th June 2018.

**77.23 Events.Calendar.GetSource**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.GetSource"; EKCalendar )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**Result** Returns OK or error.

**Description**

The source representing the 'account' this calendar belongs to.

This is only settable when initially creating a calendar and then effectively read-only after that. That is, you can create a calendar, but you cannot move it to another source.

**Examples**

Query source title for calendar:

```
MBS( "Events.Source.Title"; MBS( "Events.Calendar.GetSource"; "Firma" ) )
```

**See also**

- [77.22 Events.Calendar.GetColor](#) 3585
- [77.24 Events.Calendar.GetTitle](#) 3588
- [77.25 Events.Calendar.GetType](#) 3589
- [77.27 Events.Calendar.SetColor](#) 3591
- [77.28 Events.Calendar.SetSource](#) 3592
- [77.29 Events.Calendar.SetTitle](#) 3593
- [77.160 Events.Source.Title](#) 3747

**Example Databases**

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 22nd May 2016.

## 77.24 Events.Calendar.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.GetTitle"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns text or error.

### Description

#### See also

- 48.25 Calendar.Calendar.GetTitle 1289
- 48.31 Calendar.Calendar.SetTitle 1296
- 77.21 Events.Calendar.Duplicate 3584
- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.25 Events.Calendar.GetType 3589
- 77.26 Events.Calendar.Immutable 3590
- 77.28 Events.Calendar.SetSource 3592
- 77.29 Events.Calendar.SetTitle 3593
- 77.172 Events.defaultCalendarForNewReminders 3760

### Example Databases

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.



## 77.25 **Events.Calendar.GetType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.GetType"; EKCalendar )

### Parameters

#### **EKCalendar**

The id of the calendar to query.

\$calendar

**Result** Returns text or error.

### Description

This is actually based on what source the calendar is in, as well as whether it is a subscribed calendar.

CalDAV subscribed calendars have type CalDAV with isSubscribed being true.

Type can be: Local, CalDAV, Exchange, Birthday or Subscription.

### Examples

Query calendar type by ID:

MBS( "Events.Calendar.GetType"; "51AC6CC1-C4AB-40D0-BB30-A8AAFB280ABD")

### See also

- [48.26 Calendar.Calendar.GetType](#) 1291
- [77.22 Events.Calendar.GetColor](#) 3585
- [77.23 Events.Calendar.GetSource](#) 3587
- [77.24 Events.Calendar.GetTitle](#) 3588
- [77.27 Events.Calendar.SetColor](#) 3591
- [77.28 Events.Calendar.SetSource](#) 3592
- [77.29 Events.Calendar.SetTitle](#) 3593

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 22nd May 2016.

## 77.26 Events.Calendar.Immutable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.Immutable"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns 0, 1 or error.

### Description

If this is set to 1, it means you cannot modify any attributes of the calendar or delete it.

It does NOT imply that you cannot add events or reminders to the calendar.

### Examples

Query immutable status:

MBS( "Events.Calendar.Immutable"; "51AC6CC1-C4AB-40D0-BB30-A8AAFB280ABD")

### See also

- 77.24 Events.Calendar.GetTitle 3588
- 77.29 Events.Calendar.SetTitle 3593

Created 10th March 2016, last changed 22nd May 2016.

**77.27 Events.Calendar.SetColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.SetColor"; EKCalendar; Color )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**Color**

The color to use. Can be a color name or hex notation like in HTML.

"red"

**Result** Returns OK or error.

**Description**

You need to save the changes to be persistent.

**See also**

- 48.23 Calendar.Calendar.GetColor 1286
- 48.29 Calendar.Calendar.SetColor 1294
- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589
- 77.28 Events.Calendar.SetSource 3592
- 77.29 Events.Calendar.SetTitle 3593

Created 10th March 2016, last changed 6th June 2019.

## 77.28 Events.Calendar.SetSource

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.SetSource"; EKCalendar; EKSource )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

#### EKSource

The reference to the source.

\$Source

**Result** Returns OK or error.

### Description

You need to save the changes to be persistent.

### See also

- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589
- 77.27 Events.Calendar.SetColor 3591
- 77.29 Events.Calendar.SetTitle 3593

Created 12nd March 2016, last changed 12nd March 2016.

**77.29 Events.Calendar.SetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.SetTitle"; EKCalendar )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**Result** Returns OK or error.

**Description**

You need to save the changes to be persistent.

**See also**

- 48.25 Calendar.Calendar.GetTitle 1289
- 48.31 Calendar.Calendar.SetTitle 1296
- 77.21 Events.Calendar.Duplicate 3584
- 77.22 Events.Calendar.GetColor 3585
- 77.23 Events.Calendar.GetSource 3587
- 77.24 Events.Calendar.GetTitle 3588
- 77.25 Events.Calendar.GetType 3589
- 77.26 Events.Calendar.Immutable 3590
- 77.27 Events.Calendar.SetColor 3591
- 77.28 Events.Calendar.SetSource 3592

Created 10th March 2016, last changed 12nd March 2016.

## 77.30 Events.Calendar.Subscribed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.Subscribed"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns 0, 1 or error.

### Description

Returns 1 if this calendar is a subscribed calendar.

Created 10th March 2016, last changed 12nd March 2016.

**77.31 Events.Calendar.allowedEntityTypes**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.allowedEntityTypes"; EKCalendar )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**Result** Returns value or error.

**Description**

While Apple API only allows creation of single-entity calendars, other servers might allow mixed-entity calendars.

Returns list which can contain Event and/or Reminder.

**Examples**

Queries entities types by ID:

MBS( "Events.Calendar.allowedEntityTypes"; "51AC6CC1-C4AB-40D0-BB30-A8AAFB280ABD")

Created 10th March 2016, last changed 22nd May 2016.

## 77.32 Events.Calendar.supportedEventAvailabilities

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendar.supportedEventAvailabilities"; EKCalendar )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

**Result** Returns list or error.

### Description

Returns empty list if this calendar does not support setting availability on an event.

Values include: Busy, Free, Tentative and Unavailable.

Created 10th March 2016, last changed 12nd March 2016.



## 77.33 Events.CalendarCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.CalendarCount"; entityType )

### Parameters

#### entityType

The entity type that this calendar may support. Event or Reminder  
"Event"

**Result** Returns number or error.

### Description

### Examples

Query all calendar count:

MBS( "Events.CalendarCount"; "events" ) + MBS( "Events.CalendarCount"; "reminder" )

Created 10th March 2016, last changed 24th March 2016.

## 77.34 Events.CalendarItemsWithExternalIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.CalendarItemsWithExternalIdentifier"; externalIdentifier )

### Parameters

#### externalIdentifier

The external identifier. As returned by Events.Item.CalendarItemExternalIdentifier.  
\$identifier

**Result** Returns list or error.

### Description

Returns either matching items or the first occurrences of any events matching the given external identifier. There may be more than one matching calendar item.

### See also

- [77.65 Events.Item.CalendarItemExternalIdentifier](#) 3632

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 10th March 2016.

## 77.35 Events.Calendars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Calendars" { ; Type } )

### Parameters

#### Type

Optional

Which entity type you like to check: Event or Reminder.

"Event"

**Result** Returns list of calendar identifiers or error.

### Description

Type can be Event or Reminder.

### Examples

Get list of all calendars for events:

```
MBS( "Events.calendars" ; "Events" )
```

Get list of all calendars for reminders:

```
MBS( "Events.calendars" ; "Reminder" )
```

### See also

- [77.92 Events.NewCalendar](#)

3666

### Example Databases

- [Mac and iOS/Events/Events Changes](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 4th January 2018.

## 77.36 Events.ClearNotification

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.ClearNotification" )

**Result** Returns OK or error.

**Description**

**See also**

- 77.157 Events.SetNotification

3743

Created 10th March 2016, last changed 12nd March 2016.

**77.37 Events.Commit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Commit" )

**Result** Returns OK or error.

**Description**

If you use saveCalendar/saveEvent/removeCalendar/removeEvent, etc. and you pass 0 to their commit parameter, you are batching changes for a later commit. This method does that commit. This allows you to save the database only once for many additions or changes. If you pass 1 to methods' commit parameter, then you don't need to call this method.

This method will return OK as long as nothing went awry, even if nothing was actually committed. Else it returns an error.

**See also**

- 77.149 Events.RemoveCalendar 3732
- 77.150 Events.RemoveEvent 3733
- 77.151 Events.RemoveReminder 3734
- 77.153 Events.SaveCalendar 3736
- 77.154 Events.SaveEvent 3737
- 77.155 Events.SaveReminder 3739

Created 10th March 2016, last changed 10th March 2016.

## 77.38 Events.CompletedReminders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.CompletedReminders" { ; StartDate; EndDate; Calendars } )

### Parameters

#### StartDate

Optional

The start date to search from. Can be empty.

#### EndDate

Optional

The end date to search before.

#### Calendars

Optional

The identifier for the calendar you want to search. Leave empty to search all.

**Result** Returns list of reminder IDs or error.

### Description

You can use this method to search for reminders completed between a range of dates.

You can pass nothing for start date to find all reminders completed before endDate.

You can pass nothing for both start and end date to get all completed reminders in the specified calendars.

You can pass nothing for calendars to fetch from all available calendars.

### See also

- 77.59 Events.IncompleteReminders

3625

Created 10th March 2016, last changed 13th March 2016.

## 77.39 Events.DelegateSources

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.DelegateSources" )

**Result** Returns list or error.

### Description

By default, delegates are not included in an event store's sources. To work with delegates, you can create a new event store and pass in the sources, including sources returned from this method, that you're interested in.

Created 10th March 2016, last changed 13th August 2016.

## 77.40 Events.Event.BirthdayPersonUniqueID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.BirthdayPersonUniqueID"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns ID or error.

### Description

This property is only valid for events in the built-in Birthdays calendar. It specifies the Address Book unique ID of the person this event was created for. For any other type of event, this property returns nothing.

Created 10th March 2016, last changed 12nd March 2016.



**77.41 Events.Event.GetAllDay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.GetAllDay"; EKEvent )

**Parameters****EKEvent**

The reference to the event.

\$event

**Result** Returns 0, 1 or error.

**Description****See also**

- [77.43 Events.Event.GetEndDate](#) 3607
- [77.49 Events.Event.SetAllDay](#) 3613
- [77.51 Events.Event.SetEndDate](#) 3615

**Example Databases**

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

## 77.42 Events.Event.GetAvailability

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.GetAvailability"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns value or error.

### Description

Can be NotSupported, Busy, Free, Tentative or Unavailable.

### See also

- [77.50 Events.Event.SetAvailability](#)

3614

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

**77.43 Events.Event.GetEndDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.GetEndDate"; EKEvent )

**Parameters****EKEvent**

The reference to the event.

\$event

**Result** Returns timestamp or error.

**Description****See also**

- [77.41 Events.Event.GetAllDay](#) 3605
- [77.44 Events.Event.GetStartDate](#) 3608
- [77.49 Events.Event.SetAllDay](#) 3613
- [77.51 Events.Event.SetEndDate](#) 3615
- [77.52 Events.Event.SetStartDate](#) 3617

**Example Databases**

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

## 77.44 Events.Event.GetStartDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.GetStartDate"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns timestamp or error.

### Description

This property represents the start date for this event. Floating events (such as all-day events) are currently always returned in the default time zone.

### See also

- [77.43 Events.Event.GetEndDate](#) 3607
- [77.51 Events.Event.SetEndDate](#) 3615
- [77.52 Events.Event.SetStartDate](#) 3617
- [77.139 Events.Reminder.GetStartDate](#) 3717

### Example Databases

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

**77.45 Events.Event.GetStructuredLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.GetStructuredLocation"; EKEvent )

**Parameters****EKEvent**

The reference to the event.

\$event

**Result** Returns structured location ID or error.

**Description**

Allows you to set a structured location (a location with a potential geo-coordinate) on an event. The getter for Event's location property just returns the structured location's title. The setter for event's location property is equivalent to creating a new structured location with just a title.

Requires OS X 10.11 or newer.

**See also**

- [77.7 Events.Alarm.GetStructuredLocation](#) 3566
- [77.14 Events.Alarm.SetStructuredLocation](#) 3575
- [77.53 Events.Event.SetStructuredLocation](#) 3619

Created 10th March 2016, last changed 12nd March 2016.

## 77.46 Events.Event.IsDetached

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.IsDetached"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.

\$item

**Result** Returns 1, 0 or error.

### Description

If this event is an instance of a repeating event, and an attribute of this event has been changed from the default value generated by the repeating event, `isDetached` will return 1. If the `EKEvent` is unchanged from its default state, or is not a repeating event, `isDetached` returns 0.

Created 10th March 2016, last changed 12nd March 2016.

**77.47 Events.Event.OccurrenceDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.OccurrenceDate"; EKEvent )

**Parameters****EKEvent**

The reference to the event.

\$event

**Result** Returns OK or error.

**Description**

This is only set if the event is part of a recurring series. It returns the date on which this event was originally scheduled to occur. For occurrences that are unmodified from the recurring series, this is the same as the start date. This value will remain the same even if the event has been detached and its start date has changed. Floating events (such as all-day events) are currently returned in the default time zone.

Created 10th March 2016, last changed 12nd March 2016.

## 77.48 Events.Event.Refresh

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.Refresh"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns 1, 0 or error.

### Description

When the database changes, your application is sent an notification note and the plugin may trigger the notification script. You should generally consider all event instances to be invalid as soon as you receive the notification. However, for events you truly care to keep around, you can call this method. It ensures the record is still valid by ensuring the event and start date are still valid. It also attempts to refresh all properties except those you might have modified. If this method returns 0, the record has been deleted or is otherwise invalid. You should not continue to use it. If it returns 1, all is still well, and the record is ready for continued use. You should only call this method on events that are more critical to keep around if possible, such as an event that is being actively edited, as this call is fairly heavyweight. Do not use it to refresh the entire selected range of events you might have had selected. It is mostly pointless anyway, as recurrence information may have changed.

### See also

- [77.97 Events.Object.Refresh](#)

3673

Created 10th March 2016, last changed 12nd March 2016.



**77.49 Events.Event.SetAllDay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.SetAllDay"; EKEvent; Value )

**Parameters****EKEvent**

The reference to the event.

\$event

**Value**

Pass 1 for all day, else 0.

1

**Result** Returns OK or error.

**Description****See also**

- [77.41 Events.Event.GetAllDay](#) 3605
- [77.43 Events.Event.GetEndDate](#) 3607
- [77.51 Events.Event.SetEndDate](#) 3615
- [77.93 Events.NewEvent](#) 3667
- [77.154 Events.SaveEvent](#) 3737

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Sync](#)

**77.49.1 Blog Entries**

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.50 Events.Event.SetAvailability

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.SetAvailability"; EKEEvent; availability )

### Parameters

#### EKEEvent

The reference to the event.

\$event

#### availability

The availability setting. Pass Busy, Free, Tentative or Unavailable.

"Busy"

**Result** Returns OK or error.

### Description

#### Examples

Set busy:

```
Set Variable [ $r; Value:MBS("Events.Event.SetAvailability"; $c; "busy") ]
```

### See also

- [77.42 Events.Event.GetAvailability](#) 3606
- [77.93 Events.NewEvent](#) 3667
- [77.154 Events.SaveEvent](#) 3737

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

### 77.50.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 4th February 2019.

**77.51 Events.Event.SetEndDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.SetEndDate"; EKEvent; Date )

**Parameters****EKEvent**

The reference to the event.

\$event

**Date**

The time stamp for end date.

Get(CurrentHostTimeStamp) + 3600

**Result** Returns OK or error.

**Description****Examples**

Update dates:

```
Set Variable [ $c; Value:CalendarTest::ItemUID ]
```

```
Set Variable [ $r; Value:MBS("Events.Event.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
```

```
Set Variable [ $r; Value:MBS("Events.Event.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
```

```
Set Variable [ $r; Value:MBS("Events.SaveEvent"; $c; "this"; 1 ) ]
```

**See also**

- [77.41 Events.Event.GetAllDay](#) 3605
- [77.43 Events.Event.GetEndDate](#) 3607
- [77.44 Events.Event.GetStartDate](#) 3608
- [77.49 Events.Event.SetAllDay](#) 3613
- [77.52 Events.Event.SetStartDate](#) 3617
- [77.93 Events.NewEvent](#) 3667
- [77.154 Events.SaveEvent](#) 3737

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.51.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 24th March 2016.

**77.52 Events.Event.SetStartDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.SetStartDate"; EKEvent; StartDate )

**Parameters****EKEvent**

The reference to the event.

\$event

**StartDate**

The new start date for the event.

Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description****Examples**

Update dates:

```
Set Variable [ $c; Value:CalendarTest::ItemUID ]
```

```
Set Variable [ $r; Value:MBS("Events.Event.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
```

```
Set Variable [ $r; Value:MBS("Events.Event.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
```

```
Set Variable [ $r; Value:MBS("Events.SaveEvent"; $c; "this"; 1 ) ]
```

**See also**

- [77.43 Events.Event.GetEndDate](#) 3607
- [77.44 Events.Event.GetStartDate](#) 3608
- [77.51 Events.Event.SetEndDate](#) 3615
- [77.93 Events.NewEvent](#) 3667
- [77.146 Events.Reminder.SetStartDate](#) 3727
- [77.154 Events.SaveEvent](#) 3737

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.52.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 24th March 2016.

**77.53 Events.Event.SetStructuredLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.SetStructuredLocation"; EKEvent; EKStructuredLocation )

**Parameters****EKEvent**

The reference to the event.

\$event

**EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Result** Returns OK or error.

**Description**

This allows you to pass title and geo coordinates with a radius to describe location exactly.

See also [Events.Item.SetLocation](#).

Requires OS X 10.11 or newer.

**See also**

- [77.7 Events.Alarm.GetStructuredLocation](#) 3566
- [77.14 Events.Alarm.SetStructuredLocation](#) 3575
- [77.45 Events.Event.GetStructuredLocation](#) 3609
- [77.82 Events.Item.SetLocation](#) 3651
- [77.167 Events.StructuredLocation.NewLocationWithTitle](#) 3754

Created 10th March 2016, last changed 12nd March 2016.

## 77.54 Events.Event.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.Status"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns value or error.

### Description

While the status offers four different values in the enumeration, in practice, the only actionable and reliable status is canceled. Any other status should be considered informational at best. You cannot set this property. If you wish to cancel an event, you should simply remove it using `removeEvent`.

Value can be None, Confirmed, Tentative or Canceled.

Created 10th March 2016, last changed 12nd March 2016.



## 77.55 **Events.Event.compareStartDateWithEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.compareStartDateWithEvent"; EKEvent; OtherEvent )

### **Parameters**

#### **EKEvent**

The reference to the event.

\$event

#### **OtherEvent**

The reference to the event.

\$otherEvent

**Result** Returns -1, 0, 1 or error.

### **Description**

Allows you to sort events.

Returns 1 if one second event is bigger, -1 if smaller or 0 if equal.

Created 10th March 2016, last changed 12nd March 2016.

## 77.56 Events.Event.organizer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Event.organizer"; EKEvent )

### Parameters

#### EKEvent

The reference to the event.

\$event

**Result** Returns participant ID or error.

### Description

Returns a participant ID or nothing.

The plugin can't set the organizer as Apple doesn't provide API for this.

Created 10th March 2016, last changed 12nd March 2016.

**77.57 Events.EventStoreIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.EventStoreIdentifier" )

**Result** Returns identifier or error.

**Description**

If this changes, your database got moved to a different Mac or the user started with a new calendar database. So existing identifiers for events are invalidated.

Created 10th March 2016, last changed 10th March 2016.

## 77.58 Events.Events

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Events" { ; StartDate; EndDate; Calendars } )

### Parameters

#### StartDate

Optional

The start date to search from. Can be empty.

#### EndDate

Optional

The end date to search before.

#### Calendars

Optional

The identifier for the calendar you want to search. Leave empty to search all.

**Result** Returns OK or error.

### Description

You can use this function to search for events between a range of dates.

You can pass nothing for start date to find all events before endDate.

You can pass nothing for both start and end date to get all events in the specified calendars.

You can pass nothing for calendars to fetch from all available calendars.

OS X Only: For performance reasons, this method will only return events within a four year timespan.

If the date range between the startDate and endDate is greater than four years, then it will be shortened to the first four years.

### See also

- [77.157 Events.SetNotification](#) 3743
- [77.158 Events.SetNotificationEvaluate](#) 3745

### Example Databases

- [Mac and iOS/Events/Events Changes](#)
- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 13th March 2016.

**77.59 Events.IncompleteReminders**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.IncompleteReminders" { ; StartDate; EndDate; Calendars } )

**Parameters****StartDate**

Optional

The start date to search from. Can be empty.

**EndDate**

Optional

The end date to search before.

**Calendars**

Optional

The identifier for the calendar you want to search. Leave empty to search all.

**Result** Returns list of reminder IDs or error.

**Description**

You can use this method to search for reminders uncompleted between a range of dates.

You can pass nothing for start date to find all reminders due before endDate.

You can pass nothing for both start and end date to get all uncompleted reminders in the specified calendars.

You can pass nothing for calendars to fetch from all available calendars.

**See also**

- 77.38 Events.CompletedReminders

3602

Created 10th March 2016, last changed 13th March 2016.

## 77.60 Events.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Initialize"; Types )

### Parameters

#### Types

What entity types to use. Can be "Events", "Reminder" or both. "Events, Reminders"

**Result** Returns OK or error.

### Description

This is done internally automatically for reminders and events. You can here initialize it for only reminder or events.

Users are able to grant or deny access to event and reminder data on a per-app basis. To request access to event and/or reminder data, instantiate an event store using this method. This call will not block the program while the user is being asked to grant or deny access. Until access has been granted for an entity type, this event store will not contain any calendars for that entity type, and any attempt to save entities of that entity type will fail. If access is later granted or declined, the event store will broadcast a notification. You can check the current access status for an entity type using `Events.AuthorizationStatusForEntityType`. The user will only be prompted the first time access is requested; any subsequent instantiations of event store will use the existing permissions.

### See also

- 72.14 EIDSDK.Initialize 3436
- 77.18 Events.AuthorizationStatusForEntityType 3580

Created 10th March 2016, last changed 13th March 2016.

**77.61 Events.Item.AddAlarm**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.AddAlarm"; EKCalendarItem; EKAlarm )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.

\$item

**EKAlarm**

The reference to the alarm.

\$Alarm

**Result** Returns OK or error.

**Description**

This function add an alarm to an item. Be warned that some calendars can only allow a certain maximum number of alarms. When this item is saved, it will truncate any extra alarms from the array.

**Examples**

Add alarm:

```
Set Variable [ $alarm; Value:MBS( "Events.NewAlarm" ) ]
If [ not IsEmpty(Events Create Reminder::AlarmSound) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetSound"; $alarm; Events Create Reminder::AlarmSound ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmLocationTitle) ]
Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-
LocationTitle ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-
LocationRadius ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-
LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProx-
imity ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.AddAlarm"; $reminder; $alarm ) ]
```

**See also**

- 77.11 Events.Alarm.SetProximity 3570
- 77.13 Events.Alarm.SetSound 3573
- 77.14 Events.Alarm.SetStructuredLocation 3575

- 77.63 Events.Item.Alarms 3630
- 77.74 Events.Item.HasAlarms 3642
- 77.89 Events.NewAlarm 3662
- 77.155 Events.SaveReminder 3739
- 77.167 Events.StructuredLocation.NewLocationWithTitle 3754
- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757

### Example Databases

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.



**77.62 Events.Item.AddRecurrenceRule**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.AddRecurrenceRule"; EKCalendarItem; EKRecurrenceRule )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**EKRecurrenceRule**

The reference to the recurrence rule.  
\$RecurrenceRule

**Result** Returns OK or error.

**Description****See also**

- 77.77 Events.Item.HasRecurrenceRules 3645
- 77.78 Events.Item.RecurrenceRules 3646
- 77.80 Events.Item.RemoveRecurrenceRule 3648

Created 10th March 2016, last changed 12nd March 2016.

**77.63 Events.Item.Alarms**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.Alarms"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns list or error.

**Description**

Can be empty.

**See also**

- 77.61 Events.Item.AddAlarm 3627
- 77.74 Events.Item.HasAlarms 3642

Created 10th March 2016, last changed 12nd March 2016.

## 77.64 Events.Item.Attendees

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.Attendees"; EKCalendarItem )

### Parameters

#### **EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns list or error.

### Description

Can be empty.

### See also

- 77.75 Events.Item.HasAttendees

3643

Created 10th March 2016, last changed 12nd March 2016.

## 77.65 Events.Item.CalendarItemExternalIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.CalendarItemExternalIdentifier"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.

\$item

**Result** Returns ID or error.

### Description

This identifier, provided by the server, allows you to reference the same event or reminder across multiple devices. For calendars stored locally on the device, including the birthday calendar, it simply passes through to calendarItemIdentifier.

This identifier is unique as of creation for every calendar item. However, there are some cases where duplicate copies of a calendar item can exist in the same database, including:

- A calendar item was imported from an ICS file into multiple calendars
- An event was created in a calendar shared with the user and the user was also invited to the event
- The user is a delegate of a calendar that also has this event
- A subscribed calendar was added to multiple accounts In such cases, you should choose between calendar items based on other factors, such as the calendar or source.

This identifier is the same for all occurrences of a recurring event. If you wish to differentiate between occurrences, you may want to use the start date.

In addition, there are two caveats for Exchange-based calendars:

- This identifier will be different between EventKit on iOS versus OS X
- This identifier will be different between devices for Reminders

### See also

- 77.34 Events.CalendarItemsWithExternalIdentifier 3598
- 77.66 Events.Item.CalendarItemIdentifier 3634

### Example Databases

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

## 77.66 Events.Item.CalendarItemIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.CalendarItemIdentifier"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.

\$item

**Result** Returns ID or error.

### Description

Item identifiers are not sync-proof in that a full sync will lose this identifier, so you should always have a back up plan for dealing with a reminder that is no longer fetchable by this property, e.g. by title, etc..

You only need this function to match a reference number from our plugin to the UUID used by calendar identifier.

See also Events.Item.CalendarItemExternalIdentifier.

### See also

- [77.65 Events.Item.CalendarItemExternalIdentifier](#) 3632
- [77.93 Events.NewEvent](#) 3667
- [77.154 Events.SaveEvent](#) 3737

### Example Databases

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

#### 77.66.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 11st January 2019.

## 77.67 Events.Item.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.Duplicate"; EKCalendarItem )

### Parameters

#### **EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns ID or error.

### Description

Returns the new reference ID.

### See also

- 48.36 Calendar.Item.Duplicate

1302

Created 10th March 2016, last changed 12nd March 2016.

## 77.68 Events.Item.GetCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetCalendar"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns calendar identifier or error.

### Description

#### See also

- 48.44 Calendar.Item.GetCalendar 1310
- 77.81 Events.Item.SetCalendar 3649
- 77.149 Events.RemoveCalendar 3732

### Example Databases

- [Mac and iOS/Events/Events Import](#)

Created 10th March 2016, last changed 12nd March 2016.



**77.69 Events.Item.GetLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetLocation"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns text or error.

**Description****See also**

- 48.50 [Calendar.Item.GetLocation](#) 1316
- 77.82 [Events.Item.SetLocation](#) 3651

**Example Databases**

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

## 77.70 Events.Item.GetNotes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetNotes"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns text or error.

### Description

### Examples

Query notes:

MBS( "Events.Item.GetNotes"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

### See also

- 77.72 Events.Item.GetTitle 3640
- 77.73 Events.Item.GetURL 3641
- 77.76 Events.Item.HasNotes 3644
- 77.83 Events.Item.SetNotes 3653
- 77.85 Events.Item.SetTitle 3656

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.71 Events.Item.GetTimeZone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetTimeZone"; EKCalendarItem )

### Parameters

#### **EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns text or error.

### Description

#### See also

- 77.72 Events.Item.GetTitle 3640
- 77.84 Events.Item.SetTimeZone 3655

Created 10th March 2016, last changed 12nd March 2016.

## 77.72 Events.Item.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetTitle"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns text or error.

### Description

### Examples

Query title:

MBS( "Events.Item.GetTitle"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

### See also

- [77.70 Events.Item.GetNotes](#) 3638
- [77.71 Events.Item.GetTimeZone](#) 3639
- [77.73 Events.Item.GetURL](#) 3641
- [77.83 Events.Item.SetNotes](#) 3653
- [77.85 Events.Item.SetTitle](#) 3656
- [114.71 MenuItem.GetTitle](#) 6039

### Example Databases

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 13th March 2016.

**77.73 Events.Item.GetURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.GetURL"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns URL or error.

**Description****See also**

- [77.8 Events.Alarm.GetURL](#) 3567
- [77.15 Events.Alarm.SetURL](#) 3577
- [77.70 Events.Item.GetNotes](#) 3638
- [77.72 Events.Item.GetTitle](#) 3640
- [77.86 Events.Item.SetURL](#) 3658

**Example Databases**

- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

**77.74 Events.Item.HasAlarms**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.HasAlarms"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if alarms exists, else 0.

**See also**

- 77.61 Events.Item.AddAlarm 3627
- 77.63 Events.Item.Alarms 3630
- 77.76 Events.Item.HasNotes 3644

Created 10th March 2016, last changed 12nd March 2016.

## 77.75 Events.Item.HasAttendees

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.HasAttendees"; EKCalendarItem )

### Parameters

#### **EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns 1, 0 or error.

### Description

Returns 1 if attendees exists, else 0.

### See also

- 77.64 Events.Item.Attendees

3631

Created 10th March 2016, last changed 12nd March 2016.

**77.76 Events.Item.HasNotes**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.HasNotes"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if notes exists, else 0.

**See also**

- 77.70 Events.Item.GetNotes 3638
- 77.74 Events.Item.HasAlarms 3642
- 77.83 Events.Item.SetNotes 3653

Created 10th March 2016, last changed 12nd March 2016.



**77.77 Events.Item.HasRecurrenceRules**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.HasRecurrenceRules"; EKCalendarItem )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if recurrence rules exists, else 0.

**See also**

- 77.62 Events.Item.AddRecurrenceRule 3629
- 77.78 Events.Item.RecurrenceRules 3646
- 77.80 Events.Item.RemoveRecurrenceRule 3648

Created 10th March 2016, last changed 12nd March 2016.

## 77.78 Events.Item.RecurrenceRules

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.RecurrenceRules"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns list or error.

### Description

Can be empty.

### See also

- 77.62 Events.Item.AddRecurrenceRule 3629
- 77.77 Events.Item.HasRecurrenceRules 3645
- 77.80 Events.Item.RemoveRecurrenceRule 3648

Created 10th March 2016, last changed 12nd March 2016.

**77.79 Events.Item.RemoveAlarm**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.RemoveAlarm"; EKCalendarItem; EKAlarm )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**EKAlarm**

The reference to the alarm.  
\$Alarm

**Result** Returns OK or error.

**Description****See also**

- 48.61 Calendar.Item.RemoveAlarm

1328

Created 10th March 2016, last changed 12nd March 2016.

## 77.80 Events.Item.RemoveRecurrenceRule

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.RemoveRecurrenceRule"; EKCalendarItem; EKRecurrenceRule )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

#### EKRecurrenceRule

The reference to the recurrence rule.  
\$RecurrenceRule

**Result** Returns OK or error.

### Description

#### See also

- 77.62 Events.Item.AddRecurrenceRule 3629
- 77.77 Events.Item.HasRecurrenceRules 3645
- 77.78 Events.Item.RecurrenceRules 3646

Created 10th March 2016, last changed 12nd March 2016.

**77.81 Events.Item.SetCalendar**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetCalendar"; EKCalendarItem; EKCalendar )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**EKCalendar**

The id of the calendar.  
\$calendar

**Result** Returns OK or error.

**Description**

You can pass calendar by ID or by name.

**Examples**

Set calendar:

Set Variable [ \$r; Value:MBS( "Events.Item.SetCalendar"; \$reminder; \$calendar ) ]

**See also**

- 48.63 Calendar.Item.SetCalendar 1331
- 77.68 Events.Item.GetCalendar 3636
- 77.93 Events.NewEvent 3667
- 77.94 Events.NewReminder 3669
- 77.149 Events.RemoveCalendar 3732
- 77.154 Events.SaveEvent 3737
- 77.155 Events.SaveReminder 3739

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.81.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr7](#)
- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.

**77.82 Events.Item.SetLocation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetLocation"; EKCalendarItem; Location )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Location**

The text for the location field.  
"Hamburg, Germany"

**Result** Returns OK or error.

**Description****Examples**

Set location:

Set Variable [ \$r; Value:MBS( "Events.Item.SetLocation"; \$reminder; Events Create Reminder::Location ) ]

**See also**

- 48.68 Calendar.Item.SetLocation 1337
- 77.53 Events.Event.SetStructuredLocation 3619
- 77.69 Events.Item.GetLocation 3637
- 77.93 Events.NewEvent 3667
- 77.94 Events.NewReminder 3669
- 77.154 Events.SaveEvent 3737
- 77.155 Events.SaveReminder 3739

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.82.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.



**77.83 Events.Item.SetNotes**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetNotes"; EKCalendarItem; Notes )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Notes**

The new notes text.

"Don't forget wife's birthday!"

**Result** Returns OK or error.

**Description****Examples**

Set notes:

Set Variable [ \$r; Value:MBS( "Events.Item.SetNotes"; \$reminder; Events Create Reminder::Notes ) ]

**See also**

- [77.70 Events.Item.GetNotes](#) 3638
- [77.72 Events.Item.GetTitle](#) 3640
- [77.76 Events.Item.HasNotes](#) 3644
- [77.85 Events.Item.SetTitle](#) 3656
- [77.86 Events.Item.SetURL](#) 3658
- [77.93 Events.NewEvent](#) 3667
- [77.94 Events.NewReminder](#) 3669
- [77.154 Events.SaveEvent](#) 3737
- [77.155 Events.SaveReminder](#) 3739

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.83.1 Blog Entries

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.

**77.84 Events.Item.SetTimeZone**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetTimeZone"; EKCalendarItem; TimeZone )

**Parameters****EKCalendarItem**

The reference to the calendar item: an event or reminder.

\$item

**TimeZone**

The new Timezone. Value of "System" sets to system time zone. Value of "Default" sets to default time zone.

"GMT"

**Result** Returns OK or error.

**Description****Examples**

Set time zone:

```
If [ IsEmpty(Events Create Reminder::TimeZone) ]
```

```
# we don't set it
```

```
Else
```

```
Set Variable [ $r; Value:MBS( "Events.Item.SetTimezone"; $reminder; Events Create Reminder::TimeZone ) ]
```

```
End If
```

**See also**

- 77.71 Events.Item.GetTimeZone 3639
- 77.85 Events.Item.SetTitle 3656
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739

Created 10th March 2016, last changed 13th March 2016.

## 77.85 Events.Item.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetTitle"; EKCalendarItem; Title )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

#### Title

The new title.  
"Joe's birthday"

**Result** Returns OK or error.

### Description

### Examples

Set Title:

```
Set Variable [ $r; Value:MBS( "Events.Item.SetTitle"; $reminder; Events Create Reminder::Title ) ]
```

### See also

- 77.70 Events.Item.GetNotes 3638
- 77.72 Events.Item.GetTitle 3640
- 77.83 Events.Item.SetNotes 3653
- 77.84 Events.Item.SetTimeZone 3655
- 77.86 Events.Item.SetURL 3658
- 77.93 Events.NewEvent 3667
- 77.94 Events.NewReminder 3669
- 77.154 Events.SaveEvent 3737
- 77.155 Events.SaveReminder 3739
- 114.108 MenuItem.SetTitle 6087

### Example Databases

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Sync](#)

### **77.85.1 Blog Entries**

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.86 Events.Item.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.SetURL"; EKCalendarItem; URL )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

#### URL

The new URL.  
"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

### Examples

Set URL:

```
Set Variable [ $r; Value:MBS( "Events.Item.SetURL"; $reminder; Events Create Reminder::URL ) ]
```

### See also

- [77.8 Events.Alarm.GetURL](#) 3567
- [77.15 Events.Alarm.SetURL](#) 3577
- [77.73 Events.Item.GetURL](#) 3641
- [77.83 Events.Item.SetNotes](#) 3653
- [77.85 Events.Item.SetTitle](#) 3656
- [77.93 Events.NewEvent](#) 3667
- [77.94 Events.NewReminder](#) 3669
- [77.154 Events.SaveEvent](#) 3737
- [77.155 Events.SaveReminder](#) 3739

### Example Databases

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Sync](#)

### **77.86.1 Blog Entries**

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.87 Events.Item.creationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.creationDate"; EKCalendarItem )

### Parameters

#### **EKCalendarItem**

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns timestamp or error.

### Description

Can be empty for never saved calendar items.  
Created 10th March 2016, last changed 12nd March 2016.



## 77.88 Events.Item.lastModifiedDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Item.lastModifiedDate"; EKCalendarItem )

### Parameters

#### EKCalendarItem

The reference to the calendar item: an event or reminder.  
\$item

**Result** Returns timestamp or error.

### Description

Can be empty for never saved calendar items.

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 12nd March 2016.

## 77.89 Events.NewAlarm

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewAlarm" )

**Result** Returns reference number or error.

### Description

### Examples

Add alarm:

```
Set Variable [ $alarm; Value:MBS( "Events.NewAlarm" ) ]
If [ not IsEmpty(Events Create Reminder::AlarmSound) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetSound"; $alarm; Events Create Reminder::AlarmSound ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmLocationTitle) ]
Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-
LocationTitle ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-
LocationRadius ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-
LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProx-
imity ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.AddAlarm"; $reminder; $alarm ) ]
```

### See also

- 77.11 Events.Alarm.SetProximity 3570
- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.13 Events.Alarm.SetSound 3573
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.90 Events.NewAlarmWithAbsoluteDate 3664
- 77.91 Events.NewAlarmWithRelativeOffset 3665
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739
- 77.168 Events.StructuredLocation.SetGeoLocation 3756

77.89. *EVENTS.NEWALARM*

3663

- 77.169 Events.StructuredLocation.SetRadius

3757

### **Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.90 Events.NewAlarmWithAbsoluteDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewAlarmWithAbsoluteDate"; EndDate )

**Parameters****EndDate**

The timestamp the alarm should fire.

**Result** Returns reference number or error.

**Description****Examples**

Create a new alarm:

MBS( "Events.NewAlarmWithAbsoluteDate"; "03.04.2016 13:45:00" )

**See also**

- 77.2 Events.Alarm.GetAbsoluteDate 3561
- 77.9 Events.Alarm.SetAbsoluteDate 3568
- 77.89 Events.NewAlarm 3662

Created 10th March 2016, last changed 10th March 2016.

**77.91 Events.NewAlarmWithRelativeOffset**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewAlarmWithRelativeOffset"; Offset )

**Parameters****Offset**

The offset from the event start that the alarm should fire. in Seconds.

3\*60

**Result** Returns reference number or error.

**Description****Examples**

New alarm in 3 minutes:

MBS( "Events.NewAlarmWithRelativeOffset"; 3 \* 60 )

Add display alarm:

Set Variable [ \$alarm1; Value:MBS( "Events.NewAlarmWithRelativeOffset"; 0 ) ]

Set Variable [ \$r; Value:MBS("Events.Item.AddAlarm"; \$c; \$alarm1) ]

Add alarm with sound 15 minutes before event:

Set Variable [ \$alarm2; Value:MBS( "Events.NewAlarmWithRelativeOffset"; -15\*60 ) ]

Set Variable [ \$r; Value:MBS( "Events.Alarm.SetSound"; \$alarm2; "Submarine" ) ]

Set Variable [ \$r; Value:MBS("Events.Item.AddAlarm"; \$c; \$alarm2) ]

**See also**

- 77.5 Events.Alarm.GetRelativeOffset 3564
- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.13 Events.Alarm.SetSound 3573
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662

Created 10th March 2016, last changed 24th March 2016.

## 77.92 Events.NewCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewCalendar"; entityType )

### Parameters

#### entityType

The entity type that this calendar may support. Event or Reminder  
"Event"

**Result** Returns calendar reference number or error.

### Description

You can only create calendars that accept either reminders or events via our API. However, other servers might allow mixing the two (though it is not common).

### See also

- 77.35 Events.Calendars 3599
- 77.94 Events.NewReminder 3669
- 77.149 Events.RemoveCalendar 3732
- 77.153 Events.SaveCalendar 3736

Created 10th March 2016, last changed 12nd March 2016.

**77.93 Events.NewEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewEvent" )

**Result** Returns event ID or error.

**Description****Examples**

Create event:

```
Set Variable [ $c; Value:MBS("Events.NewEvent") ]
Set Variable [ $r; Value:MBS("Events.Item.SetTitle"; $c; CalendarTest::ItemTitle) ]
Set Variable [ $r; Value:MBS("Events.Item.SetNotes"; $c; CalendarTest::ItemNotes) ]
Set Variable [ $r; Value:MBS("Events.Item.SetURL"; $c; CalendarTest::ItemURL) ]
Set Variable [ $r; Value:MBS("Events.Item.SetLocation"; $c;CalendarTest::ItemLocation) ]
Set Variable [ $r; Value:MBS("Events.Event.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
Set Variable [ $r; Value:MBS("Events.Event.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
Set Variable [ $r; Value:MBS("Events.Event.SetAllDay"; $c;CalendarTest::ItemAllDay) ]
Set Variable [ $r; Value:MBS("Events.Event.SetAvailability"; $c; "busy") ]
Set Variable [ $r; Value:MBS("Events.Item.SetCalendar"; $c; CalendarTest::CalendarUID) ]
Set Variable [ $r; Value:MBS("Events.SaveEvent"; $c; "this"; 1 ) ]
Set Field [ CalendarTest::ItemUID; MBS("Events.Item.CalendarItemIdentifier"; $c) ]
```

**See also**

- 77.49 Events.Event.SetAllDay 3613
- 77.50 Events.Event.SetAvailability 3614
- 77.52 Events.Event.SetStartDate 3617
- 77.66 Events.Item.CalendarItemIdentifier 3634
- 77.81 Events.Item.SetCalendar 3649
- 77.82 Events.Item.SetLocation 3651
- 77.83 Events.Item.SetNotes 3653
- 77.85 Events.Item.SetTitle 3656
- 77.154 Events.SaveEvent 3737
- 84.17 FSEvents.NextEvent 4282

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Sync](#)

### 77.93.1 Blog Entries

- [MBS FileMaker iOS SDK Extension 0.2](#)
- [MBS FileMaker iOS SDK Extension 0.1](#)
- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 24th March 2016.



**77.94 Events.NewReminder**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.NewReminder" )

**Result** Returns reminder ID or error.

**Description****Examples**

Create Reminder:

```

Set Variable [ $reminder; Value:MBS( "Events.NewReminder" ) ]
Set Variable [ $calendar; Value:Events Create Reminder::Calendar ]
If [ IsEmpty(Events Create Reminder::Calendar) ]
Set Variable [ $calendar; Value:MBS( "Events.defaultCalendarForNewReminders" ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.SetCalendar"; $reminder; $calendar ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetLocation"; $reminder; Events Create Reminder::Location ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetTitle"; $reminder; Events Create Reminder::Title ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetURL"; $reminder; Events Create Reminder::URL ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetNotes"; $reminder; Events Create Reminder::Notes ) ]
If [ IsEmpty(Events Create Reminder::TimeZone) ]
# we don't set it
Else
Set Variable [ $r; Value:MBS( "Events.Item.SetTimezone"; $reminder; Events Create Reminder::TimeZone
) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.SetNotes"; $reminder; Events Create Reminder::Notes ) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetPriority"; $reminder; Events Create Reminder::Priority
) ]
If [ not IsEmpty(Events Create Reminder::StartDate) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetStartDate"; $reminder; Events Create Reminder::Start-
Date ) ]
End If
If [ not IsEmpty(Events Create Reminder::DueDate) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetDueDate"; $reminder; Events Create Reminder::Due-
Date ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmSound) or not IsEmpty(Events Create Reminder::Alarm-
LocationTitle) or not IsEmpty(Events Create Reminder::AlarmLocationGeoLat) ]
Set Variable [ $alarm; Value:MBS( "Events.NewAlarm" ) ]
If [ not IsEmpty(Events Create Reminder::AlarmSound) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetSound"; $alarm; Events Create Reminder::AlarmSound ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmLocationTitle) ]

```

```

Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-
LocationTitle ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-
LocationRadius ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-
LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProx-
imity ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.AddAlarm"; $reminder; $alarm ) ]
End If
Set Variable [ $r; Value:MBS( "Events.SaveReminder"; $reminder ;1 ) ]
Show Custom Dialog [ "Saved Reminder"; $r ]

```

**See also**

- 77.84 Events.Item.SetTimeZone 3655
- 77.86 Events.Item.SetURL 3658
- 77.89 Events.NewAlarm 3662
- 77.92 Events.NewCalendar 3666
- 77.143 Events.Reminder.SetDueDate 3721
- 77.145 Events.Reminder.SetPriority 3725
- 77.146 Events.Reminder.SetStartDate 3727
- 77.151 Events.RemoveReminder 3734
- 77.155 Events.SaveReminder 3739
- 77.168 Events.StructuredLocation.SetGeoLocation 3756

**Example Databases**

- [Mac and iOS/Events/Events Create Reminder](#)

**77.94.1 Blog Entries**

- [MBS FileMaker iOS SDK Extension 0.2](#)
- [MBS FileMaker iOS SDK Extension 0.1](#)

Created 10th March 2016, last changed 13th March 2016.

**77.95 Events.Object.HasChanges**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Object.HasChanges"; EKObject )

**Parameters****EKObject**

The reference to the object. This can be an alarm, source, participant, structured location, recurrence rule, calendar or calendar item.

\$item

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if this object or any sub-object (alarm, etc.) has uncommitted changes.

Created 10th March 2016, last changed 13th March 2016.

## 77.96 Events.Object.IsNew

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Object.IsNew"; EKObject )

### Parameters

#### EKObject

The reference to the object. This can be an alarm, source, participant, structured location, recurrence rule, calendar or calendar item.

\$item

**Result** Returns 1, 0 or error.

### Description

#### Examples

Check if an alarm is new:

MBS( "Events.Object.IsNew"; "56001" )

### See also

- 77.98 Events.Object.Reset

3674

Created 10th March 2016, last changed 13th March 2016.

**77.97 Events.Object.Refresh**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Object.Refresh"; EKObject )

**Parameters****EKObject**

The reference to the object. This can be an alarm, source, participant, structured location, recurrence rule, calendar or calendar item.

\$item

**Result** Returns 1, 0 or error.

**Description**

Determines if the object is still valid (i.e. it still exists in the database), and unloads all properties that have not been modified. If this ever returns 0, it indicates the record was deleted and this instance should be discarded and no longer referenced.

Returns 1 if still valid.

**Examples**

Refresh an object:

MBS( "Events.Object.Refresh"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

**See also**

- 77.48 Events.Event.Refresh 3612
- 77.98 Events.Object.Reset 3674
- 77.157 Events.SetNotification 3743
- 77.158 Events.SetNotificationEvaluate 3745

Created 10th March 2016, last changed 13th March 2016.

## 77.98 Events.Object.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Object.Reset"; EKObject )

### Parameters

#### EKObject

The reference to the object. This can be an alarm, source, participant, structured location, recurrence rule, calendar or calendar item.

\$item

**Result** Returns OK or error.

### Description

If this object is not new, this method will unload all loaded properties and clear any dirty state

#### See also

- 77.96 Events.Object.IsNew 3672
- 77.97 Events.Object.Refresh 3673

Created 10th March 2016, last changed 13th March 2016.

**77.99 Events.Object.Rollback**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Object.Rollback"; EKObject )

**Parameters****EKObject**

The reference to the object. This can be an alarm, source, participant, structured location, recurrence rule, calendar or calendar item.

\$item

**Result** Returns OK or error.

**Description**

If this object is not new, this method will unload dirty state only.  
Created 10th March 2016, last changed 13th March 2016.

**77.100 Events.Participant.GetName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.GetName"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns text or error.

**Description****See also**

- 77.101 Events.Participant.GetStatus 3677
- 77.103 Events.Participant.Name 3679
- 77.104 Events.Participant.Person 3680
- 77.105 Events.Participant.Role 3681
- 77.106 Events.Participant.Status 3682
- 77.107 Events.Participant.Type 3683

Created 10th March 2016, last changed 13th March 2016.



**77.101 Events.Participant.GetStatus**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.GetStatus"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns value or error.

**Description**

Can be Unknown, Pending, Accepted, Declined, Tentative, Delegated, Completed or InProcess.

**See also**

- 77.100 Events.Participant.GetName 3676
- 77.106 Events.Participant.Status 3682

Created 10th March 2016, last changed 13th March 2016.

## 77.102 Events.Participant.IsCurrentUser

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.IsCurrentUser"; EKParticipant )

### Parameters

#### EKParticipant

The reference to the participant.

\$Participant

**Result** Returns 1, 0 or error.

### Description

A boolean indicating whether this participant represents the owner of this account.

Returns 1 if true or 0 if not.

Created 10th March 2016, last changed 13th March 2016.

**77.103 Events.Participant.Name**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.Name"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns name or error.

**Description****See also**

- 77.100 Events.Participant.GetName 3676
- 77.104 Events.Participant.Person 3680
- 77.105 Events.Participant.Role 3681
- 77.106 Events.Participant.Status 3682
- 77.107 Events.Participant.Type 3683
- 77.108 Events.Participant.URL 3684

**77.103.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.104 Events.Participant.Person

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.Person"; EKParticipant )

### Parameters

#### EKParticipant

The reference to the participant.

\$Participant

**Result** Returns person identifier or error.

### Description

This method returns the ABPerson that represents this participant, if a match can be found based on email address in the shared address book passed. If we cannot find the participant, empty result is returned.

### See also

- 77.100 Events.Participant.GetName 3676
- 77.103 Events.Participant.Name 3679
- 77.105 Events.Participant.Role 3681
- 77.106 Events.Participant.Status 3682
- 77.107 Events.Participant.Type 3683
- 77.108 Events.Participant.URL 3684

Created 10th March 2016, last changed 13th March 2016.

**77.105 Events.Participant.Role**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.Role"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns role or error.

**Description**

Values include Required, Optional, Chair, NonParticipant or Unknown.

**See also**

- 77.100 Events.Participant.GetName 3676
- 77.103 Events.Participant.Name 3679
- 77.104 Events.Participant.Person 3680
- 77.106 Events.Participant.Status 3682
- 77.107 Events.Participant.Type 3683
- 77.108 Events.Participant.URL 3684

Created 10th March 2016, last changed 13th March 2016.

**77.106 Events.Participant.Status**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.Status"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns value or error.

**Description**

Possible status values are Unknown, Pending, Accepted, Declined, Tentative, Delegated, Completed and InProcess.

**See also**

- 77.100 Events.Participant.GetName 3676
- 77.101 Events.Participant.GetStatus 3677
- 77.103 Events.Participant.Name 3679
- 77.104 Events.Participant.Person 3680
- 77.105 Events.Participant.Role 3681
- 77.107 Events.Participant.Type 3683
- 77.108 Events.Participant.URL 3684

Created 10th March 2016, last changed 13th March 2016.

**77.107 Events.Participant.Type**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.Type"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns value or error.

**Description**

Can be Person, Room, Resource, Group or Unknown.

**See also**

- 77.100 Events.Participant.GetName 3676
- 77.103 Events.Participant.Name 3679
- 77.104 Events.Participant.Person 3680
- 77.105 Events.Participant.Role 3681
- 77.106 Events.Participant.Status 3682
- 77.108 Events.Participant.URL 3684

Created 10th March 2016, last changed 13th March 2016.

**77.108 Events.Participant.URL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Participant.URL"; EKParticipant )

**Parameters****EKParticipant**

The reference to the participant.

\$Participant

**Result** Returns URL or error.

**Description****See also**

- 77.103 Events.Participant.Name 3679
- 77.104 Events.Participant.Person 3680
- 77.105 Events.Participant.Role 3681
- 77.106 Events.Participant.Status 3682
- 77.107 Events.Participant.Type 3683

Created 10th March 2016, last changed 13th March 2016.



**77.109 Events.RecurrenceDayOfWeek.Copy**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceDayOfWeek.Copy"; EKRecurrenceDayOfWeek )

**Parameters****EKRecurrenceDayOfWeek**

The reference to the recurrence day of week.

\$RecurrenceDayOfWeek

**Result** Returns new identifier or error.

**Description**

You can create a copy to use the same day of week setting with a new recurrence rule.

Created 10th March 2016, last changed 13th March 2016.

## 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceDayOfWeek.DayOfTheWeek"; EKRecurrenceDayOfWeek )

### Parameters

#### EKRecurrenceDayOfWeek

The reference to the recurrence day of week.

\$RecurrenceDayOfWeek

**Result** Returns number or error.

### Description

#### See also

- 77.111 Events.RecurrenceDayOfWeek.NewWithDayOfWeek 3687
- 77.112 Events.RecurrenceDayOfWeek.WeekNumber 3688
- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.124 Events.RecurrenceRule.FirstDayOfTheWeek 3700

Created 10th March 2016, last changed 13th March 2016.

**77.111 Events.RecurrenceDayOfWeek.NewWithDayOfWeek**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceDayOfWeek.NewWithDayOfWeek"; dayOfTheWeek { ; WeekNumber } )

**Parameters****dayOfTheWeek**

The day of the week.

1

**WeekNumber**

Optional

The number of the week.

5

**Result** Returns day of week reference ID or error.

**Description**

EKRecurrenceDayOfWeek specifies either a simple day of the week, or the nth instance of a particular day of the week, such as the third Tuesday of every month. The week number is only valid when used with monthly or yearly recurrences, since it would be otherwise meaningless.

Valid values for dayOfTheWeek are integers 1-7, which correspond to days of the week with Sunday = 1. Valid values for weekNumber portion are (+/-)1-53, where a negative value indicates a value from the end of the range. For example, in a yearly event -1 means last week of the year. -1 in a Monthly recurrence indicates the last week of the month.

The value 0 also indicates the weekNumber is irrelevant (every Sunday, etc.).

Day-of-week weekNumber values that are out of bounds for the recurrence type will result in an exception when trying to initialize the recurrence. In particular, weekNumber must be zero when passing EKRecurrenceDayOfWeek objects to initialize a weekly recurrence.

**Examples**

Pick Sunday:

MBS( "Events.RecurrenceDayOfWeek.NewWithDayOfWeek"; 1)

**See also**

- 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek 3686
- 77.129 Events.RecurrenceRule.NewWithFrequency 3705

Created 10th March 2016, last changed 14th March 2017.

## 77.112 Events.RecurrenceDayOfWeek.WeekNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceDayOfWeek.WeekNumber"; EKRecurrenceDayOfWeek )

### Parameters

#### EKRecurrenceDayOfWeek

The reference to the recurrence day of week.

\$RecurrenceDayOfWeek

**Result** Returns number or error.

### Description

#### See also

- 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek

3686

Created 10th March 2016, last changed 13th March 2016.

**77.113 Events.RecurrenceEnd.Copy**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceEnd.Copy"; EKRecurrenceEnd )

**Parameters****EKRecurrenceEnd**

The reference to the recurrence end.

\$RecurrenceEnd

**Result** Returns recurrence end ID or error.

**Description**

You can make a copy to assign it to a new event.

**See also**

- 77.114 Events.RecurrenceEnd.EndDate 3690
- 77.119 Events.RecurrenceRule.Copy 3695

Created 10th March 2016, last changed 13th March 2016.

**77.114 Events.RecurrenceEnd.EndDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceEnd.EndDate"; EKRecurrenceEnd )

**Parameters****EKRecurrenceEnd**

The reference to the recurrence end.

\$RecurrenceEnd

**Result** Returns value or error.

**Description**

The end date of this recurrence, or empty if it's count-based.

**See also**

- 77.113 Events.RecurrenceEnd.Copy 3689
- 77.115 Events.RecurrenceEnd.NewWithEndDate 3691

Created 10th March 2016, last changed 13th March 2016.

**77.115 Events.RecurrenceEnd.NewWithEndDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceEnd.NewWithEndDate"; EndDate )

**Parameters****EndDate**

The new end date as timestamp or date.

Get(CurrentHostTimeStamp) + 3600

**Result** Returns recurrence end ID or error.

**Description**

EKRecurrenceEnd is an attribute of EKRecurrenceRule that defines how long the recurrence is scheduled to repeat. The recurrence can be defined either with a number that indicates the total number times it repeats, or with a date, after which it no longer repeats. An event which is set to never end should have its EKRecurrenceEnd set to empty. If the end of the pattern is defined with a date, the client must pass a valid date. If the end of the pattern is defined as terms of a number of occurrences, the occurrenceCount passed to the initializer must be positive, it cannot be 0.

**See also**

- 77.114 Events.RecurrenceEnd.EndDate

3690

Created 10th March 2016, last changed 13th March 2016.

## 77.116 Events.RecurrenceEnd.NewWithOccurrenceCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceEnd.NewWithOccurrenceCount"; Count )

### Parameters

#### Count

The new occurrence count.

5

**Result** Returns recurrence end ID or error.

### Description

EKRecurrenceEnd is an attribute of EKRecurrenceRule that defines how long the recurrence is scheduled to repeat. The recurrence can be defined either with a number that indicates the total number times it repeats, or with a date, after which it no longer repeats. An event which is set to never end should have its EKRecurrenceEnd set to empty. If the end of the pattern is defined with a date, the client must pass a valid date. If the end of the pattern is defined as terms of a number of occurrences, the occurrenceCount passed to the initializer must be positive, it cannot be 0.

### See also

- 77.117 Events.RecurrenceEnd.OccurrenceCount

3693

Created 10th March 2016, last changed 13th March 2016.



## 77.117 **Events.RecurrenceEnd.OccurrenceCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceEnd.OccurrenceCount"; EKRecurrenceEnd )

### Parameters

#### **EKRecurrenceEnd**

The reference to the recurrence end.

\$RecurrenceEnd

**Result** Returns value or error.

### Description

The maximum occurrence count, or 0 if it's date-based.

### See also

- 77.116 Events.RecurrenceEnd.NewWithOccurrenceCount

3692

Created 10th March 2016, last changed 13th March 2016.

**77.118 Events.RecurrenceRule.CalendarIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.CalendarIdentifier"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns identifier or error.

**Description**

Created 10th March 2016, last changed 13th March 2016.

## 77.119 Events.RecurrenceRule.Copy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.Copy"; EKRecurrenceRule )

### Parameters

#### **EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns recurrence rule ID or error.

### Description

You can make a copy to assign an existing rule to a new event.

### See also

- 77.113 Events.RecurrenceEnd.Copy

3689

Created 10th March 2016, last changed 13th March 2016.

## 77.120 Events.RecurrenceRule.DaysOfTheMonth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.DaysOfTheMonth"; EKRecurrenceRule )

### Parameters

#### EKRecurrenceRule

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

### Description

This property is valid for rules whose frequency is monthly, and that were initialized with one or more specific days of the month (not with a day of the week and week of the month). This property can be accessed as an list containing one or more numbers corresponding to the days of the month the event recurs. For all other rules, this property is empty. This property corresponds to BYMONTHDAY in the iCalendar specification.

#### See also

- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.122 Events.RecurrenceRule.DaysOfTheYear 3698
- 77.128 Events.RecurrenceRule.MonthsOfTheYear 3704
- 77.132 Events.RecurrenceRule.WeeksOfTheYear 3710

Created 10th March 2016, last changed 13th March 2016.

**77.121 Events.RecurrenceRule.DaysOfTheWeek**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.DaysOfTheWeek"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

**Description**

This property is valid for rules whose frequency is weekly, monthly, or yearly. This property can be accessed as an list containing one or more DayOfWeek objects corresponding to the days of the week the event recurs. For all other rules, this property is empty. The property corresponds to BYDAY in the iCalendar specification.

**See also**

- 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek 3686
- 77.120 Events.RecurrenceRule.DaysOfTheMonth 3696
- 77.122 Events.RecurrenceRule.DaysOfTheYear 3698
- 77.124 Events.RecurrenceRule.FirstDayOfTheWeek 3700
- 77.128 Events.RecurrenceRule.MonthsOfTheYear 3704
- 77.132 Events.RecurrenceRule.WeeksOfTheYear 3710

Created 10th March 2016, last changed 13th March 2016.

## 77.122 Events.RecurrenceRule.DaysOfTheYear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.DaysOfTheYear"; EKRecurrenceRule )

### Parameters

#### EKRecurrenceRule

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

### Description

This property is valid for rules whose frequency is yearly. This property can be accessed as an list containing one or more numbers corresponding to the days of the year the event recurs. For all other rules, this property is empty. This property corresponds to BYYEARDAY in the iCalendar specification. It should contain values between 1 to 366 or -366 to -1.

### See also

- 77.120 Events.RecurrenceRule.DaysOfTheMonth 3696
- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.124 Events.RecurrenceRule.FirstDayOfTheWeek 3700
- 77.128 Events.RecurrenceRule.MonthsOfTheYear 3704
- 77.132 Events.RecurrenceRule.WeeksOfTheYear 3710

Created 10th March 2016, last changed 13th March 2016.

**77.123 Events.RecurrenceRule.Description**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	7.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.Description"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns text or error.

**Description****Examples**

Query details for a recurrence rule:

MBS( "Events.RecurrenceRule.Description"; "56001" )

Example result: "FREQ=WEEKLY;INTERVAL=1;BYDAY=TU,WE"

**See also**

- 77.130 Events.RecurrenceRule.SetPositions

3708

**77.123.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 14th March 2017, last changed 14th March 2017.

## 77.124 Events.RecurrenceRule.FirstDayOfTheWeek

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.FirstDayOfTheWeek"; EKRecurrenceRule )

### Parameters

#### EKRecurrenceRule

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns number or error.

### Description

Recurrence patterns can specify which day of the week should be treated as the first day. Possible values for this property are integers 0 and 1-7, which correspond to days of the week with Sunday = 1. Zero indicates that the property is not set for this recurrence. The first day of the week only affects the way the recurrence is expanded for weekly recurrence patterns with an interval greater than 1. For those types of recurrence patterns, the Calendar framework will set firstDayOfTheWeek to be 2 (Monday). In all other cases, this property will be set to zero. The iCalendar spec stipulates that the default value is Monday if this property is not set.

### See also

- 77.110 Events.RecurrenceDayOfWeek.DayOfTheWeek 3686
- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.122 Events.RecurrenceRule.DaysOfTheYear 3698
- 77.128 Events.RecurrenceRule.MonthsOfTheYear 3704

Created 10th March 2016, last changed 13th March 2016.



**77.125 Events.RecurrenceRule.Frequency**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.Frequency"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns value or error.

**Description**

This property designates the unit of time used to describe the recurrence pattern.

Value is Daily, Weekly, Monthly or Yearly.

**See also**

- 77.129 Events.RecurrenceRule.NewWithFrequency

3705

Created 10th March 2016, last changed 13th March 2016.

## 77.126 Events.RecurrenceRule.GetRecurrenceEnd

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.GetRecurrenceEnd"; EKRecurrenceRule )

### Parameters

#### EKRecurrenceRule

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns recurrence end id, empty or error.

### Description

Can be empty.

### See also

- 77.131 Events.RecurrenceRule.SetRecurrenceEnd

3709

Created 10th March 2016, last changed 13th March 2016.

**77.127 Events.RecurrenceRule.Interval**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.Interval"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns number or error.

**Description**

The interval of a rules is an integer value which specifies how often the recurrence rule repeats over the unit of time described by the frequency. For example, if the frequency is weekly, then an interval of 1 means the pattern is repeated every week. A value of 2 indicates it is repeated every other week, 3 means every third week, and so on. The value must be a positive integer; 0 is not a valid value, and nil will be returned if the client attempts to initialize a rule with a negative or zero interval.

Created 10th March 2016, last changed 13th March 2016.

**77.128 Events.RecurrenceRule.MonthsOfTheYear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.MonthsOfTheYear"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

**Description**

This property is valid for rules whose frequency is yearly. This property can be accessed as an list containing one or more numbers corresponding to the months of the year the event recurs. For all other EKRecurrenceRules, this property is empty. This property corresponds to BYMONTH in the iCalendar specification.

**See also**

- 77.120 Events.RecurrenceRule.DaysOfTheMonth 3696
- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.122 Events.RecurrenceRule.DaysOfTheYear 3698
- 77.124 Events.RecurrenceRule.FirstDayOfTheWeek 3700
- 77.132 Events.RecurrenceRule.WeeksOfTheYear 3710

Created 10th March 2016, last changed 13th March 2016.

**77.129 Events.RecurrenceRule.NewWithFrequency**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.NewWithFrequency"; Frequency; Interval; EKRecurrenceEnd { ; daysOfTheWeek; daysOfTheMonth; monthsOfTheYear; weeksOfTheYear; daysOfTheYear; setPositions } )

**Parameters****Frequency**

The frequency. Can be Yearly, Monthly, Daily or Weekly.  
"Weekly"

**Interval**

The interval to use. Must be >0  
1

**EKRecurrenceEnd**

The reference to the recurrence end. Can be empty.  
\$RecurrenceEnd

**daysOfTheWeek**

Optional

The days of the week list. An list of EKRecurrenceDayOfWeek object identifiers. Valid for all recurrence types except daily. Ignored otherwise. Corresponds to the BYDAY value in the iCalendar specification. Version 7.1 accepts here also week days, not just RecurrenceDayOfWeek IDs returned from Events.RecurrenceDayOfWeek.NewWithDayOfWeek.

**daysOfTheMonth**

Optional

The days of the month. An list of numbers ( [ +/- ] 1 to 31). Negative numbers infer counting from the end of the month. For example, -1 means the last day of the month. Valid only for monthly recurrences. Ignored otherwise. Corresponds to the BYMONTHDAY value in the iCalendar specification.

**monthsOfTheYear**

Optional

The list of months in the year. An list of numbers (1 to 12). Valid only for yearly recurrences. Ignored otherwise. Corresponds to the BYMONTH value in the iCalendar specification.

**weeksOfTheYear**

Optional

The list of weeks in the year. An list of numbers ( [ +/- ] 1 to 53). Negative numbers infer counting from the end of the year. For example, -1 means the last week of the year. Valid only for yearly recurrences. Ignored otherwise. Corresponds to the BYWEEKNO value in the iCalendar specification.

**daysOfTheYear**

Optional

The days of the year. An list of numbers ( [ +/- ] 1 to 366). Negative numbers infer counting from the end of the year. For example, -1 means the last day of the year. Valid only for yearly recurrences. Ignored otherwise. Corresponds to the BYYEARDAY value in the iCalendar specification.

**setPositions**

Optional

The list of set positions. An list of numbers ( [ +/1 ] 1 to 366). Used at the end of recurrence computation to filter the list to the positions specified. Negative numbers indicate starting at the end, i.e. -1 indicates taking the last result of the set. Valid when daysOfTheWeek, daysOfTheMonth, monthsOfTheYear, weeksOfTheYear, or daysOfTheYear is passed. Ignored otherwise. Corresponds to the BYSETPOS value in the iCalendar specification.

**Result** Returns OK or error.

**Description**

This can be used to build any kind of recurrence rule. But be aware that certain combinations make no sense and will be ignored. For example, if you pass daysOfTheWeek for a daily recurrence, they will be ignored.

**Examples**

Create rule to repeat each year:

```
MBS( "Events.RecurrenceRule.NewWithFrequency"; "Yearly";"1" )
```

Create rule to repeat each week:

```
MBS( "Events.RecurrenceRule.NewWithFrequency"; "Weekly";"1"; "" ; MBS( "Events.RecurrenceDayOfWeek.NewWithDayOfWeek"; 1) )
```

Create event in summer only:

```
MBS( "Events.RecurrenceRule.NewWithFrequency";
"Monthly"; // by mont
"1"; // every
""; // no end date
"";
"";
"45678910" ) // only this months
```

Every week Tuesday and Wednesday:

```
MBS( "Events.RecurrenceRule.NewWithFrequency"; "Weekly";"1"; "" ; "34" )
```

**See also**

- 77.111 Events.RecurrenceDayOfWeek.NewWithDayOfWeek 3687
- 77.125 Events.RecurrenceRule.Frequency 3701

**77.129.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.2pr1](#)

77.129. *EVENTS.RECURRENCERULE.NEWWITHFREQUENCY*

3707

Created 10th March 2016, last changed 14th March 2017.

## 77.130 Events.RecurrenceRule.SetPositions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.SetPositions"; EKRecurrenceRule )

### Parameters

#### EKRecurrenceRule

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

### Description

This property is valid for rules which have a valid `daysOfTheWeek`, `daysOfTheMonth`, `weeksOfTheYear`, or `monthsOfTheYear` property. It allows you to specify a set of ordinal numbers to help choose which objects out of the set of selected events should be included. For example, setting the `daysOfTheWeek` to Monday-Friday and including a value of -1 in the array would indicate the last weekday in the recurrence range (month, year, etc). This value corresponds to the iCalendar BYSETPOS property.

#### See also

- 77.123 Events.RecurrenceRule.Description

3699

Created 10th March 2016, last changed 13th March 2016.



**77.131 Events.RecurrenceRule.SetRecurrenceEnd**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.SetRecurrenceEnd"; EKRecurrenceRule; EKRecurrenceEnd )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**EKRecurrenceEnd**

The reference to the recurrence end.

\$RecurrenceEnd

**Result** Returns OK or error.

**Description**

This property defines when the the repeating event is scheduled to end. The end date can be specified by a number of occurrences, or with an end date.

**See also**

- 77.126 Events.RecurrenceRule.GetRecurrenceEnd

3702

Created 10th March 2016, last changed 13th March 2016.

**77.132 Events.RecurrenceRule.WeeksOfTheYear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RecurrenceRule.WeeksOfTheYear"; EKRecurrenceRule )

**Parameters****EKRecurrenceRule**

The reference to the recurrence rule.

\$RecurrenceRule

**Result** Returns list or error.

**Description**

This property is valid for rules whose frequency is yearly. This property can be accessed as an list containing one or more numbers corresponding to the weeks of the year the event recurs. For all other rules, this property is empty. This property corresponds to BYWEEK in the iCalendar specification. It should contain integers from 1 to 53 or -1 to -53.

**See also**

- 77.120 Events.RecurrenceRule.DaysOfTheMonth 3696
- 77.121 Events.RecurrenceRule.DaysOfTheWeek 3697
- 77.122 Events.RecurrenceRule.DaysOfTheYear 3698
- 77.128 Events.RecurrenceRule.MonthsOfTheYear 3704

Created 10th March 2016, last changed 13th March 2016.

## 77.133 Events.RefreshSourcesIfNecessary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RefreshSourcesIfNecessary" )

**Result** Returns OK or error.

### Description

You can call this method to pull new data from remote sources. This only updates the event store's data. If you want to update your objects after refreshing the sources, you should call refresh on each of them afterwards. On iOS, this sync only occurs if deemed necessary. On OS X, this will occur regardless of necessity, but may change in a future release to match the iOS behavior. On WatchOS, initiating sync is not available. Sync will occur automatically with the paired iOS device.

### 77.133.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr1](#)

Created 10th March 2016, last changed 10th March 2016.

**77.134 Events.Reminder.GetCompleted**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetCompleted"; EKReminder )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if completed, else 0.

**Examples**

Query completed status for a given reminder:

MBS( "Events.Reminder.GetCompleted"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

**See also**

- 77.135 Events.Reminder.GetCompletionDate 3713
- 77.136 Events.Reminder.GetDueDate 3714
- 77.138 Events.Reminder.GetPriority 3716
- 77.139 Events.Reminder.GetStartDate 3717
- 77.141 Events.Reminder.SetCompleted 3719
- 77.142 Events.Reminder.SetCompletionDate 3720

Created 10th March 2016, last changed 13th March 2016.

**77.135 Events.Reminder.GetCompletionDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetCompletionDate"; EKReminder )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Result** Returns timestamp or error.

**Description**

Note, you may encounter the case where Events.Reminder.GetCompleted is 1, but completionDate is empty, if the reminder was completed using a different client.

**Examples**

Query completion date for a given reminder:

MBS( "Events.Reminder.GetCompletionDate"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

**See also**

- 77.134 Events.Reminder.GetCompleted 3712
- 77.141 Events.Reminder.SetCompleted 3719
- 77.142 Events.Reminder.SetCompletionDate 3720

Created 10th March 2016, last changed 13th March 2016.

**77.136 Events.Reminder.GetDueDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetDueDate"; EKReminder )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Result** Returns list or error.

**Description**

This may include a date and a time.

Returns a list with key=value list of the defined date components.

**Examples**

Query due date:

MBS( "Events.Reminder.GetDueDate"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31")

**See also**

- 77.134 Events.Reminder.GetCompleted 3712
- 77.138 Events.Reminder.GetPriority 3716
- 77.139 Events.Reminder.GetStartDate 3717
- 77.143 Events.Reminder.SetDueDate 3721
- 77.146 Events.Reminder.SetStartDate 3727

Created 10th March 2016, last changed 7th June 2019.

## 77.137 Events.Reminder.GetDueTimestamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	9.3	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetDueTimestamp"; EKReminder )

### Parameters

#### EKReminder

The reference to the reminder.

\$Reminder

**Result** Returns timestamp, empty or error.

### Description

Only if there is a real date entered and not just a few date components like 2nd Tuesday.

### See also

- [77.140 Events.Reminder.GetStartTimestamp](#)

3718

### 77.137.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)

Created 7th June 2019, last changed 7th June 2019.

**77.138 Events.Reminder.GetPriority**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetPriority"; EKReminder )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Result** Returns number or error.

**Description**

Priorities run from 1 (highest) to 9 (lowest). A priority of 0 means no priority.

**Examples**

Query priority:

MBS( "Events.Reminder.GetPriority"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31" )

**See also**

- 77.134 Events.Reminder.GetCompleted 3712
- 77.136 Events.Reminder.GetDueDate 3714
- 77.139 Events.Reminder.GetStartDate 3717
- 77.145 Events.Reminder.SetPriority 3725

Created 10th March 2016, last changed 13th March 2016.



**77.139 Events.Reminder.GetStartDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetStartDate"; EKReminder )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Result** Returns list or error.

**Description**

This may include a date and a time.

Returns a list with key=value list of the defined date components.

**See also**

- 77.44 Events.Event.GetStartDate 3608
- 77.134 Events.Reminder.GetCompleted 3712
- 77.136 Events.Reminder.GetDueDate 3714
- 77.138 Events.Reminder.GetPriority 3716
- 77.140 Events.Reminder.GetStartTimestamp 3718
- 77.143 Events.Reminder.SetDueDate 3721
- 77.146 Events.Reminder.SetStartDate 3727

Created 10th March 2016, last changed 7th June 2019.

## 77.140 Events.Reminder.GetStartTimestamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	9.3	Yes	No	No	No	Yes

MBS( "Events.Reminder.GetStartTimestamp"; EKReminder )

### Parameters

#### EKReminder

The reference to the reminder.

\$Reminder

**Result** Returns timestamp, empty or error.

### Description

Only if there is a real date entered and not just a few date components like 2nd Tuesday.

### See also

- [77.137 Events.Reminder.GetDueTimestamp](#) 3715
- [77.139 Events.Reminder.GetStartDate](#) 3717

### 77.140.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)

Created 7th June 2019, last changed 7th June 2019.

**77.141 Events.Reminder.SetCompleted**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetCompleted"; EKReminder; Completed )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Completed**

Pass 1 for completed or 0 if not.

1

**Result** Returns OK or error.

**Description**

Setting it to 1 will set the completed date to the current date.

Setting it to 0 will set the completed date to undefined.

**See also**

- 77.134 Events.Reminder.GetCompleted 3712
- 77.135 Events.Reminder.GetCompletionDate 3713
- 77.142 Events.Reminder.SetCompletionDate 3720
- 77.143 Events.Reminder.SetDueDate 3721
- 77.145 Events.Reminder.SetPriority 3725
- 77.146 Events.Reminder.SetStartDate 3727

Created 10th March 2016, last changed 13th March 2016.

**77.142 Events.Reminder.SetCompletionDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetCompletionDate"; EKReminder; CompletionDate )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**CompletionDate**

The completion timestamp.

Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description****See also**

- 77.134 Events.Reminder.GetCompleted 3712
- 77.135 Events.Reminder.GetCompletionDate 3713
- 77.141 Events.Reminder.SetCompleted 3719

Created 10th March 2016, last changed 13th March 2016.

**77.143 Events.Reminder.SetDueDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetDueDate"; EKReminder; DueDate )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**DueDate**

The new due date as timestamp.

Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description****Examples**

Set due date in an hour and save:

```
MBS( "Events.Reminder.SetStartDate"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31"; Get(CurrentHost-
TimeStamp) + 3600 ) &
```

```
MBS( "Events.SaveReminder"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31")
```

Set due date:

```
If [ not IsEmpty(Events Create Reminder::DueDate) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Reminder.SetDueDate"; $reminder; Events Create Reminder::Due-
Date ) ]
```

```
End If
```

**See also**

- 48.66 Calendar.Item.SetDueDate 1335
- 77.94 Events.NewReminder 3669
- 77.136 Events.Reminder.GetDueDate 3714
- 77.139 Events.Reminder.GetStartDate 3717
- 77.141 Events.Reminder.SetCompleted 3719
- 77.145 Events.Reminder.SetPriority 3725
- 77.146 Events.Reminder.SetStartDate 3727

- 77.155 Events.SaveReminder

### Example Databases

- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.144 Events.Reminder.SetDueDateComponents**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetDueDateComponents"; EKReminder { ; Year; Month; Day; Hour; Minute; Second; TimeZone } )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Year**

Optional

The year number. If missing or negative, no year is defined.

2016

**Month**

Optional

The month number. If missing or negative, no month is defined.

12

**Day**

Optional

The day number. If missing or negative, no day is defined.

12

**Hour**

Optional

The hour number. If missing or negative, no hour is defined.

16

**Minute**

Optional

The minute number. If missing or negative, no minute is defined.

12

**Second**

Optional

The second number. If missing or negative, no second is defined.

0

**TimeZone**

Optional

The time zone to use. Value of "System" sets to system time zone. Value of "Default" sets to default time zone.

"GMT"

**Result** Returns OK or error.

**Description**

The use of date components allows the due date and its time zone to be represented in a single property. A undefined time zone represents a floating date. Setting a date component without a hour, minute and second component will set `allDay` to true.

**See also**

- 77.147 `Events.Reminder.SetStartDateComponents` 3729

Created 10th March 2016, last changed 13th March 2016.



**77.145 Events.Reminder.SetPriority**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetPriority"; EKReminder; Priority )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Priority**

The new priority. Number from 0 to 9. Or texts high, medium, low or none.

"medium"

**Result** Returns OK or error.

**Description**

Priorities run from 1 (highest) to 9 (lowest). A priority of 0 means no priority.

Saving a reminder with any other priority will fail.

Per RFC 5545, priorities of 1-4 are considered "high," a priority of 5 is "medium," and priorities of 6-9 are "low."

**Examples**

Set priority:

```
Set Variable [ $r; Value:MBS( "Events.Reminder.SetPriority"; $reminder; Events Create Reminder::Priority ) ]
```

Set high priority:

```
MBS( "Events.Reminder.SetPriority"; $Reminder; "high" )
```

**See also**

- 77.94 Events.NewReminder 3669
- 77.138 Events.Reminder.GetPriority 3716
- 77.141 Events.Reminder.SetCompleted 3719
- 77.143 Events.Reminder.SetDueDate 3721
- 77.146 Events.Reminder.SetStartDate 3727
- 77.155 Events.SaveReminder 3739

**Example Databases**

- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.146 Events.Reminder.SetStartDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetStartDate"; EKReminder; StartDate )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**StartDate**

The new start date as timestamp.

Get(CurrentHostTimeStamp)

**Result** Returns OK or error.

**Description****Examples**

Set start date and save:

```
MBS( "Events.Reminder.SetStartDate"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31"; Get(CurrentHost-
TimeStamp) ) &
```

```
MBS( "Events.SaveReminder"; "3E802BF6-BE7C-42EA-BA4A-16CCF824AA31")
```

Set Start Date:

```
If [ not IsEmpty(Events Create Reminder::StartDate) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Reminder.SetStartDate"; $reminder; Events Create Reminder::Start-
Date ) ]
```

```
End If
```

**See also**

- 77.52 Events.Event.SetStartDate 3617
- 77.94 Events.NewReminder 3669
- 77.136 Events.Reminder.GetDueDate 3714
- 77.139 Events.Reminder.GetStartDate 3717
- 77.141 Events.Reminder.SetCompleted 3719
- 77.143 Events.Reminder.SetDueDate 3721
- 77.145 Events.Reminder.SetPriority 3725

- 77.155 Events.SaveReminder

### Example Databases

- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.147 Events.Reminder.SetStartDateComponents**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminder.SetStartDateComponents"; EKReminder { ; Year; Month; Day; Hour; Minute; Second; TimeZone } )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Year**

Optional

The year number. If missing or negative, no year is defined.

2016

**Month**

Optional

The month number. If missing or negative, no month is defined.

12

**Day**

Optional

The day number. If missing or negative, no day is defined.

12

**Hour**

Optional

The hour number. If missing or negative, no hour is defined.

16

**Minute**

Optional

The minute number. If missing or negative, no minute is defined.

12

**Second**

Optional

The second number. If missing or negative, no second is defined.

0

**TimeZone**

Optional

The time zone to use. Value of "System" sets to system time zone. Value of "Default" sets to default time zone.

"GMT"

**Result** Returns OK or error.

**Description**

The use of date components allows the start date and its time zone to be represented in a single property. A undefined time zone represents a floating date. Setting a date component without a hour, minute and second component will set `allDay` to true.

**See also**

- 77.144 `Events.Reminder.SetDueDateComponents` 3723

Created 10th March 2016, last changed 13th March 2016.

## 77.148 Events.Reminders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reminders" { ; Calendars } )

### Parameters

#### Calendars

Optional

The identifier for the calendar you want to search. Leave empty to search all.

**Result** Returns list of reminder identifiers or error.

### Description

You can pass nothing for calendars to fetch from all available calendars.

### Examples

Query all reminders from all calendars:

MBS( "Events.Reminders" )

### See also

- [77.94 Events.NewReminder](#)

3669

### Example Databases

- [Mac and iOS/Events/Events Changes](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.149 Events.RemoveCalendar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RemoveCalendar"; EKCalendar { ; Commit } )

### Parameters

#### EKCalendar

The id of the calendar to query.

\$calendar

#### Commit

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

### Description

This function attempts to delete the given calendar from the calendar database. It returns OK if successful and error otherwise.

If the calendar supports multiple entity types (allowedEntityTypes), but the user has not granted you access to all those entity types, then we will delete all of the entity types for which you have access and remove that entity type from the allowedEntityTypes. For example: If a calendar supports both events and reminders, but you only have access to reminders, we will delete all the reminders and make the calendar only support events.

If you have access to all of its allowedEntityTypes, then it will delete the calendar and all of the events and reminders in the calendar.

### See also

- 48.89 Calendar.RemoveCalendar 1364
- 77.37 Events.Commit 3601
- 77.68 Events.Item.GetCalendar 3636
- 77.81 Events.Item.SetCalendar 3649
- 77.92 Events.NewCalendar 3666
- 77.151 Events.RemoveReminder 3734
- 77.153 Events.SaveCalendar 3736

Created 10th March 2016, last changed 10th March 2016.



**77.150 Events.RemoveEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RemoveEvent"; EKEvent; Span { ; Commit } )

**Parameters****EKEvent**

The reference to the event.

\$event

**Span**

The span to use. This event, or this and future events. Pass "This" or "Future" here.

"This"

**Commit**

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

**Description**

This function attempts to remove the event from the calendar database. It returns OK if successful and error otherwise. It's possible for this function to return failed. This occurs if the event wasn't ever added and didn't need removing.

After an event is removed, it is no longer tied to this calendar store, and all data in the event is cleared except for the eventIdentifier.

**Examples**

Remove event:

```
Set Variable [ $r; Value:MBS("Events.RemoveEvent"; CalendarTest::ItemUID; "this"; 1) ]
```

**See also**

- [77.37 Events.Commit](#) 3601
- [77.154 Events.SaveEvent](#) 3737
- [77.156 Events.SelectEvent](#) 3742

**Example Databases**

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 24th March 2016.

**77.151 Events.RemoveReminder**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.RemoveReminder"; EKReminder { ; Commit } )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Commit**

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

**Description**

This function attempts to remove the reminder from the event store database. It returns OK if successful and Failed otherwise.

After a reminder is removed, it is no longer tied to this event store.

**See also**

- 48.91 Calendar.RemoveReminder 1366
- 77.37 Events.Commit 3601
- 77.94 Events.NewReminder 3669
- 77.149 Events.RemoveCalendar 3732
- 77.155 Events.SaveReminder 3739

Created 10th March 2016, last changed 10th March 2016.

## 77.152 Events.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Reset" )

**Result** Returns OK or error.

### Description

You can use this method to forget ALL changes made to the event store (all additions, all fetched objects, etc.). It essentially is as if you released the store and then created a new one. It brings it back to its initial state. All objects ever created/fetched, etc. using this store are no longer connected to it and are considered invalid.

### Example Databases

- [Mac and iOS/Events/Events Sync](#)

### 77.152.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr7](#)

Created 10th March 2016, last changed 10th March 2016.

**77.153 Events.SaveCalendar**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SaveCalendar"; EKCalendar { ; Commit } )

**Parameters****EKCalendar**

The id of the calendar to query.

\$calendar

**Commit**

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

**Description**

This functions attempts to save the given calendar to the calendar database. It returns OK if successful and an error otherwise.

**See also**

- 77.37 Events.Commit 3601
- 77.92 Events.NewCalendar 3666
- 77.149 Events.RemoveCalendar 3732
- 77.155 Events.SaveReminder 3739

Created 10th March 2016, last changed 10th March 2016.

## 77.154 Events.SaveEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SaveEvent"; EKEvent; Span { ; Commit } )

### Parameters

#### EKEvent

The reference to the event.

\$event

#### Span

The span to use. This event, or this and future events. Pass "This" or "Future" here.

"This"

#### Commit

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

### Description

This function attempts to save the event to the calendar database. It returns OK if successful and error otherwise. It's possible for this function to return failed. This occurs if the event wasn't dirty and didn't need saving.

After an event is successfully saved, it is also put into sync with the database, meaning that all fields you did not change will be updated to the latest values. If you save the event, but it was deleted by a different store/process, you will effectively recreate the event as a new event.

### Examples

Update dates:

```
Set Variable [ $c; Value:CalendarTest::ItemUID ]
Set Variable [ $r; Value:MBS("Events.Event.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
Set Variable [ $r; Value:MBS("Events.Event.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
Set Variable [ $r; Value:MBS("Events.SaveEvent"; $c; "this"; 1 ) ]
```

Create event:

```
Set Variable [ $c; Value:MBS("Events.NewEvent") ]
Set Variable [ $r; Value:MBS("Events.Item.SetTitle"; $c; CalendarTest::ItemTitle) ]
Set Variable [ $r; Value:MBS("Events.Item.SetNotes"; $c; CalendarTest::ItemNotes) ]
Set Variable [ $r; Value:MBS("Events.Item.SetURL"; $c; CalendarTest::ItemURL) ]
Set Variable [ $r; Value:MBS("Events.Item.SetLocation"; $c; CalendarTest::ItemLocation) ]
Set Variable [ $r; Value:MBS("Events.Event.SetStartDate"; $c; CalendarTest::ItemStartDate) ]
Set Variable [ $r; Value:MBS("Events.Event.SetEndDate"; $c; CalendarTest::ItemEndDate) ]
```

```

Set Variable [ $r; Value:MBS("Events.Event.SetAllDay"; $c;CalendarTest::ItemAllDay) ]
Set Variable [ $r; Value:MBS("Events.Event.SetAvailability"; $c; "busy") ]
Set Variable [ $r; Value:MBS("Events.Item.SetCalendar"; $c; CalendarTest::CalendarUID) ]
Set Variable [ $r; Value:MBS("Events.SaveEvent"; $c; "this"; 1 ) ]
Set Field [ CalendarTest::ItemUID; MBS("Events.Item.CalendarItemIdentifier"; $c) ]

```

**See also**

- [77.37 Events.Commit](#) 3601
- [77.49 Events.Event.SetAllDay](#) 3613
- [77.50 Events.Event.SetAvailability](#) 3614
- [77.51 Events.Event.SetEndDate](#) 3615
- [77.52 Events.Event.SetStartDate](#) 3617
- [77.81 Events.Item.SetCalendar](#) 3649
- [77.82 Events.Item.SetLocation](#) 3651
- [77.85 Events.Item.SetTitle](#) 3656
- [77.150 Events.RemoveEvent](#) 3733
- [77.156 Events.SelectEvent](#) 3742

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Sync](#)

**77.154.1 Blog Entries**

- [FileMaker and Calendar \(iCal\)](#)

Created 10th March 2016, last changed 24th March 2016.

**77.155 Events.SaveReminder**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SaveReminder"; EKReminder { ; Commit } )

**Parameters****EKReminder**

The reference to the reminder.

\$Reminder

**Commit**

Optional

Whether to commit. Pass 1 to commit or 0 to not commit. Default is 1. Pass 0 to batch changes together and commit with Events.Commit later.

1

**Result** Returns OK or error.

**Description**

This function attempts to save the reminder to the event store database. It returns OK if successful and error otherwise.

After a reminder is successfully saved, its fields are updated to the latest values in the database.

**Examples**

Create Reminder:

```

Set Variable [ $reminder; Value:MBS( "Events.NewReminder" ) ]
Set Variable [ $calendar; Value:Events Create Reminder::Calendar ]
If [ IsEmpty(Events Create Reminder::Calendar) ]
Set Variable [ $calendar; Value:MBS( "Events.defaultCalendarForNewReminders" ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.SetCalendar"; $reminder; $calendar ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetLocation"; $reminder; Events Create Reminder::Location ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetTitle"; $reminder; Events Create Reminder::Title ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetURL"; $reminder; Events Create Reminder::URL ) ]
Set Variable [ $r; Value:MBS( "Events.Item.SetNotes"; $reminder; Events Create Reminder::Notes ) ]
If [ IsEmpty(Events Create Reminder::TimeZone) ]
# we don't set it
Else
Set Variable [ $r; Value:MBS( "Events.Item.SetTimezone"; $reminder; Events Create Reminder::TimeZone
) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.SetNotes"; $reminder; Events Create Reminder::Notes ) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetPriority"; $reminder; Events Create Reminder::Priority
) ]

```

```

If [ not IsEmpty(Events Create Reminder::StartDate) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetStartDate"; $reminder; Events Create Reminder::Start-
Date ) ]
End If
If [ not IsEmpty(Events Create Reminder::DueDate) ]
Set Variable [ $r; Value:MBS( "Events.Reminder.SetDueDate"; $reminder; Events Create Reminder::Due-
Date ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmSound) or not IsEmpty(Events Create Reminder::Alarm-
LocationTitle) or not IsEmpty(Events Create Reminder::AlarmLocationGeoLat) ]
Set Variable [ $alarm; Value:MBS( "Events.NewAlarm" ) ]
If [ not IsEmpty(Events Create Reminder::AlarmSound) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetSound"; $alarm; Events Create Reminder::AlarmSound ) ]
End If
If [ not IsEmpty(Events Create Reminder::AlarmLocationTitle) ]
Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-
LocationTitle ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-
LocationRadius ) ]
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-
LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProx-
imity ) ]
End If
Set Variable [ $r; Value:MBS( "Events.Item.AddAlarm"; $reminder; $alarm ) ]
End If
Set Variable [ $r; Value:MBS( "Events.SaveReminder"; $reminder ;1 ) ]
Show Custom Dialog [ "Saved Reminder"; $r ]

```

**See also**

- 77.172 Events.defaultCalendarForNewReminders 3760
- 77.84 Events.Item.SetTimeZone 3655
- 77.86 Events.Item.SetURL 3658
- 77.89 Events.NewAlarm 3662
- 77.145 Events.Reminder.SetPriority 3725
- 77.146 Events.Reminder.SetStartDate 3727
- 77.151 Events.RemoveReminder 3734
- 77.153 Events.SaveCalendar 3736
- 77.167 Events.StructuredLocation.NewLocationWithTitle 3754
- 77.168 Events.StructuredLocation.SetGeoLocation 3756



**Example Databases**

- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.156 Events.SelectEvent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SelectEvent"; ID )

**Parameters****ID**

the ID for the calendar entry.

**Result** Returns ID or error.

**Description**

This function takes a calendar ID, either internal or external identifier for events or reminders and finds it. Returns the internal ID. Result is empty if nothing is found.

**Examples**

Select an event by ID:

MBS( "Events.SelectEvent"; "2D8DD2DD-766C-4E1D-A9FB-A36C6082CED2" )

**See also**

- 77.150 Events.RemoveEvent 3733
- 77.154 Events.SaveEvent 3737

Created 10th March 2016, last changed 30th May 2016.

**77.157 Events.SetNotification**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SetNotification"; FileName; ScriptName )

**Parameters****FileName**

The name of the FileMaker File that contains the script.

"test.fp7"

**ScriptName**

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

**Description**

This script is called whenever something in the calendar database changed.

Notification is sent out when the database is changed by either an external process, another event store in the same process, or by calling `saveEvent:` or `removeEvent:` on a store you are managing. When you receive this notification, you should consider all objects instances you have to be invalid. If you had selected events for a date range using `Events.Events`, etc. for display, you should release them and re-fetch the events again. If you have an event you are actively using (e.g. you are currently viewing details for it or editing it), you can call `Events.Object.Refresh` to try to revalidate it against the latest state of the database. If that method returns 1, you can continue to use the event, otherwise, you should release it and abandon what you were doing with it.

This script trigger will also be posted if access to events or reminders is changed by the user.

**Examples**

Installs notification script:

MBS( "Events.SetNotification"; "test.fmp12"; "MyScript" )

**See also**

- 77.36 `Events.ClearNotification` 3600
- 77.58 `Events.Events` 3624
- 77.97 `Events.Object.Refresh` 3673

**Example Databases**

- [Mac and iOS/Events/Events Changes](#)

Created 10th March 2016, last changed 29th March 2016.

**77.158 Events.SetNotificationEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SetNotificationEvaluate"; Expression )

**Parameters****Expression**

The expression to evaluate.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

**Description**

This expression is evaluated whenever something in the calendar database changed.

Notification is sent out when the database is changed by either an external process, another event store in the same process, or by calling `saveEvent:` or `removeEvent:` on a store you are managing. When you receive this notification, you should consider all objects instances you have to be invalid. If you had selected events for a date range using `Events.Events`, etc. for display, you should release them and re-fetch the events again. If you have an event you are actively using (e.g. you are currently viewing details for it or editing it), you can call `Events.Object.Refresh` to try to revalidate it against the latest state of the database. If that method returns 1, you can continue to use the event, otherwise, you should release it and abandon what you were doing with it.

This expression will also be evaluated if access to events or reminders is changed by the user.

**See also**

- [77.58 Events.Events](#) 3624
- [77.97 Events.Object.Refresh](#) 3673

**77.158.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

**77.159 Events.Source.Calendars**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Source.Calendars"; EKSource { ; Type } )

**Parameters****EKSource**

The reference to the source.

\$Source

**Type**

Optional

Which entity type you like to check: Event or Reminder. Default is event

"Event"

**Result** Returns list or error.

**Description**

Returns list of calendar identifiers.

**Examples**

Queries list of calendars:

MBS( "Events.Source.Calendars"; \$source )

Created 10th March 2016, last changed 10th March 2016.

**77.160 Events.Source.Title**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Source.Title"; EKSource )

**Parameters****EKSource**

The reference to the source.

\$Source

**Result** Returns text or error.

**Description****Examples**

Queries title of source:

MBS( "Events.Source.Title"; \$source )

Query source title for calendar:

MBS( "Events.Source.Title"; MBS( "Events.Calendar.GetSource"; "Firma" ) )

**See also**

- [77.23 Events.Calendar.GetSource](#) 3587
- [77.161 Events.Source.Type](#) 3748

**Example Databases**

- [Mac and iOS/Events/Events Sync](#)

Created 10th March 2016, last changed 22nd May 2016.

**77.161 Events.Source.Type**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Source.Type"; EKSource )

**Parameters****EKSource**

The reference to the source.

\$Source

**Result** Returns text or error.

**Description**

Can be Local, Exchange, CalDAV, MobileMe, Subscribed or Birthdays.

**Examples**

Queries type of source:

MBS( "Events.Source.Type"; \$source )

**See also**

- 77.17 Events.Alarm.Type 3579
- 77.160 Events.Source.Title 3747
- 77.162 Events.SourceWithType 3749

Created 10th March 2016, last changed 10th March 2016.



**77.162 Events.SourceWithType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.SourceWithType"; Type )

**Parameters****Type**

The type of source. Can be Birthdays, Local, MobileMe, Exchange, CalDAV or Subscribed.  
"Local"

**Result** Returns source identifier, empty or error.

**Description**

This is a convenient way to find local or iCloud source.

**Examples**

Query local source:

MBS( "Events.SourceWithType"; "Local" )

**See also**

- 77.161 Events.Source.Type

3748

Created 24th March 2016, last changed 24th March 2016.

## 77.163 Events.Sources

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.Sources" )

**Result** Returns list or error.

### Description

### Examples

Query list of sources:

MBS( "Events.Sources" )

Created 10th March 2016, last changed 10th March 2016.

## 77.164 **Events.StructuredLocation.Copy**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.Copy"; EKStructuredLocation )

### **Parameters**

#### **EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Result** Returns reference ID or error.

### **Description**

Returns a new reference ID for the copy.

### **See also**

- 77.170 Events.StructuredLocation.Title

3758

Created 10th March 2016, last changed 12nd March 2016.

## 77.165 Events.StructuredLocation.GetGeoLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.GetGeoLocation"; EKStructuredLocation )

### Parameters

#### EKStructuredLocation

The reference to the structured location.

\$StructuredLocation

**Result** Returns coordinates or error.

### Description

Returned as two numbers with a §between. First is latitude, second longitude.

### See also

- 77.166 Events.StructuredLocation.GetRadius 3753
- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757

Created 10th March 2016, last changed 12nd March 2016.

**77.166 Events.StructuredLocation.GetRadius**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.GetRadius"; EKStructuredLocation )

**Parameters****EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Result** Returns number or error.

**Description**

0 = use default, unit is meters

**See also**

- 77.165 Events.StructuredLocation.GetGeoLocation 3752
- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757
- 77.170 Events.StructuredLocation.Title 3758

Created 10th March 2016, last changed 12nd March 2016.

## 77.167 Events.StructuredLocation.NewLocationWithTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.NewLocationWithTitle"; Title )

### Parameters

#### Title

The new title of location.

"Hamburg, Germany"

**Result** Returns reference ID or error.

### Description

Returns reference ID which you can pass to Events.Event.SetStructuredLocation function.

### Examples

Create structured location for alarm:

```
Set Variable [ $l; Value:MBS( "Events.StructuredLocation.NewLocationWithTitle"; Events Create Reminder::Alarm-LocationTitle ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetRadius"; $l; Events Create Reminder::Alarm-LocationRadius ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.StructuredLocation.SetGeoLocation"; $l; Events Create Reminder::Alarm-LocationGeoLat; Events Create Reminder::AlarmLocationGeoLong ) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Alarm.SetStructuredLocation"; $alarm; $l) ]
```

```
Set Variable [ $r; Value:MBS( "Events.Alarm.SetProximity"; $alarm; Events Create Reminder::AlarmProximity ) ]
```

### See also

- 77.11 Events.Alarm.SetProximity 3570
- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.53 Events.Event.SetStructuredLocation 3619
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739
- 77.168 Events.StructuredLocation.SetGeoLocation 3756
- 77.169 Events.StructuredLocation.SetRadius 3757

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

## 77.168 Events.StructuredLocation.SetGeoLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.SetGeoLocation"; EKStructuredLocation; latitude; longitude )

### Parameters

#### **EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

#### **latitude**

The latitude value for the geo coordinate.

51.50939

#### **longitude**

The longitude value for the geo coordinate.

-0.11832

**Result** Returns OK or error.

### Description

#### See also

- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739
- 77.165 Events.StructuredLocation.GetGeoLocation 3752
- 77.166 Events.StructuredLocation.GetRadius 3753
- 77.167 Events.StructuredLocation.NewLocationWithTitle 3754
- 77.169 Events.StructuredLocation.SetRadius 3757

### Example Databases

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 12nd March 2016.



**77.169 Events.StructuredLocation.SetRadius**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.SetRadius"; EKStructuredLocation; Radius )

**Parameters****EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Radius**

The new radius value.

0

**Result** Returns OK or error.

**Description**

0 = use default, unit is meters

**See also**

- 77.12 Events.Alarm.SetRelativeOffset 3571
- 77.14 Events.Alarm.SetStructuredLocation 3575
- 77.61 Events.Item.AddAlarm 3627
- 77.89 Events.NewAlarm 3662
- 77.94 Events.NewReminder 3669
- 77.155 Events.SaveReminder 3739
- 77.165 Events.StructuredLocation.GetGeoLocation 3752
- 77.166 Events.StructuredLocation.GetRadius 3753
- 77.167 Events.StructuredLocation.NewLocationWithTitle 3754
- 77.168 Events.StructuredLocation.SetGeoLocation 3756

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 12nd March 2016.

**77.170 Events.StructuredLocation.Title**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.StructuredLocation.Title"; EKStructuredLocation )

**Parameters****EKStructuredLocation**

The reference to the structured location.

\$StructuredLocation

**Result** Returns text or error.

**Description****See also**

- 77.164 Events.StructuredLocation.Copy 3751
- 77.166 Events.StructuredLocation.GetRadius 3753
- 77.169 Events.StructuredLocation.SetRadius 3757

Created 10th March 2016, last changed 12nd March 2016.

**77.171 Events.defaultCalendarForNewEvents**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.defaultCalendarForNewEvents" )

**Result** Returns calendar identifier or error.

**Description****Examples**

Query name of default calendar:

MBS("Events.Calendar.GetTitle"; MBS( "Events.defaultCalendarForNewEvents" ))

**See also**

- 77.24 Events.Calendar.GetTitle 3588
- 77.172 Events.defaultCalendarForNewReminders 3760

**Example Databases**

- [Mac and iOS/Events/Events Create Event](#)

Created 10th March 2016, last changed 10th March 2016.

## 77.172 Events.defaultCalendarForNewReminders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.defaultCalendarForNewReminders" )

**Result** Returns calendar identifier or error.

### Description

### Examples

Query title of calendar for new reminders:

```
MBS("Events.Calendar.GetTitle"; MBS( "Events.defaultCalendarForNewReminders" ))
```

Get calendar:

```
Set Variable [ $calendar; Value:Events Create Reminder::Calendar ]
If [ IsEmpty(Events Create Reminder::Calendar) ]
Set Variable [ $calendar; Value:MBS( "Events.defaultCalendarForNewReminders" ) ]
End If
```

### See also

- [77.24 Events.Calendar.GetTitle](#) 3588
- [77.171 Events.defaultCalendarForNewEvents](#) 3759
- [77.94 Events.NewReminder](#) 3669
- [77.155 Events.SaveReminder](#) 3739

### Example Databases

- [Mac and iOS/Events/Events Create Reminder](#)

Created 10th March 2016, last changed 13th March 2016.

**77.173 Events.requestAccessToEntityType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
77 Events	6.2	Yes	No	No	No	Yes

MBS( "Events.requestAccessToEntityType"; Type )

**Parameters****Type**

Which entity type you like to request: Event or Reminder.  
"Event"

**Result** Returns Wait, OK or error.

**Description**

Users are able to grant or deny access to event and reminder data on a per-app basis. To request access to event and/or reminder data, call `Events.requestAccessToEntityType`. This will not block the app while the user is being asked to grant or deny access.

Until access has been granted for an entity type, the event store will not contain any calendars for that entity type, and any attempt to save will fail. The user will only be prompted the first time access is requested; any subsequent instantiations of `EKEventStore` will use the existing permissions.

You can later check status with `Events.AuthorizationStatusForEntityType`.

The function may return OK if access is granted directly or Wait if user will be asked.

**Examples**

Request access for reminder:

```
MBS( "Events.requestAccessToEntityType"; "Reminder" )
```

Query authorization:

```
Set Variable [ $r; Value:MBS("Events.AuthorizationStatusForEntityType"; "Reminder") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "We have a problem"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Else If [ $r = "NotDetermined" ]
Set Variable [ $r; Value:MBS( "Events.requestAccessToEntityType"; "Reminder" ) ]
If [ $r = "Wait" ]
# dialog is showing.
Else If [ $r = "OK" ]
Show Custom Dialog [ "Success"; "We are authorized and ready to go." ]
Else
Show Custom Dialog [ "We have a problem"; $r ]
End If
Else If [ $r = "Restricted" ]
Show Custom Dialog [ "Success"; "We are authorized for a restricted access and ready to go." ]
Else If [ $r = "Denied" ]
```

```
Show Custom Dialog [ "Problem"; "We are denied for calendar access. Please go to system preferences and enable us." ]
Else If [ $r = "Authorized" ]
Show Custom Dialog [ "Success"; "We are authorized and ready to go." ]
Else
Show Custom Dialog [ "We have a problem"; $r ]
End If
```

**See also**

- 77.18 Events.AuthorizationStatusForEntityType 3580
- 127.6 IsError 6374
- 167.57 Text.RemovePrefix 7982

**Example Databases**

- [Mac and iOS/Events/Events Changes](#)
- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)

**77.173.1 Blog Entries**

- [Calendar access in FileMaker 18](#)

Created 10th March 2016, last changed 13th March 2016.

# Chapter 78

## FileDialog

Show dialogs to select files or folders.

### 78.1 DocumentPicker.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Dismiss" )

**Result** Returns OK or error.

**Description**

Does nothing if dialog is not visible.

**See also**

- 78.5 DocumentPicker.Files

3767

Created 28th January 2019, last changed 28th January 2019.

## 78.2 DocumentPicker.Export

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Export"; Paths )

### Parameters

#### Paths

Native file path list for the documents to pass.

"/Containers/testApp/Documents/test.txt"

**Result** Returns OK or error.

### Description

The user selects an external destination. The document picker copies the document, leaving the original unchanged.

On success, we store the list of file paths and trigger script. Script is trigger with parameter "Pick" or "Cancel".

The file paths refer to new copies of the exported documents at the selected destination.

Warning: Function returns immediately and dialog shows after function returned asynchronously.

### See also

- 78.6 DocumentPicker.Import 3768
- 78.8 DocumentPicker.Move 3770
- 78.9 DocumentPicker.Open 3771

Created 28th January 2019, last changed 28th January 2019.



## 78.3 DocumentPicker.File

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.File"; Index )

### Parameters

#### Index

The index of the file to query.

0

**Result** Returns file path or error.

### Description

Pass index from 0 to DocumentPicker.FileCount-1.

Example path you may see for import:

```
"/Containers/Data/Application/2E993ED8-F5AA-4A18-877C-F0CB72485337/tmp/de.monkeybreadsoftware.test-Inbox/IMG_0005.JPG"
```

And for open without inbox:

```
"/Containers/Data/Application/2E993ED8-F5AA-4A18-877C-F0CB72485337/Documents/IMG_0005.JPG"
```

### See also

- [78.4 DocumentPicker.FileCount](#) 3766
- [78.5 DocumentPicker.Files](#) 3767
- [78.8 DocumentPicker.Move](#) 3770
- [78.9 DocumentPicker.Open](#) 3771

Created 28th January 2019, last changed 28th January 2019.

## 78.4 DocumentPicker.FileCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.FileCount" )

**Result** Returns number or error.

**Description**

**See also**

- 78.3 DocumentPicker.File 3765
- 78.5 DocumentPicker.Files 3767

Created 28th January 2019, last changed 28th January 2019.

## 78.5 DocumentPicker.Files

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Files" )

**Result** Returns list or error.

### Description

### See also

- [78.1 DocumentPicker.Dismiss](#) 3763
- [78.3 DocumentPicker.File](#) 3765
- [78.4 DocumentPicker.FileCount](#) 3766
- [78.8 DocumentPicker.Move](#) 3770
- [78.9 DocumentPicker.Open](#) 3771

### Example Databases

- [iOS/DocumentPicker iOS](#)

Created 28th January 2019, last changed 29th January 2019.

## 78.6 DocumentPicker.Import

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Import"; AllowedUTIs; allowsMultipleSelection )

### Parameters

#### AllowedUTIs

The list of allowed universal types.

"public.jpeg\$public.png"

#### allowsMultipleSelection

Whether to allow multiple files to be selected. Pass 1 to allow and 0 to disallow.

1

**Result** Returns OK or error.

### Description

The user selects an external document. The document picker copies the document, leaving the original unchanged.

On success, we store the list of file paths and trigger script. Script is trigger with parameter "Pick" or "Cancel".

The path list refers to a copy of the selected documents. These documents are temporary files. They remain available only until your application terminates. To keep a permanent copy, move these files to a permanent location inside your sandbox.

Warning: Function returns immediately and dialog shows after function returned asynchronously.

### See also

- [78.2 DocumentPicker.Export](#) 3764
- [78.8 DocumentPicker.Move](#) 3770
- [78.9 DocumentPicker.Open](#) 3771

### Example Databases

- [iOS/DocumentPicker iOS](#)

Created 28th January 2019, last changed 28th January 2019.

## 78.7 DocumentPicker.IsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.IsVisible" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible or 0 if not.

Created 28th January 2019, last changed 28th January 2019.

## 78.8 DocumentPicker.Move

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Move"; Paths )

### Parameters

#### Paths

Native file path list for the documents to pass.

"/Containers/testApp/Documents/test.txt"

**Result** Returns OK or error.

### Description

The user selects an external destination. The document picker moves the document; however, the user can still access the document as an external document, and the user can edit the document in place.

On success, we store the list of file paths and trigger script. Script is trigger with parameter "Pick" or "Cancel".

The path list refers to the documents' new locations.

Warning: Function returns immediately and dialog shows after function returned asynchronously.

### See also

- 78.2 DocumentPicker.Export 3764
- 78.3 DocumentPicker.File 3765
- 78.5 DocumentPicker.Files 3767
- 78.6 DocumentPicker.Import 3768
- 78.9 DocumentPicker.Open 3771

Created 28th January 2019, last changed 28th January 2019.

## 78.9 DocumentPicker.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.Open"; AllowedUTIs; allowsMultipleSelection )

### Parameters

#### AllowedUTIs

The list of allowed universal types.

"public.jpeg\$public.png"

#### allowsMultipleSelection

Whether to allow multiple files to be selected. Pass 1 to allow and 0 to disallow.

1

**Result** Returns OK or error.

### Description

The user selects an external document. The document picker provides access to the document, and the user can edit the document in place.

On success, we store the list of file paths and trigger script. Script is trigger with parameter "Pick" or "Cancel".

The paths list refers to the selected documents.

Warning: Function returns immediately and dialog shows after function returned asynchronously. For FileMaker database files, please use com.filemaker.doc.fmp12 as UTI or simply public.data.

### See also

- 78.2 DocumentPicker.Export 3764
- 78.3 DocumentPicker.File 3765
- 78.5 DocumentPicker.Files 3767
- 78.6 DocumentPicker.Import 3768
- 78.8 DocumentPicker.Move 3770

### Example Databases

- [iOS/DocumentPicker iOS](#)

Created 28th January 2019, last changed 22nd February 2019.

## 78.10 DocumentPicker.SetTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	9.1	No	No	No	No	Yes

MBS( "DocumentPicker.SetTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The file name of the script.

Get(FileName)

#### ScriptName

The script to trigger.

"FilesSelected"

**Result** Returns OK or error.

### Description

### Example Databases

- [iOS/DocumentPicker iOS](#)

Created 28th January 2019, last changed 28th January 2019.



## 78.11 FileDialog.GetAllowMulti

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetAllowMulti" )

**Result** Returns 0 or 1.

**Description**

**See also**

- 78.32 FileDialog.SetAllowMulti

3803

Created 18th August 2014, last changed 18th August 2014.

## 78.12 FileDialog.GetAllowsOtherFileTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	4.3	Yes	No	No	No	No

MBS( "FileDialog.GetAllowsOtherFileTypes" )

**Result** Returns value.

**Description**

**See also**

- 78.33 FileDialog.SetAllowsOtherFileTypes 3805

Created 18th August 2014, last changed 17th June 2018.

## 78.13 FileDialog.GetCanSelectHiddenExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	No	No	No	No

MBS( "FileDialog.GetCanSelectHiddenExtension" )

**Result** Returns 1 when the panel allows the user to hide or show extensions; otherwise, 0.

### Description

### See also

- 78.34 FileDialog.SetCanSelectHiddenExtension

3806

Created 18th August 2014, last changed 18th August 2014.

## 78.14 FileDialog.GetFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	4.3	Yes	Yes	No	No	No

MBS( "FileDialog.GetFilter"; Selector )

### Parameters

#### Selector

Which value to query. Can be MacFilter, WinFilter or WinLabels.  
"MacFilter"

**Result** Returns filter or error.

### Description

#### See also

- 78.19 FileDialog.GetPath 3781
- 78.35 FileDialog.SetFilter 3807

Created 18th August 2014, last changed 18th August 2014.

## 78.15 FileDialog.GetInitialDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetInitialDirectory" )

**Result** Returns path for initial directory.

### Description

Use Path.NativePathToFileMakerPath to convert to a FileMaker path if required.

### See also

- 78.36 FileDialog.SetInitialDirectory 3809
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.

## 78.16 FileDialog.GetMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetMessage" )

**Result** Returns the message text.

### Description

### See also

- 64.14 Dialog.GetMessage 2395
- 64.38 Dialog.SetMessage 2421
- 78.25 FileDialog.GetUseSheet 3789
- 78.37 FileDialog.SetMessage 3811

Created 18th August 2014, last changed 17th June 2018.

## 78.17 FileDialog.GetNameFieldLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetNameFieldLabel" )

**Result** Returns initial text for the name field.

### Description

### See also

- 78.38 FileDialog.SetNameFieldLabel

3813

Created 18th August 2014, last changed 24th May 2018.

## 78.18 FileDialog.GetNameFieldStringValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetNameFieldStringValue" )

**Result** Returns the text.

**Description**

**See also**

- [78.39 FileDialog.SetNameFieldStringValue](#) 3814

### 78.18.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.



## 78.19 FileDialog.GetPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetPath" { ; index } )

### Parameters

#### index

Optional

The index of the path.

0

**Result** Returns native path.

### Description

Use Path.NativePathToFileMakerPath to convert to a FileMaker path if required.

Please note that in sheet mode (FileDialog.SetUseSheet with 1), you need to wait for the trigger to be called before you can query paths.

### Examples

Export all containers to one folder:

```
# Ask for folder?
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; "Export folder?" ) ]
Set Variable [ $r; Value:MBS("FileDialog.SelectFolderDialog") ]
If [ $r = "OK" ]
# get path from dialog:
Set Variable [ $npath; Value:MBS( "FileDialog.GetPath"; 0 ) ]
# convert to FileMaker path for Export Field Contents
Set Variable [ $fpath; Value:MBS( "Path.NativePathToFilemakerPath"; $npath ) ]
# Loop over all records:
Go to Record/Request/Page [ First ]
Loop
# Export files from this record
# figure out file name
Set Variable [ $name; Value:GetAsText ( Container Batch Export::Test1 ) ]
Set Variable [ $name; Value:GetValue($name; 1) ]
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $name ) ]
Set Variable [ $dpath; Value:MBS( "Path.AddPathComponent"; $fpath; $name ) ]
Export Field Contents [ Container Batch Export::Test1; "$dpath" ]
# Next record
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
End If
```

Select folder in one expression:

```
Let( [
r = MBS("FileDialog.Reset");
r = MBS("FileDialog.SelectFolderDialog");
folder = If ( r = "OK" ; MBS("FileDialog.GetPath"; 0); "" )
] ; folder)
```

### See also

- [64.38 Dialog.SetMessage](#) 2421
- [78.14 FileDialog.GetFilter](#) 3776
- [78.20 FileDialog.GetPathCount](#) 3784
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.28 FileDialog.Reset](#) 3794
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.37 FileDialog.SetMessage](#) 3811
- [78.45 FileDialog.SetUseSheet](#) 3821
- [124.1 Path.AddPathComponent](#) 6243
- [124.7 Path.NativePathToFileMakerPath](#) 6255

### Example Databases

- [Containers/Container Batch Export](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/IMAP Email](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [DynaPDF/Merge PDFs](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Mac and iOS/Speech Recognition](#)
- [Win Only/Windows Player](#)
- [Zip/Show Zip File Content](#)

### **78.19.1 FileMaker Magazin**

- Ausgabe 4/2018, Seite 16
- Ausgabe 3/2012, Seite 31
- Ausgabe 3/2012, Seite 30

Created 18th August 2014, last changed 27th April 2019.

## 78.20 FileDialog.GetPathCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetPathCount" )

**Result** Returns number of available file paths.

### Description

If multiple selection is enabled, this value can be bigger than one.

If dialog was cancelled, this value is zero.

### See also

- [78.19 FileDialog.GetPath](#) 3781
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [CURL/Email/IMAP Email](#)
- [DynaPDF/PDF Library](#)
- [Files/FileDialog](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [SQL in FileMaker/ImageGallery](#)

### 78.20.1 FileMaker Magazin

- Ausgabe 4/2018, Seite 16
- Ausgabe 3/2012, Seite 30

Created 18th August 2014, last changed 18th August 2014.

## 78.21 FileDialog.GetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetPrompt" )

**Result** Returns the prompt text.

### Description

### See also

- 78.19 FileDialog.GetPath 3781
- 78.40 FileDialog.SetPrompt 3815
- 106.16 ListDialog.GetPrompt 5663
- 106.37 ListDialog.SetPrompt 5684

Created 18th August 2014, last changed 24th May 2018.

## 78.22 FileDialog.GetResolvesAliases

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetResolvesAliases" )

**Result** Returns 1 if alias files are resolved or 0 if not.

### Description

### See also

- 78.41 FileDialog.SetResolvesAliases

3817

Created 18th August 2014, last changed 18th August 2014.

## 78.23 FileDialog.GetShowHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetShowHidden" )

**Result** Returns 1 if hidden files are visible and 0 if not.

### Description

### See also

- 78.43 FileDialog.SetShowHidden

3819

Created 18th August 2014, last changed 18th August 2014.

## 78.24 FileDialog.GetTreatsFilePackagesAsDirectories

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	No	No	No	No

MBS( "FileDialog.GetTreatsFilePackagesAsDirectories" )

**Result** Returns 1 if enabled or 0 if disabled.

**Description**

**See also**

- 78.44 FileDialog.SetTreatsFilePackagesAsDirectories 3820

Created 18th August 2014, last changed 18th August 2014.



## 78.25 FileDialog.GetUseSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	8.5	Yes	No	No	No	No

MBS( "FileDialog.GetUseSheet" )

**Result** Returns 1, 0 or error.

### Description

### See also

- [78.16 FileDialog.GetMessage](#) 3778
- [78.45 FileDialog.SetUseSheet](#) 3821

### 78.25.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr7](#)

Created 9th November 2018, last changed 9th November 2018.

## 78.26 FileDialog.GetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.GetWindowTitle" )

**Result** Returns the title string.

### Description

### See also

- 64.26 Dialog.GetWindowTitle 2407
- 64.48 Dialog.SetWindowTitle 2433
- 78.46 FileDialog.SetWindowTitle 3822
- 106.21 ListDialog.GetWindowTitle 5668
- 106.42 ListDialog.SetWindowTitle 5689

Created 18th August 2014, last changed 18th August 2014.

## 78.27 FileDialog.OpenFileDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.OpenFileDialog" )

**Result** Returns "OK", "Cancel" or an error.

### Description

If dialog finishes well, you can query paths.

### Examples

Run Open Dialog:

```

Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetShowHidden"; FileDialog::ShowHidden) ]
Set Variable [ $r; Value:MBS("FileDialog.SetAllowMulti"; FileDialog::AllowMulti) ]
Set Variable [ $r; Value:MBS("FileDialog.SetResolvesAliases"; FileDialog::ResolvesAliases) ]
Set Variable [ $r; Value:MBS("FileDialog.SetTreatsFilePackagesAsDirectories"; FileDialog::TreatsFilePack-
agesAsDirectories) ]
Set Variable [ $r; Value:MBS("FileDialog.SetCanSelectHiddenExtension"; FileDialog::CanSelectHiddenEx-
tension) ]
Set Variable [ $r; Value:MBS("FileDialog.SetWindowTitle"; FileDialog::WindowTitle) ]
Set Variable [ $r; Value:MBS("FileDialog.SetInitialDirectory"; FileDialog::InitialDirectory) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldLabel"; FileDialog::NameFieldLabel) ]
Set Variable [ $r; Value:MBS("FileDialog.SetPrompt"; FileDialog::Prompt) ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; FileDialog::Message) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldStringValue"; FileDialog::NameFieldStringValue) ]
Set Variable [ $r; Value:MBS("FileDialog.OpenFileDialog") ]
If [ $r = "OK" ]
Set Variable [ $index; Value:0 ]
Set Variable [ $count; Value:MBS("FileDialog.GetPathCount") ]
Loop
New Record/Request
Set Field [ FileDialog::Path; MBS("FileDialog.GetPath"; $index) ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If

```

Select a video file:

```

Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; "Please select video:") ]
Set Variable [ $r; Value:MBS( "FileDialog.SetFilter"; "public.video" ) ]

```

```

Set Variable [ $r; Value:MBS("FileDialog.OpenFileDialog") ]
If [ $r = "OK" ]
Set Field [ AVAsset Export Session::Input File Path; MBS("FileDialog.GetPath"; 0) ]
End If

```

**See also**

- [78.28 FileDialog.Reset](#) 3794
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.34 FileDialog.SetCanSelectHiddenExtension](#) 3806
- [78.35 FileDialog.SetFilter](#) 3807
- [78.36 FileDialog.SetInitialDirectory](#) 3809
- [78.37 FileDialog.SetMessage](#) 3811
- [78.40 FileDialog.SetPrompt](#) 3815
- [78.43 FileDialog.SetShowHidden](#) 3819
- [78.44 FileDialog.SetTreatsFilePackagesAsDirectories](#) 3820
- [78.46 FileDialog.SetWindowTitle](#) 3822

**Example Databases**

- [DynaPDF/Merge PDFs](#)
- [DynaPDF/PDF Library](#)
- [Files/Audio File Tags](#)
- [Files/FileDialog](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac and iOS/Speech Recognition](#)
- [Mac only/Movies/AVAsset Export Session](#)
- [Win Only/Send Email via Email Application](#)
- [Win Only/Windows Player](#)
- [Zip/Show Zip File Content](#)

**78.27.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.4pr7](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Open Dialog upgraded](#)

### **78.27.2 FileMaker Magazin**

- Ausgabe 4/2018, Seite 16
- Ausgabe 3/2012, Seite 30

Created 18th August 2014, last changed 27th February 2017.

## 78.28 FileDialog.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.Reset" )

**Result** Returns OK.

### Description

Clears all text values and sets boolean values to false except ResolvesAliases which is set to true.

### Examples

Resets file dialog options:

```
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
```

### See also

- [64.27 Dialog.Reset](#) 2408
- [78.19 FileDialog.GetPath](#) 3781
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801
- [106.25 ListDialog.Reset](#) 5672

### Example Databases

- [Containers/Container Batch Export](#)
- [DynaPDF/Merge PDFs](#)
- [Files/Audio File Tags](#)
- [Files/FileDialog](#)
- [Mac and iOS/Speech Recognition](#)
- [Mac only/Icon and QuickLook/SetIcon](#)
- [Mac only/Movies/AVAsset Export Session](#)
- [Win Only/Send Email via Email Application](#)
- [Win Only/Windows Player](#)
- [Zip/Show Zip File Content](#)

### **78.28.1 FileMaker Magazin**

- Ausgabe 4/2018, Seite 16
- Ausgabe 3/2012, Seite 31
- Ausgabe 3/2012, Seite 30

Created 18th August 2014, last changed 18th October 2016.

## 78.29 FileDialog.SaveFileDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SaveFileDialog" )

**Result** Returns "OK", "Cancel" or an error.

### Description

If dialog finishes well, you can query paths.

### Examples

Run Save Dialog:

```

Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetShowHidden"; FileDialog::ShowHidden) ]
Set Variable [ $r; Value:MBS("FileDialog.SetAllowMulti"; FileDialog::AllowMulti) ]
Set Variable [ $r; Value:MBS("FileDialog.SetResolvesAliases"; FileDialog::ResolvesAliases) ]
Set Variable [ $r; Value:MBS("FileDialog.SetTreatsFilePackagesAsDirectories"; FileDialog::TreatsFilePack-
agesAsDirectories) ]
Set Variable [ $r; Value:MBS("FileDialog.SetCanSelectHiddenExtension"; FileDialog::CanSelectHiddenEx-
tension) ]
Set Variable [ $r; Value:MBS("FileDialog.SetWindowTitle"; FileDialog::WindowTitle) ]
Set Variable [ $r; Value:MBS("FileDialog.SetInitialDirectory"; FileDialog::InitialDirectory) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldLabel"; FileDialog::NameFieldLabel) ]
Set Variable [ $r; Value:MBS("FileDialog.SetPrompt"; FileDialog::Prompt) ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; FileDialog::Message) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldStringValue"; FileDialog::NameFieldStringValue) ]
Set Variable [ $r; Value:MBS("FileDialog.SaveFileDialog") ]
If [ $r = "OK" ]
Set Variable [ $index; Value:0 ]
Set Variable [ $count; Value:MBS("FileDialog.GetPathCount") ]
Loop
New Record/Request
Set Field [ FileDialog::Path; MBS("FileDialog.GetPath"; $index) ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If

```

### See also

- 78.27 FileDialog.OpenFileDialog 3791
- 78.28 FileDialog.Reset 3794



78.29. FILEDIALOG.SAVEFILEDIALOG	3797
• 78.30 FileDialog.SelectFolderDialog	3798
• 78.31 FileDialog.SelectItemDialog	3801
• 78.34 FileDialog.SetCanSelectHiddenExtension	3806
• 78.36 FileDialog.SetInitialDirectory	3809
• 78.37 FileDialog.SetMessage	3811
• 78.38 FileDialog.SetNameFieldLabel	3813
• 78.39 FileDialog.SetNameFieldStringValue	3814
• 78.41 FileDialog.SetResolvesAliases	3817

### Example Databases

- [DynaPDF/Form/Form](#)
- [Files/FileDialog](#)

### 78.29.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Open Dialog upgraded](#)

Created 18th August 2014, last changed 26th February 2016.

## 78.30 FileDialog.SelectFolderDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SelectFolderDialog" )

**Result** Returns "OK", "Cancel" or an error.

### Description

If dialog finishes well, you can query paths.

Added support for multiple selection on Windows with plugin version for 6.4.

### Examples

Run Select Folder Dialog:

```

Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetShowHidden"; FileDialog::ShowHidden) ]
Set Variable [ $r; Value:MBS("FileDialog.SetAllowMulti"; FileDialog::AllowMulti) ]
Set Variable [ $r; Value:MBS("FileDialog.SetResolvesAliases"; FileDialog::ResolvesAliases) ]
Set Variable [ $r; Value:MBS("FileDialog.SetTreatsFilePackagesAsDirectories"; FileDialog::TreatsFilePack-
agesAsDirectories) ]
Set Variable [ $r; Value:MBS("FileDialog.SetCanSelectHiddenExtension"; FileDialog::CanSelectHiddenEx-
tension) ]
Set Variable [ $r; Value:MBS("FileDialog.SetWindowTitle"; FileDialog::WindowTitle) ]
Set Variable [ $r; Value:MBS("FileDialog.SetInitialDirectory"; FileDialog::InitialDirectory) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldLabel"; FileDialog::NameFieldLabel) ]
Set Variable [ $r; Value:MBS("FileDialog.SetPrompt"; FileDialog::Prompt) ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; FileDialog::Message) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldStringValue"; FileDialog::NameFieldStringValue) ]
Set Variable [ $r; Value:MBS("FileDialog.SelectFolderDialog") ]
If [ $r = "OK" ]
Set Variable [ $index; Value:0 ]
Set Variable [ $count; Value:MBS("FileDialog.GetPathCount") ]
Loop
New Record/Request
Set Field [ FileDialog::Path; MBS("FileDialog.GetPath"; $index) ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If

```

Export all containers to one folder:

```
# Ask for folder?
```

```

Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; "Export folder?") ]
Set Variable [ $r; Value:MBS("FileDialog.SelectFolderDialog") ]
If [ $r = "OK" ]
# get path from dialog:
Set Variable [ $npath; Value:MBS( "FileDialog.GetPath"; 0 ) ]
# convert to FileMaker path for Export Field Contents
Set Variable [ $fpath; Value:MBS( "Path.NativePathToFilemakerPath"; $npath ) ]
# Loop over all records:
Go to Record/Request/Page [ First ]
Loop
# Export files from this record
# figure out file name
Set Variable [ $name; Value:GetAsText ( Container Batch Export::Test1 ) ]
Set Variable [ $name; Value:GetValue($name; 1) ]
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $name ) ]
Set Variable [ $dpath; Value:MBS( "Path.AddPathComponent"; $fpath; $name ) ]
Export Field Contents [ Container Batch Export::Test1; "$dpath" ]
# Next record
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
End If

```

Select folder in one expression:

```

Let( [
r = MBS("FileDialog.Reset");
r = MBS("FileDialog.SelectFolderDialog");
folder = If ( r = "OK" ; MBS("FileDialog.GetPath"; 0); "" )
] ; folder)

```

### See also

- 78.31 FileDialog.SelectItemDialog 3801
- 78.34 FileDialog.SetCanSelectHiddenExtension 3806
- 78.36 FileDialog.SetInitialDirectory 3809
- 78.37 FileDialog.SetMessage 3811
- 78.38 FileDialog.SetNameFieldLabel 3813
- 78.40 FileDialog.SetPrompt 3815
- 78.43 FileDialog.SetShowHidden 3819
- 78.44 FileDialog.SetTreatsFilePackagesAsDirectories 3820

- 78.46 FileDialog.SetWindowTitle 3822
- 124.7 Path.NativePathToFileMakerPath 6255

### Example Databases

- [Containers/Container Batch Export](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [Files/FileDialog](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [SQL in FileMaker/ImageGallery](#)

### 78.30.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Open Dialog upgraded](#)
- [MBS FileMaker Plugin, version 6.4pr9](#)
- [MBS Filemaker Plugin, version 4.3pr3](#)

### 78.30.2 FileMaker Magazin

- [Ausgabe 3/2012, Seite 31](#)

Created 18th August 2014, last changed 21st June 2017.

## 78.31 FileDialog.SelectItemDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SelectItemDialog" )

**Result** Returns "OK", "Cancel" or an error.

### Description

If dialog finishes well, you can query paths.

To select just a file, please use FileDialog.OpenFileDialog function.

Calls FileDialog.OpenFileDialog on Windows.

### Examples

Run Select Item Dialog:

```

Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("FileDialog.Reset") ]
Set Variable [ $r; Value:MBS("FileDialog.SetShowHidden"; FileDialog::ShowHidden) ]
Set Variable [ $r; Value:MBS("FileDialog.SetAllowMulti"; FileDialog::AllowMulti) ]
Set Variable [ $r; Value:MBS("FileDialog.SetResolvesAliases"; FileDialog::ResolvesAliases) ]
Set Variable [ $r; Value:MBS("FileDialog.SetTreatsFilePackagesAsDirectories"; FileDialog::TreatsFilePack-
agesAsDirectories) ]
Set Variable [ $r; Value:MBS("FileDialog.SetCanSelectHiddenExtension"; FileDialog::CanSelectHiddenEx-
tension) ]
Set Variable [ $r; Value:MBS("FileDialog.SetWindowTitle"; FileDialog::WindowTitle) ]
Set Variable [ $r; Value:MBS("FileDialog.SetInitialDirectory"; FileDialog::InitialDirectory) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldLabel"; FileDialog::NameFieldLabel) ]
Set Variable [ $r; Value:MBS("FileDialog.SetPrompt"; FileDialog::Prompt) ]
Set Variable [ $r; Value:MBS("FileDialog.SetMessage"; FileDialog::Message) ]
Set Variable [ $r; Value:MBS("FileDialog.SetNameFieldStringValue"; FileDialog::NameFieldStringValue) ]
Set Variable [ $r; Value:MBS("FileDialog.SelectItemDialog") ]
If [ $r = "OK" ]
Set Variable [ $index; Value:0 ]
Set Variable [ $count; Value:MBS("FileDialog.GetPathCount") ]
Loop
New Record/Request
Set Field [ FileDialog::Path; MBS("FileDialog.GetPath"; $index) ]
Commit Records/Requests [ ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop
End If

```

**See also**

- 78.27 FileDialog.OpenFileDialog 3791
- 78.28 FileDialog.Reset 3794
- 78.30 FileDialog.SelectFolderDialog 3798
- 78.32 FileDialog.SetAllowMulti 3803
- 78.37 FileDialog.SetMessage 3811
- 78.38 FileDialog.SetNameFieldLabel 3813
- 78.40 FileDialog.SetPrompt 3815
- 78.43 FileDialog.SetShowHidden 3819
- 78.44 FileDialog.SetTreatsFilePackagesAsDirectories 3820
- 78.46 FileDialog.SetWindowTitle 3822

### Example Databases

- [Files/FileDialog](#)
- [Mac only/Icon and QuickLook/SetIcon](#)

### 78.31.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 18th August 2014, last changed 17th June 2018.

## 78.32 FileDialog.SetAllowMulti

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetAllowMulti"; value )

### Parameters

#### value

Whether to allow multiple selection. Set to 0 to disallow and 1 to allow.

1

**Result** Returns OK.

### Description

Default is disallowed (0).

Selecting folder may not allow multiple selection.

But selection files or items may do.

### Examples

Allow multi file selection:

```
Set Variable [ $r; Value:MBS("FileDialog.SetAllowMulti"; 1) ]
```

### See also

- [78.11 FileDialog.GetAllowMulti](#) 3773
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/IMAP Email](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/PDF Library](#)
- [Files/FileDialog](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

- [Win Only/Windows Player](#)
- [Zip/Show Zip File Content](#)

### 78.32.1 FileMaker Magazin

- Ausgabe 4/2018, Seite 16
- Ausgabe 3/2012, Seite 30

Created 18th August 2014, last changed 18th October 2016.



## 78.33 FileDialog.SetAllowsOtherFileTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	4.3	Yes	Yes	No	No	No

MBS( "FileDialog.SetAllowsOtherFileTypes"; value )

### Parameters

#### value

The new setting. Pass 1 to enable other file types or 0 to disable.

1

**Result** Returns OK.

### Description

Only for save panel to allow saving in other file types.

Added Windows support in plugin version 8.3 for Windows Vista or newer.

### See also

- 78.12 FileDialog.GetAllowsOtherFileTypes

3774

Created 18th August 2014, last changed 12nd January 2019.

## 78.34 FileDialog.SetCanSelectHiddenExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	No	No	No	No

MBS( "FileDialog.SetCanSelectHiddenExtension"; value )

### Parameters

#### value

The new setting.

1

**Result** Returns OK.

### Description

#### See also

- 78.13 FileDialog.GetCanSelectHiddenExtension 3775
- 78.27 FileDialog.OpenFileDialog 3791
- 78.29 FileDialog.SaveFileDialog 3796
- 78.30 FileDialog.SelectFolderDialog 3798
- 78.31 FileDialog.SelectItemDialog 3801

### Example Databases

- [Files/FileDialog](#)

Created 18th August 2014, last changed 18th August 2014.

## 78.35 FileDialog.SetFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	4.3	Yes	Yes	No	No	No

MBS( "FileDialog.SetFilter"; MacFilter; WinFilter; WinLabels )

### Parameters

#### MacFilter

The filter specification for Mac. Can be file extension (Without dot) or UTI (Uniform Type Identifier). Can be a list.

"jpg"

#### WinFilter

The filter specification for Windows. This is normally star dot file extension and can be a list.

"\*.JPG"

#### WinLabels

The list of labels for the file types.

"JPEG files"

**Result** Returns OK or error.

### Description

Mac filter works in FileMaker 12 or newer, but seems not to work in FileMaker 11.

If you like to select any file, please don't define a filter at all.

### Examples

Set Mac filter with file extension as filter

```
MBS("FileDialog.SetFilter"; "jpg"; "*.JPG"; "JPEG files")
```

Set Mac filter with UTI as filter:

```
MBS("FileDialog.SetFilter"; "public.jpeg"; "*.JPG"; "JPEG files")
```

Select only FileMaker files:

```
MBS("FileDialog.SetFilter"; "fmp12"; "*.FMP12"; "FileMaker files")
```

Select tiff or jpeg files with various extensions:

```
MBS("FileDialog.SetFilter"; "tif$jpg$jpeg$stiff"; "*.TIF;*.TIFF$*.JPG;*.JPEG"; "Tiff files$JPEG files")
```

Allow PNG and JPEG:

```
MBS("FileDialog.SetFilter"; "jpg$png"; "*.JPG$*.PNG"; "JPEG files$PNG Files")
```

Allow text files:

```
MBS("FileDialog.SetFilter"; "public.text"; "*.TXT"; "TXT files")
```

### See also

- [78.14 FileDialog.GetFilter](#) 3776
- [78.27 FileDialog.OpenFileDialog](#) 3791

### Example Databases

- [CURL/Email/IMAP Email](#)
- [Mac only/Movies/AVAsset Export Session](#)

### 78.35.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 18th August 2014, last changed 28th April 2016.

## 78.36 FileDialog.SetInitialDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetInitialDirectory"; path )

### Parameters

#### path

The new path.

"/Users/Shared"

**Result** Returns OK.

### Description

The path argument must be an absolute native path.

Use Path.FilemakerPathToNativePath to convert a FileMaker path to a native path if required.

### Examples

Sets path on Mac:

```
MBS( "FileDialog.SetInitialDirectory"; "/Users/cs/Desktop" )
```

Set path with space inside:

```
MBS( "FileDialog.SetInitialDirectory"; "/Users/cs/Desktop/Test Folder")
```

Sets path on Mac with extra volume:

```
MBS( "FileDialog.SetInitialDirectory"; "/Volumes/Daten/Test Folder/Images" )
```

Sets path on Windows:

```
MBS( "FileDialog.SetInitialDirectory"; "d:\Test Daten\Bilder" )
```

### See also

- 78.15 FileDialog.GetInitialDirectory 3777
- 78.27 FileDialog.OpenFileDialog 3791
- 78.29 FileDialog.SaveFileDialog 3796
- 78.30 FileDialog.SelectFolderDialog 3798
- 78.31 FileDialog.SelectItemDialog 3801
- 124.2 Path.FilemakerPathToNativePath 6247

**Example Databases**

- [Files/FileDialog](#)
- [Win Only/Windows Player](#)

Created 18th August 2014, last changed 18th August 2014.

## 78.37 FileDialog.SetMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetMessage"; text )

### Parameters

#### text

The new message text.

"Please select folder to store backups."

**Result** Returns OK.

### Description

This prompt appears on all Mac dialogs, but not on Windows.

The default message text is an empty string.

### Examples

Sets name:

MBS( "FileDialog.SetMessage"; "Where to put backup files?" )

### See also

- [64.14 Dialog.GetMessage](#) 2395
- [64.38 Dialog.SetMessage](#) 2421
- [78.16 FileDialog.GetMessage](#) 3778
- [78.19 FileDialog.GetPath](#) 3781
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801
- [78.45 FileDialog.SetUseSheet](#) 3821

### Example Databases

- [Containers/Container Batch Export](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/IMAP Email](#)

- DynaPDF/Form/Form
- Files/FileDialog
- Mac and iOS/Machine Learning/Core ML Photos
- Mac and iOS/Speech Recognition
- Mac only/Movies/AVAsset Export Session
- Win Only/Windows Player

Created 18th August 2014, last changed 12nd September 2018.



## 78.38 FileDialog.SetNameFieldLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetNameFieldLabel"; text )

### Parameters

#### text

String to set as the text displayed in front of the panel's text field.

"Save file as:"

**Result** Returns OK.

### Description

By default the label is "Save As:".

Added Windows support in plugin version 8.3 for Windows Vista or newer.

### Examples

Sets name label:

```
MBS( "FileDialog.SetNameFieldLabel"; "Database name:" )
```

### See also

- [78.17 FileDialog.GetNameFieldLabel](#) 3779
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [Files/FileDialog](#)

Created 18th August 2014, last changed 24th May 2018.

## 78.39 FileDialog.SetNameFieldStringValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetNameFieldStringValue"; text )

### Parameters

#### text

The initial text for the name field.

**Result** Returns OK.

### Description

This value is only used for save dialogs.

Added Windows support in plugin version 8.3 for Windows Vista or newer.

### Examples

Sets name:

MBS( "FileDialog.SetNameFieldStringValue"; "test.txt" )

### See also

- [78.18 FileDialog.GetNameFieldStringValue](#) 3780
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [DynaPDF/Form/Form](#)
- [Files/FileDialog](#)

Created 18th August 2014, last changed 24th May 2018.

## 78.40 FileDialog.SetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetPrompt"; text )

### Parameters

#### text

String to set as the prompt of the panel's default button.

"Use"

**Result** Returns OK.

### Description

This prompt appears on all dialogs in your application. By default, the text in the default button is "Open" for an Open panel and "Save" for a Save panel.

It is intended that short words or phrases, such as "Open", "Save", "Set", or "Choose", be used on the button. The button is not resized to accommodate long prompts.

Added Windows support in plugin version 8.3 for Windows Vista or newer.

### Examples

Sets name:

MBS( "FileDialog.SetPrompt"; "Export" )

### See also

- [78.21 FileDialog.GetPrompt](#) 3785
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801
- [106.16 ListDialog.GetPrompt](#) 5663
- [106.37 ListDialog.SetPrompt](#) 5684

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/IMAP Email](#)
- [Files/FileDialog](#)

- [Mac and iOS/Machine Learning/Core ML Photos](#)

Created 18th August 2014, last changed 24th May 2018.

## 78.41 FileDialog.SetResolvesAliases

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetResolvesAliases"; value )

### Parameters

#### value

Whether to resolve alias files. Pass 0 to disable alias resolving or 1 to enable it.

1

**Result** Returns OK.

### Description

If 1, the dialog will resolve alias files on Mac OS X and Link files (\*.lnk) on Windows for you.

Default is enabled (1).

### Examples

Set to resolve aliases:

```
Set Variable [ $r; Value:MBS("FileDialog.SetResolvesAliases"; 1) ]
```

### See also

- [78.22 FileDialog.GetResolvesAliases](#) 3786
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [Files/FileDialog](#)
- [Mac and iOS/Speech Recognition](#)
- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th October 2016.

## 78.42 FileDialog.SetSheetScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	8.5	Yes	No	No	No	No

MBS( "FileDialog.SetSheetScriptTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker file that contains the script  
Get(FileName)

#### ScriptName

The name of the script to run

**Result** Returns OK or error.

### Description

Trigger is only for Mac and you need to enable it with FileDialog.SetUseSheet.

#### See also

- [78.45 FileDialog.SetUseSheet](#)

3821

### Example Databases

- [Files/FileDialog](#)

### 78.42.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr7](#)
- [File dialogs with sheets for FileMaker](#)

Created 9th November 2018, last changed 9th November 2018.

## 78.43 FileDialog.SetShowHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetShowHidden"; value )

### Parameters

#### value

Whether to show hidden files. Pass 0 to hide invisible files and 1 to show invisible files.

1

**Result** Returns OK.

### Description

Default is 0.

Available in Mac OS X v10.6 and later. The flag is ignored on older Mac OS X versions.

### Examples

Show hidden files:

```
Set Variable [ $r; Value:MBS("FileDialog.SetShowHidden"; 1) ]
```

### See also

- [78.23 FileDialog.GetShowHidden](#) 3787
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [Files/FileDialog](#)
- [Mac only/Icon and QuickLook/SetIcon](#)
- [Zip/Show Zip File Content](#)

Created 18th August 2014, last changed 18th October 2016.

## 78.44 FileDialog.SetTreatsFilePackagesAsDirectories

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	No	No	No	No

MBS( "FileDialog.SetTreatsFilePackagesAsDirectories"; value )

### Parameters

#### value

If 1, the panel will display file packages as directories; if 0, it will not.

1

**Result** Returns OK.

### Description

Default is off (0).

This setting has no effect on Windows.

### Examples

Look inside of bundles:

```
Set Variable [ $r; Value:MBS("FileDialog.SetTreatsFilePackagesAsDirectories"; 1) ]
```

### See also

- [78.24 FileDialog.GetTreatsFilePackagesAsDirectories](#) 3788
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801

### Example Databases

- [Files/FileDialog](#)

Created 18th August 2014, last changed 18th October 2016.



## 78.45 FileDialog.SetUseSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	8.5	Yes	No	No	No	No

MBS( "FileDialog.SetUseSheet"; Value )

### Parameters

#### Value

The new sheet setting.

1

**Result** Returns OK or error.

### Description

See FileDialog.SetSheetScriptTrigger for setting script name to trigger.

#### See also

- [78.19 FileDialog.GetPath](#) 3781
- [78.25 FileDialog.GetUseSheet](#) 3789
- [78.37 FileDialog.SetMessage](#) 3811
- [78.42 FileDialog.SetSheetScriptTrigger](#) 3818

### Example Databases

- [Files/FileDialog](#)

### 78.45.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr7](#)
- [File dialogs with sheets for FileMaker](#)

Created 9th November 2018, last changed 9th November 2018.

## 78.46 FileDialog.SetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.7	Yes	Yes	No	No	No

MBS( "FileDialog.SetWindowTitle"; text )

### Parameters

#### text

The new window title.

"Select database"

**Result** Returns OK.

### Description

Keep empty or don't assign a title to use the default text.

Not used for Select Folder Dialog on Windows, but in all other dialogs.

### Examples

Sets window title:

```
Set Variable [ $r; Value:MBS("FileDialog.SetWindowTitle"; "Please select picture") ]
```

### See also

- [64.26 Dialog.GetWindowTitle](#) 2407
- [64.48 Dialog.SetWindowTitle](#) 2433
- [78.26 FileDialog.GetWindowTitle](#) 3790
- [78.27 FileDialog.OpenFileDialog](#) 3791
- [78.29 FileDialog.SaveFileDialog](#) 3796
- [78.30 FileDialog.SelectFolderDialog](#) 3798
- [78.31 FileDialog.SelectItemDialog](#) 3801
- [106.21 ListDialog.GetWindowTitle](#) 5668
- [106.42 ListDialog.SetWindowTitle](#) 5689

### Example Databases

- [Files/FileDialog](#)
- [Win Only/Send Email via Email Application](#)

Created 18th August 2014, last changed 18th October 2016.

## 78.47 FileDialogWatcher.GetLastPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.6	Yes	No	No	No	No

MBS( "FileDialogWatcher.GetLastPath" )

**Result** Returns OK or error.

### Description

This returns native path like `"/Users/cs/Desktop/test.jpg"`.

Use `Path.NativePathToFileMakerPath` to convert to a FileMaker path if you plan to use `"filemac:"` for an insert file script step.

Does not work with FileMaker 8.5, 9 or 10. Works with FileMaker 11 and 12.

### See also

- [78.48 FileDialogWatcher.Install](#) 3824
- [124.7 Path.NativePathToFileMakerPath](#) 6255

### Example Databases

- [Files/FileDialogWatcher \(Mac\)](#)

### 78.47.1 Blog Entries

- [New cool things for Filemaker](#)
- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 22nd March 2019.

## 78.48 FileDialogWatcher.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
78 FileDialog	2.6	Yes	No	No	No	No

MBS( "FileDialogWatcher.Install" )

**Result** Returns OK or error.

### Description

You need to call this method before FileDialogWatcher.GetLastPath reports something useful. Does not work with FileMaker 8.5, 9 or 10. Works with FileMaker 11 and 12.

### See also

- [78.47 FileDialogWatcher.GetLastPath](#)

3823

### Example Databases

- [Files/FileDialogWatcher \(Mac\)](#)

### 78.48.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr4](#)
- [MBS Filemaker Plugin, version 2.9pr7](#)
- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 22nd March 2019.

# Chapter 79

## Files

Functions to work with files and folders.

### 79.1 Files.AccessDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	Yes	Yes

```
MBS( "Files.AccessDate"; Path )
```

#### Parameters

##### Path

Native path to the file to check.

```
"C:\test\me.jpg"
```

**Result** Returns timestamp or error.

#### Description

Although the function is named date, it does return the time, too. Result is a timestamp.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

#### Examples

Queries access date of a file

```
MBS( "Files.AccessDate"; "C:\test.txt" )
```

Show files Dates:

MBS( "Files.CreationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " created" & §&

MBS( "Files.ModificationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " modified" & §&

MBS( "Files.AccessDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " accessed"

### See also

- 79.13 Files.CreationDate 3844
- 79.40 Files.ModificationDate 3888
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Files/FileInfo](#)

#### 79.1.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 17th July 2017.

## 79.2 Files.AddedToDirectoryDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.4	Yes	No	Yes, macOS only	No	No

MBS( "Files.AddedToDirectoryDate"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns timestamp or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query date:

MBS("Files.AddedToDirectoryDate"; "/Users/cs/Desktop/Image Scaling.fmp12")

### See also

- 124.2 Path.FileMakerPathToNativePath

6247

### 79.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 29th July 2016, last changed 29th July 2016.

## 79.3 Files.AppPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.AppPath" )

**Result** The application path.

### Description

So either the path to FileMaker application or path to your runtime solution.

Use Path.NativePathToFileMakerPath to convert to a FileMaker path if you plan to use "filemac:" on a built in FileMaker function.

Returns on FileMaker Cloud (Linux) usually this path: "/opt/FileMaker/FileMaker Server/Database Server/bin/fm-sased"

### Examples

Shows app path:

Show Custom Dialog [ "App Path"; MBS( "Files.AppPath" ) ]

### See also

- [79.35 Files.Launch](#) 3877
- [124.7 Path.NativePathToFileMakerPath](#) 6255

### Example Databases

- [Files/Open Database](#)

### 79.3.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr1](#)

Created 18th August 2014, last changed 13th November 2019.



## 79.4 Files.AudioTags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	9.4	Yes	Yes	Yes	No	No

MBS( "Files.AudioTags"; FilePath )

### Parameters

#### FilePath

The native file path to the audio file.

"/Users/cs/Desktop/test.mp3"

**Result** Returns JSON or error.

### Description

Returns JSON object with usual two sub objects. One is AudioProperties with length (in seconds), bitrate (in bits per second), sampleRate (in Hz) and channels as numbers.

The Properties object contains all the properties with various tags. Values are texts for the given keys.

Uses TagLib, an open source library to read metadata from audio files, e.g. ID3 tags.

Currently it supports both ID3v1 and ID3v2 for MP3 files, Ogg Vorbis comments and ID3 tags and Vorbis comments in FLAC, MPC, Speex, WavPack, TrueAudio, WAV, AIFF, MP4 and ASF files.

List of ID3v2 tag names:

ALBUM, ALBUMARTIST, ALBUMARTISTSORT, ALBUMSORT, ARTIST, ARTISTSORT, ARTISTWEBPAGE, AUDIOSOURCEWEBPAGE, BPM, COMMENT, COMPOSER, CONDUCTOR, CONTENTGROUP, COPYRIGHT, COPYRIGHTURL, DATE, DISCNUMBER, ENCODEDBY, ENCODING, ENCODINGTIME, FILETYPE, FILEWEBPAGE, GENRE, INITIALKEY, INVOLVEDPEOPLE, ISRC, LABEL, LANGUAGE, LENGTH, LYRICIST, LYRICS, MEDIA, MOOD, MUSICIANCREDITS, ORIGINALALBUM, ORIGINALARTIST, ORIGINALDATE, ORIGINALFILENAME, ORIGINALLYRICIST, OWNER, PAYMENTWEBPAGE, PLAYLISTDELAY, PODCAST, PODCASTCATEGORY, PODCASTDESC, PODCASTID, PODCASTURL, PRODUCEDNOTICE, PUBLISHERWEBPAGE, RADIOSTATION, RADIOSTATIONOWNER, RADIOSTATIONWEBPAGE, RELEASEDATE, REMIXER, SUBTITLE, TAGGINGDATE, TITLE, TITLESORT, TRACKNUMBER, URL.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query MP3 tags:

MBS("Files.AudioTags"; "/Users/cs/Desktop/test.mp3")

Example result: {  
"AudioProperties": {

```

"length": 282,
"bitrate": 128,
"sampleRate": 44100,
"channels": 2
},
"Tags": {
"ARTIST": "John Doe",
"COMMENT": "test comment",
"TITLE": "Hello World"
}
}

```

Read tags and show JSON in field:

```

If [ Length ( AudioTags::FilePath ) >0 ]
Set Variable [ $r ; Value: MBS("Files.AudioTags"; AudioTags::FilePath) ]
If [ MBS("IsError") = 0 ]
Set Field [ AudioTags::JSON ; MBS("JSON.Colorize"; MBS("JSON.Format"; $r)) ]
End If
End If

```

#### See also

- [79.53 Files.SetAudioTags](#) 3914
- [127.6 IsError](#) 6374
- [102.16 JSON.Colorize](#) 5334
- [102.40 JSON.Format](#) 5368
- [124.2 Path.FileMakerPathToNativePath](#) 6247

#### Example Databases

- [Files/Audio File Tags](#)

### 79.4.1 Blog Entries

- [Neue Funktionen des MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4, second release](#)
- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr8](#)
- [TagLib to read and write ID3v2 Tags in FileMaker](#)

Created 12nd September 2019, last changed 20th September 2019.

## 79.5 Files.CanOpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Files.CanOpenFile"; Path )

### Parameters

#### Path

The native file path to the file.

\$path

**Result** Returns 1, 0 or error.

### Description

The plugin tries to open file exclusive. If that fails another application or FileMaker has the file open. Returns 1 if open was okay, 0 if file is busy or an error like permissions denied.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Check if file exists:

```
Show Custom Dialog [ "File exists"; MBS( "Files.CanOpenFile"; "/Users/cs/Desktop/test.rtf" ) ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath

6247

### 79.5.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr2](#)

Created 20th October 2015, last changed 18th October 2016.

## 79.6 Files.CopyFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.8	Yes	Yes	Yes	Yes	Yes

```
MBS( "Files.CopyFile"; SourcePath; DestPath { ; Overwrite; SkipSourcePermissionErrors; ProgressTitle }
)
```

### Parameters

#### SourcePath

The native path to the file or folder to be copied.

"/Users/John/Desktop/test.txt"

#### DestPath

The native path to the destination folder or file.

"/Users/John/Desktop/Backup/"

#### Overwrite

Optional

Mac only: Whether to allow overwriting existing files. Default is off. Pass 1 to enable and 0 to disable. (ignored on other platforms)

1

#### SkipSourcePermissionErrors

Optional

Mac only: Whether to skip files with permission errors. Default is off. Pass 1 to enable and 0 to disable.

1

#### ProgressTitle

Optional

Title for the progress window. For Windows only and the text may not be visible in your version of Windows.

"Copying FileMake files"

**Result** Returns OK or error message.

### Description

SourcePath and DestPath must be valid and exist. So pass destination folder for the destination.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

The Linux implementation copies file to dest. You need to have read permissions for source file. We try to preserve extended attributes and file permissions.

On Windows the 5th parameter can be 1 to use alternative copy function from Windows. This one is for copying one file only, but may be more successful in some cases.

### Examples

Copy a file:

## 79.6. FILES.COPYFILE

3833

MBS( "Files.CopyFile"; "/Users/cs/Desktop/test.pdf"; "/Users/cs/Desktop/copy.pdf")

Copy file on Windows with alternative copy method:

MBS( "Files.CopyFile"; "D:\Arbeitsunterlagen\Problemloesungsbericht\_SDAG\_WM.xlsx"; "D:\Files\_for\_ZIP/CC\_\_8D\_\_0; 0; 1)

Copy a file from desktop to a network volume:

MBS( "Files.CopyFile"; "C:\Users\Christian\Desktop\test.mov"; "Z:\Files\test.mov")

### See also

- 79.7 Files.CopyFiles 3834
- 79.43 Files.MoveFile 3894
- 79.45 Files.ReadFile 3898
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Files/FileOperation](#)

### 79.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 8.5pr7](#)
- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 7.0pr3](#)
- [MBS FileMaker Plugin, version 6.4pr9](#)
- [Tip of the day: Mount drive on FileMaker Server](#)
- [MBS Filemaker Plugin, version 2.8pr1](#)

Created 18th August 2014, last changed 3th January 2020.



Created 14th December 2019, last changed 14th December 2019.

## 79.8 Files.CreateAlias

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	8.4	Yes	Yes	Yes	No	Yes

```
MBS( "Files.CreateAlias"; AliasFilePath; TargetPath { ; RelativeTo or WorkingPath; IconPathAndIndex }
)
```

### Parameters

#### AliasFilePath

The path for the alias file path.

```
"/Users/cs/Desktop/test"
```

#### TargetPath

The target path to have the alias point to.

```
"/Users/cs/Desktop"
```

#### RelativeTo or WorkingPath

Optional

The folder path to use relative resolution for Mac or the working directory for Windows.

```
"/Users/cs"
```

#### IconPathAndIndex

Optional

The icon file path to use. Optionally with an index as second item in a value list.

For Windows must reference an exe, ico, dll or similar file containing resources with icons.

For MacOS a path to an image file where we load image and use it for the icon.

```
"C:\Program Files\Mozilla Firefox\firefox.exe$4"
```

**Result** Returns OK or error.

### Description

If relative path is provided, the alias will include the relative path from that folder to the target item. When resolved later and the full path is invalid, the relative path may find it.

See Files.CreateSymbolicLink for creating symbol links and Files.CreateHardLink for hard links.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Create Alias:

```
MBS( "Files.CreateAlias"; "/Users/cs/Desktop/test"; "/Users/cs/Desktop" )
```



Creates link files on Windows:

```
MBS("Files.CreateAlias"; "C:\Users\Christian\Desktop\test.lnk"; "cmd.exe")
```

Create link for image file:

```
MBS("Files.CreateAlias"; "C:\Users\Christian\Desktop\test.lnk"; "C:\Users\Christian\Pictures\test.jpg")
```

Create link file with icon:

```
MBS("Files.CreateAlias"; "C:\Users\Christian\Desktop\test.lnk"; "cmd.exe"; ""; "C:\Program Files\Mozilla Firefox\firefox.exe§4")
```

### See also

- 79.11 Files.CreateHardLink 3841
- 79.12 Files.CreateSymbolicLink 3843
- 79.50 Files.ResolveAlias 3909
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 9th September 2018, last changed 14th March 2019.

## 79.9 Files.CreateBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.1	Yes	No	Yes, macOS only	No	Yes

MBS( "Files.CreateBookmark"; Path { ; RelativePath; PreferFileIDResolution; MinimalBookmark } )

### Parameters

#### Path

The native path to file or folder where the bookmark refers to.

\$path

#### RelativePath

Optional

Optional the path of a file/folder being the relative path. This can be the native path to your database. This way you can later find the file again if database and target file moved together.

"/Data/ImageFiles"

#### PreferFileIDResolution

Optional

Optional, whether you prefer FileID resolution later over path resolution. Can be 1 or 0. Default is 0.

1

#### MinimalBookmark

Optional

Optional, whether to request a minimal bookmark. Creates bookmark data with "less" information, which may be smaller but still be able to resolve in certain ways.

1

**Result** Returns bookmark data text or error message.

### Description

This is like an alias file in Finder, but as text, so you can store it in a text field in your database.

#### See also

- [79.51 Files.ResolveBookmark](#) 3911

### Example Databases

- [Files/Alias and NodeID](#)

### 79.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr3](#)
- [MBS FileMaker Plugin 3.1 for OS X/Windows - More than 1400 Functions In One Plugin](#)

Created 18th August 2014, last changed 28th November 2019.

## 79.10 Files.CreateDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.CreateDirectory"; Path )

(old name: Files.CreateFolder)

### Parameters

#### Path

Native path to the new directory to be created.

"C:\Test"

**Result** Returns "OK" or error message.

### Description

Returns "OK" if the directory already exists.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

For MacOS & iOS creates folders recursively as needed.

In the Mac world we call it a folder, in the Windows world a directory. This function works cross platform and got the name with Directory years ago.

You can use Files.DeleteFolder to delete a folder with its content.

### Examples

Create folder on Desktop:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDesktop" ) ]
If [ IsEmpty(Container Export::Name) ]
Set Field [ Container Export::Name; "Record " & Get(RecordID) ]
End If
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; Container Export::Name ) ]
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
```

Creates directory and shows error:

```
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create directory"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ ]
End If
```

Create a folder:

MBS( "Files.CreateDirectory"; "/"Users/cs/Documents/FolderName" )

### See also

- 79.14 Files.Delete 3846
- 79.15 Files.DeleteFolder 3848
- 82.8 Folders.UserDesktop 4235
- 82.9 Folders.UserDocuments 4237
- 82.10 Folders.UserDownloads 4239
- 127.6 IsError 6374
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 167.57 Text.RemovePrefix 7982
- 184.10 WIA.ImageDialog 8644

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

### 79.10.1 Blog Entries

- [Storing files for download on FileMaker Server with download URLs](#)

### 79.10.2 FileMaker Magazin

- Ausgabe 6/2018, Seite 31
- Ausgabe 6/2018, Seite 30
- Ausgabe 2/2017, Seite 41
- Ausgabe 2/2017, Seite 39
- Ausgabe 2/2017, Seite 38
- Ausgabe 1/2017, Seite 10

## 79.11 Files.CreateHardLink

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.CreateHardLink"; DestPath; TargetPath )

### Parameters

#### DestPath

The path where to create the hard link file.

"/Users/cs/Desktop/test.rtf"

#### TargetPath

The target path for the link.

"/Users/cs/Desktop/todo.rtf"

**Result** Returns OK or error.

### Description

On success, you get two directory entries which point to same data on disk.

For Macs works with file and folders.

Be aware that not all applications are aware to handle hard links for folders correctly!

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Creates a hard link:

```
MBS( "Files.CreateHardLink"; "/Users/cs/Desktop/test.rtf"; "/Users/cs/Desktop/todo.rtf" )
```

Creates a hard link on Windows:

```
MBS( "Files.CreateHardLink"; "C:\Users\Christian\Desktop\other.jpg"; "C:\Users\Christian\Desktop\test.jpg"
```

### See also

- 79.8 Files.CreateAlias 3836
- 79.50 Files.ResolveAlias 3909
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.11.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)



## 79.12 Files.CreateSymbolicLink

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.CreateSymbolicLink"; DestPath; TargetPath )

### Parameters

#### DestPath

The path where to create the symbolic link file.

"/Users/cs/Desktop/test.rtf"

#### TargetPath

The target path for the link.

"/Users/cs/Desktop/todo.rtf"

**Result** Returns OK or error.

### Description

For Macs works with file and folders.

On success, you get a new link file which point to other file.

### Examples

Creates symbolic link:

MBS( "Files.CreateSymbolicLink"; "/Users/cs/Desktop/test.rtf"; "/Users/cs/Desktop/todo.rtf" )

### See also

- 79.8 Files.CreateAlias 3836
- 79.50 Files.ResolveAlias 3909

### 79.12.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 7th June 2016, last changed 7th June 2016.

## 79.13 Files.CreationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Files.CreationDate"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns timestamp or error.

### Description

Although the function is named date, it does return the time, too. Result is a timestamp.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries creation date of a file

MBS( "Files.CreationDate"; "C:\test.txt" )

Show files Dates:

MBS( "Files.CreationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " created" & \$&

MBS( "Files.ModificationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " modified" & \$&

MBS( "Files.AccessDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " accessed"

### See also

- 79.1 Files.AccessDate 3825
- 79.40 Files.ModificationDate 3888
- 79.55 Files.SetCreationDate 3917
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [DynaPDF/PDF Library](#)
- [Files/File Listing With Icons](#)
- [Files/FileInfo](#)



### 79.13.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 17th July 2017.

## 79.14 Files.Delete

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.Delete"; Path )

### Parameters

#### Path

The native file path to the file to be deleted.

"/Users/John/Desktop/test.txt"

**Result** Returns OK or error message.

### Description

Works also for directories and can easily remove whole directory hierarchies! Be careful and make backups.

Use Files.MoveToTrash to move files to trash which is often better as it allows users to undo the operation. Also Files.MoveToTrash usually works on files in use.

It is possible that the OS decides to not delete the file and fail (e.g. due to permission errors).

Version 6.3 and newer support deleting a list of files. So you can pass a list of paths instead of just one. Stops at the first error.

Warning: If you pass path to a folder hierarchy, the whole folder hierarchy gets deleted!

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Delete a file on desktop on Mac:

```
$r = MBS("Files.Delete"; "/Users/cs/Desktop/testing.fp7")
```

Delete a file on desktop on Windows:

```
$r = MBS("Files.Delete"; "C:\Users\Christian\Desktop\testing.fp7")
```

Delete two files:

```
MBS("Files.Delete"; "/Users/cs/Desktop/test1.txt$/Users/cs/Desktop/test2.txt")
```

Delete two files on Windows:

79.14. *FILES.DELETE* 3847  
MBS("Files.Delete"; "C:\Users\Christian\Desktop\test1.txt&C:\Users\Christian\Desktop\test2.txt")

#### See also

- 79.10 Files.CreateDirectory 3839
- 79.15 Files.DeleteFolder 3848
- 79.44 Files.MoveToTrash 3896
- 93.75 ImageCapture.ImagePaths 5074
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 124.2 Path.FileMakerPathToNativePath 6247
- 127.31 Plugin.LimitFunction 6405
- 127.40 Plugin.SetFunctions 6417

#### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

#### 79.14.1 Blog Entries

- [FileMaker Server Security and plugins](#)
- [MBS FileMaker Plugin, version 6.4pr9](#)
- [ImageCapture functions for Mac OS X](#)
- [MBS FileMaker Plugin 6.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)
- [Shared FileMaker Server Hosting and Plugin Security](#)

#### 79.14.2 FileMaker Magazin

- [Ausgabe 1/2017, Seite 10](#)

Created 18th August 2014, last changed 3th June 2019.

## 79.15 Files.DeleteFolder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "Files.DeleteFolder"; Path )

### Parameters

#### Path

The native folder path to the item to be deleted.

"/Users/John/Desktop/test"

**Result** Returns OK or error message.

### Description

Use Files.MoveToTrash to move files to trash which is often better as it allows users to undo the operation. Also Files.MoveToTrash usually works on files in use.

It is possible that the OS decides to not delete the file and fail (e.g. due to permission errors). Folders are deleted recursively.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Delete a folder on desktop on Mac:

```
$r = MBS("Files.Delete"; "/Users/cs/Desktop/testing")
```

Delete a folder on desktop on Windows:

```
$r = MBS("Files.Delete"; "C:\Users\Christian\Desktop\testing")
```

### See also

- 79.10 Files.CreateDirectory 3839
- 79.14 Files.Delete 3846
- 79.44 Files.MoveToTrash 3896
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.15.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr8](#)

**79.15.2 FileMaker Magazin**

- Ausgabe 2/2017, Seite 41

Created 18th August 2014, last changed 12nd August 2015.

## 79.16 Files.DirectoryExists

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.DirectoryExists"; Path )

### Parameters

#### Path

Native path to the item to check.

"C:\Windows"

**Result** Returns 1 if directory exists and 0 if not.

### Description

If item exists at the path Files.itemExists returns 1. If it's a directory, Files.DirectoryExists also returns 1 and Files.FileExists returns 0. With a file, Files.FileExists returns 1 and Files.DirectoryExists returns 0. This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

### Examples

Checks whether directory exists:

```
Set Variable [ $r; Value:MBS( "Files.DirectoryExists"; "/Users/cs/Desktop" ) ]
```

### See also

- [79.19 Files.FileExists](#) 3855
- [79.34 Files.ItemExists](#) 3876
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [Files/File Exists](#)

### 79.16.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr3](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

**79.16.2 FileMaker Magazin**

- Ausgabe 2/2017, Seite 39
- Ausgabe 2/2017, Seite 38

Created 18th August 2014, last changed 18th October 2016.

## 79.17 Files.DiskInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Files.DiskInfo"; Mode; PathToVolume )

### Parameters

#### Mode

What to return. Can be totalBytes or freeBytes. On Windows you can also pass DriveType for type or FreeBytesAvailable to learn available space for current user. On Mac OS X you can query also fileCount, folderCount, blockSize, totalBlocks or freeBlocks.

"freeBytes"

#### PathToVolume

The path to volume. e.g. C:\, \\MyServer\MyDisk\ or /Volumes/testDisk/ or / for root volume on OS X.  
/

**Result** Returns value or error.

### Description

Please pass native path to volume.

For Windows network volumes with \\syntax, please include trailing backslash.

DriveType	Description
Unknown	The drive type cannot be determined.
Removable	The drive has removable media; for example, a floppy drive, thumb drive, or flash card reader.
Fixed	The drive has fixed media; for example, a hard disk drive or flash drive.
Remote	The drive is a remote (network) drive.
CDROM	The drive is a CD-ROM drive.
RAMDisk	The drive is a RAM disk.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query free bytes on Mac OS X root volume:

```
MBS("Files.DiskInfo"; "FreeBytes"; "/" )
```

Query total size of a mounted volume on Mac:

```
MBS("Files.DiskInfo"; "TotalBytes"; "/Volumes/Ablage1" )
```



Query number of files and folders on Mac:

```
MBS("Files.DiskInfo"; "FileCount"; "/" ) & " files and " & MBS("Files.DiskInfo"; "FolderCount"; "/" ) & " folders."
```

Query available free bytes on C: for Windows:

```
MBS("Files.DiskInfo"; "FreeBytesAvailable"; "C:")
```

Queries size of shared folder in VMWare on Windows:

```
MBS("Files.DiskInfo"; "TotalBytes"; "\\vmware-host\Shared Folders\Downloads")  
// please note the double quoting for backslashes in string constants!
```

Check drive type on Windows:

```
MBS( "Files.DiskInfo"; "DriveType"; "C:" )
```

#### See also

- [79.21 Files.FileInfo](#) 3858
- [124.2 Path.FileMakerPathToNativePath](#) 6247

#### 79.17.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)
- [MBS FileMaker Plugin 5.0 for OS X/Windows - More than 3000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 3th February 2015, last changed 27th June 2017.

## 79.18 Files.FileDisplayName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FileDisplayName"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

### Description

This name may be localized and may not include file extension. Only for displaying.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries display name of a file

MBS( "Files.FileDisplayName"; "C:\test.txt" )

Query localized name for desktop folder:

MBS( "Files.FileDisplayName" ; "/Users/cs/Desktop" )

Example result: "Schreibtisch"

### See also

- [124.2 Path.FileMakerPathToNativePath](#)

6247

### Example Databases

- [Files/FileInfo](#)
- [Mac only/MetaDataQuery/Search Applications](#)

#### 79.18.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)
- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 25th September 2019.

## 79.19 Files.FileExists

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FileExists"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\Windows"

**Result** Returns 1 if file exists and 0 if not.

### Description

If item exists at the path Files.itemExists returns 1. If it's a directory, Files.DirectoryExists also returns 1 and Files.FileExists returns 0. With a file, Files.FileExists returns 1 and Files.DirectoryExists returns 0. This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

For applications on Mac OS X, this function returns 0 as those are directories.

### Examples

Checks whether file exists:

```
Set Variable [ $r; Value:MBS( "Files.FileExists"; "/Users/cs/Desktop/test.rtf" ) ]
```

Test relative folder path by passing relative path after setting starting folder:

```
MBS("Process.SetCurrentDirectory"; "C:\Program Files (x86)\FileMaker\FileMaker Pro 18 Advanced/Extensions") &
MBS( "Files.FileExists"; "../Extensions/MBS.fmx")
```

### See also

- 62.182 CURL.SetOptionCAINFO 2063
- 70.22 DragDrop.GetPath 2550
- 70.23 DragDrop.GetPathCount 2553
- 79.16 Files.DirectoryExists 3850
- 79.34 Files.ItemExists 3876
- 124.2 Path.FilemakerPathToNativePath 6247
- 132.9 Process.SetCurrentDirectory 6595

- 184.8 WIA.Image 8641
- 184.9 WIA.ImageCount 8643

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL with certificates included with FileMaker](#)
- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Files/File Exists](#)
- [Win Only/WIA Scan](#)

### 79.19.1 Blog Entries

- [Use root certificates included with FileMaker](#)
- [MBS Filemaker Plugin, version 4.1pr3](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

Created 18th August 2014, last changed 16th October 2019.

## 79.20 Files.FileExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FileExtension"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns text or error.

### Description

Returns file extension without dot.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries file extension of a file

MBS( "Files.FileExtension"; "C:\test.txt" )

### See also

- 107.1 MailComposer.AddAttachmentContainer 5693
- 116.1 MessageComposer.AddAttachmentContainer 6105
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [iOS/iOS Email Sending](#)
- [iOS/iOS Message Sending](#)

### 79.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr1](#)

Created 25th May 2015, last changed 2nd June 2015.

## 79.21 Files.FileInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	Yes	Yes	No	Yes

MBS( "Files.FileInfo"; Path; Selector )

### Parameters

#### Path

The native file path to the application.

\$Path

#### Selector

Which value to query.

"Version"

**Result** Returns value or error.

### Description

This is intended for bundled app/plugin/framework files on Mac and on Windows for EXE/DLL files.

Possible selectors on Mac:

Version	Version
ShortVersion	Short version
MinimumSystemVersion	Minimum OS X version required to launch app.
InfoString	Finder Info string.
ExecutableName	Name of executable file in bundle.
Identifier	Bundle Identifier

Possible selectors on Win:

Description	The file description.
Version	The file version.
InternalName	The internal name.
CompanyName	The company name.
LegalCopyright	The legal copyright string.
OriginalFilename	The original filename.
ProductName	The product name.
ProductVersion	The product version.
Copyright	Human readable copyright string. (New in 7.5)

The file information is cached to queries with same file path will not reload values from file.

**Examples**

Queries information about FileMaker on Mac:

```
MBS("Files.FileInfo"; "/Applications/FileMaker Pro 13 Advanced/FileMaker Pro Advanced.app"; "Version")
```

```
MBS("Files.FileInfo"; "/Applications/FileMaker Pro 13 Advanced/FileMaker Pro Advanced.app"; "MinimumSystemVersion")
```

```
MBS("Files.FileInfo"; "/Applications/FileMaker Pro 13 Advanced/FileMaker Pro Advanced.app"; "ExecutableName")
```

```
MBS("Files.FileInfo"; "/Applications/FileMaker Pro 13 Advanced/FileMaker Pro Advanced.app"; "Identifier")
```

Queries some information about DebugView on Windows:

```
MBS("Files.FileInfo"; "C:\Users\Christian\Desktop\Dbgview.exe"; "Version")
```

```
MBS("Files.FileInfo"; "C:\Users\Christian\Desktop\Dbgview.exe"; "Description")
```

**See also**

- [79.17 Files.DiskInfo](#) 3852
- [79.22 Files.FileKind](#) 3860
- [79.23 Files.FileName](#) 3861
- [79.24 Files.FileSize](#) 3862
- [127.62 Version](#) 6446

**79.21.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS Filemaker Plugin, version 4.3pr6](#)

Created 18th August 2014, last changed 11st October 2017.

## 79.22 Files.FileKind

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	No	No

MBS( "Files.FileKind"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns file kind text or error.

### Description

This is the file type displayed by the Finder or Explorer. Like "FileMaker Pro Database" for a .fp7 file. This string can be localized.

### Examples

Queries file kind of a file

MBS( "Files.FileKind"; "C:\test.txt" )

### See also

- [79.21 Files.FileInfo](#) 3858
- [79.23 Files.FileName](#) 3861
- [79.24 Files.FileSize](#) 3862

### Example Databases

- [Files/File Listing With Icons](#)
- [Files/FileInfo](#)

### 79.22.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr5](#)
- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 25th February 2017.



## 79.23 Files.FileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FileName"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns file name as text or error.

### Description

### Examples

Queries file name of a file

MBS( "Files.FileName"; "C:\test.txt" )

### See also

- [79.21 Files.FileInfo](#) 3858
- [79.22 Files.FileKind](#) 3860
- [79.24 Files.FileSize](#) 3862
- [87.281 GImage.SetResolutionUnits](#) 4762

### Example Databases

- [CURL/Email/Batch Emailer](#)
- [Files/FileInfo](#)
- [GraphicsMagick/SVG to PNG](#)

### 79.23.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr5](#)
- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 79.24 Files.FileSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FileSize"; Path { ; Options } )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

#### Options

Optional

Optionally specifies on Mac OS X what size is returned. Default is total logical file size. Pass datafork or resourcefork to limit query to only size of given fork. And pass physical or logical to query logical size or the physical size, defined by blocks used on Disk.

"physical datafork"

**Result** Returns file size in bytes.

### Description

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

With 2.9 plugins you can set parameter to query only size of resource fork or data fork on Mac OS X. And you can define if you want to query size on disk (rounded up to block size) or the logical size.

### Examples

Queries file size of a file

```
MBS( "Files.FileSize"; "C:\test.txt" )
```

Queries logical data fork size of a file on Mac OS X:

```
MBS( "Files.FileSize"; "/Users/Shared/Test.txt"; "datafork" )
```

Queries physical size of a file on Mac OS X:

```
MBS( "Files.FileSize"; "/Users/Shared/Test.txt"; "physical" )
```

Queries physical resource fork size of a file on Mac OS X:

```
MBS( "Files.FileSize"; "/Users/Shared/Test.txt"; "physical-resourcefork" )
```

Queries physical data fork size of a file on Mac OS X:

```
MBS( "Files.FileSize"; "/Users/Shared/Test.txt"; "physical datafork" )
```

79.24. *FILES.FILESIZE* 3863

**See also**

- 79.21 Files.FileInfo 3858
- 79.22 Files.FileKind 3860
- 79.23 Files.FileName 3861
- 79.26 Files.FolderSize 3865
- 124.2 Path.FileMakerPathToNativePath 6247

**Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [DynaPDF/PDF Library](#)
- [Files/FileInfo](#)

**79.24.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.4pr2](#)
- [MBS Filemaker Plugin, version 2.9pr3](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 79.25 Files.FileUTITypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	No	Yes, macOS only	No	No

MBS( "Files.FileUTITypes"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns file types as text or error.

### Description

For example a rtf file has the type public.rtf and going up the chain of types, it also has "public.text, public.data, public.item and public.content. A jpg image has types public.jpeg, public.image, public.data, public.item and public.content. So if you look for "public.image" in the types, you can identify that the file is an image file.

### Examples

Queries types of a file

MBS( "Files.FileUTITypes"; "C:\test.txt" )

### Example Databases

- [Files/FileInfo](#)

#### 79.25.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 79.26 Files.FolderSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "Files.FolderSize"; Path { ; RecursionLimit; IgnoreHiddenFolderContent; CountBundlesAsItem } )

### Parameters

#### Path

Native file path to folder.

"C:\Test"

#### RecursionLimit

Optional

The limit for the recursion. Default is -1 for no limit. Pass zero to only look in files in that folder and not subfolders.

0

#### IgnoreHiddenFolderContent

Optional

Do not count items in hidden subfolders. Pass 1 to ignore or 0 to count. Default is 0.

0

#### CountBundlesAsItem

Optional

Count bundles as items. Default is 0 to look inside those bundles, e.g. apps. Pass 1 to count bundles as files.

1

**Result** Returns values or error.

### Description

On success returns a list of values. Please calculate ones, save result in variable and pick the values you need. It's quite efficient for us to query all those values in one run as disk access is the slowest part here, not summing up the values.

Windows doesn't know about resource fork, so the resource fork sizes are zero there always.

Currently block size calculation for Windows is not done, so logical and physical sizes are identical.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Calculate my desktop size:

```
MBS( "Files.FolderSize"; "/Users/cs/Desktop" )
```

Caluclate on Windows:

Name	Position	Description	Example
ItemCount	1	Total number of items	153
FilesCount	2	Total number of files	140
FolderCount	3	Total number of folders.	13
VisibleItemCount	4	Number of visible items.	143
HiddenItemCount	5	Number of hidden items.	10
VisibleFilesCount	6	Number of visible files.	130
HiddenFilesCount	7	Number of hidden files.	10
VisibleFolderCount	8	Number of visible folders.	13
HiddenFolderCount	9	Number of hidden folders.	0
PhysicalTotalSize	10	Total physical byte size.	186777600
LogicalTotalSize	11	Total logical byte size.	186581344
VisiblePhysicalTotalSize	12	Total physical byte size for visible files.	186679296
VisibleLogicalTotalSize	13	Total logical byte size for visible files.	186507445
HiddenPhysicalTotalSize	14	Total physical byte size for hidden files.	98304
HiddenLogicalTotalSize	15	Total logical byte size for hidden files.	73899
PhysicalDataForkSize	16	Total physical byte size.	172150784
LogicalDataForkSize	17	Total logical byte size.	171970091
VisiblePhysicalDataForkSize	18	Total physical data fork byte size for visible files.	172052480
VisibleLogicalDataForkSize	19	Total logical data fork byte size for visible files.	171896192
HiddenPhysicalDataForkSize	20	Total physical data fork byte size for hidden files.	98304
HiddenLogicalDataForkSize	21	Total logical data fork byte size for hidden files.	73899
PhysicalResourceForkSize	22	Total physical resource fork byte size.	14626816
LogicalResourceForkSize	23	Total logical resource fork byte size.	14611253
VisiblePhysicalResourceForkSize	24	Total physical resource fork byte size for visible files.	14626816
VisibleLogicalResourceForkSize	25	Total logical resource fork byte size for visible files.	14611253
HiddenPhysicalResourceForkSize	26	Total physical resource fork byte size for hidden files.	0
HiddenLogicalResourceForkSize	27	Total logical resource fork byte size for hidden files.	0
RecursionMaxLevel	28	Maximum recursion level we had.	3

MBS( "Files.FolderSize"; "/Users/cs/Desktop" )

### See also

- [79.24 Files.FileSize](#) 3862
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### 79.26.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr1](#)
- [New functions for MBS FileMaker Plugin coming soon](#)
- [Calculating folder size](#)

### 79.26.2 FileMaker Magazin

- [Ausgabe 2/2017, Seite 38](#)

Created 11st March 2016, last changed 11st March 2016.

## 79.27 Files.GetComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.2	Yes	No	Yes, macOS only	No	No

MBS( "Files.GetComment"; Path )

### Parameters

#### Path

The native path to the file.

"/Users/John/Desktop/test.txt"

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries file comment:

MBS( "Files.GetComment"; "/Users/cs/Desktop/Wifi.rtf" )

### See also

- 79.54 Files.SetComment 3916
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.27.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 25th April 2016, last changed 4th July 2016.

## 79.28 Files.GetFinderLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.2	Yes	No	Yes, macOS only	No	No

MBS( "Files.GetFinderLabel"; Path )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

**Result** Returns number or error.

### Description

Value is 0 for no label or 1 to 7 for different colors.

Please use Files.GetTagNames to query tag names.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query color:

MBS("Files.GetFinderLabel"; "/Users/cs/Desktop/test.rtf")

### See also

- 79.32 Files.GetTagNames 3874
- 79.56 Files.SetFinderLabel 3918
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.28.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 17th May 2016, last changed 17th May 2016.



## 79.29 Files.GetNodeID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.1	Yes	Yes	Yes	No	No

MBS( "Files.GetNodeID"; Path )

### Parameters

#### Path

The native file/folder path.

\$path

**Result** Returns file ID as number.

### Description

On Mac OS X, every file usually has an unique ID on the hard disk.

Not all volumes support NodeIDs, but if they do, you can later find the file back on that volume using Files.GetPathFromNodeID.

Added Windows support in plugin version 8.5.

While node id is currently a 64-bit integer, it could change in future to an UUID or 128bit number.

### Examples

Queries node ID:

```
Set Variable [ $r; Value:MBS( "Files.GetNodeID"; "/Users/cs/Desktop/todo.rtf" ) ]
```

Test ID functions:

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/test.rtf" ]
Set Variable [ $id ; Value: MBS( "Files.GetNodeID"; $Path ) ]
Set Variable [ $NewPath ; Value: MBS( "Files.GetPathFromNodeID"; "/" ; $id ) ]
Show Custom Dialog [ "Both Paths should be same" ; $Path & $& $newPath ]
```

Test on Windows:

```
Set Variable [ $node ; Value: MBS( "Files.GetNodeID"; "C:\Users\Christian\Desktop\DbgView.exe" ) ]
Set Variable [ $path ; Value: MBS( "Files.GetPathFromNodeID"; "C:" ; $node ) ]
Show Custom Dialog [ "NodeID" ; $node & $& $path ]
```

### See also

- 79.30 Files.GetPathFromNodeID

3871

### Example Databases

- [Files/Alias and NodeID](#)

### 79.29.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 18th August 2014, last changed 25th October 2018.

## 79.30 Files.GetPathFromNodeID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.1	Yes	Yes	Yes	No	No

MBS( "Files.GetPathFromNodeID"; VolumePath; NodeID )

### Parameters

#### VolumePath

The native path to the volume.

"/"

#### NodeID

The node ID for the file, a number.

\$nodeID

**Result** Returns the path for the file or error message.

### Description

You need to pass the path to the volume where this NodeID belongs to.

This does not work well for most network mounts.

The plugin may run a search which can take a while.

Added Windows support in plugin version 8.5.

### Examples

Resolve node on system volume:

```
MBS( "Files.GetPathFromNodeID"; "/" ; $NodeID )
```

Resolve node on mounted volume named USBStick:

```
MBS( "Files.GetPathFromNodeID"; "/Volumes/USBStick"; $NodeID )
```

Test ID functions:

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/test.rtf" ]
```

```
Set Variable [ $id ; Value: MBS( "Files.GetNodeID"; $Path ) ]
```

```
Set Variable [ $NewPath ; Value: MBS( "Files.GetPathFromNodeID"; "/" ; $id ) ]
```

```
Show Custom Dialog [ "Both Paths should be same" ; $Path & $& $newPath ]
```

Test on Windows:

```
Set Variable [ $node ; Value: MBS( "Files.GetNodeID"; "C:\Users\Christian\Desktop\DbgView.exe" ) ]
```

```
Set Variable [ $path ; Value: MBS( "Files.GetPathFromNodeID"; "C:" ; $node ) ]
```

```
Show Custom Dialog [ "NodeID" ; $node & $& $path ]
```

**See also**

- [79.29 Files.GetNodeID](#)

3869

**Example Databases**

- [Files/Alias and NodeID](#)

**79.30.1 Blog Entries**

- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 8.4pr3](#)
- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 18th August 2014, last changed 25th October 2018.

## 79.31 Files.GetPosixPermissions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	No	Yes	Yes	Yes

MBS( "Files.GetPosixPermissions"; Path )

### Parameters

#### Path

The native path to the file or folder.

"/Users/John/Desktop/test.txt"

**Result** Returns OK or error message.

### Description

Path must be valid and exist.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

See chmod command manual page. The plugin converts parameter to string and parses it as octal number.

This way you can pass 777 as number and it's interpreted as expected.

### Examples

Query permissions:

MBS( "Files.GetPosixPermissions"; "/Users/cs/Desktop/test" )

# shows for example 755

### See also

- 79.59 Files.SetPosixPermissions 3921
- 124.2 Path.FilemakerPathToNativePath 6247

### 79.31.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 29th May 2017.

## 79.32 Files.GetTagNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.5	Yes	No	Yes, macOS only	No	No

MBS( "Files.GetTagNames"; Path )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

Please note that some tags may include chr(10) followed by a number to indicate which label color is used for compatibility to older OS X versions. Those appear escaped as \n in the result.

You can use Files.GetFinderLabel to read label number.

### Examples

Queries tag names:

```
Set Variable [ $r; Value:MBS( "Files.GetTagNames"; "/Users/cs/Desktop/todo.rtf" ) ]
```

### See also

- 79.28 Files.GetFinderLabel 3868
- 79.60 Files.SetTagNames 3923
- 124.2 Path.FilemakerPathToNativePath 6247

### 79.32.1 Blog Entries

- [MBS Filemaker Plugin, version 3.5pr2](#)

Created 18th August 2014, last changed 18th October 2016.

## 79.33 Files.IsHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	7.1	Yes	Yes	Yes	No	No

MBS( "Files.IsHidden"; Path )

### Parameters

#### Path

The native path to the file or folder to be checked.

"/Users/John/Desktop/test.txt"

**Result** Returns 1, 0 or error.

### Description

### See also

- 79.57 Files.SetHidden

3919

### 79.33.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 1st March 2017, last changed 1st March 2017.

## 79.34 Files.ItemExists

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ItemExists"; Path )

### Parameters

#### Path

Native path to the item to check.

"C:\Windows"

**Result** Returns 1 if item exists and 0 if not.

### Description

If item exists at the path Files.itemExists returns 1. If it's a directory, Files.DirectoryExists also returns 1 and Files.FileExists returns 0. With a file, Files.FileExists returns 1 and Files.DirectoryExists returns 0.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

### Examples

Checks whether item exists:

```
Set Variable [ $r; Value:MBS( "Files.ItemExists"; "/Users/cs/Desktop/test.rtf" ) ]
```

### See also

- [79.16 Files.DirectoryExists](#) 3850
- [79.19 Files.FileExists](#) 3855
- [124.2 Path.FilemakerPathToNativePath](#) 6247

### Example Databases

- [Files/File Exists](#)

### 79.34.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr3](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

Created 18th August 2014, last changed 18th October 2016.



## 79.35 Files.Launch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	No	No

```
MBS( "Files.Launch"; AppPath { ; DocPath; NewInstance } )
```

### Parameters

#### AppPath

Native path to the application to launch.

```
"/Applications/TextEdit.app"
```

#### DocPath

Optional

Optional, Native path to the document to pass as argument. Must be text to distinguish from flag, which are numbers.

```
"/Users/cs/Desktop/Notes.rtf"
```

#### NewInstance

Optional

Available in MBS FileMaker Plugin 7.2 or newer.

Whether to launch new app instance on Mac. Default is 0.

```
1
```

**Result** Returns "OK" or error.

### Description

The OS will lookup what application is associated with the file type and launch the application asking it to open the document.

You can use this function to open a database file with FileMaker or your runtime solution. Query with Files.AppPath the path to your application. Then call Launch with that application path and your database file path.

Please use Files.LaunchFile to open a file and Files.Launch to open a file in a specific application.

Version 5.3 supports passing several DocPath parameters.

With version 7.2 the last parameter can be a number with 0 or 1 to define whether to run a new app instance.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Launch two text files in Textedit:

```
MBS( "Files.Launch"; "/Applications/TextEdit.app"; "/Users/cs/Desktop/filme.rtf"; "/Users/cs/Desktop/test.rtf" )
```

Run notepad on Windows with a text file:

```
MBS( "Files.Launch"; "notepad.exe"; "C:\Users\Christian\Desktop\test2.txt")
```

Launch iMessages app:

```
MBS( "Files.Launch"; "/Applications/Messages.app")
```

Launch Mail application:

```
MBS( "Files.Launch"; "/Applications/Mail.app")
```

Restart FileMaker with same database:

```
Set Variable [ $dbpath; Value:Get ( FilePath ) ]
Set Variable [ $dbpath; Value:MBS( "Path.FileMakerPathToNativePath"; $dbpath ) ]
Set Variable [ $apppath; Value:MBS( "App.GetProcessPath" ) ]
Set Variable [ $r; Value:MBS( "Files.Launch"; $apppath; $dbpath; 1 ) ]
Exit Application
```

Open Website in Firefox on Windows:

```
MBS( "Files.Launch"; "C:\Program Files\Mozilla Firefox\Firefox.exe"; "http://www.mbsplugins.de" )
```

Open website in Google Chrome on Windows:

```
MBS( "Files.Launch"; "C:\Program Files (x86)\Google\Chrome\Application\Chrome.exe"; "http://www.mbsplugins.de" )
```

### See also

- 35.8 App.GetProcessPath 928
- 79.3 Files.AppPath 3828
- 79.36 Files.LaunchFile 3880
- 82.7 Folders.SystemTemporary 4233
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.5 Path.LastPathComponent 6252
- 125.28 PDFKit.Open 6306
- 151.9 Shell.Execute 7125

## 79.35. *FILES.LAUNCH*

3879

- 192.3 WordFile.AppendTableRow

8954

### Example Databases

- [Files/Launch](#)
- [Files/Open Database](#)

### 79.35.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr1](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [Restart FileMaker with same database](#)
- [MBS FileMaker Plugin, version 5.3pr1](#)
- [MBS Filemaker Plugin, version 4.2pr12](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr1](#)

Created 18th August 2014, last changed 7th March 2019.

## 79.36 Files.LaunchFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	Yes	No	No

```
MBS( "Files.LaunchFile"; Path { ; NewInstance } )
```

### Parameters

#### Path

Native path to the item to reveal.

```
"/Users/cs/Desktop/Notes.rtf"
```

#### NewInstance

Optional

Available in MBS FileMaker Plugin 7.2 or newer.

Whether to launch new app instance on Mac. Default is 0.

```
1
```

**Result** Returns "OK" or error.

### Description

The OS will lookup what application is associated with the file type and launch the application asking it to open the document.

See also Files.Launch if you need to pass application and document.

If you launch a folder path, the folder will open in Finder/Explorer.

Please use Files.LaunchFile to open a file and Files.Launch to open a file in a specific application.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Shows a folder in Finder on Mac:

```
MBS( "Files.LaunchFile"; "/Users" )
```

Write container to temp file and launch:

```
# get temp folder
Set Variable [ $TempFolder; Value:MBS( "Folders.SystemTemporary" ) ]
# and file name from container
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; test::myContainer ) ]
# add name to folder path
Set Variable [ $TempPath; Value:MBS( "Path.AddPathComponent"; $TempFolder; $name ) ]
# now write temp file
```

```
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::myContainer; $TempPath) ]  
# and launch file  
Set Variable [ $r; Value:MBS( "Files.LaunchFile"; $TempPath) ]
```

Launch new copy of same app:

```
MBS("Files.LaunchFile"; "/Applications/FileMaker Pro 15 Advanced/FileMaker Pro Advanced.app"; 1)
```

### See also

- [35.10 App.OpenFile](#) 930
- [79.35 Files.Launch](#) 3877
- [79.62 Files.WriteFile](#) 3925
- [82.7 Folders.SystemTemporary](#) 4233
- [124.1 Path.AddPathComponent](#) 6243
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [124.5 Path.LastPathComponent](#) 6252
- [125.28 PDFKit.Open](#) 6306
- [192.3 WordFile.AppendTableRow](#) 8954
- [192.18 WordFile.ReplaceTag](#) 8973

### Example Databases

- [DynaPDF/Shrink PDF pages](#)
- [Files/Launch](#)
- [WordFile/WordFile Fields](#)
- [WordFile/WordFile Image](#)
- [WordFile/WordFile](#)

#### 79.36.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS Filemaker Plugin, version 4.2pr12](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr1](#)

Created 18th August 2014, last changed 11st July 2017.

## 79.37 Files.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Files.List"; Path { ; filter; ExtensionFilter } )

### Parameters

#### Path

Native path to the directory.

"C:\Test"

#### filter

Optional

Optional, limits what is returned. Default is 0 to report all files. Pass a combination of 1 for showing only files, 2 for showing only directories and 4 for showing only visible items. Add 8 if the path includes the file name specification with wildcards. Combined pass 4+1 for visible files or 2+1 for visible directories.

5

#### ExtensionFilter

Optional

Optional, a filter for getting only files with matching file extension.

".txt"

**Result** Returns list of files separated by return.

### Description

The list of names is separated by new line character.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

With filter parameter being 8 on Windows, you can pass a path with wildcards directly and ExtensionFilter parameter is ignored. This is not supported on Mac OS X.

See also Files.ListRecursive. You can filter result with List.MatchesPostfix to get list with one file extension only.

If you need sorting, please check List.Sort function.

### Examples

Queries files in Users folder on Mac:

```
$files = MBS("Files.List"; "/Users")
```

Queries visible files in windows folder:

```
$files = MBS("Files.List"; "c:\\Windows\\"); 5)
```

### 79.37. FILES.LIST

3883

Queries DLL files in windows folder:

```
$files = MBS("Files.List"; "c:\\Windows\\"; 0; ".dll")
```

Queries Applications with name starting with e in windows folder:

```
$files = MBS("Files.List"; "c:\\Windows\\e*.exe"; 8)
```

Find FileMaker databases in a folder:

```
MBS("Files.List"; "c:\\Users\\Christian\\Desktop"; 0; ".fmp12")
```

#### See also

- [79.38 Files.ListRecursive](#) 3885
- [79.39 Files.ListVolumes](#) 3887
- [105.20 List.MatchesPostfix](#) 5520
- [105.31 List.RemovePrefix](#) 5536
- [105.36 List.Sort](#) 5543
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [167.49 Text.ReadTextFile](#) 7971
- [54.35 ZipFile.CompressFiles](#) 1547

#### Example Databases

- [CURL/WebServices/WeatherBit.io test](#)
- [DynaPDF/DynaPDF Batch Preview](#)
- [Files/File Listing With Icons](#)
- [Files/File listing](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [SQL in FileMaker/ImageGallery](#)

### 79.37.1 Blog Entries

- [Parsing VCard file](#)
- [MBS FileMaker Plugin, version 6.5pr1](#)
- [MBS FileMaker Plugin, version 6.4pr4](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)
- [MBS Filemaker Plugin, version 3.1pr10](#)
- [MBS Filemaker Plugin, version 3.1pr4](#)
- [MBS FileMaker Plugin 2.8 for OS X/Windows - More than 1100 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 2.8pr2](#)

### 79.37.2 FileMaker Magazin

- [Ausgabe 1/2017, Seite 10](#)

Created 18th August 2014, last changed 17th March 2020.



## 79.38 Files.ListRecursive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ListRecursive"; Path { ; filter; Timeout } )

### Parameters

#### Path

Native path to the directory.

"C:\Test\"

#### filter

Optional

Optional, limits what is returned. Default is 0 to report all files. Pass a combination of 1 for showing only files, 2 for showing only directories and 4 for showing only visible files. Add 16 to include package file content on Mac. Add 32 to treat packages as files. In v7.3 you can add 64 to not list content of invisible directories.  
5

#### Timeout

Optional

the timeout in seconds. Default is 5.

5.0

**Result** Returns list of files separated by return.

### Description

This function is recursive and will look in all subfolders. Due to very large file systems you can pass a timeout. Default is 5 seconds. FileMaker will not respond to user input while the query runs.

The list of names is separated by new line character.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

You can decide on Mac on whether files inside a package (e.g. application) are listed or not. By default we ignore those files, but you can include package content with adding 16 to the filter parameter.

See also Files.List.

If input path ends with / on Windows, we use slash for adding path components in v8.4 or newer. Otherwise we use the default on Windows, which is a backslash.

### Examples

Queries files in Users folder on Mac:

```
$files = MBS("Files.List"; "/Users")
```

Queries visible files in windows folder:

```
$files = MBS("Files.List"; "c:\Windows\"; 5)
```

Queries visible files in windows folder, limit for 10 seconds:

```
$files = MBS("Files.List"; "c:\Windows\"; 5; 10)
```

List only visible files in visible directories:

```
MBS( "Files.ListRecursive"; "/Users/shared"; 64+4)
```

#### See also

- [79.37 Files.List](#) 3882
- [105.31 List.RemovePrefix](#) 5536
- [124.2 Path.FileMakerPathToNativePath](#) 6247

#### Example Databases

- [Files/File listing recursive](#)

#### 79.38.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr10](#)
- [MBS FileMaker Plugin, version 7.3pr2](#)
- [MBS FileMaker Plugin, version 7.1pr4](#)
- [MBS FileMaker Plugin, version 6.4pr4](#)
- [MBS FileMaker Plugin, version 6.2pr9](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

#### 79.38.2 FileMaker Magazin

- [Ausgabe 2/2017, Seite 39](#)

Created 18th August 2014, last changed 18th September 2018.

## 79.39 Files.ListVolumes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.5	Yes	Yes	Yes	No	No

MBS( "Files.ListVolumes" { ; ShowMore } )

### Parameters

#### ShowMore

Optional

Whether to show volumes we'd normally not show. e.g. invisible volumes on Mac or drives on Windows without disk.

0

**Result** Returns paths or error.

### Description

Returns a list of paths to mounted volumes.

e.g. on Mac: `"/§/Volumes/MBSFMPlugin64"`, so first volume is normally `/` for the boot volume.

### Examples

List volumes:

```
MBS("Files.ListVolumes")
```

List all volumes:

```
MBS("Files.ListVolumes";1)
```

### See also

- [79.37 Files.List](#)

3882

### 79.39.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 17th November 2016, last changed 17th November 2016.

## 79.40 Files.ModificationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ModificationDate"; Path )

### Parameters

#### Path

Native path to the file to check.

"C:\test\me.jpg"

**Result** Returns timestamp or error.

### Description

Although the function is named date, it does return the time, too. Result is a timestamp.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries modification date of a file

```
MBS( "Files.ModificationDate"; "C:\test.txt" )
```

Show files Dates:

```
MBS( "Files.CreationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " created" & §&
```

```
MBS( "Files.ModificationDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " modified" & §&
```

```
MBS( "Files.AccessDate"; "C:\Users\Christian\Desktop\ddd.rtf" ) & " accessed"
```

### See also

- 79.1 Files.AccessDate 3825
- 79.13 Files.CreationDate 3844
- 79.58 Files.SetModificationDate 3920
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Files/File Listing With Icons](#)
- [Files/FileInfo](#)

### 79.40.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.9pr3](#)

Created 18th August 2014, last changed 17th July 2017.

## 79.41 Files.Mount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.1	Yes	Yes	Yes	Yes	No

MBS( "Files.Mount"; URL { ; Dest; Username; Password; Interactive; Prompt } )

### Parameters

#### URL

The URL for the network resource.

#### Dest

Optional

The destination path to mount to. If you leave this empty, the system decides. On Mac this can be the path to a folder where to mount new disk inside, e.g. to make a private mount.

""

#### Username

Optional

The user name. If none is provided, system can take credentials from keychain.

"test"

#### Password

Optional

The password to use.

"test"

#### Interactive

Optional

Default is 0 for no dialogs. But you can pass 1 to have a dialog show up.

1

#### Prompt

Optional

Pass 1 on Windows to show dialog always to enter password.

0

**Result** Returns path or error.

### Description

Use on Server may require extra work as server runs with a different user account than you being logged in on the server machine. Permissions don't always allow things to be done.

When used on Linux the parameters are a little bit different:

Please pass source (URL), target (Dest), type (Username) and data (Password).

The dest path may need to be created first as new folder.

### Examples

Mount Ablage1 on Mac:

```
MBS("Files.Mount"; "afp://Ablage1.local"; ""; ""; "")
```

Mount Ablage1 on Mac with password:

```
MBS("Files.Mount"; "afp://Ablage1.local"; ""; "root"; "xxx")
```

Mount something on Windows:

```
MBS("Files.Mount"; "\\myServer\public"; "X:"; ""; "")
```

Mount Ablage 2 on Windows:

```
MBS( "Files.Mount"; "\\Ablage2.local\Ablage2"; "H:" )
# password already known to Windows
```

Mount Ablage 2 on Windows with password:

```
MBS( "Files.Mount"; "\\Ablage2.local\Ablage2"; "H:"; "root"; "xxx" )
```

Unmount drive:

```
MBS("Files.Unmount"; "H:")
```

Mounts AFP volume with space in name:

```
MBS( "Files.Mount"; "afp://192.168.168.250/Customer% 20Data" )
```

Mount on Linux:

```
MBS( "Files.Mount"; "//192.168.101.100/sales"; "/mnt/test"; "cifs"; "username=shareuser,password=sharepass-
word,domain=nixcraft")
```

Mount SMB share from Windows Server 2012:

```
MBS("Files.Mount"; "\\192.168.0.242\ERP"; ""; "SRV2012\bob"; "test")
```

# please note the SRV2012\prefix for the user name for this Windows server.

### See also

- 79.42 Files.MountPath 3893
- 79.61 Files.Unmount 3924

### 79.41.1 Blog Entries

- [Network share access from script on FileMaker Server](#)
- [Adding Bonjour functions for MBS FileMaker Plugin](#)
- [Tip of the day: Mount drive on FileMaker Server](#)
- [MBS FileMaker Plugin, version 5.2pr1](#)
- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 10th May 2015, last changed 16th May 2017.



## 79.42 Files.MountPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	8.3	Yes	Yes	Yes	No	No

MBS( "Files.MountPath"; Disk )

### Parameters

#### Disk

Path native path to disk drive.

"E:"

**Result** Returns mount URL, empty or error.

### Description

For a network mounted disk, you can query the original mount point.

May not work on Mac for AFP shares, but for SMB shares.

Returns empty path if no path is known.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query mount path on MacOS:

MBS( "Files.MountPath"; "/Volumes/Macbook Pro" )

Example result: "smb://cs@Server.\_smb.\_tcp.local/Macbook% 20Pro"

Query mount path on Windows:

MBS( "Files.MountPath"; "Z:")

Example result: "\\vmware-host\Shared Folders"

### See also

- 79.41 Files.Mount 3890
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.42.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 1st June 2018, last changed 2nd June 2018.

## 79.43 Files.MoveFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.8	Yes	Yes	Yes	Yes	Yes

```
MBS( "Files.MoveFile"; SourcePath; DestPath { ; Overwrite; SkipSourcePermissionErrors; ProgressTitle }
)
```

### Parameters

#### SourcePath

The native path to the file or folder to be moved.

"/Users/John/Desktop/test.txt"

#### DestPath

The native path to the destination folder or file.

"/Users/John/Desktop/Backup/"

#### Overwrite

Optional

Mac only: Whether to allow overwriting existing files. Default is off. Pass 1 to enable and 0 to disable. On Windows, it overwrites always.

1

#### SkipSourcePermissionErrors

Optional

Mac only: Whether to skip files with permission errors. Default is off. Pass 1 to enable and 0 to disable.

1

#### ProgressTitle

Optional

Title for the progress window. For Windows only and the text may not be visible in your version of Windows.

"Copying FileMake files"

**Result** Returns OK or error message.

### Description

SourcePath and DestPath must be valid and exist. So pass destination folder for the destination.

The Linux implementation does only move files within the same file system.

On Mac you may get error -43 for file not found if you refer to a file in a folder, where you don't have file permissions to look inside the folder.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Move a file:

### 79.43. *FILES.MOVEFILE*

3895

MBS( "Files.MoveFile"; "C:\Users\Christian\Desktop\test1.txt"; "C:\Users\Christian\Desktop\test2.txt")

#### See also

- 79.6 Files.CopyFile 3832
- 79.7 Files.CopyFiles 3834
- 79.45 Files.ReadFile 3898
- 79.52 Files.RevealFile 3912
- 79.62 Files.WriteFile 3925
- 124.2 Path.FileMakerPathToNativePath 6247
- 183.12 WebDownloadDelegate.Path 8422
- 183.16 WebDownloadDelegate.SetFolder 8427

#### Example Databases

- [Files/FileOperation](#)

#### 79.43.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 8.5pr7](#)
- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 7.0pr3](#)
- [MBS Filemaker Plugin, version 2.8pr1](#)

#### 79.43.2 FileMaker Magazin

- Ausgabe 2/2017, Seite 40

Created 18th August 2014, last changed 20th August 2018.

## 79.44 Files.MoveToTrash

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Files.MoveToTrash"; Path )

### Parameters

#### Path

The native file path to the file or folder to be deleted.

"/Users/John/Desktop/test.txt"

**Result** Returns OK or error message.

### Description

Use this functions to move files and folders to the trash.

It is possible that the OS decides to not delete the file and fail (e.g. due to permission errors) or that the medium does not have a trash, so the file is deleted right away.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Delete a file on desktop on Mac by moving it to trash:

```
$r = MBS("Files.MoveToTrash"; "/Users/cs/Desktop/testing.fp7")
```

Delete a file on desktop on Windows by moving it to trash:

```
$r = MBS("Files.MoveToTrash"; "C:\Users\Christian\Desktop\testing.fp7")
```

Delete a file to trash with path in variable:

```
$r = MBS("Files.MoveToTrash"; $Path)
```

### See also

- 71.277 DynaPDF.Initialize 2992
- 79.14 Files.Delete 3846
- 79.15 Files.DeleteFolder 3848
- 124.2 Path.FileMakerPathToNativePath 6247

79.44. *FILES.MOVETOTRASH*

3897

- 127.35 Plugin.Path

6410

### **Example Databases**

- [Files/FileOperation](#)
- [RunTask/RunTask](#)

#### **79.44.1 Blog Entries**

- [Adobe PDFViewer crashes in FileMaker](#)
- [MBS FileMaker Plugin, version 5.3pr1](#)
- [MBS Filemaker Plugin, version 2.8pr1](#)

Created 18th August 2014, last changed 23th November 2019.

## 79.45 Files.ReadFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ReadFile"; FilePath { ; mode; filename } )

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac.  
`"test.txt"`

#### mode

Optional

Can be `base64` to encode data first to base64 encoding. Or can be `Hex` to encode to hex encoding. If filter is `"container"`, the result is returned as a container with a `FILE` stream inside. Version 5.3 supports filter `"auto"` to auto detect the type of container.

`"Base64"`

#### filename

Optional

If filter is container, this defines the file name to use.

`"test.txt"`

**Result** Returns container value or error.

### Description

Reads the data in the file and returns as text with native encoding. This may truncate the string at the first null byte.

You can optionally define a mode like `base64` or `Hex` to read any bytes including null bytes.

See also `Text.ReadTextFile` for reading text files with specific encoding.

Reading files over 1 GB is not supported.

Added new modes with version 5.3: `auto`, `compressed`, `pdf`, `png`, `jpg`, `tif`, `gif`, `bmp` or `psd`.

For reading simple text files, please use `Text.ReadTextFile`.

See also `Files.ReadJPEG`, `Files.ReadPDF`, `Files.ReadPNG`, `Text.ReadTextFile` and `RichText.ReadFile`.

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read file with some data:

#### 79.45. FILES.READFILE

3899

MBS("Files.ReadFile"; \$Path )

Read file with some data and encode base64:

MBS("Files.ReadFile"; "/Users/cs/Desktop/test.txt"; "base64")

Read as compressed container:

Set Field [ Container Compression::SomeContainer; MBS("Files.ReadFile"; "/Users/cs/Desktop/test.jpg"; "compressed"; "test.jpg") ]

Read file on Server:

MBS( "Files.ReadFile"; "C:\Programs\FileMaker Server\Data\Documents\test.pdf")

#### See also

- 71.120 DynaPDF.GeneratePreview 2790
- 79.6 Files.CopyFile 3832
- 79.46 Files.ReadJPEG 3901
- 79.49 Files.RenameFile 3907
- 79.52 Files.RevealFile 3912
- 93.69 ImageCapture.Download 5066
- 124.2 Path.FileMakerPathToNativePath 6247
- 125.7 PDFKit.GeneratePreview 6272
- 141.10 RichText.ReadFile 6838
- 167.49 Text.ReadTextFile 7971

#### Example Databases

- [CURL/WebServices/WeatherBit.io test](#)
- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [Drag and Drop/for Mac/DragTest multiple picture files](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Mac only/ImageCapture/Camera Import](#)

### 79.45.1 Blog Entries

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [\[ ANN \] MBS FileMaker Plugin 5.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.3pr4](#)
- [Compressed Containers](#)
- [MBS Filemaker Plugin, version 4.4pr6](#)
- [MBS Filemaker Plugin, version 3.5pr7](#)

Created 18th August 2014, last changed 17th August 2018.



## 79.46 Files.ReadJPEG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ReadJPEG"; Path { ; FileName } )

### Parameters

#### Path

The native file system path to the file.

"/Users/cs/Desktop/test.jpg"

#### FileName

Optional

Optional the file name to use.

"test.jpg"

**Result** Returns container value or error.

### Description

This function does not verify if the file you ask to load is actually a valid JPEG image.

Reading files over 1 GB is not supported.

See also Files.ReadFile, Files.ReadPDF, Files.ReadPNG, Text.ReadTextFile and RichText.ReadFile.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read JPEG file:

```
MBS( "Files.ReadJPEG"; "/Users/cs/Desktop/test.jpg"; "test.jpg")
```

### See also

- 56.28 Container.ReadFile 1681
- 79.45 Files.ReadFile 3898
- 79.47 Files.ReadPDF 3903
- 79.48 Files.ReadPNG 3905
- 124.2 Path.FileMakerPathToNativePath 6247
- 141.10 RichText.ReadFile 6838
- 167.49 Text.ReadTextFile 7971

**Example Databases**

- [Mac and iOS/PDFKit/Pictures to PDF](#)

**79.46.1 Blog Entries**

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [MBS Filemaker Plugin, version 4.3pr4](#)

Created 18th August 2014, last changed 4th August 2016.

## 79.47 Files.ReadPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ReadPDF"; Path { ; FileName; DontRenderPreview } )

### Parameters

#### Path

The native file system path to the file.

"/Users/cs/Desktop/test.pdf"

#### FileName

Optional

Optional the file name to use.

"test.pdf"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns container value or error.

### Description

This function does not verify if the file you ask to load is actually a valid PDF.

Reading files over 1 GB is not supported.

See also Files.ReadJPEG, Files.ReadFile, Files.ReadPNG, Text.ReadTextFile and RichText.ReadFile.

If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read a PDF file:

```
Set Variable [ $r; Value:MBS( "Files.ReadPDF"; "/Users/cs/Desktop/todo.pdf" ) ]
```

### See also

- 56.28 Container.ReadFile 1681
- 79.45 Files.ReadFile 3898

- 79.46 Files.ReadJPEG 3901
- 79.48 Files.ReadPNG 3905
- 124.2 Path.FileMakerPathToNativePath 6247
- 141.10 RichText.ReadFile 6838
- 167.49 Text.ReadTextFile 7971
- 183.104 WebView.PrintToFile 8547

### Example Databases

- [WebView/Custom WebView](#)

### 79.47.1 Blog Entries

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.3pr4](#)

Created 18th August 2014, last changed 17th August 2018.

## 79.48 Files.ReadPNG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Files.ReadPNG"; Path { ; FileName } )

### Parameters

#### Path

The native file system path to the file.

"/Users/cs/Desktop/test.png"

#### FileName

Optional

Optional the file name to use.

"test.png"

**Result** Returns container value or error.

### Description

This function does not verify if the file you ask to load is actually a valid PNG image.

Reading files over 1 GB is not supported.

See also Files.ReadJPEG, Files.ReadPDF, Files.ReadFile, Text.ReadTextFile and RichText.ReadFile.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read a png file:

```
Set Variable [ $r; Value:MBS( "Files.ReadPNG"; "/Users/cs/Desktop/todo.png" ) ]
```

### See also

- 56.28 Container.ReadFile 1681
- 79.45 Files.ReadFile 3898
- 79.46 Files.ReadJPEG 3901
- 79.47 Files.ReadPDF 3903
- 124.2 Path.FileMakerPathToNativePath 6247
- 141.10 RichText.ReadFile 6838
- 167.49 Text.ReadTextFile 7971

### 79.48.1 Blog Entries

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [MBS Filemaker Plugin, version 4.3pr4](#)

Created 18th August 2014, last changed 18th October 2016.

## 79.49 Files.RenameFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Files.RenameFile"; Path; NewName )

### Parameters

#### Path

The native path to the file or folder to be renamed.

"/Users/John/Desktop/test.txt"

#### NewName

The new name.

"testfile.txt"

**Result** Returns OK or error message.

### Description

Path must be valid and exist.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Rename file on Windows with full path:

```
MBS( "Files.RenameFile"; "\\FileServer\Dokumente\VK\123456\RG249388345.pdf"; "\\FileServer\Dokumente\VK\123456\Rechnung_249388345.pdf" )
```

Rename file on OS X:

```
MBS( "Files.RenameFile"; "/Users/cs/Desktop/test"; "Hello World, just a test!" )
```

Rename on Windows:

```
MBS( "Files.RenameFile"; "C:\Users\Administrator\Desktop\alt.fmp12"; "neu.fmp12" )
```

### See also

- 79.45 Files.ReadFile 3898
- 79.52 Files.RevealFile 3912
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.49.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr4](#)
- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin, version 7.4pr2](#)
- [MBS Filemaker Plugin, version 2.8pr8](#)

Created 18th August 2014, last changed 5th August 2017.



## 79.50 Files.ResolveAlias

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	8.4	Yes	Yes	Yes	No	Yes

MBS( "Files.ResolveAlias"; AliasFilePath { ; RelativeTo } )

### Parameters

#### AliasFilePath

The path for the alias file path.

"/Users/cs/Desktop/test"

#### RelativeTo

Optional

The folder path to use relative resolution.

"/Users/cs"

**Result** Returns file path or error.

### Description

See Files.CreateAlias to create alias files on Mac or link files on Windows, Files.CreateHardLink and Files.CreateSymbolicLink for creating links in file system.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Resolve Alias:

```
MBS( "Files.ResolveAlias"; "/Users/cs/Desktop/test")
```

Resolve link file on Windows:

```
MBS("Files.ResolveAlias"; "C:\Users\Christian\Desktop\test.lnk")
```

### See also

- 79.8 Files.CreateAlias 3836
- 79.11 Files.CreateHardLink 3841
- 79.12 Files.CreateSymbolicLink 3843
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.50.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 9th September 2018, last changed 9th September 2018.

## 79.51 Files.ResolveBookmark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.1	Yes	No	Yes, macOS only	No	Yes

MBS( "Files.ResolveBookmark"; Bookmark { ; RelativePath; NoUI; NoMounting } )

### Parameters

#### Bookmark

The bookmark data created by Files.CreateBookmark function.

\$data

#### RelativePath

Optional

Optional the path of a file/folder being the relative path. This can be the native path to your database. This way you can later find the file again if database and target file moved together.

"/Data/ImageFiles"

#### NoUI

Optional

If 1 the plugin doesn't show any dialogs or progress windows.

1

#### NoMounting

Optional

If 1 the plugin will not mount a volume during bookmark resolution.

1

**Result** Returns the native file path resolved from bookmark.

### Description

Use this function to find the file/folder back where you stored a reference in the database.

**See also**

- 79.9 Files.CreateBookmark

3838

### Example Databases

- [Files/Alias and NodeID](#)

Created 18th August 2014, last changed 18th August 2014.

## 79.52 Files.RevealFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	2.7	Yes	Yes	No	No	No

MBS( "Files.RevealFile"; Path )

### Parameters

#### Path

Native path to the item to reveal.

"C:\Windows"

**Result** Returns "OK" or error.

### Description

Shows file or folder in Finder or opens directory in Explorer.  
With version 6.3 the Mac plugin can take a list of paths here.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Reveal 3 items:

```
MBS( "Files.RevealFile"; "/Users/cs/Public$/Users/cs/Music$/Users/cs/Library" )
```

Open desktop folder on Windows:

```
MBS("Files.RevealFile"; "C:\Users\Administrator\Desktop")
```

### See also

- 79.43 Files.MoveFile 3894
- 79.45 Files.ReadFile 3898
- 79.49 Files.RenameFile 3907
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [Files/Launch](#)

#### 79.52.1 Blog Entries

- [MBS FileMaker Plugin 6.3 for OS X/Windows](#)

- [MBS FileMaker Plugin, version 6.3pr1](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr1](#)

Created 18th August 2014, last changed 13th September 2017.

## 79.53 Files.SetAudioTags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	9.4	Yes	Yes	Yes	Yes	No

MBS( "Files.SetAudioTags"; FilePath; JSON )

### Parameters

#### FilePath

The native file path to the audio file.

"/Users/cs/Desktop/test.mp3"

#### JSON

The JSON object with new properties.

**Result** Returns OK or error.

### Description

Please provide JSON object with new tags. If tags are NULL values, we remove them. If they are text values, we update the texts.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Write tags back to field:

```
Set Variable [ $r ; Value: MBS("Files.SetAudioTags"; AudioTags::FilePath; AudioTags::JSON) ]
Show Custom Dialog [ "Tags written" ; $r ]
```

### See also

- [79.4 Files.AudioTags](#) 3829
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [Files/Audio File Tags](#)

#### 79.53.1 Blog Entries

- [Neue Funktionen des MBS FileMaker Plugin 9.4](#)
- [Neues MBS FileMaker Plugin 9.4](#)

- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr8](#)
- [TagLib to read and write ID3v2 Tags in FileMaker](#)

Created 12nd September 2019, last changed 12nd September 2019.

## 79.54 Files.SetComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.2	Yes	No	Yes, macOS only	No	No

MBS( "Files.SetComment"; Path; Comment )

### Parameters

#### Path

The native path to the file.

"/Users/John/Desktop/test.txt"

#### Comment

The new comment text.

"Hello World"

**Result** Returns OK or error.

### Description

The comment text is used by Spotlight when searching, so you can place useful information there.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Set comment:

```
MBS( "Files.SetComment"; "/Users/cs/Desktop/Wifi.rtf"; "Hello World")
```

### See also

- 79.27 Files.GetComment 3867
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 25th April 2016, last changed 22nd May 2016.



## 79.55 Files.SetCreationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	7.2	Yes	Yes	Yes	No	Yes

MBS( "Files.SetCreationDate"; Path; TimeStamp )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

#### TimeStamp

The new creation date and time.

Get(CurrentTimeStamp)

**Result** Returns OK or error.

### Description

### Examples

Set timestamp to now:

MBS( "Files.SetCreationDate"; "C:\Users\Administrator\Desktop\test.png"; Get(CurrentHostTimeStamp))

### See also

- 79.13 Files.CreationDate

3844

### 79.55.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr4](#)

Created 19th April 2017, last changed 19th April 2017.

## 79.56 Files.SetFinderLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	6.2	Yes	No	Yes, macOS only	No	No

MBS( "Files.SetFinderLabel"; Path; Label )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

#### Label

The new label number. 0 = no label 1 to 7 give different colors.

1

**Result** Returns OK or error.

### Description

Value is from 0 to 7. Zero is no label. Numbers 1 to 7 are mapped to colors and tags.

Currently the list is 1 = gray, 2 = green, 3 = purple, 4 = blue, 5 = yellow, 6 = red, 7 = orange.

Please use Files.SetTagNames to set tag names if needed.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Set color to green:

```
MBS("Files.SetFinderLabel"; "/Users/cs/Desktop/test.rtf"; 2)
```

### See also

- 79.28 Files.GetFinderLabel 3868
- 79.60 Files.SetTagNames 3923
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.56.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 17th May 2016, last changed 29th August 2016.

## 79.57 Files.SetHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	7.1	Yes	Yes	Yes	No	No

MBS( "Files.SetHidden"; Path; Value )

### Parameters

#### Path

The native path to the file or folder to be checked.

"/Users/John/Desktop/test.txt"

#### Value

The new state. Pass 1 to hide file or 0 to unhide file.

1

**Result** Returns OK or error.

### Description

If a file is hidden due to having a "." at the beginning of a name on macOS, you can't unhide it by this function. You need to rename the file in this case.

### Examples

Hide a file:

MBS("Files.SetHidden"; "/Users/cs/Desktop/Changes.rtf"; 1)

### See also

- 79.33 Files.IsHidden

3875

### 79.57.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 1st March 2017, last changed 2nd March 2017.

## 79.58 Files.SetModificationDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Files.SetModificationDate"; Path; TimeStamp )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

#### TimeStamp

The new modification date and time.

Get(CurrentTimeStamp)

**Result** Returns OK or error.

### Description

#### Examples

Set time to now minus 24h:

```
MBS( "Files.SetModificationDate"; "/Users/cs/Desktop/test.rtf"; Hole ( HostZeitstempel ) - 24*3600 )
```

Set timestamp to now:

```
MBS( "Files.SetModificationDate"; "C:\Users\Administrator\Desktop\logo.png"; Get(CurrentHostTimeStamp))
```

### See also

- [79.40 Files.ModificationDate](#) 3888

### 79.58.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)

Created 19th April 2017, last changed 19th April 2017.

## 79.59 Files.SetPosixPermissions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	4.3	Yes	No	Yes	Yes	Yes

MBS( "Files.SetPosixPermissions"; Path; Mode )

### Parameters

#### Path

The native path to the file or folder.

"/Users/John/Desktop/test.txt"

#### Mode

The new mode.

"777"

**Result** Returns OK or error message.

### Description

Path must be valid and exist.

See chmod command man page in Terminal. The plugin converts parameter to string and parses it as octal number. This way you can pass 777 as number and it's interpreted as expected.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Set permissions

MBS( "Files.SetPosixPermissions"; "/Users/cs/Desktop/test"; 777 )

### See also

- [79.31 Files.GetPosixPermissions](#) 3873
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [RunTask/Run Shell Script on Mac](#)

### 79.59.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)



## 79.60 Files.SetTagNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.5	Yes	No	Yes, macOS only	No	No

MBS( "Files.SetTagNames"; Path; Taglist )

### Parameters

#### Path

The native path to the file.

"/Users/cs/Desktop/test.txt"

#### Taglist

The list of tags names, separated by newline character.

"Hello World"

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9.

This function needs a native path. Please use Path.FilemakerPathToNativePath function in order to convert a FileMaker style path to a native path.

Please note that some tags may include chr(10) followed by a number to indicate which label color is used for compatibility to older OS X versions. Those should appear escaped as \n in the taglist.

### See also

- 79.32 Files.GetTagNames 3874
- 79.56 Files.SetFinderLabel 3918
- 124.2 Path.FileMakerPathToNativePath 6247

### 79.60.1 Blog Entries

- [MBS Filemaker Plugin, version 3.5pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 79.61 Files.Unmount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.1	Yes	Yes	Yes	Yes	No

MBS( "Files.Unmount"; Path { ; Force } )

### Parameters

#### Path

The local path of the volume.

"/Volumes/Test"

#### Force

Optional

Pass 1 to force unmount, even if files are still open.

0

**Result** Returns OK or error.

### Description

Use on Server may require extra work as server runs with a different user account than you being logged in on the server machine. Permissions don't always allow things to be done.

### Examples

Unmounts Ablage1 on Mac:

```
MBS("Files.Unmount"; "/Volumes/Ablage1")
```

Unmount Y: on Windows:

```
MBS("Files.Unmount"; "Y:")
```

### See also

- [79.41 Files.Mount](#)

3890

### 79.61.1 Blog Entries

- [Network share access from script on FileMaker Server](#)
- [Tip of the day: Mount drive on FileMaker Server](#)
- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 10th May 2015, last changed 18th March 2017.



## 79.62 Files.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	3.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "Files.WriteFile"; Data; FilePath { ; filter } )
```

### Parameters

#### Data

The data to save. Can be text or container.

```
"Hello World"
```

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac.

```
"test.txt"
```

#### filter

Optional

Can be `base64` to decode text first from base64 encoding. Or can be `Hex` to decode from hex encoding.

```
"Base64"
```

**Result** Returns `"OK"` or an error message.

### Description

You provide either a container value or some text. For text you can optionally define a filter like `base64` or `Hex`.

See also `Text.WriteTextFile` for writing text files with specific encoding.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Write file with some text:

```
MBS("Files.WriteFile"; "Hello World"; $Path )
```

Write file with some text and decode base64:

```
MBS("Files.WriteFile"; "SGVsbG8gV29ybGQ="; "/Users/cs/Desktop/test.txt"; "base64")
```

Write container to temp file and launch:

```
# get temp folder
```

```
Set Variable [ $TempFolder; Value:MBS( "Folders.SystemTemporary" ) ]
```

```
# and file name from container
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; test::myContainer ) ]
# add name to folder path
Set Variable [ $TempPath; Value:MBS( "Path.AddPathComponent"; $TempFolder; $name ) ]
# now write temp file
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::myContainer; $TempPath) ]
# and launch file
Set Variable [ $r; Value:MBS( "Files.LaunchFile"; $TempPath) ]
```

Write PDF to disk:

```
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); Invoice::Invoice ID & ".pdf" ) ]
Set Variable [ $r; Value:MBS("Files.WriteFile"; Invoice::PDF Output; $path) ]
```

Write DynaPDF Library to disk and use it:

```
Set Variable [ $path; Value:MBS( "Plugin.Path" ) ]
Set Variable [ $folderpath; Value:MBS( "Path.RemoveLastPathComponent"; $path ) ]
Set Variable [ $libPath; Value:MBS( "Path.AddPathComponent"; $folderpath; "dynapdf.dll" ) ]
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::DynaPDFContainer; $libPath ) ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; $libPath ) ]
```

### See also

- 71.277 DynaPDF.Initialize 2992
- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 79.43 Files.MoveFile 3894
- 82.7 Folders.SystemTemporary 4233
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.5 Path.LastPathComponent 6252
- 124.8 Path.RemoveLastPathComponent 6257
- 127.35 Plugin.Path 6410
- 54.41 ZipFile.WriteFile 1557

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [DynaPDF/Invoice/Invoice](#)

- [DynaPDF/Shrink PDF pages](#)
- [Files/WriteFile](#)
- [SmartCard/SmartCard Signatures](#)

### **79.62.1 Blog Entries**

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [MBS Filemaker Plugin, version 3.5pr6](#)

Created 18th August 2014, last changed 6th September 2016.

## 79.63 Icon.ClearIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.7	Yes	No	Yes, macOS only	No	No

MBS( "Icon.ClearIcon"; Path )

### Parameters

#### Path

The path to the file or folder.  
"/Applications"

**Result** Returns OK on success.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Clears icon of a file on the desktop:

```
MBS("Icon.ClearIcon"; "/Users/Christian/Desktop/test.pdf")
```

### See also

- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [Mac only/Icon and QuickLook/SetIcon](#)

### 79.63.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 24th May 2017.

**79.64 Icon.GetIcon**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.3	Yes	Yes	Yes	No	No

MBS( "Icon.GetIcon"; Path; Size )

**Parameters****Path**

The path to the file or folder.

"/Applications"

**Size**

The size of the icon picture you'd like to have. Suggested range is from 16 to 512 pixel.

512

**Result** Container value.

**Description**

Size specifies the icon size from 16 to 512 pixel. The container value returned includes PNG data with alpha, JPEG preview, filename and size.

Added Windows support in plugin version 4.2.

On Mac Server this may not work well as the Server user account has no icon database.

See also [Icon.GetIconWithQuickLook](#).

**Examples**

Queries icon of iPhoto app:

MBS( "Icon.GetIcon"; "/Applications/iPhoto.app"; 512 )

**See also**

- [137.3 Icon.GetIconWithQuickLook](#) 6733
- [137.4 Icon.SetIcon](#) 6735
- [137.22 QLPreviewPanel.Show](#) 6755

**Example Databases**

- [Files/File Listing With Icons](#)
- [Mac only/Icon and QuickLook/Icons](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 79.64.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)
- [MBS Filemaker Plugin, version 4.3pr5](#)
- [MBS Filemaker Plugin, version 4.2pr12](#)
- [MBS Filemaker Plugin, version 2.3pr3](#)
- [MBS Filemaker Plugin, version 2.3pr2](#)
- [Getting icons from Files](#)

Created 18th August 2014, last changed 29th October 2018.

**79.65 Icon.GetIconWithQuickLook**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.3	Yes	Yes	Yes	No	No

MBS( "Icon.GetIconWithQuickLook"; Path; Size )

**Parameters****Path**

The path to the file or folder.  
"/Applications"

**Size**

The size of the icon picture you'd like to have. Suggested range is from 16 to 512 pixel.  
512

**Result** Container value.

**Description**

This method tries first to get QuickLook preview for the file, before it tries the icon. QuickLook requires Mac OS X 10.5. Size specifies the icon size from 16 to 512 pixel. The container value returned includes PNG data with alpha, JPEG preview, filename and size.

Version 4.3 adds support for Windows. We now query same thumbnail as explorer uses.  
See also Icon.GetIcon.

**Examples**

Queries preview on iPhoto app:

MBS( "Icon.GetIconWithQuickLook"; "/Applications/iPhoto.app"; 512 )

**See also**

- [137.2 Icon.GetIcon](#) 6731
- [137.22 QLPreviewPanel.Show](#) 6755

**Example Databases**

- [Mac only/Icon and QuickLook/Icons](#)

**79.65.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.3pr3](#)
- [MBS Filemaker Plugin, version 2.3pr2](#)

- [Getting icons from Files](#)

Created 18th August 2014, last changed 17th June 2018.



**79.66 Icon.SetIcon**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.7	Yes	No	Yes, macOS only	No	No

MBS( "Icon.SetIcon"; Path; image )

**Parameters****Path**

The path to the file or folder.

"/Applications"

**image**

A container value with some picture. Can be JPEG, GIF, BMP, PNG or TIFF.

\$image

**Result** Returns OK on success.

**Description**

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Sets icon of a file on the desktop:

```
MBS("Icon.SetIcon"; "/Users/Christian/Desktop/test.pdf"; Data::image)
```

**See also**

- [137.2 Icon.GetIcon](#) 6731
- [124.2 Path.FileMakerPathToNativePath](#) 6247

**Example Databases**

- [Mac only/Icon and QuickLook/SetIcon](#)

**79.66.1 Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 24th May 2017.

## 79.67 MountNotification.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.0	Yes	Yes	No	No	No

MBS( "MountNotification.Install"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fp7"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

Parameter to the script will contain details in a list with several values.

First value is typ of call, "mount" or "unmount".

Second value is native path, on Mac e.g. "/Volumes/TestDisk" and on Windows a drive letter like "E:\".

On Mac third value is user visible name and forth parameter is URL for mount point.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Installs notification script:

MBS( "MountNotification.Install"; "test.fp7"; "MyScript" )

### See also

- [79.68 MountNotification.Uninstall](#) 3936

### Example Databases

- [Files/Mount Events](#)

### 79.67.1 Blog Entries

- [MBS FileMaker Plugin 5.0 for OS X/Windows - More than 3000 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)

79.67. *MOUNTNOTIFICATION.INSTALL*

3935

Created 24th November 2014, last changed 27th January 2016.

## 79.68 MountNotification.Uninstall

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
79 Files	5.0	Yes	Yes	No	No	No

MBS( "MountNotification.Uninstall" )

**Result** Returns OK or error.

**Description**

**See also**

- [79.67 MountNotification.Install](#)

3934

### 79.68.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 24th November 2014, last changed 24th November 2014.

# Chapter 80

## FM

Functions for FileMaker core functions like running scripts.

### 80.1 FM.AllowFileDragDrop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	7.0	Yes	No	No	No	No

MBS( "FM.AllowFileDragDrop"; Enable { ; TempFolder; DeleteTempFiles } )

#### Parameters

##### Enable

Whether to enable or disable. Pass 1 to enable or 0 to disable. Default if no parameter is given is enable.

1

##### TempFolder

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

The native path of temp folder to use. Leave empty for standard one.

MBS("Folders.UserDesktop")

##### DeleteTempFiles

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

Whether to delete temp files. Default is 1 to delete last file then when next file is to be dragged.

1

**Result** Returns OK or error.

#### Description

When we have a container in FileMaker with e.g. a zip file and drag the file content to the Finder, nothing

happens. This plugin functions installs some code which intercepts those file drags and makes them work. Internally the file data is obtained and written to temporary folder. The finder can copy the file there and our plugin can later delete the temp file.

Works better with non interactive containers.  
This does not change drag & drop of images.

With plugin version 7.1, PDF drag and drop is also supported.

### Examples

Allow file drops from container to Finder:

```
Set Variable [ $r; Value:MBS( "FM.AllowFileDragDrop" ) ]
```

### Example Databases

- [Mac only/Allow File Drags](#)
- [Mac only/Drag File Fix](#)

### 80.1.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)
- [MBS FileMaker Plugin 7.0 - More than 4400 Functions In One Plugin](#)
- [MBS FileMaker Plugin 7.0 - 4400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 7.0pr3](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)
- [Allow file drag and drop from FileMaker container field to Finder](#)

Created 8th January 2017, last changed 26th January 2018.

## 80.2 FM.Argument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.Argument"; index )

### Parameters

#### index

The index of the argument to retrieve. From 0 to FM.ArgumentCount-1.

0

**Result** Returns text or error.

### Description

You can pass arguments to FileMaker when launching it from command line. Or on Windows pass them from a link to FileMaker on desktop or in the start menu. This way you can query argument from your scripts and react on them, e.g. decide to set more buttons visible for a debug or advanced mode.

The arguments can include on Windows file path to a database which was opened to launch FileMaker.

#### See also

- [80.3 FM.ArgumentCount](#)

3940

### Example Databases

- [Utility functions/Command Line Arguments](#)

### 80.2.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 1st March 2015, last changed 1st March 2015.

## 80.3 FM.ArgumentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ArgumentCount" )

**Result** Returns number or error.

### Description

Those arguments are passed when FileMaker is launched from command line, a batch file or a link on windows.

### See also

- [80.2 FM.Argument](#)

3939

### Example Databases

- [Utility functions/Command Line Arguments](#)

### 80.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 1st March 2015, last changed 1st March 2015.



## 80.4 FM.Beep

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.2	Yes	Yes	Yes	No	No

MBS( "FM.Beep" )

**Result** Returns OK.

### Description

Plays standard system sound or beep.

### 80.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 27th March 2018, last changed 27th March 2018.

## 80.5 FM.ChooseDictionary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.4	Yes	No	No	No	No

MBS( "FM.ChooseDictionary" { ; DictionaryName } )

### Parameters

#### DictionaryName

Optional

The dictionary to pick. Pass empty text to just let the plugin show dialog and query current settings.

**Result** Returns OK or error.

### Description

The plugin runs menu command to show spelling dialog, changes menu and presses OK button for you. After this function run, you can check FM.GetDictionary to get current selection or FM.GetDictionaryList to get the list of dictionaries available.

### See also

- [80.27 FM.GetDictionary](#) 3988
- [80.28 FM.GetDictionaryList](#) 3989

### 80.5.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr4](#)
- [Choose spelling dictionary in FileMaker automatically](#)

Created 24th August 2019, last changed 24th August 2019.

## 80.6 FM.CompareTables

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	9.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.CompareTables"; FileName1; TableName1; IDField1; FileName2; TableName2; IDField2 { ;
Options } )
```

### Parameters

#### FileName1

The file name of where the table is inside. Can be empty to look for the table in all files. File extension is optional for file name.

Get(FileName)

#### TableName1

The name of the first table (newer). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the ID field in first table. Can be a text or numeric field.

"Identifier"

#### FileName2

The file name of where the table is inside. Can be empty to look for the table in all files.

"other.fmp12"

#### TableName2

The name of the second table (older). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField2

The name of the ID field in second table. Can be a text or numeric field.

"Identifier"

### Options

Optional

Pass options. Add 1 to include details. Add 2 to include all the IDs found in both.

1+2

**Result** Returns JSON or error.

### Description

We compare the field names for both tables and report added, removed and common field names.

Then we check the record identifiers to report added, changed and common IDs.

If IDField1 and IDField2 names are the same in both tables, we compare the common records to report the changed record identifiers.

Does not compare the internal FileMaker row IDs.

Records are compared in 100 records block to limit memory usage.

### Examples

Compares two tables in two files:

```
MBS( "FM.CompareTables"; "Anlagen1.fmp12"; "Anlagen"; "Primärschlüssel"; "Anlagen2.fmp12"; "Anlagen"; "Primärschlüssel" )
```

Compare tables:

```
Show Custom Dialog [ MBS( "FM.CompareTables"; "Anlagen1.fmp12"; "Anlagen"; "Primärschlüssel"; "Anlagen2.fmp12"; "Anlagen"; "Primärschlüssel"; 1 ) ]
```

Example result: {

```
"Messages": [ ] ,
"TableName1": "Anlagen",
"TableName2": "Anlagen",
"FileName1": "Anlagen1.fmp12",
"FileName2": "Anlagen2.fmp12",
"RemovedFields": [ "Anlage1feld" ] ,
"Fields": [ "Anbieter", "Beschreibung", "Bild", "ErstelltVon", "Erstellungszeitstempel", "Gesamt", "GeändertVon", "Kaufdatum", "Name", "Preis", "Primärschlüssel", "Seriennummer", "Typ", "Änderungszeitstempel" ] ,
"AddedFields": [ "Anlage2feld" ] ,
"RemovedIDs": [ "00E5BB4E-3BB1-43D8-95DD-60E5C7E6153E", "149E3A95-89CC-4633-A576-C977831ED15E" ] ,
"IDs": [ "CFBA0CA0-3480-4560-B138-4FE605F1A666", "5AED71F4-D78F-490D-A842-CD623E25C118" ] ,
"AddedIDs": [ "04430FBE-C3AA-4D1B-B451-1B41AA703A96", "37E7E4AA-F5D0-4E96-BB24-BB720E808357" ] ,
"ChangedRecords": {
"CFBA0CA0-3480-4560-B138-4FE605F1A666": [ {
"Field": "Seriennummer",
"OldValue": "123a",
"NewValue": "123"
} , {
"Field": "Änderungszeitstempel",
"OldValue": "2019-06-15 20:13:21",
"NewValue": "2019-06-15 17:54:25"
} ] ,
"5AED71F4-D78F-490D-A842-CD623E25C118": [ {
"Field": "Kaufdatum",
"OldValue": "",
"NewValue": "2019-06-18"
} , {
"Field": "Änderungszeitstempel",
"OldValue": "2019-06-15 17:54:28",
"NewValue": "2019-06-16 05:47:24"
} ]
} ]
}
}
```

Compare and show results:

```

Set Variable [ $r ; Value: MBS("ProgressDialog.SetBottomText"; "") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetTopText"; "Compare Table") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetTitle"; "Compare..") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetButtonCaption"; "Cancel") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetProgress"; -1) ]
Set Variable [ $r ; Value: MBS("ProgressDialog.Show") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $$r ; Value: MBS( "FM.CompareTables"; "test1.fmp12"; "Import2PropertyVal"; "_RecordU-
UID"; "test2.fmp12"; "Import2PropertyVal"; "_RecordUUID"; 1 ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
# Cleanup progress bar
Set Variable [ $r ; Value: MBS("ProgressDialog.Hide") ]
Show Custom Dialog [ $$r ]

```

```

Example result: {
  "Messages": [ ] ,
  "TableName1": "Import2PropertyVal",
  "TableName2": "Import2PropertyVal",
  "FileName1": "test1.fmp12",
  "FileName2": "test2.fmp12",
  "RemovedFields": [ ] ,
  "Fields": [ "Hex", "Hex.bytes", "PropertyVal.Name", "_CreationTimeStamp", "_ParentRecordUUID", "_Record-
dUUID", "test" ] ,
  "AddedFields": [ ] ,
  "RemovedIDs": [ ] ,
  "AddedIDs": [ ] ,
  "ChangedRecords": {
    "B92DB7FE-2506-4070-A384-BE99AE829EB8": [ {
      "Field": "Hex.bytes",
      "OldValue": "",
      "NewValue": "3"
    } , {
      "Field": "test",
      "OldValue": "Hello",
      "NewValue": "World"
    } ] ,
    "8D9BD00C-C31B-401B-B18C-0BCB0CC9EC73": [ {
      "Field": "Hex.bytes",
      "OldValue": "1",
      "NewValue": "2"
    } ] ,
    "2FED79CC-1BBF-4C5D-96E4-5E42C8454C3A": [ {
      "Field": "Hex.bytes",
      "OldValue": "1",
      "NewValue": "2"
    } ]
  }
}

```

**See also**

- [64.31 Dialog.SetButton](#) 2413
- [64.47 Dialog.SetTop](#) 2431
- [133.14 ProgressDialog.Hide](#) 6618
- [133.16 ProgressDialog.SetBottomText](#) 6621
- [133.17 ProgressDialog.SetButtonCaption](#) 6623
- [133.25 ProgressDialog.SetProgress](#) 6635
- [133.27 ProgressDialog.SetTitle](#) 6639
- [133.30 ProgressDialog.SetTopText](#) 6645
- [133.31 ProgressDialog.Show](#) 6647

**80.6.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr4](#)
- [MBS FileMaker Plugin, version 9.3pr3](#)
- [Introducing FM.CompareTables function](#)

Created 15th June 2019, last changed 17th January 2020.

## 80.7 FM.CurrentLayoutID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.CurrentLayoutID" )

**Result** Returns number or error.

### Description

See also FM.CurrentLayoutName.

### Examples

Show layout ID and name:

```
Show Custom Dialog [ "Layout" ; MBS( "FM.CurrentLayoutID" ) & " " & MBS( "FM.CurrentLayoutName" ) ]
```

### See also

- 80.8 FM.CurrentLayoutName 3948
- 80.9 FM.CurrentScriptID 3949

### 80.7.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)

Created 8th April 2020, last changed 19th April 2020.

## 80.8 FM.CurrentLayoutName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.CurrentLayoutName" )

**Result** Returns layout name.

### Description

Result is empty if no layout is running.

### Examples

Show layout ID and name:

```
Show Custom Dialog [ "Layout" ; MBS( "FM.CurrentLayoutID" ) & " " & MBS( "FM.CurrentLayoutName" ) ]
```

### See also

- [80.7 FM.CurrentLayoutID](#) 3947
- [80.10 FM.CurrentScriptName](#) 3950

### 80.8.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)

Created 8th April 2020, last changed 19th April 2020.



## 80.9 FM.CurrentScriptID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.CurrentScriptID" )

**Result** Returns number or error.

### Description

See also FM.CurrentScriptName.

### Examples

Query ID for current script:

```
MBS( "FM.CurrentScriptID" )
```

Query script name and ID:

```
MBS( "FM.CurrentScriptName" ) & " " & MBS( "FM.CurrentScriptID" )
```

### See also

- [80.7 FM.CurrentLayoutID](#) 3947
- [80.10 FM.CurrentScriptName](#) 3950
- [80.11 FM.CurrentThreadID](#) 3951

### 80.9.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)
- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 23th March 2015, last changed 23th March 2015.

## 80.10 FM.CurrentScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.CurrentScriptName" )

**Result** Returns script name.

### Description

Result is empty if no script is running.

### Examples

Query script name and ID:

```
MBS( "FM.CurrentScriptName" ) & " " & MBS( "FM.CurrentScriptID" )
```

### See also

- 80.8 FM.CurrentLayoutName 3948
- 80.9 FM.CurrentScriptID 3949

Created 23th March 2015, last changed 8th April 2020.

## 80.11 FM.CurrentThreadID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.CurrentThreadID" )

**Result** Returns number or error.

**Description**

**See also**

- 80.9 FM.CurrentScriptID

3949

### 80.11.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr3](#)

Created 26th March 2015, last changed 26th March 2015.

## 80.12 FM.DataType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.DataType"; Value )

### Parameters

#### Value

The value to check.

\$test

**Result** Returns type or error.

### Description

The type can be container, boolean, date, empty, number, text, time, timestamp or unknown.

Empty variables show as text.

You should never see unknown. Empty is really rare as it would be a value without anything, not even empty text.

### Examples

Checks variable data type:

```
MBS( "FM.DataType"; "Hello" )
```

Checks data type for timestamp:

```
MBS( "FM.DataType"; get(CurrentTimeStamp) )
```

### See also

- [111.23 Matrix.GetValue](#) 5891

### 80.12.1 Blog Entries

- [JSON Functions, MBS vs. FM16](#)

Created 9th February 2016, last changed 9th February 2016.

## 80.13 FM.DataViewerContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	6.3	Yes	No	No	No	No

MBS( "FM.DataViewerContent" )

**Result** Returns text or error.

### Description

This is useful to capture values from data viewer automatically while debugging and storing it somewhere, e.g. a log file.

### Examples

Sets variables and copies their content:

```
Set Variable [ $r; Value:"Hello" ]
Set Variable [ $$r; Value:"Hello global" ]
Set Variable [ $l; Value:MBS( "FM.DataViewerContent" ) ]
Show Custom Dialog [ "Data Viewer"; $l ]
```

Write to log file:

```
MBS( "Text.AppendTextFile"; Get ( CurrentTimeStamp ) & ": " & MBS( "FM.DataViewerContent" ) &
$; "/tmp/dataviewer.log"; "UTF8" )
```

### See also

- [90.15 HotKey.Register](#) 4909
- [90.17 HotKey.SetEvaluate](#) 4914
- [167.2 Text.AppendTextFile](#) 7897

### 80.13.1 Blog Entries

- [Define hot keys for functions in the FileMaker development](#)
- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 18th June 2016, last changed 18th June 2016.

## 80.14 FM.DeleteRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.DeleteRecord"; FileName; TableName; IDField; IDValue { ; IDField2; IDValue2; IDField3; IDValue3 } )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to delete record from. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the first field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the first ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the second field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"PersonID"

#### IDValue2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for second ID field to identify the record. Data type of parameter must match the data type of the field.

\$PersonID

#### IDField3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the third field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"CompanyID"

### IDValue3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for third ID field to identify the record. Data type of parameter must match the data type of the field.

\$CompanyID

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Please note that FM.DeleteRecord and FM.DeleteRecords are nearly identical. Just FM.DeleteRecord provides the check to make sure only one record matches while FM.DeleteRecords allows several records to be deleted. So with FM.DeleteRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime.

Version 8.2 allows to specify up to 3 ID parameters.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Delete a record based on values:

```
Set Variable [ $r ; Value: MBS( "FM.DeleteRecord"; Get(FileName); "Contacts"; "First"; "Christian";
"Last"; "Schmitz"; "Company"; "Test Inc." ) ]
```

### See also

- 81.5 FM.DeleteRecords 4134
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222

### 80.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

### 80.14.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 24](#)
- [Ausgabe 3/2018, Seite 36](#)
- [Ausgabe 1/2016, Seite 32](#)

Created 11st December 2015, last changed 17th January 2020.



## 80.15 FM.DeleteRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.DeleteRecords"; FileName; TableName; IDField; IDValue { ; IDField2; IDValue2; IDField3; IDValue3 } )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to delete records from. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the second field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"PersonID"

#### IDValue2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for second ID field to identify the record. Data type of parameter must match the data type of the field.

\$PersonID

#### IDField3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the third field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"CompanyID"

### **IDValue3**

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for third ID field to identify the record. Data type of parameter must match the data type of the field.

\$CompanyID

**Result** Returns OK or error.

### **Description**

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must not be unique, so several records can be updated at once.

Please note that FM.DeleteRecord and FM.DeleteRecords are nearly identical. Just FM.DeleteRecord provides the check to make sure only one record matches while FM.DeleteRecords allows several records to be deleted. So with FM.DeleteRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

Version 8.2 allows to specify up to 3 ID parameters.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### **Examples**

Delete records based on values:

```
Set Variable [ $r ; Value: MBS( "FM.DeleteRecords"; Get(FileName); "Contacts"; "First"; "Christian"; "Last"; "Schmitz"; "Company"; "Test Inc." ) ]
```

### **See also**

- 81.4 FM.DeleteRecord 4131
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.39 FM.UpdateRecords 4225

### **Example Databases**

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)

### **80.15.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

### **80.15.2 FileMaker Magazin**

- [Ausgabe 6/2018, Seite 24](#)
- [Ausgabe 3/2018, Seite 36](#)

Created 11st December 2015, last changed 17th January 2020.

## 80.16 FM.DisableMouseWheel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	No	Yes	No	No	No

MBS( "FM.DisableMouseWheel" )

**Result** Returns OK or error.

### Description

Some clients prefer to disable mouse wheel to not go from record to record while editing a record.

This is no longer needed for FileMaker 15.

### See also

- 80.18 FM.EnableMouseWheel

3962

### 80.16.1 Blog Entries

- [Scroll through records with mouse wheel on MacOS](#)
- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 7th April 2015, last changed 14th February 2019.

## 80.17 FM.DisableRuntimeEndWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	4.3	Yes	No	No	No	No

MBS( "FM.DisableRuntimeEndWindow" )

**Result** Returns OK or error.

### Description

The plugin simply watches and terminates the runtime application when the end screen is shown. You can modify IDB\_FMDRUNTIME\_CLOSELOGO2.tiff image inside the application resources to show your own logo in this end screen if you don't disable it. Deleting IDD\_FMDRUNTIME\_CLOSESPASH.nib file on Mac can also prevent the dialog.

Deprecated as runtimes are deprecated.

### 80.17.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr7](#)

Created 25th August 2014, last changed 23th January 2020.

## 80.18 FM.EnableMouseWheel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	No	Yes	No	No	No

MBS( "FM.EnableMouseWheel" )

**Result** Returns OK or error.

**Description**

**See also**

- 80.16 FM.DisableMouseWheel

3960

**Example Databases**

- [Window/MouseWheel scrolling through records](#)

### 80.18.1 Blog Entries

- [Scroll through records with mouse wheel on MacOS](#)

Created 7th April 2015, last changed 14th February 2019.

## 80.19 FM.Evaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	1.3	Yes	Yes	Yes	Yes	Yes

MBS( "FM.Evaluate"; Expression )

### Parameters

#### Expression

any valid FileMaker Expression Can be in local language of FileMaker Pro or english. For Server must always be in english.

### Description

### Examples

Evaluate an expression:

MBS( "FM.Evaluate"; "1+2" )

### See also

- 100.6 JS.Evaluate

5262

Created 18th August 2014, last changed 6th December 2019.

## 80.20 FM.ExecuteFileSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	3.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.ExecuteFileSQL"; FileName; SQL Statement { ; Column Delimiter; Record Delimiter; Params
} )
```

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.

””

#### SQL Statement

SQL Statement as a Text string

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is tab character, which has unicode code point 9. You can pass delimiter as text or as unicode code point.

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement. Default is return character, which has unicode code point 13. You can pass delimiter as text or as unicode code point.

13

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns result of SQL expression or error.

### Description

This function requires FileMaker 11 or newer. Please use FM.ExecuteSQL on FileMaker 10 or older.

There must be an occurrence of the Table on the current tables' Graph in the file you specified. If filename is empty, you use current file. SELECT returns the the records in as a tabbed delimited text string. All other SQL commands return ””.

Use FM.ExecuteSQL.LastError to check for errors.

Supported Commands: SELECT UPDATE (see limitation below) DELETE INSERT CREATE TABLE DROP TABLE CREATE INDEX DROP INDEX WHERE

String comparisons are Case Sensitive! WHERE First\_Name="todd" will not find records that have "Todd" in the first Name Field. You can wrap the field you are searching for with "lower" like this WHERE



lower(First\_Name)="todd" KNOWN LIMITATIONS Schema editing Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. CAUTION! This is a very powerful function!

You can put field names in double quotes and string values in single quotes.

Use FM.ExecuteSQLOnIdle for special commands which change database like ALTER TABLE.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Error 8309 means you did pass wrong data type, like string for a number.

You can make queries against FILEMAKER\_TABLES and FILEMAKER\_FIELDS to query information about fields in your solution. The functions FM.QueryBaseTableNames, FM.QueryFieldsForBaseTableName, FM.QueryFieldsForTableName and FM.QueryTableNames provide simplified functions for some queries.

FILEMAKER\_TABLES table contains:

1. TableName
2. TableID
3. BaseTableName
4. BaseFileName
5. ModCount

FILEMAKER\_FIELDS table contains:

1. TableName
2. FieldName
3. FieldType (the SQL data type, not the FileMaker data type)
4. FieldID
5. FieldClass (Normal, Summary, Calculated)
6. FieldReps
7. ModCount

Some standard SQL functions work in FileMaker including CHR, COALESCE, LEFT, LENGTH, LOWER, LTRIM, MID, RIGHT, RTRIM, SPACE, SUBSTR, SUBSTRING, TRIM and UPPER. There may be more!

### Examples

SELECT records

```
MBS("FM.ExecuteFileSQL"; "";"select * from Contacts")
```

INSERT record

```
MBS("FM.ExecuteFileSQL"; "";"INSERT INTO Contacts (FirstName, LastName) Values('Todd', 'Geist')")
```

Select records using delimiters

```
MBS("FM.ExecuteFileSQL"; "";"select * from Contacts"; "# "; " | ")
```

SELECT records with a Where clause

```
MBS("FM.ExecuteFileSQL"; ""); "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK ='CN10013'" )
```

Insert records with parameters 2 and 3:

```
MBS("FM.ExecuteFileSQL"; ""); "INSERT INTO \OtherTable\ (\ID\, \ID Job\ ) Values(?,?)"; 9; 13; 2; 3 )
```

Create Record with values via SQL

```
Set Variable [ $FirstName; Value:"First test" ]
Set Variable [ $LastName; Value:"Last test" ]
Set Variable [ $Street; Value:"Street test" ]
Set Variable [ $Zip; Value:"Zip test" ]
Set Variable [ $City; Value:"City test" ]
Set Variable [ $Country; Value:"Country test" ]
Set Variable [ $Phone; Value:"Phone test" ]
```

```
Set Variable [ $r; Value:MBS( "FM.ExecuteFileSQL"; ""); "INSERT INTO \Export records\ (\First Name\, \Last Name\, \Street\, \Zip\, \City\, \Country\, \Phone\ ) VALUES (?,?,?,?,?)"; 9; 13; $FirstName; $LastName; $Street; $Zip; $City; $City; $Country; $Phone ]
If [ MBS("IsError") ]
Show Custom Dialog [ MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]
End If
```

Set value for all records of a table:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \My Table\ SET \My Field\ = 'Hello' ")
```

Set timestamp to today:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \my Table\ SET \Change Time\ = TODAY WHERE \ID\ = '12345' ")
```

Update 5 fields:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \my Table\ SET \Number Field\ = 1, \Text Field\ = 'test', \Dest Field\ = \Source Field\, \Hour Field\ = CAST(HOUR(curtime) AS VARCHAR), \Empty Field\ = NULL WHERE \ID\ = '12345' ")
```

Create an index:

```
MBS( "FM.ExecuteFileSQL"; ""; "CREATE INDEX ON tablename.fieldname" )
```

Select with parameter:

```
MBS("FM.ExecuteFileSQL"; "";"select Menge from Boxen where Artikel_Nr=? ORDER BY Menge
DESC"; 9; 13; "ABC123")
```

Query value of a repeating field with [ ] :

```
MBS( "FM.ExecuteFileSQL"; "";"SELECT test [ 2 ] FROM Kontakte")
```

Set value of repeating field:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE Kontakte SET test [ 2 ] = 'test'")
```

Query only first row:

```
MBS( "FM.ExecuteFileSQL"; "";"SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

Insert with parameters:

```
MBS("FM.ExecuteFileSQL"; "";"INSERT INTO AttachmentsActions (RecID, Container) VALUES (?, ?)";
9; 13; $recid; files::container)
```

Set repeating global field values:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE \ "Meine Tabelle\ " SET test [ 1 ] =", test [ 2 ] =", test [ 3 ] =" ")
```

Set timestamp field:

# via CURRENT\_TIMESTAMP constant:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE Kontakte SET Datum = CURRENT_TIMESTAMP ")
```

# or cast text to timestamp:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE Kontakte SET Datum = CAST('2017-04-12 14:14:14' AS
TIMESTAMP) ")
```

# via CURTIMESTAMP constant:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE Kontakte SET Datum = CURTIMESTAMP ")
```

# or to now plus one hour:

```
MBS( "FM.ExecuteFileSQL"; "";"UPDATE Kontakte SET Datum = CURTIMESTAMP + 3600 ")
```

Query tables and fields metadata:

```
MBS( "FM.ExecuteFileSQL"; "";"SELECT FILEMAKER_TABLES.TableName, FILEMAKER_TABLES.TableID,
FILEMAKER_TABLES.BaseTableName, FILEMAKER_TABLES.BaseFileName, FILEMAKER_TABLES.Mod-
Count, FILEMAKER_FIELDS.FieldName, FILEMAKER_FIELDS.FieldType, FILEMAKER_FIELDS.Fiel-
dID, FILEMAKER_FIELDS.FieldClass, FILEMAKER_FIELDS.FieldReps, FILEMAKER_FIELDS.Mod-
Count from FILEMAKER_TABLES, FILEMAKER_FIELDS where FILEMAKER_FIELDS.TableName =
FILEMAKER_TABLES.TableName" )
```

Get list of fields in all tables:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT * FROM FileMaker_Fields")
```

Query list of table names and IDs:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT TableName, TableID FROM Filemaker_Tables")
```

Find table name for a given table ID:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT TableName FROM Filemaker_Tables WHERE TableID=?";
9; 13; 1065089)
```

Query field type of a field:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT FieldType FROM FILEMAKER_FIELDS WHERE Table-
Name=? AND FieldName=? "; 9; 13; "Contacts"; "gtest")
```

// could return "global varchar", if gtest is a global field in table Contacts

Query list of record IDs for a given table:

```
MBS("FM.ExecuteFileSQL"; "" ; "SELECT ROWID FROM MyTable")
```

Look for a control character in the text and return record IDs:

```
MBS("FM.ExecuteFileSQL"; Get(FileName); "SELECT ROWID from \"MyTable\" WHERE \"MyField\"
like '%'+CHR(1)+'%' ")
```

Update all values in a field based on a query:

```
MBS("FM.ExecuteFileSQL"; "" ; "UPDATE \"Invoices\" SET \"Sum\" = (SELECT SUM(\"Quantity\" *
\"Price\") FROM Positions WHERE Invoices.CustomerID = Positions.CustomerID AND Invoices.InvoiceID
= Positions.InvoiceID)")
```

### See also

- 41.26 AVPlayer.Play 1100
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 41.37 AVPlayer.SetProgressInterval 1114
- 81.7 FM.ExecuteFileSQLOnIdle 4144
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154

80.20. <i>FM.EXECUTEFILESQL</i>	3969
• 80.51 FM.QueryBaseTableNames	4037
• 80.52 FM.QueryFieldsForBaseTableName	4038
• 80.53 FM.QueryFieldsForTableName	4039
• 80.54 FM.QueryTableNames	4041

### **Example Databases**

- [CURL/Email/Batch Emailer](#)
- [CURL/Email/IMAP Email](#)
- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [Mac and iOS/Events/Events Sync](#)
- [Shell/Shell](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Create Sort Script](#)
- [XML/XML Validation](#)
- [XML/XSLT](#)

### **80.20.1 Blog Entries**

- [FileMaker Magazin Links](#)
- [ROWID in FileMaker SQL Commands](#)
- [Using found set in SQL queries](#)
- [Using ExecuteSQL with Parameters is important](#)
- [Import Calendar Items into FileMaker](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)
- [ExecuteSQL and getting error details](#)

**80.20.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 35
- Ausgabe 4/2019, Seite 34
- Ausgabe 4/2019, Seite 33
- Ausgabe 4/2019, Seite 32
- Ausgabe 5/2018, Seite 25
- Ausgabe 3/2018, Seite 34
- Ausgabe 5/2017, Seite 22
- Ausgabe 3/2015, Seite 41
- Ausgabe 3/2015, Seite 28
- Ausgabe 2/2015, Seite 15

Created 18th August 2014, last changed 29th April 2020.

## 80.21 FM.ExecuteFileSQLOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteFileSQLOnIdle"; SQL Statement; FileName { ; Column Delimiter; Record Delimiter; Params } )

### Parameters

#### SQL Statement

the SQL statement

#### FileName

The file name of the database.

Get(FileName)

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

13

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

You run a script pause after using this function to give it time to execute.

See the other function for more info.

Seems like on FileMaker 11 you get LastError 8310 if you use fields with underscore in the name. You avoid that by placing the field names in quotes.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

### Examples

Create a new text field in a table:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField varchar")
```

Create in a script and check error:

```
# set command to run
```

```
Set Variable [ $r ; Value: MBS("FM.ExecuteFileSQLOnIdle"; "ALTER TABLE Kontakte ADD MyField
```

```

varchar"; "Kontakte.fmp12" ) ]
# Make pause to run it
Pause/Resume Script [ Duration (seconds): ,1 ]
# Check error status
Set Variable [ $errorNumber ; Value: MBS( "FM.ExecuteSQL.LastError" ) ]
Set Variable [ $errorMessage ; Value: MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]

```

Create a field:

```

Set Variable [ $r ; Value: MBS("FM.ExecuteFileSQLOnIdle";"ALTER TABLE TestTable ADD MyField
varchar"; Get(FileName)) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
If [ MBS("FM.ExecuteSQL.LastError") = 0 ]
Show Custom Dialog [ "Error adding column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If

```

Create a new text field in a table with variables for the names:

```

MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE \" & $TableName & "\" ADD \" & $FieldName & "\"
\" & $FieldType & "\"")

```

### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.12 FM.ExecuteSQLOnIdle 4158

### 80.21.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

### 80.21.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 3/2018, Seite 34

Created 16th October 2016, last changed 14th March 2020.



## 80.22 FM.ExecuteSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL"; SQL Statement { ; Column Delimiter; Record Delimiter } )

### Parameters

#### SQL Statement

SQL Statement as a Text string

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB  
""

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

**Result** Returns result of SQL expression or error.

### Description

There must be an occurrence of the Table on the current tables' Graph. SELECT returns the the records in as a tabbed delimited text string. All other SQL commands return "".

Use FM.ExecuteSQL.LastError to check for errors.

Supported Commands: SELECT UPDATE (see limitation below) DELETE INSERT CREATE TABLE DROP TABLE CREATE INDEX DROP INDEX WHERE

String comparisons are Case Sensitive! WHERE First\_Name="todd" will not find records that have "Todd" in the first Name Field. You can wrap the field you are searching for with "lower" like this WHERE lower(First\_Name)="todd" KNOWN LIMITATIONS Schema editing SQL functions are not supported in FileMaker 8 and 8.5.

Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. CAUTION! This is a very powerful function! It is relying on very new and relatively untested resources made available by the release of FileMaker 8.

Seems like on FileMaker 11 you get LastError 8310 for any syntax error, like bad braces or missing quotes.

You can put field names in double quotes and string values in single quotes.

Use FM.ExecuteSQLOnIdle for special commands which change database like ALTER TABLE.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Error 8309 means you did pass wrong data type, like string for a number.

If you need to pass parameters, please use FM.ExecuteFileSQL.

You can make queries against FILEMAKER\_TABLES and FILEMAKER\_FIELDS to query information about fields in your solution. The functions FM.QueryBaseTableNames, FM.QueryFieldsForBaseTableName, FM.QueryFieldsForTableName and FM.QueryTableNames provide simplified functions for some queries.

FILEMAKER\_TABLES table contains:

1. TableName
2. TableID
3. BaseTableName
4. BaseFileName
5. ModCount

FILEMAKER\_FIELDS table contains:

1. TableName
2. FieldName
3. FieldType (the SQL data type, not the FileMaker data type)
4. FieldID
5. FieldClass (Normal, Summary, Calculated)
6. FieldReps
7. ModCount

Some standard SQL functions work in FileMaker including CHR, COALESCE, LEFT, LENGTH, LOWER, LTRIM, MID, RIGHT, RTRIM, SPACE, SUBSTR, SUBSTRING, TRIM and UPPER. There may be more!

### Examples

SELECT records

```
MBS("FM.ExecuteSQL";"select * from Contacts")
```

INSERT record

```
MBS("FM.ExecuteSQL";"INSERT INTO Contacts (FirstName, LastName) Values('Bob', 'Miller')")
```

Select records using delimiters

```
MBS("FM.ExecuteSQL";"select * from Contacts"; "# "; " | ")
```

SELECT records with a Where clause

```
MBS("FM.ExecuteSQL"; "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK = 'CN10013'")
```

Get list of fields in all tables:

```
MBS("FM.ExecuteSQL";"SELECT * FROM FileMaker_Fields")
```

Create Record with values via SQL

```
Set Variable [ $r; Value:MBS( "FM.ExecuteSQL"; "INSERT INTO \"Export records\" (\"First Name\", \"Last Name\", \"Street\", \"Zip\", \"City\", \"Country\", \"Phone\") VALUES ('MyFirst', 'MyLast',
```

```
'MyStreet', 'MyZip', 'MyCity', 'MyCountry', 'MyPhone')" ]
If [ MBS("IsError") ]
Show Custom Dialog [ MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]
End If
```

Set value for all records of a table:

```
MBS( "FM.ExecuteSQL"; "UPDATE \"My Table\" SET \"My Field\" = 'Hello' ")
```

Set timestamp to today:

```
MBS( "FM.ExecuteSQL"; "UPDATE \"my Table\" SET \"Change Time\" = TODAY WHERE \"ID\" = '12345' ")
```

Update 5 fields:

```
MBS( "FM.ExecuteSQL"; "UPDATE \"my Table\" SET \"Number Field\" = 1, \"Text Field\" = 'test',
\"Dest Field\" = \"Source Field\", \"Hour Field\" = CAST(HOUR(curtime) AS VARCHAR), \"Empty
Field\" = NULL WHERE \"ID\" = '12345' ")
```

Select with passing variable as part of expression:

```
MBS("FM.ExecuteSQL"; "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK
='\" & $Variable & \"'")
```

Update date field:

```
MBS( "FM.ExecuteSQL"; "UPDATE myTable SET myDateField = CAST('2015-08-15' as DATE) ")
```

Delete all data in a table:

```
$Result = MBS( "FM.ExecuteSQL"; "DELETE FROM \"Prova\";")
```

Create an index:

```
MBS( "FM.ExecuteSQL"; "CREATE INDEX ON tablename.fieldname" )
```

Drop an index:

```
MBS( "FM.ExecuteSQL"; "DROP INDEX ON tablename.fieldname" )
```

Value in List of values:

```
MBS( "FM.ExecuteSQL"; "select * from \"Anlagen\" where \"Modell\" in ('test', 'abc')")
```

Delete all records from Table People:

```
# no where condition, so deletes all records!
MBS( "FM.ExecuteSQL"; "DELETE FROM \"People\"")
```

Query value of a repeating field with [ ] :

```
MBS( "FM.ExecuteSQL"; "SELECT test [ 2 ] FROM Kontakte")
```

Set value of repeating field:

```
MBS( "FM.ExecuteSQL"; "UPDATE Kontakte SET test [ 2 ] = 'test'")
```

Query only first row:

```
MBS( "FM.ExecuteSQL"; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

Truncates table in FileMaker 15 or newer:

```
MBS( "FM.ExecuteSQL"; "TRUNCATE TABLE Kontakte")
```

Query field ID for a field with given name and table name:

```
MBS("FM.ExecuteSQL"; "SELECT FieldID FROM FileMaker__Fields WHERE FieldName='Vorname' and
TableName='Kontakte' ")
```

Query repetition count of global field by name:

```
MBS("FM.ExecuteSQL"; "SELECT FieldReps FROM FILEMAKER__FIELDS WHERE FieldName='Wieder-
holen' ")
```

Query field name and repetition count for all fields in a table:

```
MBS("FM.ExecuteSQL"; "SELECT FieldReps, FieldName FROM FILEMAKER__FIELDS WHERE Table-
Name='Aufgaben' AND FieldType like '% global%' ")
```

Query list of record IDs for a given table:

```
MBS("FM.ExecuteSQL"; "SELECT ROWID FROM MyTable")
```

Concat two texts with plus and use CAST to make number to text:

```
MBS( "FM.ExecuteSQL"; "SELECT 'A' + CAST(123 AS VARCHAR) FROM Contacts")
```

**See also**

80.22. <i>FM.EXECUTESQL</i>	3977
• 80.54 FM.QueryTableNames	4041
• 81.26 FM.SQL.Execute	4196
• 81.38 FM.UpdateRecord	4222
• 80.86 FM.UpdateRecord3	4102
• 81.39 FM.UpdateRecords	4225
• 80.88 FM.UpdateRecords2	4107
• 127.6 IsError	6374
• 111.25 Matrix.InsertRecords	5894
• 159.71 SQL.InsertOrUpdateRecords	7516
• 167.68 Text.WriteTextFile	7999

### Example Databases

- [CURL/Email/Email Client](#)
- [SQL in FileMaker/Create Fields in Filemaker Table](#)
- [SQL in FileMaker/SQL Select](#)
- [Utility functions/Generate and Verify License Key](#)
- [Utility functions/Schedules](#)

### 80.22.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [ExecuteSQL and getting error details](#)
- [MBS FileMaker Plugin 3.4 for OS X/Windows](#)

### 80.22.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34
- Ausgabe 3/2018, Seite 33
- Ausgabe 1/2016, Seite 27
- Ausgabe 4/2015, Seite 39
- Ausgabe 3/2015, Seite 29
- Ausgabe 3/2015, Seite 28

- Ausgabe 3/2015, Seite 27
- Ausgabe 2/2015, Seite 18
- Ausgabe 2/2015, Seite 17
- Ausgabe 2/2015, Seite 16

Created 18th August 2014, last changed 29th April 2020.

## 80.23 FM.ExecuteSQL.LastError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastError" )

### Description

Set by FM.InsertRecord, FM.SQL.Execute, FM.ExecuteSQL, FM.ExecuteFileSQL or FM.ExecuteSQLOnIdle. The Errors number s are the same ones as the ones returned by Native FileMaker function "Get(LastError)" Examples: 1200 - "Generic Calculation Error" 200 - "Access Denied" 106 - "Missing Table" Known Limitations: Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. There is no way to determine if an update actually occurs unless you check the value again after the update occurred.

In general error 8309 is a semantic error, so something is wrong in your SQL. 8310 is a syntax error, something in the SQL is not correctly parsed.

Error 8309 means you did pass wrong data type, like string for a number.

See also FM.ExecuteSQL.LastErrorMessage.

### Examples

Get Last SQL Error

MBS( "FM.ExecuteSQL.LastError" )

### See also

- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.12 FM.ExecuteSQLOnIdle 4158
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.19 FM.InsertRecordCSV 4177
- 81.20 FM.InsertRecordQuery 4180
- 81.22 FM.InsertRecordTSV 4187
- 81.26 FM.SQL.Execute 4196
- 81.30 FM.SQL.InsertRecords 4204
- 111.25 Matrix.InsertRecords 5894
- 159.71 SQL.InsertOrUpdateRecords 7516

### Example Databases

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

### 80.23.1 Blog Entries

- [ExecuteSQL and getting error details](#)
- [MBS Filemaker Plugin, version 4.2pr5](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

### 80.23.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34

Created 18th August 2014, last changed 14th September 2015.



## 80.24 FM.ExecuteSQL.LastErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastErrorMessage" )

**Result** Returns error message.

### Description

Set by FM.InsertRecord, FM.SQL.Execute, FM.ExecuteSQL, FM.ExecuteFileSQL, FM.ExecuteSQLOnIdle and other SQL using functions.

If last error code was 0 (no error), you get an empty string.

Error may be something like this:

ERROR: FQL0007/(1:7): The column named "fieldname" does not exist in any table in the column reference's scope.

See also FM.ExecuteSQL.LastError. Use FM.ExecuteSQL.LastSQL to get the SQL command.

### See also

- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.19 FM.InsertRecordCSV 4177
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.26 FM.SQL.Execute 4196
- 111.25 Matrix.InsertRecords 5894
- 159.10 SQL.Execute 7425
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

### Example Databases

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

### 80.24.1 Blog Entries

- [ExecuteSQL and getting error details](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

- [Create fields in Filemaker database from a Script](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)

### 80.24.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)
- [Ausgabe 2/2015, Seite 16](#)

Created 18th August 2014, last changed 25th October 2019.

Error	Message
FQL0001	There is an error in the syntax of the query.
FQL0002	The table named "?0" does not exist.
FQL0003	The table named "?0" already exists in this query.
FQL0004	The query is too complex. The maximum number of tables has been exceeded.
FQL0005	Expressions involving aggregations are not supported.
FQL0006	"The column named "?0" appears in more than one table in the column reference's scope."
FQL0007	The column named "?0" does not exist in any table in the column reference's scope.
FQL0008	The table named "?0" does not exist in the column reference's scope.
FQL0009	The column named "?1" does not exist in table "?0".
FQL0010	The literal value "?0" is not a valid DATE, TIME or TIMESTAMP.
FQL0011	Predicate must contain a logical operation (=, <, OR, AND, IS NULL, ...).
FQL0012	The ordinal reference "?0" in the ORDER BY clause is not valid.
FQL0013	Incompatible types in assignment.
FQL0014	The number of values in a VALUES row value constructor does not match the number of values in the target.
FQL0015	The number of values in an INSERT...SELECT statement does not match the number of values in the target.
FQL0016	A subquery contains an illegal outer reference to a column in the INSERT's target table.
FQL0017	An expression contains data types that cannot be compared.
FQL0018	An expression contains incompatible data types.
FQL0019	The result data type of a CASE expression cannot be inferred; they are all NULL.
FQL0020	An invalid number of parameters was supplied to the function "?0"
FQL0021	Parameter number ?0 to the function "?1" is not of the correct type.
FQL0022	A subquery expression must have exactly one value in the SELECT list.
FQL0023	A CAST expression requested an invalid data type conversion.
FQL0024	A reference to ROWID must be qualified if more than one table is present in the query.
FQL0025	All non-aggregated column references in the SELECT list and HAVING clause must be in the GROUP BY clause.
FQL0026	The number of columns in both inputs to a UNION operation must be the same.
FQL0027	The data types of corresponding columns in the inputs to a UNION operation must be the same.
FQL0028	Field repetitions must be numeric and between 1 and ?0.
FQL0029	A field repetition in the SET clause of an UPDATE statement must be a constant.
FQL0030	"?0" is an invalid function.
FQL0031	The the parameter's type cannot be inferred in this context. At least one query parameter must be an expression, a column or a constant.
FQL0032	A query may contain either named parameters or dynamic parameters, but not both.
FQL0033	Column names in FROM clause subqueries must be unique.
FQL0034	The number of output columns in a FROM clause subquery must match the number of columns in the table's name list.
FQL0035	Cursor support is not enabled for this query.
FQL0036	A cursor with the name "?0" already exists.
FQL0037	There is no cursor with the name "?0"

## 80.25 FM.ExecuteSQL.LastSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastSQL" )

**Result** Returns text or error.

### Description

This is for executing SQL in FileMaker and provides you the last SQL command as run by the plugin.

### See also

- 38.3 Audit.Changed 970
- 81.4 FM.DeleteRecord 4131
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.18 FM.InsertRecord 4173
- 81.38 FM.UpdateRecord 4222
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.89 FM.UpdateRecords3 4109

### 80.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 11st September 2017, last changed 11st September 2017.

## 80.26 FM.ExecuteSQLOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	No	No	No

MBS( "FM.ExecuteSQLOnIdle"; SQL Statement { ; Column Delimiter; Record Delimiter; Params } )

### Parameters

#### SQL Statement

the SQL statement

#### Column Delimiter

Optional

Optional column delimiter

#### Record Delimiter

Optional

Optional record delimiter

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

### Description

You run a script pause after using this function to give it time to execute.

See the other function for more info.

Seems like on FileMaker 11 you get LastError 8310 if you use fields with underscore in the name. You avoid that by placing the field names in quotes.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message. Use FM.ExecuteFileSQL if you want to specify the file name.

When you create fields, you can use the following types. Add global on the end to make it a global field.

FileMaker Type	SQL Type
Text	varchar
Number	decimal
Date	date
Time	time
Timestamp	timestamp
Container	binary

### Examples

Create a new text field in a table:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField varchar")
```

And delete the field:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable DROP COLUMN MyField")
```

Create new table:

```
MBS("FM.ExecuteSQLOnIdle";"CREATE TABLE `MyTABLE` (test varchar)")
```

Create new index:

```
MBS("FM.ExecuteSQLOnIdle";"CREATE INDEX `IndexLastname` ON `Persons` (`LastName`);")
```

Add a global field:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyGlobalField varchar global")
```

Create a field:

```
Set Variable [ $r ; Value: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField var-
char") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
If [ MBS("FM.ExecuteSQL.LastError") 0 ]
Show Custom Dialog [ "Error adding column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If
```

Remove a field:

```
Set Variable [ $r ; Value: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable DROP COLUMN
MyField") ]
Pause/Resume Script [ Duration (seconds): 0.1 ]
If [ MBS("FM.ExecuteSQL.LastError") 0 ]
Show Custom Dialog [ "Error removing column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If
```

Change default value:

```
Set Variable [ $r ; Wert: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE myTable ALTER myField SET
```

80.26. *FM.EXECUTESQLONIDLE* 3987  
DEFAULT 'FileMaker'”) ]

#### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.7 FM.ExecuteFileSQLOnIdle 4144
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154

#### Example Databases

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

#### 80.26.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)
- [MBS FileMaker Plugin, version 7.4pr4](#)
- [MBS FileMaker Plugin, version 6.5pr3](#)
- [MBS Filemaker Plugin, version 4.2pr5](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)
- [Create fields in Filemaker database from a Script](#)

#### 80.26.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 3/2018, Seite 34
- Ausgabe 3/2018, Seite 33
- Ausgabe 2/2015, Seite 15
- Ausgabe 2/2015, Seite 14

Created 18th August 2014, last changed 9th April 2019.

## 80.27 FM.GetDictionary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.4	Yes	No	No	No	No

MBS( "FM.GetDictionary" )

**Result** Returns text or error.

### Description

You need to first run FM.ChooseDictionary to query values.

### See also

- [80.5 FM.ChooseDictionary](#) 3942
- [80.28 FM.GetDictionaryList](#) 3989

### 80.27.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr4](#)
- [Choose spelling dictionary in FileMaker automatically](#)

Created 24th August 2019, last changed 24th August 2019.



## 80.28 FM.GetDictionaryList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.4	Yes	No	No	No	No

MBS( "FM.GetDictionaryList" )

**Result** Returns text or error.

### Description

You need to first run FM.ChooseDictionary to query values.

### See also

- [80.5 FM.ChooseDictionary](#) 3942
- [80.27 FM.GetDictionary](#) 3988

### 80.28.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr4](#)
- [Choose spelling dictionary in FileMaker automatically](#)

Created 24th August 2019, last changed 24th August 2019.

## 80.29 FM.GetDisableContextualMenus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.1	Yes	Yes	No	No	No

MBS( "FM.GetDisableContextualMenus" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if MBS Plugin disables contextual menus.

### See also

- 80.79 FM.SetDisableContextualMenus 4089

### 80.29.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 14th January 2020, last changed 14th January 2020.

## 80.30 FM.GetSQLBatchMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.GetSQLBatchMode" )

**Result** Returns value or error.

### Description

For use in FM.InsertRecordQuery.  
(others could be added)

Default is 1.

### See also

- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.37 FM.SetSQLBatchMode 4220

### 80.30.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr8](#)

Created 17th September 2016, last changed 18th September 2016.

## 80.31 FM.InitMessageFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.3	No	Yes	Yes, Windows only	No	No

MBS( "FM.InitMessageFilter" )

**Result** Returns OK or error.

### Description

If a COM message can't be handled right away, COM may show a standard dialog to retry, switch task or cancel, which may bring your app in an endless dialog series. MBS Plugin implements a message filter which delays messages till the current processing is done and avoids the dialog. So long running options can perform well.

Call this once if you see "server busy" error dialogs from COM subsystem on Windows.

### See also

- [184.12 WIA.Initialize](#) 8647

### 80.31.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [Putting an end to the Server Busy Dialog in Xojo and FileMaker](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 18th June 2018, last changed 15th May 2019.

## 80.32 FM.InsertOrUpdateRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord"; FileName; TableName; IDField1; IDValue1; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

For one ID field, please use `FM.InsertOrUpdateRecord`, for 2 ID fields `FM.InsertOrUpdateRecord2` and for three ID fields `FM.InsertOrUpdateRecord3`.

This function is broken in version 6.4 as it returns always a SQL error for insert. Please use 6.5 or newer. With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use `GetFieldName()` function to query field names and the plugin removes the table prefix with `::` in the field name before passing it to SQL engine.

You can use `FM.ExecuteSQL.LastSQL` function to see later what SQL was created and run.

### Examples

Update a record:

```
MBS( "FM.InsertOrUpdateRecord";
""; "Asset Management"; /* file and table name */
"Asset ID"; "1"; /* ID field and value */
"Information"; "Just a test"; /* first field and value */
"Category"; "BestItems" ) /* second field and value */
```

### See also

- 81.8 `FM.ExecuteSQL` 4146
- 81.11 `FM.ExecuteSQL.LastSQL` 4157
- 81.15 `FM.InsertOrUpdateRecord2` 4165
- 81.16 `FM.InsertOrUpdateRecord3` 4168
- 81.17 `FM.InsertOrUpdateRecordQuery` 4171
- 81.18 `FM.InsertRecord` 4173
- 81.38 `FM.UpdateRecord` 4222
- 159.71 `SQL.InsertOrUpdateRecords` 7516

### 80.32.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)

### **80.32.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 24
- Ausgabe 6/2018, Seite 23
- Ausgabe 3/2018, Seite 35

Created 5th December 2015, last changed 17th January 2020.

## 80.33 FM.InsertOrUpdateRecord2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord2"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.  
Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.  
"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.  
"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.  
\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.  
"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.  
\$RelatedRecordID

#### FieldName

A field name to set.  
"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.  
"Test"

**Result** Returns OK or error.



**Description**

Same as FM.InsertOrUpdateRecord, but with 2 ID fields to locate record.

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Insert or update:

```
MBS( "FM.InsertOrUpdateRecord2";
  ""; "Assets"; /* file and table name */
  "Asset ID Match Field"; 2; /* first ID field and value */
  "Internal ID"; "2"; /* second ID field and value */
  "Model"; "Just a test"; /* first field and value */
  "Category"; "BestItems2" ) /* second field and value */
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.38 FM.UpdateRecord 4222
- 159.71 SQL.InsertOrUpdateRecords 7516

### 80.33.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 6.1pr3](#)

### 80.33.2 FileMaker Magazin

- Ausgabe 6/2018, Seite 24

Created 19th February 2016, last changed 17th January 2020.

## 80.34 FM.InsertOrUpdateRecord3

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord3"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; IDField3; IDValue3; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### IDField3

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID3"

#### IDValue3

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$OtherRecordID

**FieldName**

A field name to set.  
"Model"

**FieldValue**

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.  
"Test"

**Result** Returns OK or error.

**Description**

Same as FM.InsertOrUpdateRecord, but with 3 ID fields to locate record.

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Insert a record:

```
MBS( "FM.InsertOrUpdateRecord3"; "" ; "Kontakte"; "Vorname"; "Christian"; "Nachname"; "Schmitz";
"Firma"; "MBS"; "Titel"; "Herr" )
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173

<i>80.34. FM.INSERTORUPDATERECORD3</i>	4001
• 81.38 FM.UpdateRecord	4222
• 159.71 SQL.InsertOrUpdateRecords	7516

### **80.34.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr3](#)
- [MBS FileMaker Plugin, version 6.1pr3](#)

### **80.34.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 24
- Ausgabe 3/2018, Seite 35

Created 19th February 2016, last changed 17th January 2020.

## 80.35 FM.InsertOrUpdateRecordQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecordQuery"; InsertFileName; InsertTableName; FieldNames; KeyFieldMapping; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the target table. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into (target). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### KeyFieldMapping

The list of field names with index to map keys. Please specify a list of key name=key index. The key name is the name of the field in the target table and the index gives zero-based position in result set from query.

Field order in source and destination does not need to be the same.

ID=0

#### QueryFileName

The file name for the database to run the query against (source). Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string to query records from the source table.

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

#### Description

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within

a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.  
Reports an error if field name list doesn't match column count of the query result.

Please remove from SQL statement and field names all fields which are globals or unstored calculations.

For inserting records from other database (e.g. MySQL), please use SQL.InsertRecords function.

You can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

You can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

#### Examples

Copies records from Contacts to ContactsCopy:

```
Set Variable [ $r ; Value: MBS( "FM.InsertOrUpdateRecordQuery"; "" ; "ContactsCopy"; "ID$First$Last$Mobile"; "ID=0"; "" ; "SELECT \"ID\", \"First\", \"Last\", \"Mobile\" FROM \"Contacts\"") ]
```

#### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 159.72 SQL.InsertRecords 7519

Created 27th July 2018, last changed 19th February 2020.

## 80.36 FM.InsertRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecord"; FileName; TableName; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

Then you pass one pair of field name and value for each field you like to set in the new record.

As we can't know the new ID assigned for the record, you can help yourself by passing in an UUID for a field and later select that to get the auto assigned primary key (or have the UUID be the primary key, so you don't need a query).

See also FM.UpdateRecord to insert new record and FM.InsertOrUpdateRecord to update or insert record. With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Insert a record into Assets table:

```
MBS("FM.InsertRecord"; ""; "Assets"; "Model"; "TestModell"; "Item"; "MyItem"; "Serial Number"; "1234";
    "In Service Date"; GetAsDate( "31.05.1996"))
```



Insert a record with 5 fields:

```
MBS("FM.InsertRecord"; $filename; $tablename; $field1; $value1; $field2; $value2; $field3; $value3; $field4;
$value4; $field5; $value5)
```

Insert with table and field ID instead of names:

```
Set Variable [ $r ; Value: MBS("FM.InsertRecord"; Get(FileName); "1065089"; "3"; "Hello") ]
```

Insert with using GetFieldName for field names:

```
MBS( "FM.InsertRecord"; ""; "Contacts";
GetFieldName ( Contacts::First ); "Joe";
GetFieldName ( Contacts::Last ); "Miller";
GetFieldName ( Contacts::Group ); "Best Customers" )
```

Build dynamically the evaluate statement with parameters:

```
# Our input parameters with field name list
Set Variable [ $FieldNames ; Value: FieldNames ( Get(FileName) ; Get(LayoutName) ) ]
#
# We build parameters for our Evaluate call
Set Variable [ $Params ; Value: "" ]
Set Variable [ $ParamIndex ; Value: 0 ]
#
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: Get(FileName) ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
#
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: Get(LayoutTableName) ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
#
# We loop over feidl list
Set Variable [ $Count ; Value: ValueCount ( $FieldNames ) ]
Set Variable [ $FieldIndex ; Value: 0 ]
Set Variable [ $Types ; Value: "" ]
#
Loop
# get field name and value
Set Variable [ $FieldIndex ; Value: $FieldIndex + 1 ]
Set Variable [ $Fieldname ; Value: GetValue($FieldNames; $FieldIndex) ]
Set Variable [ $Value ; Value: GetField ( $Fieldname) ]
#
# Check typ to filter fields we don't want
Set Variable [ $Typ ; Value: FieldType ( Get(FileName) ; $Fieldname ) ]
If [ Position ( $Typ; "Global"; 1; 1 ) = 1 or Position ( $Typ; "Summary"; 1; 1 ) = 1 or Position($Typ; "stored-
Calc"; 1; 1 ) = 1 or $Fieldname = "ID" ]
```

```

# ignore global, statistic and unsaved formula field
// Show Custom Dialog [ "Typ" ; $FieldName & ": " & $typ ]
Else
# We store in $P [ ] our parameters for evaluate and in $Params the parameters for Evaluate
Set Variable [ $Types ; Value: $Types & $& $FieldName & ": " & $Typ ]
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: $Fieldname ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: $Value ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
End If
#
Exit Loop If [ $FieldIndex = $count ]
End Loop
#
# now build Evaluate command and show it
// Show Custom Dialog [ "Types" ; $Types ]
Set Variable [ $Function ; Value: "FM.InsertRecord" ]
Set Variable [ $command ; Value: "MBS($Function" & $params & ")" ]
Show Custom Dialog [ "Command" ; $Command ]
If [ Get ( LastMessageChoice ) = 1 ]
# And run it!
Set Variable [ $result ; Value: Evaluate($Command) ]
Show Custom Dialog [ "Result" ; $Result ]
End If

```

Insert with automatic table name:

```

MBS("FM.InsertRecord";
""; // empty for current file
""; // empty as given with first field
GetFieldName ( Anlagen::Seriennummer ); // field name queried
"12345") // and value

```

### See also

- 81.13 FM.GetSQLBatchMode 4161
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.22 FM.InsertRecordTSV 4187

80.36. <i>FM.INSERTRECORD</i>	4007
• 81.23 FM.InsertSetUpdateProgressDialog	4190
• 81.37 FM.SetSQLBatchMode	4220
• 159.71 SQL.InsertOrUpdateRecords	7516
• 159.72 SQL.InsertRecords	7519

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

### 80.36.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [Dynamically build MBS call and evaluate it](#)
- [MBS FileMaker Plugin, version 8.4pr2](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS FileMaker Plugin, version 6.2pr2](#)
- [MBS FileMaker Plugin 5.1 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.1pr7](#)
- [Quickly copy lots of records](#)

### 80.36.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 33](#)
- [Ausgabe 4/2019, Seite 27](#)
- [Ausgabe 6/2018, Seite 27](#)
- [Ausgabe 6/2018, Seite 26](#)
- [Ausgabe 6/2018, Seite 23](#)
- [Ausgabe 6/2018, Seite 22](#)
- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 3/2018, Seite 36](#)
- [Ausgabe 3/2018, Seite 35](#)
- [Ausgabe 3/2018, Seite 34](#)

## 80.37 FM.InsertRecordCSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordCSV"; InsertFileName; InsertTableName; FieldNames; Text { ; Delimiter; FieldName; FieldValue } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### Text

The text to import in TSV/CSV format. This means tab, comma or semicolon character between fields and newline character for new records. Use Files.ReadTextFile if needed to read this from a file on disk.

"Bob;Miller;12345;New York"

#### Delimiter

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

The delimiter to use. If empty, we auto detect it.

","

#### FieldName

Optional

A field name to set.

"Model"

#### FieldValue

Optional

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

This function allows for easy importing of text to create a log of records.

Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result. Since version 8.2 we can fill text, number, time, timestamp and date fields and let FileMaker convert the values with your current locale.

Returns number of records added.

CSV is automatically parsed per line with List.CSVSplit function internally.

You can pass one pair of field name and value for each extra field you like to set in the new records. e.g. a reference ID.

You can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

Version 8.5 adds Delimiter parameter, which may break scripts, but we need to have that parameter for people with older version.

#### Examples

Import some contacts with passing import ID/timestamp:

```
MBS( "FM.InsertRecordCSV"; "Contacts.fmp12"; "Contacts"; "FirstName$LastName$City"; $tsv; "ImportID"; $importID; "ImportDate"; Get(CurrentHostTimeStamp))
```

Import CSV:

```
MBS( "FM.InsertRecordCSV"; "Kontakte.fmp12"; "Kontakte"; "Vorname$Nachname$Firma$Position"; "Vorname;Nachname;Firma;Position")
```

#### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.22 FM.InsertRecordTSV 4187

- [105.7 List.CSVSplit](#)

### Example Databases

- [Text functions/CSV Import](#)

### 80.37.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin 7.4 - More than 4900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 7.4pr8](#)

### 80.37.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)

Created 21st September 2017, last changed 1st May 2020.

## 80.38 FM.InsertRecordQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordQuery"; InsertFileName; InsertTableName; FieldNames; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### QueryFileName

The file name for the database to run the query against. Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

#### Description

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Please remove from SQL statement and field names all fields which are globals or unstored calculations.

For inserting records from other database (e.g. MySQL), please use `SQL.InsertRecords` function.

Using `FM.SetSQLBatchMode` you can let the plugin insert e.g. 50 rows in one chunk which can speed up insert a lot.

Due to memory usage it can be useful to segment copy queries to only copy one GB at a time and avoid heavy memory pressure.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use `GetFieldName()` function to query field names and the plugin removes the table prefix with `::` in the field name before passing it to SQL engine.

### Examples

Copy records within one table in same file:

```
MBS( "FM.InsertRecordQuery"; ""; "Contacts"; "First$Last$Company"; ""; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy records from a table from one database to other (production to development)

```
MBS( "FM.InsertRecordQuery"; "ContactsDev.fmp12"; "Contacts"; "First$Last$Company"; "Contacts.fmp12"; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy data to other table:

```
MBS( "FM.InsertRecordQuery"; ""; "Test"; "FirstName$LastName$CompanyName"; ""; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Query sum of sales grouped by customers in a sales report table:

```
MBS( "FM.InsertRecordQuery"; ""; "SalesReport"; "SumSales$CustomerID"; ""; "SELECT sum(\"Invoice-Total\"), \"CustomerID\" FROM Clients, Invoices WHERE Invoices.CustomerID = Clients.CustomerID GROUP by CustomerID" )
```

Copy two fields from one table to other:

```
MBS( "FM.InsertRecordQuery"; ""; "ASC Apple Script"; "Name$Script"; ""; "select * from \"Apple-Script\"" )
```

Copy from Anlagen example (in German) to copy of same file:

```
MBS( "FM.InsertRecordQuery";
```



```

/* InsertFileName */
"Anlagen2";
/* InsertTableName */
"Anlagen";
/* FieldNames */
"Abschreibung Jahre$Anzahl Diagramme$Ausgewählte Datei$Datei 1 Container$Datei 2 Container$Datei
3 Container$Datei 4 Container$Datei 5 Container$Datum Ausgang$Datum Ausgang Popover$Datum Ein-
gang$Erstellungsdatum$Fälligkeit$Fälligkeit Popover$Gekauft von$Geprüft durch$In Betrieb seit$Interne
ID$Kategorie$Kaufdatum$Kosten$Modell$Notizen$Ort$Position$Prüfdatum$Seriennummer$Signatur Con-
tainer$Zugewiesen an$Zustand";
/* QueryFileName */
"Anlagen";
/* SQL Statement */
"SELECT \"Abschreibung Jahre\", \"Anzahl Diagramme\", \"Ausgewählte Datei\", \"Datei 1 Container\",
\"Datei 2 Container\", \"Datei 3 Container\", \"Datei 4 Container\", \"Datei 5 Container\", \"Datum Aus-
gang\", \"Datum Ausgang Popover\", \"Datum Eingang\", \"Erstellungsdatum\", \"Fälligkeit\", \"Fäl-
ligkeit Popover\", \"Gekauft von\", \"Geprüft durch\", \"In Betrieb seit\", \"Interne ID\", \"Kategorie\",
\"Kaufdatum\", \"Kosten\", \"Modell\", \"Notizen\", \"Ort\", \"Position\", \"Prüfdatum\", \"Serien-
nummer\", \"Signatur Container\", \"Zugewiesen an\", \"Zustand\" FROM Anlagen"
)

```

Copy data to other table with parameter:

```

MBS( "FM.InsertRecordQuery"; ""; "Test"; "FirstName$LastName$CompanyName"; ""; "SELECT \"First\",
\"Last\", \"Company\" FROM Contacts WHERE City=?"; "Hamburg" )

```

Copy from file to fill clone with order and two fields to filter:

```

MBS( "FM.InsertRecordQuery"; "Aufgaben Clone"; "Aufgaben"; "Aufgabe$Fälligkeit$Beschreibung$Sta-
tus$Kategorie"; ""; "SELECT Aufgabe, \"Fälligkeit\", Beschreibung, Status, Kategorie FROM Aufgaben
WHERE IDField=? AND OtherThing=? ORDER BY \"Fälligkeit\" "; 123; "Haus" )

```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.19 FM.InsertRecordCSV 4177
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.22 FM.InsertRecordTSV 4187
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 81.37 FM.SetSQLBatchMode 4220

- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

### 80.38.1 Blog Entries

- [Dynamically build MBS call and evaluate it](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS FileMaker Plugin, version 5.4pr5](#)
- [MBS FileMaker Plugin 5.1 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.1pr7](#)
- [Quickly copy lots of records](#)

### 80.38.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)
- [Ausgabe 4/2015, Seite 40](#)
- [Ausgabe 4/2015, Seite 39](#)

Created 29th April 2015, last changed 17th January 2020.

## 80.39 FM.InsertRecordQueryIgnoreDuplicates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordQueryIgnoreDuplicates"; InsertFileName; InsertTableName; FieldNames; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### QueryFileName

The file name for the database to run the query against. Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

Same as FM.InsertRecordQuery, but ignores duplicate records.

On success returns the number of duplicate records instead of OK if there were any.

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Does not copy text styles, only plain text for text fields.

The duplicate check is based on FileMaker checking if a field is unique, e.g. the record ID.  
For inserting records from other database (e.g. MySQL), please use `SQL.InsertRecords` function.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

### Examples

Copy records within one table in same file:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "Contacts"; "First$Last$Company"; ""; "SELECT \
\"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy records from a table from one database to other (production to development)

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; "ContactsDev.fmp12"; "Contacts"; "First$Last$Company";
"Contacts.fmp12"; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy data to other table:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "Test"; "FirstName$LastName$CompanyName"; "";
"SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Query sum of sales grouped by customers in a sales report table:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "SalesReport"; "SumSales$CustomerID"; ""; "SE-
LECT sum(\"InvoiceTotal\"), \"CustomerID\" FROM Clients, Invoices WHERE Invoices. CustomerID
= Clients.CustomerID GROUP by CustomerID" )
```

Copy two fields from one table to other:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "ASC Apple Script"; "Name$Script"; ""; "select *
from \"AppleScript\"" )
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.23 FM.InsertSetUpdateProgressDialog 4190

80.39. *FM.INSERTRECORDQUERYIGNOREDUPPLICATES*

4017

- 159.72 SQL.InsertRecords

7519

### 80.39.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 18th January 2016, last changed 17th January 2020.

## 80.40 FM.InsertRecordTSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.InsertRecordTSV"; InsertFileName; InsertTableName; FieldNames; Text { ; FieldName; Field-Value } )
```

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### Text

The text to import in TSV format. This means tab character between fields and newline character for new records

"Bob Miller 12345 New York"

#### FieldName

Optional

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

Optional

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns number or error.

### Description

This function allows for easy importing of text to create a log of records.

Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result. Since version 8.2 we can fill text, number, time, timestamp and date fields and let FileMaker convert the values with your current locale.

Returns number of records added.

For XML, please check XML.Import function. For splitting values with delimiter into a list, please use QuickList.New which also works with comma, tab, newline or other characters.

With plugin version 6.2 or newer you can pass one pair of field name and value for each extra field you like to set in the new records. e.g. a reference ID.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

### Examples

Import records from text:

```
Delete All Records [ No dialog ]
Set Variable [ $fields; Value:"FirstName$LastName$City" ]
Set Variable [ $r; Value:MBS("FM.InsertRecordTSV"; ""; "Contacts"; $fields; Import::ImportText) ]
```

Import some contacts with passing import ID/timestamp:

```
MBS( "FM.InsertRecordTSV"; "Contacts.fmp12"; "Contacts"; "FirstName$LastName$City"; $tsv; "ImportID"; $importID; "ImportDate"; Get(CurrentHostTimeStamp))
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.19 FM.InsertRecordCSV 4177
- 81.20 FM.InsertRecordQuery 4180
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 105.74 QuickList.New 5604

- 194.13 XML.Import

### Example Databases

- [Text functions/TSV Import](#)

#### 80.40.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [MBS FileMaker Plugin, version 6.2pr5](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [\[ ANN \] MBS FileMaker Plugin 5.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.3pr3](#)
- [XML Import for FileMaker](#)
- [New today: FM.InsertRecordTSV](#)

#### 80.40.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)

Created 8th September 2015, last changed 1st May 2020.



## 80.41 FM.InsertSetUpdateProgressDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.2	Yes	Yes	No	No	No

MBS( "FM.InsertSetUpdateProgressDialog"; Update { ; Base; Factor } )

### Parameters

#### Update

Pass 1 to update Progress Dialog. Pass 0 to disable feature.

1

#### Base

Optional

The progress base in percent. Default is 0.

25

#### Factor

Optional

The factor to apply for progress update. Default is 1.

0.5

**Result** Returns OK or error.

### Description

If you enable progress dialog updates, the functions FM.InsertRecordQuery, FM.InsertRecordQueryIgnoreDuplicates and FM.InsertRecordTSV will update progress dialog.

If cancel button is clicked, the functions may cancel and return an error. Depending on event handling a cancel button may not work while a plugin function runs!

You can use Base/Factor to adjust updates in progress dialog. e.g. if you have 4 things to do and FM.InsertRecordTSV is 2nd one, you can use a base of 25 (so 25% is for first thing to do) and factor of 0.25. Our progress will go from 25 to 50% than.

### Examples

Import tab return text data as records with progress dialog:

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetTitle"; "Please wait." ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetShowButton"; 0 ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetTopText"; "Importing text file..." ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.Show" ) ]
```

```
Set Variable [ $r; Value:MBS( "FM.InsertSetUpdateProgressDialog"; 1 ) ]
```

```
Set Variable [ $r; Value:MBS( "FM.InsertRecordTSV"; "" ; "TSV Import"; "First$Last$Street$City$State$Zip$Country"; TSV Import::Text to Import ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.Hide" ) ]
```

### See also

• 64.47 Dialog.SetTop	2431
• 81.18 FM.InsertRecord	4173
• 81.20 FM.InsertRecordQuery	4180
• 81.22 FM.InsertRecordTSV	4187
• 81.37 FM.SetSQLBatchMode	4220
• 133.14 ProgressDialog.Hide	6618
• 133.26 ProgressDialog.SetShowButton	6637
• 133.27 ProgressDialog.SetTitle	6639
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647

### 80.41.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr3](#)

Created 3th April 2016, last changed 18th September 2016.

## 80.42 FM.IsMainThread

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.IsMainThread" )

**Result** Returns number or error.

**Description**

**See also**

- 80.47 FM.MainThreadID

4031

### 80.42.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr3](#)

Created 26th March 2015, last changed 26th March 2015.

## 80.43 FM.LayoutIDForLayoutName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.LayoutIDForLayoutName"; LayoutName { ; FileName } )

### Parameters

#### LayoutName

The name of the layout.

"Test"

#### FileName

Optional

The name of the file to look inside. If empty, we default to current file.

**Result** Returns number or error.

### Description

### Examples

Query ID for contacts layout:

MBS( "FM.LayoutIDForLayoutName"; "Contacts" )

### 80.43.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)

Created 8th April 2020, last changed 8th April 2020.

## 80.44 FM.LayoutNameForLayoutID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.LayoutNameForLayoutID"; LayoutID { ; FileName } )

### Parameters

#### LayoutID

The ID of the layout.

"123"

#### FileName

Optional

The name of the file to look inside. If empty, we default to current file.

**Result** Returns name or error.

### Description

### Examples

Query name for ID:

MBS( "FM.LayoutNameForLayoutID"; 2 )

### 80.44.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)

Created 8th April 2020, last changed 8th April 2020.

## 80.45 FM.LayoutNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.LayoutNames" )

**Result** Returns list or error.

### Description

Same as calling `LayoutNames(Get(FileName))`.

### Examples

Show layout names:

```
Show Custom Dialog [ "Layouts" ; MBS( "FM.LayoutNames" ) ]
```

### 80.45.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)

Created 8th April 2020, last changed 19th April 2020.

## 80.46 FM.Loop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.Loop"; Variable Name; Start Value; End Value; Step Value; Expression { ; ExitIfExpression } )

### Parameters

#### Variable Name

The name of the variable to use. Can be with zero, one or zwei \$ on the start.  
"index"

#### Start Value

The start value of the loop.

1

#### End Value

The end value of the loop.

12

#### Step Value

The number to add on each loop. Must not be zero. Can be positive to count forward or negative to count backwards.

1

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

" MBS(\ "Log\"; index) "

#### ExitIfExpression

Optional

The expression to evaluate to check for exit early. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"index >= 10"

**Result** Returns list of results or error.

### Description

Counts number up/down from start to end value. Evaluates each time the formula with new variable value.

If trace is enabled and plugin writes log entries for each evaluate, things are slower than without tracing.

For best performance, do not use trace with this function. e.g. call Trace.Off function.

Returns empty text if End value is zero and step is positive to allow for 0 time loops.

Similar to the While() function in FileMaker 18.

### Examples

Loop to place month names in a PDF table:

```

MBS("FM.Loop";
/* variable */ "index";
/* start */ 1;
/* end */ 12;
/* step */ 1;
/* formula */
"MBS(\\"DynaPDF.Table.SetCellText\\"; $table; $rowNum; index; \\"center\\"; \\"center\\"; GetValue($months;
index))")

```

Loop with Let for multiple commands

```

MBS("FM.Loop";
/* variable */ "index";
/* start */ 1;
/* end */ 31;
/* step */ 1;
/* formula */
"Let( [ $rowNum = MBS(\\"DynaPDF.Table.AddRow\\"; $table);
r = MBS(\\"DynaPDF.Table.SetCellText\\"; $table; $rowNum; 0; \\"center\\"; \\"center\\"; index) ] ; r)")

```

Counts upward from 2 to 24:

```

MBS("FM.Loop";
/* variable */ "index";
/* start */ 1;
/* end */ 12;
/* step */ 1;
/* formula */
"index*2")

```

Example result: 2

```

4
6
8
10
12
14
16
18
20
22
24

```

Counts downwards from 1.0 to 0.0 in 11 steps:

```

MBS("FM.Loop";
/* variable */ "index";
/* start */ 10;

```



```
/* end */ 0;
/* step */ -1;
/* formula */
"index/10")
```

Example result: 1

```
.9
.8
.7
.6
.5
.4
.3
.2
.1
0
```

Inner and outer loop:

```
Let( [
```

```
$Expression1 = "MBS(\"FM.Loop\"; \"j\"; 1; 3; 1; $Expression2)";
$Expression2 = "$i & \" * \" & j & \" = \" & ($i * j)"
// $i in outer loop must be with $ so it's valid in the inner loop
];
```

```
MBS("FM.Loop"; "$i"; 1; 4; 1; $Expression1))
```

Example result: 1 \* 1 = 1

```
1 * 2 = 2
1 * 3 = 3
2 * 1 = 2
2 * 2 = 4
2 * 3 = 6
3 * 1 = 3
3 * 2 = 6
3 * 3 = 9
4 * 1 = 4
4 * 2 = 8
4 * 3 = 12
```

With an exit early expression:

```
MBS("FM.Loop";
/* variable */ "index";
/* start */ 1;
/* end */ 12;
/* step */ 1;
/* formula */
```

```
"index*2"; // calculate this  
"index >= 10") // exit if index gets big
```

**See also**

- 71.456 DynaPDF.Table.AddRow 3318
- 71.487 DynaPDF.Table.SetCellText 3368
- 127.58 Trace.Off 6442

**Example Databases**

- [DynaPDF/Tables](#)

**80.46.1 Blog Entries**

- [Fun with While function in FileMaker](#)
- [FileMaker Roadmap for 2019](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [Using found set in SQL queries](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [Sum up values in JSON with MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [New FM.Loop function](#)

**80.46.2 FileMaker Magazin**

- [Ausgabe 4/2019, Seite 33](#)

Created 25th March 2018, last changed 9th October 2019.

## 80.47 FM.MainThreadID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.MainThreadID" )

**Result** Returns number or error.

**Description**

**See also**

- 80.42 FM.IsMainThread

4023

### 80.47.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr3](#)

Created 26th March 2015, last changed 26th March 2015.

## 80.48 FM.MouseWheelScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	6.3	Yes	Yes	No	No	No

MBS( "FM.MouseWheelScriptTrigger"; FileName; ScriptName { ; MinDelay; IgnoreRectangleX; IgnoreRectangleY; IgnoreRectangleW; IgnoreRectangleH } )

### Parameters

#### FileName

The file name for the script.

Get(Filename)

#### ScriptName

The name of the script to trigger. Can be empty to disable feature.

"WheelScriptTrigger"

#### MinDelay

Optional

The minimum delay between script triggers. Default is 1. Could be 0.5 for a quicker reaction.

1

#### IgnoreRectangleX

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

The X position of the rectangle where scroll action is ignored if the mouse is inside. Relative to the parent window. Default is -1 to have no such rectangle.

Rectangle area is Windows only.

135

#### IgnoreRectangleY

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

The Y position of the rectangle where scroll action is ignored if the mouse is inside. Relative to the parent window. Default is -1 to have no such rectangle.

55

#### IgnoreRectangleW

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

The width of the rectangle where scroll action is ignored if the mouse is inside. Relative to the parent window. Default is -1 to have no such rectangle.

400

#### IgnoreRectangleH

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

The height of the rectangle where scroll action is ignored if the mouse is inside. Relative to the parent window. Default is -1 to have no such rectangle.

500

**Result** Returns OK or error.**Description**

If you like to have a script triggered to switch records on Windows with mouse wheel, you can use this function.

The script parameter is the delta on mouse wheel usage. 120 is one tick down and negative value means movement up.

The script is called at most once every second (by default).

Turn off by calling again with empty script name. This setting is global, so you may just install once in start script.

Add option to ignore a rectangle for plugin version 7.1.

Implemented for Mac and FileMaker 16 or newer with MBS Plugin 9.1.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**Examples**

Installs trigger:

```
MBS("FM.MouseWheelScriptTrigger"; Get(FileName); "MouseTrigger")
```

Sample MouseTrigger script to move between records:

```
If [ Get ( ActiveFieldName ) = "" ]
Set Variable [ $r; Value:Round(Get(ScriptParameter) / 120; 0) ]
Go to Record/Request/Page [ No dialog; Get ( RecordNumber ) + $r ]
// Set Variable [ $r; Value:MBS("Log"; "MouseWheel " & $r) ]
End If
```

**See also**

- [178.4 Log](#)

8361

**Example Databases**

- [Window/MouseWheel scrolling through records](#)

**80.48.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.1](#)

- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr3](#)
- [Scroll through records with mouse wheel on MacOS](#)
- [MBS FileMaker Plugin, version 7.1pr1](#)
- [MBS FileMaker Plugin, version 6.3pr1](#)

Created 27th May 2016, last changed 18th February 2019.

## 80.49 FM.NULL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.NULL" )

**Result** Returns empty container.

### Description

FileMaker doesn't really have a NULL value, but other databases make a difference between empty text ("" ) and no value (NULL).

This function returns a special container value with no content.

SQL.SetParamValue and SQL.SetParamValues can use this value to pass NULL to the database.

### Examples

get null value:

```
MBS("FM.NULL")
```

### See also

- 159.120 SQL.SetParamTypesValues 7589
- 159.122 SQL.SetParamValue 7592
- 159.123 SQL.SetParamValues 7594

### 80.49.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 20th April 2015, last changed 14th September 2015.

## 80.50 FM.PatchNotificationProblem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.1	Yes	No	No	No	No

MBS( "FM.PatchNotificationProblem" )

**Result** Returns OK or error.

### Description

FileMaker 16.0.4 on MacOS 10.13.3 has a bug that can cause crashes with scroll gestures.

Crash reports show message about "terminating with uncaught exception" and stack trace shows `_beginScrollGesture` method called which posts a notification to a non-existing observer.

The plugin, if activated with this function will watch for those notifications and just ignore them, so the observer is not called and the crash does not happen.

### 80.50.1 Blog Entries

- [FileMaker Pro 16.0.5 Update available](#)
- [Crashes with FileMaker 16.0.4 with scroll gesture notification](#)

Created 2nd March 2018, last changed 2nd March 2018.



## 80.51 FM.QueryBaseTableNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.QueryBaseTableNames" { ; FileName } )

### Parameters

#### FileName

Optional

The database file name to look into. If empty or missing, we look in current database. (new in 6.2)  
"Contacts"

**Result** Returns names of tables separated by return.

### Description

See also FM.QueryTableNames.

### Examples

Query tables in database Kontakte:

MBS( "FM.QueryBaseTableNames"; "Kontakte" )

### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.8 FM.ExecuteSQL 4146
- 80.54 FM.QueryTableNames 4041

### 80.51.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS Filemaker Plugin, version 3.1pr3](#)

Created 18th August 2014, last changed 12nd April 2016.

## 80.52 FM.QueryFieldsForBaseTableName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.QueryFieldsForBaseTableName"; BaseTableName { ; FileName } )

(old name: FM.QueryFields)

### Parameters

#### BaseTableName

The base table name to query.  
"test"

#### FileName

Optional

The database file name to look into. If empty or missing, we look in current database. (new in 6.2)  
"Contacts"

**Result** Returns field names of fields separated by return.

### Description

See also FM.QueryFieldsForTableName.

### Examples

Query fields in table Kontakte in file Kontakte:

```
MBS( "FM.QueryFieldsForBaseTableName"; "Kontakte"; "Kontakte" )
```

### See also

- [81.6 FM.ExecuteFileSQL](#) 4137
- [81.8 FM.ExecuteSQL](#) 4146
- [80.53 FM.QueryFieldsForTableName](#) 4039

### 80.52.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS Filemaker Plugin, version 3.1pr3](#)

Created 18th August 2014, last changed 18th April 2016.

## 80.53 FM.QueryFieldsForTableName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.QueryFieldsForTableName"; TableName { ; FileName } )

### Parameters

#### TableName

The table name to query.

"test"

#### FileName

Optional

The database file name to look into. If empty or missing, we look in current database. (new in 6.2)

"Contacts"

**Result** Returns field names of fields separated by return.

### Description

See also FM.QueryFieldsForBaseTableName.

### Examples

Query field names for Contacts table:

MBS( "FM.QueryFieldsForTableName"; "Contacts" )

Query fields for contacts in contacts database:

MBS( "FM.QueryFieldsForTableName"; "Kontakte"; "Kontakte" )

Build quoted list of fields:

"\" & substitute(MBS( "FM.QueryFieldsForTableName"; "Aufgaben" ); §; "\", \") & "\""

### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.8 FM.ExecuteSQL 4146
- 80.52 FM.QueryFieldsForBaseTableName 4038
- 81.26 FM.SQL.Execute 4196
- 102.2 FM.SQL.JSONRecord 5306

### 80.53.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS Filemaker Plugin, version 3.1pr3](#)

Created 18th August 2014, last changed 7th December 2017.

## 80.54 FM.QueryTableNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.QueryTableNames" { ; FileName } )

(old name: FM.QueryTables)

### Parameters

#### FileName

Optional

The database file name to look into. If empty or missing, we look in current database. (new in 6.2)  
"Contacts"

**Result** Returns names of tables separated by return.

### Description

See also FM.QueryBaseTableNames.

### Examples

Query tables in database Kontakte:

```
MBS( "FM.QueryTableNames"; "Kontakte" )
```

### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.8 FM.ExecuteSQL 4146
- 80.51 FM.QueryBaseTableNames 4037

### 80.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS Filemaker Plugin, version 3.1pr3](#)

Created 18th August 2014, last changed 18th April 2016.

## 80.55 FM.RunDatabaseDesignReport

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.0	Yes	Yes	No	No	No

MBS( "FM.RunDatabaseDesignReport"; UseXML { ; Path; OpenWhenDone; FileNames } )

(old name: FM.RunDataDesignReport)

### Parameters

#### UseXML

Pass 1 to use XML or 0 to use HTML for the report.

1

#### Path

Optional

The path where to save for MacOS. If you don't specify a path, the last one used in the dialogs will be used.

No longer used on MacOS Mojave/Catalina due to raised security by Apple which prevents us changing the dialog.

"/tmp"

#### OpenWhenDone

Optional

Whether to open file when done. Pass 1 to open file after creating DDR or 0 to not open. Default is 0.

0

#### FileNames

Optional

Available in MBS FileMaker Plugin 9.4 or newer.

The list of filenames to set checkmarks for. Names must match exactly to be checked. MacOS only.

"test.fmp12\$other.fmp12"

**Result** Returns OK or error.

### Description

This must be the last step in a script, because it triggers an asynchronously process to make a report. So the plugin will run the menu command, set the options, press the create button and the save button for you. If you like to run other things later, simply run a script 5 seconds later with FM.RunScriptLater.

FileMaker and the dialogs may need to be frontmost to have this work well.

May not work if debugger window is visible.

See also FM.RunSaveAsXML for FileMaker 18.

Needs accessibility permissions in system preferences to click save button for MacOS Catalina and may not set path there.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

**Examples**

Make a XML report to temp folder on Mac:

```
Set Variable [ $r; Value:MBS( "FM.RunDataDesignReport"; 1; "/tmp" ) ]
```

Export to desktop:

```
Set Variable [ $r; Value:MBS( "FM.RunDataDesignReport"; 1; "/Users/cs/Desktop" ) ]  
// please change path!
```

**See also**

- 80.56 `FM.RunSaveAsXML` 4044
- 80.57 `FM.RunScript` 4045
- 80.59 `FM.RunScriptLater` 4049
- 124.2 `Path.FileMakerPathToNativePath` 6247

**80.55.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr3](#)
- [MBS FileMaker Plugin, version 9.4pr2](#)
- [MBS FileMaker Plugin, version 9.2pr6](#)

Created 15th November 2014, last changed 16th March 2020.

## 80.56 FM.RunSaveAsXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.2	Yes	Yes	No	No	No

MBS( "FM.RunSaveAsXML"; Path )

### Parameters

#### Path

The path where to save for MacOS. If you don't specify a path, the last one used in the dialogs will be used.

No longer used on MacOS Mojave/Catalina due to raised security by Apple which prevents us changing the dialog.

"/Users/cs/Desktop/test.xml"

**Result** Returns OK or error.

### Description

This requires FileMaker Pro Advanced 18 and performs the relevant menu command for you.

This must be the last step in a script, because it triggers an asynchronously process to make a report. So the plugin will run the menu command, enters the file name and the save button for you.

If you like to run other things later, simply run a script 5 seconds later with FM.RunScriptLater.

May not work if debugger window is visible.

### Examples

Save as XML on desktop:

Set Variable [ \$r ; Value: MBS( "FM.RunSaveAsXML"; "/Users/cs/Desktop/test.xml" ) ]

### See also

- 80.55 FM.RunDatabaseDesignReport 4042
- 80.57 FM.RunScript 4045
- 80.59 FM.RunScriptLater 4049

### 80.56.1 Blog Entries

- [FileMaker 18 Platform available](#)
- [MBS FileMaker Plugin, version 9.2pr6](#)

Created 30th April 2019, last changed 16th March 2020.



## 80.57 FM.RunScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	1.2	Yes	Yes	No	No	Yes

MBS( "FM.RunScript"; FileName; ScriptName { ; ScriptParameter; ScriptControl } )

### Parameters

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run.

#### ScriptParameter

Optional

The Parameter to Pass to the script.

#### ScriptControl

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The script control mode. Can be Pause, Halt, Exit or Resume. Default is Pause.

"pause"

### Description

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling. The basic concept behind triggering scripts with a plug-in is as follows. In order for the Plug-in to call a script it must be part of a calculation that is evaluated. For example to cause a script to run when a field is exited, you place the MBS function call in the auto-enter calculation of the field you want to serve as the trigger. When the field is exited the Auto-enter calculation is evaluated and the MBS function is fired off.. Placing the function call in the Field Validation calculation of the trigger field will cause the script to run on Record Exit. NOT on field Exit. This is because Validations by calculation happen at when the record is exited. Anywhere you have access to the calculation dialog you can place a Script trigger function. When the calculation is evaluated the script will run. This includes the new conditional formatting calculations that can be placed on many layout objects. While this opens up new opportunities, you might find that your script is being called continuously.

see also FM.RunScriptIdle, FM.RunScriptLater and Schedule functions.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Trigger a script

```
Let(
[
```

```
trigger = MBS("FM.RunScript"; Get(FileName); "Triggered Script"; "")
];
1
)
```

Trigger script by ID:

```
MBS( "FM.RunScript"; "test.fmp12"; "12" /* PrintRecords */; "Hello World")
```

### See also

- [35.10 App.OpenFile](#) 930
- [41.1 AVPlayer.AddView](#) 1071
- [70.6 DragDrop.CreateWithControl](#) 2529
- [80.55 FM.RunDatabaseDesignReport](#) 4042
- [80.56 FM.RunSaveAsXML](#) 4044
- [80.58 FM.RunScriptIdle](#) 4047
- [80.82 FM.StopScriptIdle](#) 4093
- [95.2 ImageView.CreateWithControl](#) 5162
- [108.8 MapView.CreateWithControl](#) 5735
- [168.5 TextView.CreateWithControl](#) 8010

### Example Databases

- [ScriptTriggers/Trigger Script On Field Exit](#)
- [ScriptTriggers/Trigger Script On New Record](#)
- [ScriptTriggers/Trigger Script On Record Exit](#)
- [Utility functions/RunScript](#)
- [Utility functions/Schedules](#)

### 80.57.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr1](#)

Created 18th August 2014, last changed 11st December 2019.

## 80.58 FM.RunScriptIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	3.3	Yes	Yes	No	No	No

MBS( "FM.RunScriptIdle"; DelaySeconds; FileName; ScriptName { ; ScriptParameter } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script. Moving the mouse or using keyboard will reset the counter.

10

#### FileName

The name of the file that contains the script to be run

Get(FileName)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

The Script Parameter to pass to the script

**Result** Returns OK on success or error message on failure.

### Description

This script is called in FileMaker whenever no user activity has been for the given amount of time.

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling.

see also Schedule.StartScriptOnIdle, FM.StopScriptIdle, FM.RunScript, FM.RunScriptLater and Schedule functions.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Start idle script:

```
Set Variable [ $r; Value:MBS( "FM.RunScriptIdle"; 10; Get(FileName); "Trigger" ) ]
```

### See also

- 80.57 FM.RunScript

- 80.59 FM.RunScriptLater 4049
- 80.82 FM.StopScriptIdle 4093
- 143.40 Schedule.StartScriptOnIdle 6949

### Example Databases

- [Utility functions/Idle](#)
- [Utility functions/RunScript](#)

### 80.58.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)
- [MBS Filemaker Plugin, version 3.4pr2](#)
- [MBS Filemaker Plugin, version 3.3pr3](#)

Created 18th August 2014, last changed 9th January 2020.

## 80.59 FM.RunScriptLater

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	1.2	Yes	Yes	No	No	Yes

MBS( "FM.RunScriptLater"; DelaySeconds; FileName; ScriptName { ; ScriptParameter } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script.

10

#### FileName

The name of the file that contains the script to be run

Get(FileName)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

Optional, the Script Parameter to pass to the script

**Result** Returns OK on success or error message on failure.

### Description

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling.

see also Schedule.StartScriptAfterDelay, FM.RunScriptIdle, FM.RunScript and Schedule functions.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Trigger a script later

```
Let(
[
/*-----PARAMETERS-----*/
DelaySeconds = 5;
FileName = Get ( FileName );
ScriptName = "Triggered Script Demo 2";
ScriptParameter = "Some Data"
];
/*-----FUNCTION-----*/
```

```
MBS(  
"FM.RunScriptLater";  
DelaySeconds;  
FileName;  
ScriptName;  
ScriptParameter  
)  
)
```

### See also

- 35.10 App.OpenFile 930
- 41.1 AVPlayer.AddView 1071
- 70.6 DragDrop.CreateWithControl 2529
- 80.55 FM.RunDatabaseDesignReport 4042
- 80.57 FM.RunScript 4045
- 80.58 FM.RunScriptIdle 4047
- 95.2 ImageView.CreateWithControl 5162
- 108.8 MapView.CreateWithControl 5735
- 143.37 Schedule.StartScriptAfterDelay 6943
- 168.5 TextView.CreateWithControl 8010

### Example Databases

- [Drag and Drop/DragTest Popover](#)
- [iOS/MapKit iOS](#)
- [Mac only/Process FrontMost](#)
- [RemoteControl/Press keys](#)
- [Utility functions/RunScript](#)
- [WebViewer/WebViewer IsLoading](#)

Created 18th August 2014, last changed 16th September 2019.

**80.60 FM.SQL.Avg**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Avg"; SQLref; Column { ; firstRow; lastRow } )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$SQLRef

**Column**

The index of the column. Default is 0.

0

**firstRow**

Optional

The index of first row. Default is 0.

0

**lastRow**

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

**Description**

You got a record set in memory and we can walk over a column in a given row range to add the sum value and later divide by number of values.

**Examples**

Query once and make several calculations:

```
# let FileMaker query data once
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT Price FROM Produkte" ) ]
# Now get sum, min, max and avg
Set Variable [ $sum ; Value: MBS( "FM.SQL.Sum"; $records; 0 ) ]
Set Variable [ $min ; Value: MBS( "FM.SQL.Min"; $records; 0 ) ]
Set Variable [ $max ; Value: MBS( "FM.SQL.Max"; $records; 0 ) ]
Set Variable [ $avg ; Value: MBS( "FM.SQL.Avg"; $records; 0 ) ]
Set Variable [ $text ; Value: MBS( "FM.SQL.Text"; $records; "" /* firstRow */; "" /* lastRow */; "" /* firstCol */; "" /* lastCol */; ", " /* rowSep */ ) ]
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $records ) ]
Show Custom Dialog [ "Sum: " & $sum & §& "Min: " & $min & §& "Max: " & $max & §& "Avg: " & $avg & §& "text: " & $text ]
```

**See also**

- 81.26 FM.SQL.Execute 4196
- 80.70 FM.SQL.Max 4073
- 80.71 FM.SQL.Min 4075
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217
- 159.10 SQL.Execute 7425

**80.60.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)

Created 30th January 2019, last changed 30th January 2019.



**80.61 FM.SQL.CSV**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.CSV"; SQLref { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

**firstRow**

Optional

The index of first row. Default is 0.

0

**lastRow**

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**firstCol**

Optional

The index of first column. Default is 0.

0

**lastCol**

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

**rowSeparator**

Optional

The row separator. Default is CR.

Char(13)

**colSeparator**

Optional

The column separator. Default is semicolon.

”;"

**Result** Returns text or error.

**Description**

You can use this method to quickly get all fields in a given area as text.

If needed, we put values in quotes and escape quotes and newlines.

For numeric values we ask FileMaker to provide text representation, so FileMaker may use dot or comma as

decimal divider depending on your locale.

Please use `Text.WriteTextFile` to write to text file if you need CSV export.

### Examples

Query fields and export as text and CSV:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.Text"; $sql ) ]
Set Variable [ $desktopFolder; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.txt" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.CSV"; $sql ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.csv" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Cleanup
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

### See also

- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 81.36 FM.SQL.Text 4217
- 124.1 Path.AddPathComponent 6243
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437
- 167.68 Text.WriteTextFile 7999

### **80.61.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

### **80.61.2 FileMaker Magazin**

- [Ausgabe 3/2018, Seite 34](#)

Created 8th January 2017, last changed 1st May 2020.

## 80.62 FM.SQL.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Execute"; FileName; SQL Statement { ; Params } )

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### Description

This function requires FileMaker 11 or newer. Please use FM.ExecuteSQL on FileMaker 10 or older.

Returns a SQL Reference, so you can use functions like FM.SQL.RowCount, FM.SQL.FieldCount, FM.SQL.Field and FM.SQL.FieldType to query result. Don't forget to use FM.SQL.Release to release the result from memory when you are done with it.

### Examples

Query only first row:

```
MBS( "FM.SQL.Execute"; ""; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

SELECT records

```
MBS("FM.SQL.Execute"; ""; "select * from Contacts")
```

Select with parameter:

```
MBS("FM.SQL.Execute"; ""; "select Menge from Boxen where Artikel_Nr=? ORDER BY Menge DESC"; "ABC123")
```

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; ""; "select * from Clients" ) ]
```

```
If [ MBS("IsError" ) ]
```

```
Show Custom Dialog [ "SQL error"; $sql ]
```

```

Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If

```

Query record as JSON:

```

Let ( [
fields = MBS( "FM.QueryFieldsForTableName"; "Contacts");
Records = MBS( "FM.SQL.Execute"; ""; "SELECT \" & substitute(fields; $; "\", \") & "\" FROM
\"Contacts\" WHERE \"First\" = ?"; "Joe");

json = MBS( "FM.SQL.JSONRecord"; Records; 0; fields);
r = MBS( "FM.SQL.Release"; Records ) ]
; json )

```

Make a JSON query in one Let statment:

```

Let (
[
$sdatt = "10/1/2019 00:00";
$edatt = "10/10/2019 00:00";
sku = "'PARbh50','PARgy50'";
sql1 = MBS("FM.SQL.Execute"; ""; "Select docnum,linetotal,db from \"MyTable\" where ItemCode in (\"
& sku & ") and DocDate between ? and ?"; $sdatt; $edatt);
json = MBS( "FM.SQL.JSONRecords"; sql1; "DocNum$LineTotal$DB"; 1);
r = MBS( "FM.SQL.Release"; sql1 )
]; json
)

```

Query related records as JSON:

```

# get related teams
Set Variable [ $r; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT \"UUID\", \"ID\", \"ID_De-
partment\", \"Team.Name\", \"MemberCount\" FROM \"Teams\" WHERE ID_Department=?"; Depart-
ment::ID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error" ; $r ]
Else
# fill as json in field
Set Field [ Department::JSON_Department ; MBS( "FM.SQL.JSONRecords"; $r; "UUID$ID$ID_Depart-
ment$Team.Name$MemberCount" ) ]
Set Variable [ $e ; Value: MBS( "FM.SQL.Release"; $r ) ]
End If

```

**See also**

• 81.28 FM.SQL.FieldCount	4201
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 102.2 FM.SQL.JSONRecord	5306
• 102.3 FM.SQL.JSONRecords	5308
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.35 FM.SQL.RowCount	4215
• 80.74 FM.SQL.Sum	4081
• 81.36 FM.SQL.Text	4217
• 159.16 SQL.FieldCount	7437

### Example Databases

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 80.62.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [Image Gallery in FileMaker using SQL](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [MBS FileMaker Plugin 7.0 - More than 4400 Functions In One Plugin](#)
- [MBS FileMaker Plugin 7.0 - 4400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)

### 80.62.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

## 80.63 FM.SQL.Field

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Field"; SQLref; Row; Column )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.  
\$SQLRef

#### Row

The row number from 0 to FM.SQL.RowCount-1.  
\$row

#### Column

The column number from 0 to FM.SQL.FieldCount-1.  
\$col

**Result** Returns value or error.

### Description

Native data type is preserved so this function can returns styled text, number, time, date, timestamp and container.

### Examples

Query field values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
# query first field of first row:
Set Variable [ $value; MBS( "FM.SQL.Field"; $sql; 0; 0 ) ]
# query other field
Set Variable [ $value; MBS( "FM.SQL.Field"; $sql; $row; $col ) ]
Set Variable [ $r; MBS( "FM.SQL.Release"; $sql ) ]
```

### See also

- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.29 FM.SQL.FieldType 4203
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 81.36 FM.SQL.Text 4217

- 111.14 Matrix.Evaluate 5881
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

### Example Databases

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)

### 80.63.1 Blog Entries

- [Image Gallery in FileMaker using SQL](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)
- [Execute SQL in FileMaker and get back native field types](#)

### 80.63.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 18th April 2015, last changed 1st March 2019.



**80.64 FM.SQL.FieldCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.FieldCount"; SQLref )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$SQLRef

**Result** Returns number or error.

**Description****Examples**

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

**See also**

- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.29 FM.SQL.FieldType 4203
- 81.36 FM.SQL.Text 4217
- 127.6 IsError 6374
- 111.14 Matrix.Evaluate 5881
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

**Example Databases**

- [SQL in FileMaker/SQL Select Container](#)

### 80.64.1 Blog Entries

- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 8th January 2017.

## 80.65 FM.SQL.FieldType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.FieldType"; SQLref; Row; Column )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Row

The row number from 0 to FM.SQL.RowCount-1.

\$row

#### Column

The column number from 0 to FM.SQL.FieldCount-1.

\$col

**Result** Returns text or error.

### Description

Returns text, date, number, time, timestamp, boolean, container or invalid.

**See also**

- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.35 FM.SQL.RowCount 4215
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

### 80.65.1 Blog Entries

- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 14th September 2015.

## 80.66 FM.SQL.InsertRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.SQL.InsertRecords"; SQLref; InsertFileName; InsertTableName; FieldNames { ; StartRow; EndRow } )
```

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### StartRow

Optional

The index of the start row in the current recordset. First row is 0.

0

#### EndRow

Optional

The index of the end row in the current recordset. First row is 0. Last Row would be FM.SQL.RowCount-1.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a FileMaker table.

Please provide field names in FileMaker. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert from SQL Connection into FileMaker database, please use SQL.InsertRecords.

**Examples**

Copy records:

```
# select some data
Set Variable [ $Records; Value:MBS( "FM.SQL.Execute"; "" ; "SELECT FirstName, LastName, Birthday
FROM test" ) ]
# now insert them somewhere else
Set Variable [ $r; Value:MBS( "FM.SQL.InsertRecords"; $Records; "" ; "test"; "FirstName$LastName$Birth-
Day" ) ]
# and free record set
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $Records ) ]
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.26 FM.SQL.Execute 4196
- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 159.10 SQL.Execute 7425
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

**80.66.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

**80.66.2 FileMaker Magazin**

- Ausgabe 3/2018, Seite 34

Created 1st August 2016, last changed 23th November 2017.

## 80.67 FM.SQL.InsertRecordsToSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.InsertRecordsToSQL"; SQLref; Connection; InsertTableName; FieldNames { ; StartRow; EndRow; Replace } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model\$Names"

#### StartRow

Optional

The index of the start row. First row is 0. Pass -1 or nothing for default which is starting with row 0.

-1

#### EndRow

Optional

The index of the end row. First row is 0. Last Row would be FM.SQL.RowCount-1. Pass -1 to use all rows and the plugin will internally use RowCount-1.

-1

#### Replace

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

Set to 1 to replace existing entries. Currently available for MySQL and databases with same syntax.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a SQL database. Please provide field names in other table. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert within FileMaker, please use FM.SQL.InsertRecords.

### Examples

Insert Records to SQL database:

```
Set Variable [ $InsertResult; Value:MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $connection; $BaseTableName; $FieldNames ) ]
```

Copy records to SQLite:

```
Set Variable [ $Connection ; Value: MBS("SQL.NewConnection") ]
# Tell plugin where SQLite library is
Set Variable [ $result ; Value: MBS("SQL.InternalSQLiteLibrary.Activate") ]
# Tell plugin we want to use SQLite
Set Variable [ $result ; Value: MBS("SQL.SetClient"; $Connection; "SQLite") ]
# Connect to database in read/write/create mode. Creates new file if none exists.
Set Variable [ $result ; Value: MBS("SQL.Connect"; $Connection; "/Users/cs/Desktop/mydatabase.sqlite") ]
]
If [ $result = "OK" ]
# Query records in FileMaker
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT FirstName, LastName, Birthday FROM People" ) ]
# Transfer to other database
Set Variable [ $Records ; Value: MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $Connection; "People"; "FirstName$LastName$Birthday" ) ]
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.Commit"; $Connection) ]
Set Variable [ $result2 ; Value: MBS( "FM.SQL.Release"; $Records ) ]
If [ $result = "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Show Custom Dialog [ "Record exported." ]
End If
End If
Set Variable [ $result2 ; Value: MBS("SQL.FreeConnection"; $Connection) ]
```

### See also

- 81.26 FM.SQL.Execute 4196
- 81.30 FM.SQL.InsertRecords 4204
- 81.35 FM.SQL.RowCount 4215
- 111.26 Matrix.InsertRecordsToSQL 5896

- 159.7 SQL.Commit 7416
- 159.8 SQL.Connect 7418
- 159.10 SQL.Execute 7425
- 159.19 SQL.FreeConnection 7442
- 159.72 SQL.InsertRecords 7519
- 159.73 SQL.InternalSQLiteLibrary.Activate 7521

### Example Databases

- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 80.67.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

### 80.67.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 1st August 2016, last changed 7th November 2018.



## 80.68 FM.SQL.JSONRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecord"; SQLref; Row; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Row

The row you like to get.

1

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON record:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecord"; $sql; 0; "First$Last$Birthday$Photo"; 2) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Query record as JSON:

```
Let ( [
```

```
fields = MBS( "FM.QueryFieldsForTableName"; "Contacts");
```

```
Records = MBS( "FM.SQL.Execute"; "" ; "SELECT \"\" & substitute(fields; $; \"\", \") & \"\" FROM \"Contacts\" WHERE \"First\" = ?"; "Joe");
```

```
json = MBS( "FM.SQL.JSONRecord"; Records; 0; fields);  
r = MBS( "FM.SQL.Release"; Records ) ]  
; json )
```

**See also**

- 80.53 FM.QueryFieldsForTableName 4039
- 81.26 FM.SQL.Execute 4196
- 102.3 FM.SQL.JSONRecords 5308
- 81.34 FM.SQL.Release 4213
- 159.10 SQL.Execute 7425

**80.68.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 4th March 2018, last changed 8th April 2019.

## 80.69 FM.SQL.JSONRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecords"; SQLref; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecords"; $sql; "First$Last$Birthday$Photo"; 2 ) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Make a JSON query in one Let statment:

```
Let (
```

```
[
```

```
$sdat = "10/1/2019 00:00";
```

```
$edat = "10/10/2019 00:00";
```

```
sku = "'PARbh50','PARgy50'";
```

```
sql1 = MBS("FM.SQL.Execute"; "" ; "Select docnum,linetotal,db from \"MyTable\" where ItemCode in (\" & sku & \") and DocDate between ? and ?"; $sdat; $edat);
```

```
json = MBS( "FM.SQL.JSONRecords"; sql1; "DocNum$LineTotal$DB"; 1);
```

```
r = MBS( "FM.SQL.Release"; sql1 )
```

```
] ; json
)
```

Query related records as JSON:

```
# get related teams
Set Variable [ $r ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT \"UUID\", \"ID\", \"ID_De-
partment\", \"Team.Name\", \"MemberCount\" FROM \"Teams\" WHERE ID_Department=?"; Depart-
ment::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error" ; $r ]
Else
# fill as json in field
Set Field [ Department::JSON_Department ; MBS( "FM.SQL.JSONRecords"; $r; "UUID$ID$ID_Depart-
ment$Team.Name$MemberCount") ]
Set Variable [ $e ; Value: MBS( "FM.SQL.Release"; $r ) ]
End If
```

### See also

- 81.26 FM.SQL.Execute 4196
- 102.2 FM.SQL.JSONRecord 5306
- 81.34 FM.SQL.Release 4213
- 127.6 IsError 6374
- 159.10 SQL.Execute 7425

### 80.69.1 Blog Entries

- [Query FileMaker records as JSON](#)

### 80.69.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34

Created 4th March 2018, last changed 2nd April 2020.

## 80.70 FM.SQL.Max

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Max"; SQLref; Column { ; firstRow; lastRow } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to find the maximum value.

### Examples

Query once and make several calculations:

```
# let FileMaker query data once
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT Price FROM Produkte" ) ]
# Now get sum, min, max and avg
Set Variable [ $sum ; Value: MBS( "FM.SQL.Sum"; $records; 0 ) ]
Set Variable [ $min ; Value: MBS( "FM.SQL.Min"; $records; 0 ) ]
Set Variable [ $max ; Value: MBS( "FM.SQL.Max"; $records; 0 ) ]
Set Variable [ $avg ; Value: MBS( "FM.SQL.Avg"; $records; 0 ) ]
Set Variable [ $text ; Value: MBS( "FM.SQL.Text"; $records; "" /* firstRow */; "" /* lastRow */; "" /* firstCol */; "" /* lastCol */; ", " /* rowSep */ ) ]
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $records ) ]
Show Custom Dialog [ "Sum: " & $sum & §& "Min: " & $min & §& "Max: " & $max & §& "Avg: " & $avg & §& "text: " & $text ]
```

**See also**

- 80.60 FM.SQL.Avg 4051
- 81.26 FM.SQL.Execute 4196
- 80.71 FM.SQL.Min 4075
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217
- 159.10 SQL.Execute 7425

**80.70.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)

Created 30th January 2019, last changed 30th January 2019.

## 80.71 FM.SQL.Min

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Min"; SQLref; Column { ; firstRow; lastRow } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to find the minimum value.

### Examples

Query once and make several calculations:

```
# let FileMaker query data once
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT Price FROM Produkte" ) ]
# Now get sum, min, max and avg
Set Variable [ $sum ; Value: MBS( "FM.SQL.Sum"; $records; 0 ) ]
Set Variable [ $min ; Value: MBS( "FM.SQL.Min"; $records; 0 ) ]
Set Variable [ $max ; Value: MBS( "FM.SQL.Max"; $records; 0 ) ]
Set Variable [ $avg ; Value: MBS( "FM.SQL.Avg"; $records; 0 ) ]
Set Variable [ $text ; Value: MBS( "FM.SQL.Text"; $records; "" /* firstRow */; "" /* lastRow */; "" /* firstCol */; "" /* lastCol */; ", " /* rowSep */ ) ]
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $records ) ]
Show Custom Dialog [ "Sum: " & $sum & §& "Min: " & $min & §& "Max: " & $max & §& "Avg: " & $avg & §& "text: " & $text ]
```

**See also**

- 80.60 FM.SQL.Avg 4051
- 81.26 FM.SQL.Execute 4196
- 80.70 FM.SQL.Max 4073
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217
- 159.10 SQL.Execute 7425

**80.71.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)

Created 30th January 2019, last changed 30th January 2019.



**80.72 FM.SQL.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Release"; SQLref )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

**Result** Returns OK or error.

**Description****Examples**

Run command and free it later:

```
$ref = MBS( "FM.SQL.Execute"; "" ; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

...

```
$r = MBS( "FM.SQL.Release"; $ref )
```

**See also**

- 81.25 FM.SQL.CSV 4193
- 81.27 FM.SQL.Field 4199
- 81.30 FM.SQL.InsertRecords 4204
- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 102.2 FM.SQL.JSONRecord 5306
- 80.70 FM.SQL.Max 4073
- 80.71 FM.SQL.Min 4075
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217

**Example Databases**

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 80.72.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [Image Gallery in FileMaker using SQL](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 1st August 2016.

**80.73 FM.SQL.RowCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.RowCount"; SQLref )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$SQLRef

**Result** Returns number or error.

**Description****Examples**

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

**See also**

- 81.28 FM.SQL.FieldCount 4201
- 80.70 FM.SQL.Max 4073
- 127.6 IsError 6374
- 111.14 Matrix.Evaluate 5881
- 111.25 Matrix.InsertRecords 5894
- 111.29 Matrix.Max 5900
- 111.30 Matrix.Min 5901
- 111.41 Matrix.Sum 5918
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425

**Example Databases**

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)

### **80.73.1 Blog Entries**

- [Image Gallery in FileMaker using SQL](#)
- [Execute SQL in FileMaker and get back native field types](#)

### **80.73.2 FileMaker Magazin**

- [Ausgabe 3/2018, Seite 34](#)

Created 18th April 2015, last changed 8th January 2017.

## 80.74 FM.SQL.Sum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Sum"; SQLref; Column { ; firstRow; lastRow } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to add the sum value.

### Examples

Query once and make several calculations:

```
# let FileMaker query data once
```

```
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT Price FROM Produkte") ]
```

```
# Now get sum, min, max and avg
```

```
Set Variable [ $sum ; Value: MBS( "FM.SQL.Sum"; $records; 0 ) ]
```

```
Set Variable [ $min ; Value: MBS( "FM.SQL.Min"; $records; 0 ) ]
```

```
Set Variable [ $max ; Value: MBS( "FM.SQL.Max"; $records; 0 ) ]
```

```
Set Variable [ $avg ; Value: MBS( "FM.SQL.Avg"; $records; 0 ) ]
```

```
Set Variable [ $text ; Value: MBS( "FM.SQL.Text"; $records; "" /* firstRow */; "" /* lastRow */; "" /* firstCol */; "" /* lastCol */; ", " /* rowSep */ ) ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $records ) ]
```

```
Show Custom Dialog [ "Sum: " & $sum & $& "Min: " & $min & $& "Max: " & $max & $& "Avg: " & $avg & $& "text: " & $text ]
```

### See also

• 80.60 FM.SQL.Avg	4051
• 81.26 FM.SQL.Execute	4196
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.34 FM.SQL.Release	4213
• 81.35 FM.SQL.RowCount	4215
• 81.36 FM.SQL.Text	4217
• 159.10 SQL.Execute	7425

### 80.74.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)

Created 30th January 2019, last changed 30th January 2019.

**80.75 FM.SQL.Text**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Text"; SQLref { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$\$SQLref

**firstRow**

Optional

The index of first row. Default is 0.

0

**lastRow**

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**firstCol**

Optional

The index of first column. Default is 0.

0

**lastCol**

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

**rowSeparator**

Optional

The row separator. Default is CR.

Char(13)

**colSeparator**

Optional

The column separator. Default is tab character.

Char(9)

**Result** Returns text or error.

**Description**

You can use this method to quickly get all fields in a given area as text.

**Examples**

Query fields and export as text and CSV:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
```

```

If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.Text"; $sql ) ]
Set Variable [ $desktopFolder; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.txt" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.CSV"; $sql ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.csv" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Cleanup
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If

```

### See also

- [81.25 FM.SQL.CSV](#) 4193
- [81.27 FM.SQL.Field](#) 4199
- [81.28 FM.SQL.FieldCount](#) 4201
- [80.71 FM.SQL.Min](#) 4075
- [81.34 FM.SQL.Release](#) 4213
- [81.35 FM.SQL.RowCount](#) 4215
- [82.8 Folders.UserDesktop](#) 4235
- [127.6 IsError](#) 6374
- [124.1 Path.AddPathComponent](#) 6243
- [159.16 SQL.FieldCount](#) 7437

### 80.75.1 Blog Entries

- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)



## **80.75.2 FileMaker Magazin**

- Ausgabe 3/2018, Seite 34

Created 8th January 2017, last changed 8th January 2017.

## 80.76 FM.ScriptIDForScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ScriptIDForScriptName"; ScriptName { ; FileName } )

### Parameters

#### ScriptName

The name of the script.

"Test"

#### FileName

Optional

Available in MBS FileMaker Plugin 7.5 or newer.

The name of the file to look inside. If empty, we default to current file.

**Result** Returns number or error.

### Description

### Examples

Query script ID:

MBS("FM.ScriptIDForScriptName"; "Send Campaign")

### 80.76.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 23th March 2015, last changed 1st October 2017.

## 80.77 FM.ScriptNameForScriptID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ScriptNameForScriptID"; ScriptID { ; FileName } )

### Parameters

#### ScriptID

The ID of the script.

"123"

#### FileName

Optional

Available in MBS FileMaker Plugin 7.5 or newer.

The name of the file to look inside. If empty, we default to current file.

**Result** Returns name or error.

### Description

### Examples

Query script name:

MBS( "FM.ScriptNameForScriptID"; 146 )

### 80.77.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 23th March 2015, last changed 1st October 2017.

## 80.78 FM.ScriptNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ScriptNames" { ; FileName } )

### Parameters

#### FileName

Optional

Available in MBS FileMaker Plugin 7.5 or newer.

The name of the file to look inside. If empty, we default to current file.

**Result** Returns list or error.

### Description

Same as calling ScriptNames(Get(FileName)).

### 80.78.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr4](#)
- [MBS FileMaker Plugin, version 7.5pr2](#)

Created 23th March 2015, last changed 1st October 2017.

## 80.79 FM.SetDisableContextualMenus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	10.1	Yes	Yes	No	No	No

MBS( "FM.SetDisableContextualMenus"; Value )

### Parameters

#### Value

Whether to disable the context menu via plugin. Pass 1 to disable or 0 to enable.

1

**Result** Returns OK or error.

### Description

Can be set to 1 to disable contextual menu.

You may want to use layout triggers to disable menus when entering layout and enable when leaving.

### See also

- 80.29 FM.GetDisableContextualMenus

3990

### 80.79.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 14th January 2020, last changed 14th January 2020.

## 80.80 FM.SetSQLBatchMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SetSQLBatchMode"; Value )

### Parameters

#### Value

The chunk size. Default is 1, but 10 or 50 is usually faster.

1

**Result** Returns OK or error.

### Description

For use in FM.InsertRecordQuery.  
(others could be added)

Our plugin can send several SQL commands in one chunk which makes some operation much faster.

### Examples

Move records, 50 inserts per chunk:

```
Set Variable [ $r ; Value: MBS( "ProgressDialog.Reset" ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetTitle"; "Please wait." ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetTopText"; "Copying records..." ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Show" ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetProgress"; 0 ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Update" ) ]

Set Variable [ $r ; Value: MBS( "FM.SetSQLBatchMode"; 50 ) ]
Set Variable [ $r ; Value: MBS( "FM.InsertSetUpdateProgressDialog"; 1 ) ]
Set Variable [ $r ; Value: MBS( "FM.InsertRecordQuery"; "" ; "dest"; $FieldNames; "" ; "SELECT \"f1\", \"f2\", \"f3\", \"f4\", \"f5\", \"f6\", \"f7\",... ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Hide" ) ]
```

### See also

- 64.47 Dialog.SetTop 2431
- 81.13 FM.GetSQLBatchMode 4161
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 133.14 ProgressDialog.Hide 6618
- 133.15 ProgressDialog.Reset 6620

<i>80.80. FM.SETSQLBATCHMODE</i>	4091
• 133.25 ProgressDialog.SetProgress	6635
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647
• 133.32 ProgressDialog.Update	6649

### **80.80.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr8](#)

Created 17th September 2016, last changed 12nd November 2018.

## 80.81 FM.SetThreadName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SetThreadName"; Name )

### Parameters

#### Name

The new name for the thread.

"MyScript"

**Result** Returns OK or error.

### Description

On FileMaker Server each script is performed in a thread. You can use this function to name this thread. Than on a crash report you may find this name and than you can see which script may cause the problem. Created 13th December 2015, last changed 13th December 2015.



## 80.82 FM.StopScriptIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	5.0	Yes	Yes	Yes	Yes	No

MBS( "FM.StopScriptIdle" )

**Result** Returns OK or error.

### Description

See also Schedule.StartScriptOnIdle, FM.RunScriptIdle and Schedule functions.  
Does not stop scripts registered with Schedule.StartScriptIdle

### Examples

Stop idle scripts:

Set Variable [ \$r; Value:MBS( "FM.StopScriptIdle" ) ]

### See also

- 80.57 FM.RunScript 4045
- 80.58 FM.RunScriptIdle 4047
- 143.40 Schedule.StartScriptOnIdle 6949

### Example Databases

- [Utility functions/Idle](#)

### 80.82.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr4](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 12nd December 2014, last changed 9th January 2020.

## 80.83 FM.TableStatistics

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.TableStatistics"; FileName; TableName )

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.  
""

#### TableName

The name of the table to check.  
"Contacts"

**Result** Returns JSON or error.

### Description

The plugin will walk over all records and count fields with various data types and how many empty fields are there.

We sum up the length of all text in text fields as well as the text content of all fields.

We sum up the size of all internal containers, so ContainerByteSize + AllTextLengths\*2 plus some metadata is the size of the database file.

For internal containers we also count the streams inside, so you know how many JPEGs and other file types are in the table.

e.g.

```
{
}
```

This function can take a long time for huge tables with millions of records. 64-bit FileMaker version recommended for better memory handling.

Does not handle globals correctly and counts them for each record!  
Version 10.0 or newer will ignore globals and un-stored calculations.

### Examples

Check statistics:

```
MBS( "FM.TableStatistics"; "Contacts.fmp12"; "Contacts" )
```

### Example Databases

- [Utility functions/TableStatistic](#)

```

"FileName":      "",
"TableName":     "Contacts",
"RecordCount":  4,
"MinRowID":     1,
"MaxRowID":     4,
"ColumnCount":  35,
"CountText":    20,
"CountEmpty":   107,
"CountNumber":  5,
"CountDate":    2,
"CountTime":    1,
"CountTimestamp": 1,
"CountContainer": 4,
"CountExternalContainer": 1,
"ContainerByteSize": 1162565,
"TextLengths":  132,
"AllTextLengths": 365,
"CountDPI_":    2,
"SizeDPI_":     8,
"CountFNAM":    3,
"SizeFNAM":     90,
"CountSIZE":    2,
"SizeSIZE":     8,
"CountPNGf":    1,
"SizePNGf":     727569,
"CountFILE":    1,
"SizeFILE":     390,
"CountJPEG":    1,
"SizeJPEG":     434606

```

### 80.83.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)
- [MBS FileMaker Plugin, version 8.6pr4](#)
- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 8.2pr5](#)

Created 26th April 2018, last changed 12nd November 2019.

Key	Value
FileName	The file name for the table.
TableName	The table name for this statistics.
RecordCount	The number of records.
MinRowID	The smallest record ID.
MaxRowID	The biggest record ID.
ColumnCount	Number of columns.
CountText	Number of fields containing text.
CountEmpty	Number of fields being empty.
CountNumber	Number of fields containing numeric values.
CountDate	Number of fields containing dates.
CountTime	Number of fields containing times.
CountTimestamp	Number of fields containing time stamps.
CountContainer	Number of all fields containing containers (includes CountExternalContainer).
CountExternalContainer	Number of fields containing external containers.
TextLengths	Length of text in text fields only.
AllTextLengths	Length of all text in all fields seen including numbers, times, dates, timestamps and containers read as text.
CountDPI_	Count of containers with DPI information.
SizeDPI_	Size of all DPI informations in containers.
CountFNAM	Count of containers with file name information.
SizeFNAM	Size of all filename informations in containers.
CountSIZE	Count of containers with image dimension information.
SizeSIZE	Size of all image dimension informations in containers.
CountMAIN	Count of all main item informations in containers.
SizeMAIN	Size of all main item informations in containers.
CountTIFF	Count of all TIFF images in containers.
SizeTIFF	Size of all TIFF images in containers.
CountPDF	Count of all PDF documents in containers.
SizePDF	Size of all PDF documents in containers.
CountPNGf	Count of all PNG images in containers.
SizePNGf	Size of all PNG images in containers.
CountGIFf	Count of all GIF images in containers.
SizeGIFf	Size of all GIF images in containers.
CountBMPf	Count of all BMP images in containers.
SizeBMPf	Size of all BMP images in containers.
CountEPS	Count of all PostScript documents in containers.
SizeEPS	Size of all PostScript documents in containers.
CountPICT	Count of all PICT images in containers.
SizePICT	Size of all PICT images in containers.
CountM4V	Count of all MPEG4 videos in containers.
SizeM4V	Size of all MPEG4 videos in containers.
CountWAV	Count of all Windows audio sounds in containers.
SizeWAV	Size of all Windows audio sounds in containers.
CountM4A	Count of all MEPEG 4 sounds in containers.
SizeM4A	Size of all MEPEG 4 sounds in containers.
CountMOV	Count of all QuickTime movies in containers.
SizeMOV	Size of all QuickTime movies in containers.
CountAVI	Count of all Windows movies in containers.
SizeAVI	Size of all Windows movies in containers.
CountAU	Count of all Unix sounds in containers.
SizeAU	Size of all Unix sounds in containers.
CountMP3	Count of all MP3 sounds in containers.
SizeMP3	Size of all MP3 sounds in containers.
CountMPEG	Count of all MPEG movies in containers.
SizeMPEG	Size of all MPEG movies in containers.
CountMPG4	Count of all MPEG 4 movies in containers.
SizeMPG4	Size of all MPEG 4 movies in containers.
CountAIFF	Count of all AIFF sounds in containers.
SizeAIFF	Size of all AIFF sounds in containers.

## 80.84 FM.UpdateRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecord"; FileName; TableName; IDField; IDValue; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be RecordID for the record ID.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

Please note that FM.UpdateRecord and FM.UpdateRecords are nearly identical. Just FM.UpdateRecord

provides the check to make sure only one record matches while FM.UpdateRecords allows several records to be updated. So with FM.UpdateRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Update a record:

```
MBS( "FM.UpdateRecord";
""; "Asset Management"; /* file and table name */
"Asset ID"; "1"; /* ID field and value */
"Information"; "Just a test"; /* first field and value */
"Category"; "BestItems" ) /* second field and value */
```

Update a record:

```
MBS( "FM.UpdateRecord"; Get(FileName); "Kontakte"; "Vorname"; "Joe"; "Firma"; "Test" )
```

Update a repeating field:

```
Set Variable [ $r ; Value: MBS( "FM.UpdateRecord"; "" ; "Contacts"; "RowID"; 1; "repeating [ 5 ] "; "Hello"
) ]
Show Custom Dialog [ Get ( RecordID ) & ": " & Contacts::repeating [ 5 ] ]
```

### See also

- 81.4 FM.DeleteRecord 4131
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107

80.84. *FM.UPDATERECORD*

4099

- 80.89 FM.UpdateRecords3

4109

### **Example Databases**

- [Mac and iOS/MapKit/MapView Click Polygons](#)

### **80.84.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 9.3pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)

### **80.84.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 24
- Ausgabe 6/2018, Seite 23
- Ausgabe 3/2018, Seite 35
- Ausgabe 1/2016, Seite 32

Created 5th December 2015, last changed 17th January 2020.

## 80.85 FM.UpdateRecord2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecord2"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"



**Result** Returns OK or error.

### Description

Same as FM.UpdateRecord, but with two key fields.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Update record with two key fields:

```
MBS( "FM.UpdateRecord2"; Get(FileName); "Kontakte";  
"Vorname"; "Joe"; // first key  
"Nachname"; "Miller"; // second key  
"Firma"; "Test Company" )
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109

## 80.85.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 3th December 2017, last changed 17th January 2020.

## 80.86 FM.UpdateRecord3

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecord3"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; IDField3; IDValue3; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### IDField3

The name of the field which provides an unique ID for each record, so we can identify the field.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID3"

#### IDValue3

The value for the ID field to identify the record. Data type of parameter must match the data type of the

field.

\$OtherRecordID

**FieldName**

A field name to set.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

**FieldValue**

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

**Description**

Same as FM.UpdateRecord, but with three key fields.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Update record with three key fields:

```
MBS( "FM.UpdateRecord3"; Get(FileName);
"Kontakte"; // table name
"Vorname"; "Joe"; // first key field
"Nachname"; "Miller"; // second key field
"Firma"; "Test Company"; // third key field
"Position"; "CEO"; // first field to update
"Website"; "http://mbs-plugins.com" ) // second field to update
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109

### 80.86.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 3th December 2017, last changed 17th January 2020.

## 80.87 FM.UpdateRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecords"; FileName; TableName; IDField; IDValue; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must not be unique, so several records can be updated at once.

Then you pass one pair of field name and value for each field you like to set in the new record.

Please note that FM.UpdateRecord and FM.UpdateRecords are nearly identical. Just FM.UpdateRecord provides the check to make sure only one record matches while FM.UpdateRecords allows several records to be updated. So with FM.UpdateRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use `GetFieldName()` function to query field names and the plugin removes the table prefix with `::` in the field name before passing it to SQL engine.

You can use `FM.ExecuteSQL.LastSQL` function to see later what SQL was created and run.

### Examples

Update a few records:

```
MBS( "FM.UpdateRecord";
"; "Asset Management"; /* file and table name */
"Category"; "Houses"; /* ID field and value */
"Information"; "Just a test"; /* first field and value */
"Comment"; "Testing" ) /* second field and value */
```

### See also

- 81.5 FM.DeleteRecords 4134
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109

### 80.87.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

### 80.87.2 FileMaker Magazin

- Ausgabe 3/2019, Seite 30
- Ausgabe 6/2018, Seite 23

Created 11st December 2015, last changed 17th January 2020.

## 80.88 FM.UpdateRecords2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecords2"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

Same as FM.UpdateRecords, but with two key fields.  
Same as FM.UpdateRecord2, but changes multiple records.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Update record with two key fields:

```
MBS( "FM.UpdateRecords2"; Get(FileName); "Kontakte";  
"Vorname"; "Joe"; // first key  
"Nachname"; "Miller"; // second key  
"Firma"; "Test Company" )
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.89 FM.UpdateRecords3 4109

## 80.88.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 3th December 2017, last changed 17th January 2020.



## 80.89 FM.UpdateRecords3

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecords3"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; IDField3; IDValue3; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### IDField3

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID3"

#### IDValue3

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$OtherRecordID

**FieldName**

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

**FieldValue**

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

**Description**

Same as FM.UpdateRecords, but with three key fields.

Same as FM.UpdateRecord3, but changes multiple records.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Update record with three key fields:

```
MBS( "FM.UpdateRecords3"; Get(FileName);
"Kontakte"; // table name
"Vorname"; "Joe"; // first key field
"Nachname"; "Miller"; // second key field
"Firma"; "Test Company"; // third key field
"Position"; "CEO"; // first field to update
"Website"; "http://mbs-plugins.com" ) // second field to update
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107

**80.89.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 3th December 2017, last changed 17th January 2020.

## 80.90 FM.VariableAdd

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableAdd"; Name; Value )

### Parameters

#### Name

the name of the variable  
"test"

#### Value

the value to add to the variable  
5

**Result** Returns new value or error.

### Description

Internally does similar to FM.VariableGet to read value, then adds given parameter and stores like FM.VariableSet, all in one operation, so no other script or calculation can get between.

Creates variable, if it's not existing yet.

### Examples

Sets \$ID and counts up with each call:

```
Set Variable [ $ID ; Value: MBS( "FM.VariableAdd"; "ID"; 1 ) ]
```

### See also

- 181.2 FM.VariableAppend 8389
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.10 FM.VariableSet 8398

### 80.90.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 8th June 2018, last changed 13th January 2020.

## 80.91 FM.VariableAppend

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableAppend"; Name; Value )

### Parameters

#### Name

the name of the variable

"test"

#### Value

the value to add to the variable

5

**Result** Returns new value or error.

### Description

Internally does similar to FM.VariableGet to read value, then adds given parameter and stores like FM.VariableSet, all in one operation, so no other script or calculation can get between.

Creates variable, if it's not existing yet.

### Examples

Test append function:

```
Let ( [
r1 = MBS( "FM.VariableAppend"; "hello"; "Line 1" & $);
r2 = MBS( "FM.VariableAppend"; "hello"; "Line 2" & $);
r3 = MBS( "FM.VariableAppend"; "hello"; "Line 3" & $)
]; MBS( "FM.VariableGet"; "hello" ) )
```

### See also

- 181.1 FM.VariableAdd 8387
- 181.6 FM.VariableGet 8393
- 181.10 FM.VariableSet 8398

### 80.91.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 28th October 2019, last changed 28th October 2019.

## 80.92 FM.VariableClear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableClear"; Name )

### Parameters

#### Name

The name of the variable to destroy

**Result** Returns OK.

### Description

### Examples

Destroy a variable

MBS( "FM.VariableClear" ; "MyVar" )

### See also

- [181.4 FM.VariableClearAll](#) 8391
- [181.6 FM.VariableGet](#) 8393
- [181.8 FM.VariableNames](#) 8396
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

### 80.92.1 Blog Entries

- [The power of global variables](#)

### 80.92.2 FileMaker Magazin

- [Ausgabe 2/2014, Seite 31](#)

Created 18th August 2014, last changed 21st June 2017.

## 80.93 FM.VariableClearAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableClearAll" )

**Result** Returns OK or error.

### Description

#### See also

- [181.3 FM.VariableClear](#) 8390
- [181.8 FM.VariableNames](#) 8396
- [181.10 FM.VariableSet](#) 8398

### 80.93.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr2](#)

Created 3th June 2015, last changed 8th June 2015.

**80.94 FM.VariableExists**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableExists"; Name )

**Parameters****Name**

The name of the variable.

"x"

**Result** Returns 1 if variable exists, else 0.

**Description****See also**

- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395

**80.94.1 Blog Entries**

- [The power of global variables](#)

**80.94.2 FileMaker Magazin**

- Ausgabe 2/2014, Seite 31

Created 18th August 2014, last changed 21st June 2017.

## 80.95 FM.VariableGet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableGet"; Name )

### Parameters

#### Name

The Name of the variable

### Description

Unlike the variables that were introduced in FileMaker 8 these variables are not limited to the File or Script. In other words they can be retrieved from any file in the system regardless of where they were declared.

You can check with FM.VariableExists whether a variable exists.

### Examples

Retrieve a variable

MBS( "FM.VariableGet" ; "myVar" )

### See also

- 181.1 FM.VariableAdd 8387
- 181.2 FM.VariableAppend 8389
- 181.3 FM.VariableClear 8390
- 181.5 FM.VariableExists 8392
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397
- 181.10 FM.VariableSet 8398

### Example Databases

- [CURL/WebViewer Download Images with CURL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drop](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)



### **80.95.1 Blog Entries**

- [Data structures in FileMaker with MBS Plugins](#)
- [The power of global variables](#)

### **80.95.2 FileMaker Magazin**

- Ausgabe 6/2019, Seite 34
- Ausgabe 6/2019, Seite 33
- Ausgabe 2/2014, Seite 32
- Ausgabe 2/2014, Seite 31

Created 18th August 2014, last changed 21st June 2017.

## 80.96 FM.VariableList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableList" { ; Delimiter } )

### Parameters

#### Delimiter

Optional

Optionally, the delimiter to use. Default is tab character.

”.”

**Result** Returns list.

### Description

Container values or multiline texts will probably not be handled correctly for the result. So works best if you have just single line values.

### See also

- 181.1 FM.VariableAdd 8387
- 181.5 FM.VariableExists 8392
- 181.6 FM.VariableGet 8393
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397
- 181.10 FM.VariableSet 8398

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

#### 80.96.1 Blog Entries

- [The power of global variables](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)

#### 80.96.2 FileMaker Magazin

- Ausgabe 2/2014, Seite 31

Created 18th August 2014, last changed 21st June 2017.

## 80.97 FM.VariableNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableNames" )

**Result** Returns list or error.

### Description

### Examples

Test functions:

```
MBS( "FM.VariableClearAll" ) &
MBS( "FM.VariableSet"; "Hello"; "World" ) &
MBS( "FM.VariableSet"; "other"; "value" ) &
§&
MBS( "FM.VariableList" ) &
§&
MBS( "FM.VariableNames" )
```

Example result: OKOKOK

other value

Hello World

other

Hello

### See also

- [181.3 FM.VariableClear](#) 8390
- [181.4 FM.VariableClearAll](#) 8391
- [181.6 FM.VariableGet](#) 8393
- [181.7 FM.VariableList](#) 8395
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### 80.97.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 13th December 2017, last changed 8th July 2018.

## 80.98 FM.VariableReset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableReset" )

**Result** Returns OK.

### Description

You can fill again with FM.VariableSet or remove individual variables with FM.VariableClear.

### See also

- 181.3 FM.VariableClear 8390
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.10 FM.VariableSet 8398

### 80.98.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 21st June 2017.

## 80.99 FM.VariableSet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableSet"; Name; Value )

### Parameters

#### Name

the name of the variable

#### Value

the value to assign to the variable

### Description

Unlike the variables that were introduced in FileMaker 8 these variables are not limited to the File or Script. In other words they can be retrieved from any file in the system regardless of where they were declared. All values are stored in their native data types (up to version 4.4 only text).

Use FM.VariableClear to clear the variables or FM.VariableClearAll to clear them all. FM.VariableList returns list of all defined variables.

On server, the variables are shared by all users connected to the server. So e.g. on Web Direct all users have the same set of global variables via plugin. You can prefix variables with user ID/Name to make them per use unique.

### Examples

Set a variable

```
MBS( "FM.VariableSet" ; "myVar"; "Hello" )
```

### See also

- 181.1 FM.VariableAdd 8387
- 181.2 FM.VariableAppend 8389
- 181.3 FM.VariableClear 8390
- 181.4 FM.VariableClearAll 8391
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397

**Example Databases**

- [CURL/WebViewer Download Images with CURL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drag](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drag](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

**80.99.1 Blog Entries**

- [Data structures in FileMaker with MBS Plugins](#)
- [The power of global variables](#)

**80.99.2 FileMaker Magazin**

- [Ausgabe 6/2019, Seite 33](#)
- [Ausgabe 2/2014, Seite 31](#)

Created 18th August 2014, last changed 24th July 2018.

# Chapter 81

## FMSQL

SQL inside FileMaker databases

This functions help you execute SQL within the FileMaker database on client and server.

If you look for SQL functions to other databases (like MySQL), please check our SQL functions.

### 81.1 Dictionary.AddSQLRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.AddSQLRecord"; DictionaryRef; Keys; SQL Statement; FileName { ; Params } )

#### Parameters

##### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

##### Keys

The list of keys for the dictionary. Could be the same as the field list.  
"FirstName\$LastName\$Company"

##### SQL Statement

SQL Statement as a Text string

##### FileName

The target database name. Can be empty to not limit query to one database.  
""

##### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the

SQL statement.

123

**Result** Returns OK or error.

### Description

From the result set, the first record is used for values and given key list for the keys.

Returns error in case of SQL error with error message.

As we only use first record, you can use `FETCH FIRST 1 ROWS ONLY` in the SQL command to only query first record.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Query record and get JSON:

```
Set Variable [ $dic ; Value: MBS("Dictionary.Create") ]
```

```
Set Variable [ $r ; Value: MBS( "Dictionary.AddSQLRecord"; $dic; "Vorname$Nachname$Firma"; "SELECT Vorname, Nachname, Firma FROM Kontakte"; "Kontakte" ) ]
```

```
Set Variable [ $json ; Value: MBS( "Dictionary.ToJSON"; $dic ) ]
```

```
Set Variable [ $r ; Value: MBS( "Dictionary.Release"; $dic ) ]
```

### See also

- 66.1 Dictionary.AddSQL 2439
- 81.2 Dictionary.AddSQLRecords 4125
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 102.1 Dictionary.ToJSON 5303

### 81.1.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr8](#)

Created 21st September 2017, last changed 20th February 2018.



## 81.2 Dictionary.AddSQLRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.AddSQLRecords"; DictionaryRef; Keys; SQL Statement; FileName { ; Params } )

### Parameters

#### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

#### Keys

The list of keys for the dictionary. Could be the same as the field list.  
"FirstName\$LastName\$Company"

#### SQL Statement

SQL Statement as a Text string

#### FileName

The target database name. Can be empty to not limit query to one database.  
""

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

From the result set, the records are used for values and given key list for the keys.  
If you have multiple records, you get all values collected per field in a list.  
Returns error in case of SQL error with error message.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Query record and get JSON:

```
Set Variable [ $dic ; Value: MBS("Dictionary.Create") ]
Set Variable [ $r ; Value: MBS( "Dictionary.AddSQLRecords"; $dic; "Vorname$Nachname$Firma"; "SELECT Vorname, Nachname, Firma FROM Kontakte"; "Kontakte" ) ]
Set Variable [ $json ; Value: MBS( "Dictionary.ToJSON"; $dic ) ]
Set Variable [ $r ; Value: MBS( "Dictionary.Release"; $dic ) ]
```

### See also

- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 102.1 Dictionary.ToJSON 5303

Created 23th September 2017, last changed 20th February 2018.

## 81.3 FM.CompareTables

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	9.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.CompareTables"; FileName1; TableName1; IDField1; FileName2; TableName2; IDField2 { ;
Options } )
```

### Parameters

#### FileName1

The file name of where the table is inside. Can be empty to look for the table in all files. File extension is optional for file name.

Get(FileName)

#### TableName1

The name of the first table (newer). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the ID field in first table. Can be a text or numeric field.

"Identifier"

#### FileName2

The file name of where the table is inside. Can be empty to look for the table in all files.

"other.fmp12"

#### TableName2

The name of the second table (older). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField2

The name of the ID field in second table. Can be a text or numeric field.

"Identifier"

### Options

Optional

Pass options. Add 1 to include details. Add 2 to include all the IDs found in both.

1+2

**Result** Returns JSON or error.

### Description

We compare the field names for both tables and report added, removed and common field names.

Then we check the record identifiers to report added, changed and common IDs.

If IDField1 and IDField2 names are the same in both tables, we compare the common records to report the changed record identifiers.

Does not compare the internal FileMaker row IDs.

Records are compared in 100 records block to limit memory usage.

### Examples

Compares two tables in two files:

```
MBS( "FM.CompareTables"; "Anlagen1.fmp12"; "Anlagen"; "Primärschlüssel"; "Anlagen2.fmp12"; "Anlagen"; "Primärschlüssel" )
```

Compare tables:

```
Show Custom Dialog [ MBS( "FM.CompareTables"; "Anlagen1.fmp12"; "Anlagen"; "Primärschlüssel"; "Anlagen2.fmp12"; "Anlagen"; "Primärschlüssel"; 1 ) ]
```

Example result: {

```
"Messages": [ ] ,
"TableName1": "Anlagen",
"TableName2": "Anlagen",
"FileName1": "Anlagen1.fmp12",
"FileName2": "Anlagen2.fmp12",
"RemovedFields": [ "Anlage1feld" ] ,
"Fields": [ "Anbieter", "Beschreibung", "Bild", "ErstelltVon", "Erstellungszeitstempel", "Gesamt", "GeändertVon", "Kaufdatum", "Name", "Preis", "Primärschlüssel", "Seriennummer", "Typ", "Änderungszeitstempel" ] ,
"AddedFields": [ "Anlage2feld" ] ,
"RemovedIDs": [ "00E5BB4E-3BB1-43D8-95DD-60E5C7E6153E", "149E3A95-89CC-4633-A576-C977831ED15E" ] ,
"IDs": [ "CFBA0CA0-3480-4560-B138-4FE605F1A666", "5AED71F4-D78F-490D-A842-CD623E25C118" ] ,
"AddedIDs": [ "04430FBE-C3AA-4D1B-B451-1B41AA703A96", "37E7E4AA-F5D0-4E96-BB24-BB720E808357" ] ,
"ChangedRecords": {
"CFBA0CA0-3480-4560-B138-4FE605F1A666": [ {
"Field": "Seriennummer",
"OldValue": "123a",
"NewValue": "123"
} , {
"Field": "Änderungszeitstempel",
"OldValue": "2019-06-15 20:13:21",
"NewValue": "2019-06-15 17:54:25"
} ] ,
"5AED71F4-D78F-490D-A842-CD623E25C118": [ {
"Field": "Kaufdatum",
"OldValue": "",
"NewValue": "2019-06-18"
} , {
"Field": "Änderungszeitstempel",
"OldValue": "2019-06-15 17:54:28",
"NewValue": "2019-06-16 05:47:24"
} ]
}
}
```

Compare and show results:

```

Set Variable [ $r ; Value: MBS("ProgressDialog.SetBottomText"; "") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetTopText"; "Compare Table") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetTitle"; "Compare..") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetButtonCaption"; "Cancel") ]
Set Variable [ $r ; Value: MBS("ProgressDialog.SetProgress"; -1) ]
Set Variable [ $r ; Value: MBS("ProgressDialog.Show") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $$r ; Value: MBS( "FM.CompareTables"; "test1.fmp12"; "Import2PropertyVal"; "_RecordU-
UID"; "test2.fmp12"; "Import2PropertyVal"; "_RecordUUID"; 1 ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
# Cleanup progress bar
Set Variable [ $r ; Value: MBS("ProgressDialog.Hide") ]
Show Custom Dialog [ $$r ]

```

```

Example result: {
  "Messages": [ ] ,
  "TableName1": "Import2PropertyVal",
  "TableName2": "Import2PropertyVal",
  "FileName1": "test1.fmp12",
  "FileName2": "test2.fmp12",
  "RemovedFields": [ ] ,
  "Fields": [ "Hex", "Hex.bytes", "PropertyVal.Name", "_CreationTimeStamp", "_ParentRecordUUID", "_Record-
dUUID", "test" ] ,
  "AddedFields": [ ] ,
  "RemovedIDs": [ ] ,
  "AddedIDs": [ ] ,
  "ChangedRecords": {
    "B92DB7FE-2506-4070-A384-BE99AE829EB8": [ {
      "Field": "Hex.bytes",
      "OldValue": "",
      "NewValue": "3"
    } , {
      "Field": "test",
      "OldValue": "Hello",
      "NewValue": "World"
    } ] ,
    "8D9BD00C-C31B-401B-B18C-0BCB0CC9EC73": [ {
      "Field": "Hex.bytes",
      "OldValue": "1",
      "NewValue": "2"
    } ] ,
    "2FED79CC-1BBF-4C5D-96E4-5E42C8454C3A": [ {
      "Field": "Hex.bytes",
      "OldValue": "1",
      "NewValue": "2"
    } ]
  }
}

```

**See also**

- 64.31 Dialog.SetButton 2413
- 64.47 Dialog.SetTop 2431
- 133.14 ProgressDialog.Hide 6618
- 133.16 ProgressDialog.SetBottomText 6621
- 133.17 ProgressDialog.SetButtonCaption 6623
- 133.25 ProgressDialog.SetProgress 6635
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647

**81.3.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr4](#)
- [MBS FileMaker Plugin, version 9.3pr3](#)
- [Introducing FM.CompareTables function](#)

Created 15th June 2019, last changed 17th January 2020.

## 81.4 FM.DeleteRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.DeleteRecord"; FileName; TableName; IDField; IDValue { ; IDField2; IDValue2; IDField3; IDValue3 } )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to delete record from. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the first field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the first ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the second field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"PersonID"

#### IDValue2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for second ID field to identify the record. Data type of parameter must match the data type of the field.

\$PersonID

#### IDField3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the third field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"CompanyID"

### **IDValue3**

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for third ID field to identify the record. Data type of parameter must match the data type of the field.

\$CompanyID

**Result** Returns OK or error.

### **Description**

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Please note that FM.DeleteRecord and FM.DeleteRecords are nearly identical. Just FM.DeleteRecord provides the check to make sure only one record matches while FM.DeleteRecords allows several records to be deleted. So with FM.DeleteRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime.

Version 8.2 allows to specify up to 3 ID parameters.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### **Examples**

Delete a record based on values:

```
Set Variable [ $r ; Value: MBS( "FM.DeleteRecord"; Get(FileName); "Contacts"; "First"; "Christian"; "Last"; "Schmitz"; "Company"; "Test Inc." ) ]
```

### **See also**

- 81.5 FM.DeleteRecords 4134
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222



### 81.4.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

### 81.4.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 24](#)
- [Ausgabe 3/2018, Seite 36](#)
- [Ausgabe 1/2016, Seite 32](#)

Created 11st December 2015, last changed 17th January 2020.

## 81.5 FM.DeleteRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.DeleteRecords"; FileName; TableName; IDField; IDValue { ; IDField2; IDValue2; IDField3; IDValue3 } )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to delete records from. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the second field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"PersonID"

#### IDValue2

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for second ID field to identify the record. Data type of parameter must match the data type of the field.

\$PersonID

#### IDField3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The name of the third field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"CompanyID"

### IDValue3

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

The value for third ID field to identify the record. Data type of parameter must match the data type of the field.

\$CompanyID

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must not be unique, so several records can be updated at once.

Please note that FM.DeleteRecord and FM.DeleteRecords are nearly identical. Just FM.DeleteRecord provides the check to make sure only one record matches while FM.DeleteRecords allows several records to be deleted. So with FM.DeleteRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

Version 8.2 allows to specify up to 3 ID parameters.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Delete records based on values:

```
Set Variable [ $r ; Value: MBS( "FM.DeleteRecords"; Get(FileName); "Contacts"; "First"; "Christian"; "Last"; "Schmitz"; "Company"; "Test Inc." ) ]
```

### See also

- 81.4 FM.DeleteRecord 4131
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.39 FM.UpdateRecords 4225

### Example Databases

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)

### 81.5.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

### 81.5.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 24](#)
- [Ausgabe 3/2018, Seite 36](#)

Created 11st December 2015, last changed 17th January 2020.

## 81.6 FM.ExecuteFileSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	3.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.ExecuteFileSQL"; FileName; SQL Statement { ; Column Delimiter; Record Delimiter; Params
} )
```

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.

””

#### SQL Statement

SQL Statement as a Text string

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is tab character, which has unicode code point 9. You can pass delimiter as text or as unicode code point.

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement. Default is return character, which has unicode code point 13. You can pass delimiter as text or as unicode code point.

13

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns result of SQL expression or error.

### Description

This function requires FileMaker 11 or newer. Please use FM.ExecuteSQL on FileMaker 10 or older.

There must be an occurrence of the Table on the current tables' Graph in the file you specified. If filename is empty, you use current file. SELECT returns the the records in as a tabbed delimited text string. All other SQL commands return ””.

Use FM.ExecuteSQL.LastError to check for errors.

Supported Commands: SELECT UPDATE (see limitation below) DELETE INSERT CREATE TABLE DROP TABLE CREATE INDEX DROP INDEX WHERE

String comparisons are Case Sensitive! WHERE First\_Name="todd" will not find records that have "Todd" in the first Name Field. You can wrap the field you are searching for with "lower" like this WHERE

lower(First\_Name)="todd" KNOWN LIMITATIONS Schema editing Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. CAUTION! This is a very powerful function!

You can put field names in double quotes and string values in single quotes.

Use FM.ExecuteSQLOnIdle for special commands which change database like ALTER TABLE.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Error 8309 means you did pass wrong data type, like string for a number.

You can make queries against FILEMAKER\_TABLES and FILEMAKER\_FIELDS to query information about fields in your solution. The functions FM.QueryBaseTableNames, FM.QueryFieldsForBaseTableName, FM.QueryFieldsForTableName and FM.QueryTableNames provide simplified functions for some queries.

FILEMAKER\_TABLES table contains:

1. TableName
2. TableID
3. BaseTableName
4. BaseFileName
5. ModCount

FILEMAKER\_FIELDS table contains:

1. TableName
2. FieldName
3. FieldType (the SQL data type, not the FileMaker data type)
4. FieldID
5. FieldClass (Normal, Summary, Calculated)
6. FieldReps
7. ModCount

Some standard SQL functions work in FileMaker including CHR, COALESCE, LEFT, LENGTH, LOWER, LTRIM, MID, RIGHT, RTRIM, SPACE, SUBSTR, SUBSTRING, TRIM and UPPER. There may be more!

### Examples

SELECT records

```
MBS("FM.ExecuteFileSQL"; ""); "select * from Contacts")
```

INSERT record

```
MBS("FM.ExecuteFileSQL"; ""); "INSERT INTO Contacts (FirstName, LastName) Values('Todd', 'Geist')")
```

Select records using delimiters

```
MBS("FM.ExecuteFileSQL"; ""); "select * from Contacts"; "# "; " | ")
```

SELECT records with a Where clause

```
MBS("FM.ExecuteFileSQL"; ""); "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK ='CN10013'"
```

Insert records with parameters 2 and 3:

```
MBS("FM.ExecuteFileSQL"; ""); "INSERT INTO \OtherTable\ (\ID\, \ID Job\ ) Values(?,?)"; 9; 13; 2; 3 )
```

Create Record with values via SQL

```
Set Variable [ $FirstName; Value:"First test" ]
Set Variable [ $LastName; Value:"Last test" ]
Set Variable [ $Street; Value:"Street test" ]
Set Variable [ $Zip; Value:"Zip test" ]
Set Variable [ $City; Value:"City test" ]
Set Variable [ $Country; Value:"Country test" ]
Set Variable [ $Phone; Value:"Phone test" ]
```

```
Set Variable [ $r; Value:MBS( "FM.ExecuteFileSQL"; ""); "INSERT INTO \Export records\ (\First Name\, \Last Name\, \Street\, \Zip\, \City\, \Country\, \Phone\ ) VALUES (?,?,?,?,?,?)"; 9; 13; $FirstName; $LastName; $Street; $Zip; $City; $City; $Country; $Phone ]
If [ MBS("IsError") ]
Show Custom Dialog [ MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]
End If
```

Set value for all records of a table:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \My Table\ SET \My Field\ = 'Hello' ")
```

Set timestamp to today:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \my Table\ SET \Change Time\ = TODAY WHERE \ID\ = '12345' ")
```

Update 5 fields:

```
MBS( "FM.ExecuteFileSQL"; "test.fmp12"; "UPDATE \my Table\ SET \Number Field\ = 1, \Text Field\ = 'test', \Dest Field\ = \Source Field\, \Hour Field\ = CAST(HOUR(curtime) AS VARCHAR), \Empty Field\ = NULL WHERE \ID\ = '12345' ")
```

Create an index:

```
MBS( "FM.ExecuteFileSQL"; ""; "CREATE INDEX ON tablename.fieldname" )
```

Select with parameter:

```
MBS("FM.ExecuteFileSQL"; ""); "select Menge from Boxen where Artikel_Nr=? ORDER BY Menge
DESC"; 9; 13; "ABC123")
```

Query value of a repeating field with [ ] :

```
MBS( "FM.ExecuteFileSQL"; ""; "SELECT test [ 2 ] FROM Kontakte")
```

Set value of repeating field:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE Kontakte SET test [ 2 ] = 'test'")
```

Query only first row:

```
MBS( "FM.ExecuteFileSQL"; ""; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

Insert with parameters:

```
MBS("FM.ExecuteFileSQL"; ""; "INSERT INTO AttachmentsActions (RecID, Container) VALUES (?, ?)";
9; 13; $recid; files::container)
```

Set repeating global field values:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE \ "Meine Tabelle\ " SET test [ 1 ] =", test [ 2 ] =", test [ 3 ] =" ")
```

Set timestamp field:

# via CURRENT\_TIMESTAMP constant:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE Kontakte SET Datum = CURRENT_TIMESTAMP ")
```

# or cast text to timestamp:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE Kontakte SET Datum = CAST('2017-04-12 14:14:14' AS
TIMESTAMP) ")
```

# via CURTIMESTAMP constant:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE Kontakte SET Datum = CURTIMESTAMP ")
```

# or to now plus one hour:

```
MBS( "FM.ExecuteFileSQL"; ""; "UPDATE Kontakte SET Datum = CURTIMESTAMP + 3600 ")
```

Query tables and fields metadata:

```
MBS( "FM.ExecuteFileSQL"; ""; "SELECT FILEMAKER_TABLES.TableName, FILEMAKER_TABLES.TableID,
FILEMAKER_TABLES.BaseTableName, FILEMAKER_TABLES.BaseFileName, FILEMAKER_TABLES.Mod-
Count, FILEMAKER_FIELDS.FieldName, FILEMAKER_FIELDS.FieldType, FILEMAKER_FIELDS.Fiel-
dID, FILEMAKER_FIELDS.FieldClass, FILEMAKER_FIELDS.FieldReps, FILEMAKER_FIELDS.Mod-
Count from FILEMAKER_TABLES, FILEMAKER_FIELDS where FILEMAKER_FIELDS.TableName =
FILEMAKER_TABLES.TableName" )
```



Get list of fields in all tables:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT * FROM FileMaker_Fields")
```

Query list of table names and IDs:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT TableName, TableID FROM Filemaker_Tables")
```

Find table name for a given table ID:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT TableName FROM Filemaker_Tables WHERE TableID=?";  
9; 13; 1065089)
```

Query field type of a field:

```
MBS( "FM.ExecuteFileSQL"; "" ; "SELECT FieldType FROM FILEMAKER_FIELDS WHERE Table-  
Name=? AND FieldName=? "; 9; 13; "Contacts"; "gtest")
```

// could return "global varchar", if gtest is a global field in table Contacts

Query list of record IDs for a given table:

```
MBS("FM.ExecuteFileSQL"; "" ; "SELECT ROWID FROM MyTable")
```

Look for a control character in the text and return record IDs:

```
MBS("FM.ExecuteFileSQL"; Get(FileName); "SELECT ROWID from \"MyTable\" WHERE \"MyField\"  
like '%'+CHR(1)+'%' ")
```

Update all values in a field based on a query:

```
MBS("FM.ExecuteFileSQL"; "" ; "UPDATE \"Invoices\" SET \"Sum\" = (SELECT SUM(\"Quantity\" *  
\"Price\") FROM Positions WHERE Invoices.CustomerID = Positions.CustomerID AND Invoices.InvoiceID  
= Positions.InvoiceID)")
```

### See also

- 41.26 AVPlayer.Play 1100
- 41.36 AVPlayer.SetProgressEvaluate 1112
- 41.37 AVPlayer.SetProgressInterval 1114
- 81.7 FM.ExecuteFileSQLOnIdle 4144
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154

- 80.51 FM.QueryBaseTableNames 4037
- 80.52 FM.QueryFieldsForBaseTableName 4038
- 80.53 FM.QueryFieldsForTableName 4039
- 80.54 FM.QueryTableNames 4041

### Example Databases

- [CURL/Email/Batch Emailer](#)
- [CURL/Email/IMAP Email](#)
- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [Mac and iOS/Events/Events Sync](#)
- [Shell/Shell](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Create Sort Script](#)
- [XML/XML Validation](#)
- [XML/XSLT](#)

### 81.6.1 Blog Entries

- [FileMaker Magazin Links](#)
- [ROWID in FileMaker SQL Commands](#)
- [Using found set in SQL queries](#)
- [Using ExecuteSQL with Parameters is important](#)
- [Import Calendar Items into FileMaker](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)
- [ExecuteSQL and getting error details](#)

### **81.6.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 35
- Ausgabe 4/2019, Seite 34
- Ausgabe 4/2019, Seite 33
- Ausgabe 4/2019, Seite 32
- Ausgabe 5/2018, Seite 25
- Ausgabe 3/2018, Seite 34
- Ausgabe 5/2017, Seite 22
- Ausgabe 3/2015, Seite 41
- Ausgabe 3/2015, Seite 28
- Ausgabe 2/2015, Seite 15

Created 18th August 2014, last changed 29th April 2020.

## 81.7 FM.ExecuteFileSQLOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteFileSQLOnIdle"; SQL Statement; FileName { ; Column Delimiter; Record Delimiter; Params } )

### Parameters

#### SQL Statement

the SQL statement

#### FileName

The file name of the database.

Get(FileName)

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

13

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

You run a script pause after using this function to give it time to execute.

See the other function for more info.

Seems like on FileMaker 11 you get LastError 8310 if you use fields with underscore in the name. You avoid that by placing the field names in quotes.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

### Examples

Create a new text field in a table:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField varchar")
```

Create in a script and check error:

```
# set command to run
```

```
Set Variable [ $r ; Value: MBS("FM.ExecuteFileSQLOnIdle"; "ALTER TABLE Kontakte ADD MyField
```

```

varchar"; "Kontakte.fmp12" ]
# Make pause to run it
Pause/Resume Script [ Duration (seconds): ,1 ]
# Check error status
Set Variable [ $errorNumber ; Value: MBS( "FM.ExecuteSQL.LastError" ) ]
Set Variable [ $errorMessage ; Value: MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]

```

Create a field:

```

Set Variable [ $r ; Value: MBS("FM.ExecuteFileSQLOnIdle";"ALTER TABLE TestTable ADD MyField
varchar"; Get(FileName)) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
If [ MBS("FM.ExecuteSQL.LastError") = 0 ]
Show Custom Dialog [ "Error adding column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If

```

Create a new text field in a table with variables for the names:

```

MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE \" & $TableName & "\" ADD \" & $FieldName & "\"
\" & $FieldType & "\"")

```

### See also

- 81.6 FM.ExecuteFileSQL 4137
- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.12 FM.ExecuteSQLOnIdle 4158

### 81.7.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

### 81.7.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 3/2018, Seite 34

Created 16th October 2016, last changed 14th March 2020.

## 81.8 FM.ExecuteSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL"; SQL Statement { ; Column Delimiter; Record Delimiter } )

### Parameters

#### SQL Statement

SQL Statement as a Text string

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB  
""

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

**Result** Returns result of SQL expression or error.

### Description

There must be an occurrence of the Table on the current tables' Graph. SELECT returns the the records in as a tabbed delimited text string. All other SQL commands return "".

Use FM.ExecuteSQL.LastError to check for errors.

Supported Commands: SELECT UPDATE (see limitation below) DELETE INSERT CREATE TABLE DROP TABLE CREATE INDEX DROP INDEX WHERE

String comparisons are Case Sensitive! WHERE First\_Name="todd" will not find records that have "Todd" in the first Name Field. You can wrap the field you are searching for with "lower" like this WHERE lower(First\_Name)="todd" KNOWN LIMITATIONS Schema editing SQL functions are not supported in FileMaker 8 and 8.5.

Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. CAUTION! This is a very powerful function! It is relying on very new and relatively untested resources made available by the release of FileMaker 8.

Seems like on FileMaker 11 you get LastError 8310 for any syntax error, like bad braces or missing quotes.

You can put field names in double quotes and string values in single quotes.

Use FM.ExecuteSQLOnIdle for special commands which change database like ALTER TABLE.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Error 8309 means you did pass wrong data type, like string for a number.

If you need to pass parameters, please use FM.ExecuteFileSQL.

You can make queries against FILEMAKER\_TABLES and FILEMAKER\_FIELDS to query information about fields in your solution. The functions FM.QueryBaseTableNames, FM.QueryFieldsForBaseTableName, FM.QueryFieldsForTableName and FM.QueryTableNames provide simplified functions for some queries.

FILEMAKER\_TABLES table contains:

1. TableName
2. TableID
3. BaseTableName
4. BaseFileName
5. ModCount

FILEMAKER\_FIELDS table contains:

1. TableName
2. FieldName
3. FieldType (the SQL data type, not the FileMaker data type)
4. FieldID
5. FieldClass (Normal, Summary, Calculated)
6. FieldReps
7. ModCount

Some standard SQL functions work in FileMaker including CHR, COALESCE, LEFT, LENGTH, LOWER, LTRIM, MID, RIGHT, RTRIM, SPACE, SUBSTR, SUBSTRING, TRIM and UPPER. There may be more!

#### Examples

SELECT records

```
MBS("FM.ExecuteSQL";"select * from Contacts")
```

INSERT record

```
MBS("FM.ExecuteSQL";"INSERT INTO Contacts (FirstName, LastName) Values('Bob', 'Miller')")
```

Select records using delimiters

```
MBS("FM.ExecuteSQL";"select * from Contacts"; "# "; " | ")
```

SELECT records with a Where clause

```
MBS("FM.ExecuteSQL"; "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK = 'CN10013'")
```

Get list of fields in all tables:

```
MBS("FM.ExecuteSQL";"SELECT * FROM FileMaker_Fields")
```

Create Record with values via SQL

```
Set Variable [ $r; Value:MBS( "FM.ExecuteSQL"; "INSERT INTO \"Export records\" (\\"First Name\", \\"Last Name\", \\"Street\", \\"Zip\", \\"City\", \\"Country\", \\"Phone\") VALUES ('MyFirst', 'MyLast',
```

```
'MyStreet', 'MyZip', 'MyCity', 'MyCountry', 'MyPhone')") ]
If [ MBS("IsError") ]
Show Custom Dialog [ MBS( "FM.ExecuteSQL.LastErrorMessage" ) ]
End If
```

Set value for all records of a table:

```
MBS( "FM.ExecuteSQL"; "UPDATE \my Table\ SET \my Field\ = 'Hello' ")
```

Set timestamp to today:

```
MBS( "FM.ExecuteSQL"; "UPDATE \my Table\ SET \Change Time\ = TODAY WHERE \ID\ = '12345' ")
```

Update 5 fields:

```
MBS( "FM.ExecuteSQL"; "UPDATE \my Table\ SET \Number Field\ = 1, \Text Field\ = 'test',
\Dest Field\ = \Source Field\", \Hour Field\ = CAST(HOUR(curtime) AS VARCHAR), \Empty
Field\ = NULL WHERE \ID\ = '12345' ")
```

Select with passing variable as part of expression:

```
MBS("FM.ExecuteSQL"; "SELECT First_Name, Last_Name from Contacts WHERE ID_Contact_PK
=" & $Variable & "'")
```

Update date field:

```
MBS( "FM.ExecuteSQL"; "UPDATE myTable SET myDateField = CAST('2015-08-15' as DATE) ")
```

Delete all data in a table:

```
$Result = MBS( "FM.ExecuteSQL"; "DELETE FROM \Prova\";")
```

Create an index:

```
MBS( "FM.ExecuteSQL"; "CREATE INDEX ON tablename.fieldname" )
```

Drop an index:

```
MBS( "FM.ExecuteSQL"; "DROP INDEX ON tablename.fieldname" )
```

Value in List of values:

```
MBS( "FM.ExecuteSQL"; "select * from \Anlagen\ where \Modell\ in ('test', 'abc')")
```



Delete all records from Table People:

```
# no where condition, so deletes all records!  
MBS( "FM.ExecuteSQL"; "DELETE FROM \"People\"")
```

Query value of a repeating field with [ ] :

```
MBS( "FM.ExecuteSQL"; "SELECT test [ 2 ] FROM Kontakte")
```

Set value of repeating field:

```
MBS( "FM.ExecuteSQL"; "UPDATE Kontakte SET test [ 2 ] = 'test'")
```

Query only first row:

```
MBS( "FM.ExecuteSQL"; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

Truncates table in FileMaker 15 or newer:

```
MBS( "FM.ExecuteSQL"; "TRUNCATE TABLE Kontakte")
```

Query field ID for a field with given name and table name:

```
MBS("FM.ExecuteSQL"; "SELECT FieldID FROM FileMaker__Fields WHERE FieldName='Vorname' and  
TableName='Kontakte' ")
```

Query repetition count of global field by name:

```
MBS("FM.ExecuteSQL"; "SELECT FieldReps FROM FILEMAKER__FIELDS WHERE FieldName='Wieder-  
holen' ")
```

Query field name and repetition count for all fields in a table:

```
MBS("FM.ExecuteSQL"; "SELECT FieldReps, FieldName FROM FILEMAKER__FIELDS WHERE Table-  
Name='Aufgaben' AND FieldType like '% global%' ")
```

Query list of record IDs for a given table:

```
MBS("FM.ExecuteSQL"; "SELECT ROWID FROM MyTable")
```

Concat two texts with plus and use CAST to make number to text:

```
MBS( "FM.ExecuteSQL"; "SELECT 'A' + CAST(123 AS VARCHAR) FROM Contacts")
```

**See also**

- 80.54 FM.QueryTableNames 4041
- 81.26 FM.SQL.Execute 4196
- 81.38 FM.UpdateRecord 4222
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107
- 127.6 IsError 6374
- 111.25 Matrix.InsertRecords 5894
- 159.71 SQL.InsertOrUpdateRecords 7516
- 167.68 Text.WriteTextFile 7999

### Example Databases

- [CURL/Email/Email Client](#)
- [SQL in FileMaker/Create Fields in Filemaker Table](#)
- [SQL in FileMaker/SQL Select](#)
- [Utility functions/Generate and Verify License Key](#)
- [Utility functions/Schedules](#)

### 81.8.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [ExecuteSQL and getting error details](#)
- [MBS FileMaker Plugin 3.4 for OS X/Windows](#)

### 81.8.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34
- Ausgabe 3/2018, Seite 33
- Ausgabe 1/2016, Seite 27
- Ausgabe 4/2015, Seite 39
- Ausgabe 3/2015, Seite 29
- Ausgabe 3/2015, Seite 28

### 81.8. *FM.EXECUTESQL*

4151

- Ausgabe 3/2015, Seite 27
- Ausgabe 2/2015, Seite 18
- Ausgabe 2/2015, Seite 17
- Ausgabe 2/2015, Seite 16

Created 18th August 2014, last changed 29th April 2020.

## 81.9 FM.ExecuteSQL.LastError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastError" )

### Description

Set by FM.InsertRecord, FM.SQL.Execute, FM.ExecuteSQL, FM.ExecuteFileSQL or FM.ExecuteSQLOnIdle. The Errors number s are the same ones as the ones returned by Native FileMaker function "Get(LastError)" Examples: 1200 - "Generic Calculation Error" 200 - "Access Denied" 106 - "Missing Table" Known Limitations: Record Locking Errors are Not Reported! This means you must exercise caution when using UPDATE. There is no way to determine if an update actually occurs unless you check the value again after the update occurred.

In general error 8309 is a semantic error, so something is wrong in your SQL. 8310 is a syntax error, something in the SQL is not correctly parsed.

Error 8309 means you did pass wrong data type, like string for a number.

See also FM.ExecuteSQL.LastErrorMessage.

### Examples

Get Last SQL Error

MBS( "FM.ExecuteSQL.LastError" )

### See also

- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.12 FM.ExecuteSQLOnIdle 4158
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.19 FM.InsertRecordCSV 4177
- 81.20 FM.InsertRecordQuery 4180
- 81.22 FM.InsertRecordTSV 4187
- 81.26 FM.SQL.Execute 4196
- 81.30 FM.SQL.InsertRecords 4204
- 111.25 Matrix.InsertRecords 5894
- 159.71 SQL.InsertOrUpdateRecords 7516

### Example Databases

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

### 81.9.1 Blog Entries

- [ExecuteSQL and getting error details](#)
- [MBS Filemaker Plugin, version 4.2pr5](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

### 81.9.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34

Created 18th August 2014, last changed 14th September 2015.

## 81.10 FM.ExecuteSQL.LastErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastErrorMessage" )

**Result** Returns error message.

### Description

Set by FM.InsertRecord, FM.SQL.Execute, FM.ExecuteSQL, FM.ExecuteFileSQL, FM.ExecuteSQLOnIdle and other SQL using functions.

If last error code was 0 (no error), you get an empty string.

Error may be something like this:

ERROR: FQL0007/(1:7): The column named "fieldname" does not exist in any table in the column reference's scope.

See also FM.ExecuteSQL.LastError. Use FM.ExecuteSQL.LastSQL to get the SQL command.

### See also

- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.19 FM.InsertRecordCSV 4177
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.26 FM.SQL.Execute 4196
- 111.25 Matrix.InsertRecords 5894
- 159.10 SQL.Execute 7425
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

### Example Databases

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

#### 81.10.1 Blog Entries

- [ExecuteSQL and getting error details](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

- [Create fields in Filemaker database from a Script](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)

### **81.10.2 FileMaker Magazin**

- [Ausgabe 3/2018, Seite 34](#)
- [Ausgabe 2/2015, Seite 16](#)

Created 18th August 2014, last changed 25th October 2019.

Error	Message
FQL0001	There is an error in the syntax of the query.
FQL0002	The table named "?0" does not exist.
FQL0003	The table named "?0" already exists in this query.
FQL0004	The query is too complex. The maximum number of tables has been exceeded.
FQL0005	Expressions involving aggregations are not supported.
FQL0006	"The column named "?0" appears in more than one table in the column reference's scope."
FQL0007	The column named "?0" does not exist in any table in the column reference's scope.
FQL0008	The table named "?0" does not exist in the column reference's scope.
FQL0009	The column named "?1" does not exist in table "?0".
FQL0010	The literal value "?0" is not a valid DATE, TIME or TIMESTAMP.
FQL0011	Predicate must contain a logical operation (=, <, OR, AND, IS NULL, ...).
FQL0012	The ordinal reference "?0" in the ORDER BY clause is not valid.
FQL0013	Incompatible types in assignment.
FQL0014	The number of values in a VALUES row value constructor does not match the number of values in the target.
FQL0015	The number of values in an INSERT...SELECT statement does not match the number of values in the target.
FQL0016	A subquery contains an illegal outer reference to a column in the INSERT's target table.
FQL0017	An expression contains data types that cannot be compared.
FQL0018	An expression contains incompatible data types.
FQL0019	The result data type of a CASE expression cannot be inferred; they are all NULL.
FQL0020	An invalid number of parameters was supplied to the function "?0"
FQL0021	Parameter number ?0 to the function "?1" is not of the correct type.
FQL0022	A subquery expression must have exactly one value in the SELECT list.
FQL0023	A CAST expression requested an invalid data type conversion.
FQL0024	A reference to ROWID must be qualified if more than one table is present in the query.
FQL0025	All non-aggregated column references in the SELECT list and HAVING clause must be in the GROUP BY clause.
FQL0026	The number of columns in both inputs to a UNION operation must be the same.
FQL0027	The data types of corresponding columns in the inputs to a UNION operation must be the same.
FQL0028	Field repetitions must be numeric and between 1 and ?0.
FQL0029	A field repetition in the SET clause of an UPDATE statement must be a constant.
FQL0030	"?0" is an invalid function.
FQL0031	The the parameter's type cannot be inferred in this context. At least one query parameter must be an expression, a column or a constant.
FQL0032	A query may contain either named parameters or dynamic parameters, but not both.
FQL0033	Column names in FROM clause subqueries must be unique.
FQL0034	The number of output columns in a FROM clause subquery must match the number of columns in the table's name list.
FQL0035	Cursor support is not enabled for this query.
FQL0036	A cursor with the name "?0" already exists.
FQL0037	There is no cursor with the name "?0"



## 81.11 FM.ExecuteSQL.LastSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.ExecuteSQL.LastSQL" )

**Result** Returns text or error.

### Description

This is for executing SQL in FileMaker and provides you the last SQL command as run by the plugin.

### See also

- 38.3 Audit.Changed 970
- 81.4 FM.DeleteRecord 4131
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.18 FM.InsertRecord 4173
- 81.38 FM.UpdateRecord 4222
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.89 FM.UpdateRecords3 4109

### 81.11.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 11st September 2017, last changed 11st September 2017.

## 81.12 FM.ExecuteSQLOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	1.2	Yes	Yes	No	No	No

MBS( "FM.ExecuteSQLOnIdle"; SQL Statement { ; Column Delimiter; Record Delimiter; Params } )

### Parameters

#### SQL Statement

the SQL statement

#### Column Delimiter

Optional

Optional column delimiter

#### Record Delimiter

Optional

Optional record delimiter

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

### Description

You run a script pause after using this function to give it time to execute.

See the other function for more info.

Seems like on FileMaker 11 you get LastError 8310 if you use fields with underscore in the name. You avoid that by placing the field names in quotes.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message. Use FM.ExecuteFileSQL if you want to specify the file name.

When you create fields, you can use the following types. Add global on the end to make it a global field.

FileMaker Type	SQL Type
Text	varchar
Number	decimal
Date	date
Time	time
Timestamp	timestamp
Container	binary

### Examples

Create a new text field in a table:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField varchar")
```

And delete the field:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable DROP COLUMN MyField")
```

Create new table:

```
MBS("FM.ExecuteSQLOnIdle";"CREATE TABLE `MyTABLE` (test varchar)")
```

Create new index:

```
MBS("FM.ExecuteSQLOnIdle";"CREATE INDEX `IndexLastname` ON `Persons` (`LastName`);")
```

Add a global field:

```
MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyGlobalField varchar global")
```

Create a field:

```
Set Variable [ $r ; Value: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable ADD MyField var-
char") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
If [ MBS("FM.ExecuteSQL.LastError") 0 ]
Show Custom Dialog [ "Error adding column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If
```

Remove a field:

```
Set Variable [ $r ; Value: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE TestTable DROP COLUMN
MyField") ]
Pause/Resume Script [ Duration (seconds): 0.1 ]
If [ MBS("FM.ExecuteSQL.LastError") 0 ]
Show Custom Dialog [ "Error removing column" ; MBS("FM.ExecuteSQL.LastError") & ": " & MBS("FM.Ex-
ecuteSQL.LastErrorMessage") ]
Else
Show Custom Dialog [ "Removed Column" ; "OK" ]
End If
```

Change default value:

```
Set Variable [ $r ; Wert: MBS("FM.ExecuteSQLOnIdle";"ALTER TABLE myTable ALTER myField SET
```

```
DEFAULT 'FileMaker'") ]
```

**See also**

- [81.6 FM.ExecuteFileSQL](#) 4137
- [81.7 FM.ExecuteFileSQLOnIdle](#) 4144
- [81.8 FM.ExecuteSQL](#) 4146
- [81.9 FM.ExecuteSQL.LastError](#) 4152
- [81.10 FM.ExecuteSQL.LastErrorMessage](#) 4154

**Example Databases**

- [SQL in FileMaker/Create Fields in Filemaker Table](#)

**81.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr5](#)
- [MBS FileMaker Plugin, version 7.4pr4](#)
- [MBS FileMaker Plugin, version 6.5pr3](#)
- [MBS Filemaker Plugin, version 4.2pr5](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)
- [Create fields in Filemaker database from a Script](#)

**81.12.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 3/2018, Seite 34](#)
- [Ausgabe 3/2018, Seite 33](#)
- [Ausgabe 2/2015, Seite 15](#)
- [Ausgabe 2/2015, Seite 14](#)

Created 18th August 2014, last changed 9th April 2019.

## 81.13 FM.GetSQLBatchMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.GetSQLBatchMode" )

**Result** Returns value or error.

### Description

For use in FM.InsertRecordQuery.  
(others could be added)

Default is 1.

### See also

- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.37 FM.SetSQLBatchMode 4220

### 81.13.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr8](#)

Created 17th September 2016, last changed 18th September 2016.

## 81.14 FM.InsertOrUpdateRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord"; FileName; TableName; IDField1; IDValue1; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

For one ID field, please use FM.InsertOrUpdateRecord, for 2 ID fields FM.InsertOrUpdateRecord2 and for three ID fields FM.InsertOrUpdateRecord3.

This function is broken in version 6.4 as it returns always a SQL error for insert. Please use 6.5 or newer. With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Update a record:

```
MBS( "FM.InsertOrUpdateRecord";
  ""; "Asset Management"; /* file and table name */
  "Asset ID"; "1"; /* ID field and value */
  "Information"; "Just a test"; /* first field and value */
  "Category"; "BestItems" ) /* second field and value */
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.38 FM.UpdateRecord 4222
- 159.71 SQL.InsertOrUpdateRecords 7516

### 81.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)

**81.14.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 24
- Ausgabe 6/2018, Seite 23
- Ausgabe 3/2018, Seite 35

Created 5th December 2015, last changed 17th January 2020.



## 81.15 FM.InsertOrUpdateRecord2

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord2"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.  
Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.  
"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.  
"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.  
\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.  
"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.  
\$RelatedRecordID

#### FieldName

A field name to set.  
"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.  
"Test"

**Result** Returns OK or error.

**Description**

Same as FM.InsertOrUpdateRecord, but with 2 ID fields to locate record.

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Insert or update:

```
MBS( "FM.InsertOrUpdateRecord2";
  ""; "Assets"; /* file and table name */
  "Asset ID Match Field"; 2; /* first ID field and value */
  "Internal ID"; "2"; /* second ID field and value */
  "Model"; "Just a test"; /* first field and value */
  "Category"; "BestItems2" ) /* second field and value */
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.38 FM.UpdateRecord 4222
- 159.71 SQL.InsertOrUpdateRecords 7516

### **81.15.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 6.1pr3](#)

### **81.15.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 24

Created 19th February 2016, last changed 17th January 2020.

## 81.16 FM.InsertOrUpdateRecord3

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecord3"; FileName; TableName; IDField1; IDValue1; IDField2; IDValue2; IDField3; IDValue3; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField1

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID1"

#### IDValue1

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### IDField2

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID2"

#### IDValue2

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RelatedRecordID

#### IDField3

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID3"

#### IDValue3

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$OtherRecordID

**FieldName**

A field name to set.  
"Model"

**FieldValue**

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.  
"Test"

**Result** Returns OK or error.

**Description**

Same as FM.InsertOrUpdateRecord, but with 3 ID fields to locate record.

If the insert fails due to duplicate ID, we will update the record values.

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

This function combines FM.InsertRecord and FM.UpdateRecord. If the ID is already used, we update, else we insert a new record.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

**Examples**

Insert a record:

```
MBS( "FM.InsertOrUpdateRecord3"; "" ; "Kontakte"; "Vorname"; "Christian"; "Nachname"; "Schmitz";
"Firma"; "MBS"; "Titel"; "Herr" )
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173

- 81.38 FM.UpdateRecord 4222
- 159.71 SQL.InsertOrUpdateRecords 7516

### 81.16.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)
- [MBS FileMaker Plugin, version 6.1pr3](#)

### 81.16.2 FileMaker Magazin

- Ausgabe 6/2018, Seite 24
- Ausgabe 3/2018, Seite 35

Created 19th February 2016, last changed 17th January 2020.

## 81.17 FM.InsertOrUpdateRecordQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertOrUpdateRecordQuery"; InsertFileName; InsertTableName; FieldNames; KeyFieldMapping; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the target table. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into (target). Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### KeyFieldMapping

The list of field names with index to map keys. Please specify a list of key name=key index. The key name is the name of the field in the target table and the index gives zero-based position in result set from query.

Field order in source and destination does not need to be the same.

ID=0

#### QueryFileName

The file name for the database to run the query against (source). Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string to query records from the source table.

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

#### Description

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within

a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use `FM.ExecuteSQL.LastErrorMessage` and `FM.ExecuteSQL.LastError` to see error message. Reports an error if field name list doesn't match column count of the query result.

Please remove from SQL statement and field names all fields which are globals or unstored calculations.

For inserting records from other database (e.g. MySQL), please use `SQL.InsertRecords` function.

You can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

You can use `GetFieldName()` function to query field names and the plugin removes the table prefix with `::` in the field name before passing it to SQL engine.

### Examples

Copies records from `Contacts` to `ContactsCopy`:

```
Set Variable [ $r ; Value: MBS( "FM.InsertOrUpdateRecordQuery"; "" ; "ContactsCopy"; "ID$First$Last$Mobile"; "ID=0"; "" ; "SELECT \"ID\", \"First\", \"Last\", \"Mobile\" FROM \"Contacts\" ) ]
```

### See also

- 81.8 `FM.ExecuteSQL` 4146
- 81.9 `FM.ExecuteSQL.LastError` 4152
- 81.10 `FM.ExecuteSQL.LastErrorMessage` 4154
- 81.14 `FM.InsertOrUpdateRecord` 4162
- 81.15 `FM.InsertOrUpdateRecord2` 4165
- 81.16 `FM.InsertOrUpdateRecord3` 4168
- 159.72 `SQL.InsertRecords` 7519

Created 27th July 2018, last changed 19th February 2020.



## 81.18 FM.InsertRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecord"; FileName; TableName; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

Then you pass one pair of field name and value for each field you like to set in the new record.

As we can't know the new ID assigned for the record, you can help yourself by passing in an UUID for a field and later select that to get the auto assigned primary key (or have the UUID be the primary key, so you don't need a query).

See also FM.UpdateRecord to insert new record and FM.InsertOrUpdateRecord to update or insert record. With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Insert a record into Assets table:

```
MBS("FM.InsertRecord"; ""; "Assets"; "Model"; "TestModell"; "Item"; "MyItem"; "Serial Number"; "1234"; "In Service Date"; GetAsDate( "31.05.1996"))
```

Insert a record with 5 fields:

```
MBS("FM.InsertRecord"; $filename; $tablename; $field1; $value1; $field2; $value2; $field3; $value3; $field4;
$value4; $field5; $value5)
```

Insert with table and field ID instead of names:

```
Set Variable [ $r ; Value: MBS("FM.InsertRecord"; Get(FileName); "1065089"; "3"; "Hello") ]
```

Insert with using GetFieldName for field names:

```
MBS( "FM.InsertRecord"; ""; "Contacts";
GetFieldName ( Contacts::First ); "Joe";
GetFieldName ( Contacts::Last ); "Miller";
GetFieldName ( Contacts::Group ); "Best Customers" )
```

Build dynamically the evaluate statement with parameters:

```
# Our input parameters with field name list
Set Variable [ $FieldNames ; Value: FieldNames ( Get(FileName) ; Get(LayoutName) ) ]
#
# We build parameters for our Evaluate call
Set Variable [ $Params ; Value: "" ]
Set Variable [ $ParamIndex ; Value: 0 ]
#
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: Get(FileName) ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
#
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: Get(LayoutTableName) ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
#
# We loop over feidl list
Set Variable [ $Count ; Value: ValueCount ( $FieldNames ) ]
Set Variable [ $FieldIndex ; Value: 0 ]
Set Variable [ $Types ; Value: "" ]
#
Loop
# get field name and value
Set Variable [ $FieldIndex ; Value: $FieldIndex + 1 ]
Set Variable [ $Fieldname ; Value: GetValue($FieldNames; $FieldIndex) ]
Set Variable [ $Value ; Value: GetField ( $Fieldname) ]
#
# Check typ to filter fields we don't want
Set Variable [ $Typ ; Value: FieldType ( Get(FileName) ; $Fieldname ) ]
If [ Position ( $Typ; "Global"; 1; 1 ) = 1 or Position ( $Typ; "Summary"; 1; 1 ) = 1 or Position($Typ; "stored-
Calc"; 1; 1 ) = 1 or $Fieldname = "ID" ]
```

```

# ignore global, statistic and unsaved formula field
// Show Custom Dialog [ "Typ" ; $FieldName & ": " & $typ ]
Else
# We store in $P [ ] our parameters for evaluate and in $Params the parameters for Evaluate
Set Variable [ $Types ; Value: $Types & $& $FieldName & ": " & $Typ ]
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: $Fieldname ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
Set Variable [ $ParamIndex ; Value: $ParamIndex + 1 ]
Set Variable [ $P [ $ParamIndex ] ; Value: $Value ]
Set Variable [ $Params ; Value: $Params & "; $P [ " & $ParamIndex & " ] " ]
End If
#
Exit Loop If [ $FieldIndex = $count ]
End Loop
#
# now build Evaluate command and show it
// Show Custom Dialog [ "Types" ; $Types ]
Set Variable [ $Function ; Value: "FM.InsertRecord" ]
Set Variable [ $command ; Value: "MBS($Function" & $params & ")" ]
Show Custom Dialog [ "Command" ; $Command ]
If [ Get ( LastMessageChoice ) = 1 ]
# And run it!
Set Variable [ $result ; Value: Evaluate($Command) ]
Show Custom Dialog [ "Result" ; $Result ]
End If

```

Insert with automatic table name:

```

MBS("FM.InsertRecord";
""; // empty for current file
""; // empty as given with first field
GetFieldName ( Anlagen::Seriennummer ); // field name queried
"12345") // and value

```

### See also

- 81.13 FM.GetSQLBatchMode 4161
- 81.14 FM.InsertOrUpdateRecord 4162
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.22 FM.InsertRecordTSV 4187

- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 81.37 FM.SetSQLBatchMode 4220
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

### 81.18.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [Dynamically build MBS call and evaluate it](#)
- [MBS FileMaker Plugin, version 8.4pr2](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS FileMaker Plugin, version 6.2pr2](#)
- [MBS FileMaker Plugin 5.1 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.1pr7](#)
- [Quickly copy lots of records](#)

### 81.18.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 33](#)
- [Ausgabe 4/2019, Seite 27](#)
- [Ausgabe 6/2018, Seite 27](#)
- [Ausgabe 6/2018, Seite 26](#)
- [Ausgabe 6/2018, Seite 23](#)
- [Ausgabe 6/2018, Seite 22](#)
- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 3/2018, Seite 36](#)
- [Ausgabe 3/2018, Seite 35](#)
- [Ausgabe 3/2018, Seite 34](#)

## 81.19 FM.InsertRecordCSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordCSV"; InsertFileName; InsertTableName; FieldNames; Text { ; Delimiter; FieldName; FieldValue } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### Text

The text to import in TSV/CSV format. This means tab, comma or semicolon character between fields and newline character for new records. Use Files.ReadTextFile if needed to read this from a file on disk.

"Bob;Miller;12345;New York"

#### Delimiter

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

The delimiter to use. If empty, we auto detect it.

","

#### FieldName

Optional

A field name to set.

"Model"

#### FieldValue

Optional

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

This function allows for easy importing of text to create a log of records.

Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result. Since version 8.2 we can fill text, number, time, timestamp and date fields and let FileMaker convert the values with your current locale.

Returns number of records added.

CSV is automatically parsed per line with List.CSVSplit function internally.

You can pass one pair of field name and value for each extra field you like to set in the new records. e.g. a reference ID.

You can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

Version 8.5 adds Delimiter parameter, which may break scripts, but we need to have that parameter for people with older version.

### Examples

Import some contacts with passing import ID/timestamp:

```
MBS( "FM.InsertRecordCSV"; "Contacts.fmp12"; "Contacts"; "FirstName$LastName$City"; $tsv; "ImportID"; $importID; "ImportDate"; Get(CurrentHostTimeStamp))
```

Import CSV:

```
MBS( "FM.InsertRecordCSV"; "Kontakte.fmp12"; "Kontakte"; "Vorname$Nachname$Firma$Position"; "Vorname;Nachname;Firma;Position")
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.22 FM.InsertRecordTSV 4187

81.19. *FM.INSERTRECORDCSV*

4179

- 105.7 List.CSVSplit

5502

## Example Databases

- [Text functions/CSV Import](#)

### 81.19.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin 7.4 - More than 4900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 7.4pr8](#)

### 81.19.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)

Created 21st September 2017, last changed 1st May 2020.

## 81.20 FM.InsertRecordQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordQuery"; InsertFileName; InsertTableName; FieldNames; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### QueryFileName

The file name for the database to run the query against. Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.



Please remove from SQL statement and field names all fields which are globals or unstored calculations.

For inserting records from other database (e.g. MySQL), please use SQL.InsertRecords function.

Using FM.SetSQLBatchMode you can let the plugin insert e.g. 50 rows in one chunk which can speed up insert a lot.

Due to memory usage it can be useful to segment copy queries to only copy one GB at a time and avoid heavy memory pressure.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

### Examples

Copy records within one table in same file:

```
MBS( "FM.InsertRecordQuery"; ""; "Contacts"; "First$Last$Company"; ""; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy records from a table from one database to other (production to development)

```
MBS( "FM.InsertRecordQuery"; "ContactsDev.fmp12"; "Contacts"; "First$Last$Company"; "Contacts.fmp12"; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy data to other table:

```
MBS( "FM.InsertRecordQuery"; ""; "Test"; "FirstName$LastName$CompanyName"; ""; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Query sum of sales grouped by customers in a sales report table:

```
MBS( "FM.InsertRecordQuery"; ""; "SalesReport"; "SumSales$CustomerID"; ""; "SELECT sum(\"InvoiceTotal\"), \"CustomerID\" FROM Clients, Invoices WHERE Invoices.CustomerID = Clients.CustomerID GROUP by CustomerID" )
```

Copy two fields from one table to other:

```
MBS( "FM.InsertRecordQuery"; ""; "ASC Apple Script"; "Name$Script"; ""; "select * from \"AppleScript\"" )
```

Copy from Anlagen example (in German) to copy of same file:

```
MBS( "FM.InsertRecordQuery";
```

```

/* InsertFileName */
"Anlagen2";
/* InsertTableName */
"Anlagen";
/* FieldNames */
"Abschreibung Jahre$Anzahl Diagramme$Ausgewählte Datei$Datei 1 Container$Datei 2 Container$Datei
3 Container$Datei 4 Container$Datei 5 Container$Datum Ausgang$Datum Ausgang Popover$Datum Ein-
gang$Erstellungsdatum$Fälligkeit$Fälligkeit Popover$Gekauft von$Geprüft durch$In Betrieb seit$Interne
ID$Kategorie$Kaufdatum$Kosten$Modell$Notizen$Ort$Position$Prüfdatum$Seriennummer$Signatur Con-
tainer$Zugewiesen an$Zustand";
/* QueryFileName */
"Anlagen";
/* SQL Statement */
"SELECT \"Abschreibung Jahre\", \"Anzahl Diagramme\", \"Ausgewählte Datei\", \"Datei 1 Container\",
\"Datei 2 Container\", \"Datei 3 Container\", \"Datei 4 Container\", \"Datei 5 Container\", \"Datum Aus-
gang\", \"Datum Ausgang Popover\", \"Datum Eingang\", \"Erstellungsdatum\", \"Fälligkeit\", \"Fäl-
ligkeit Popover\", \"Gekauft von\", \"Geprüft durch\", \"In Betrieb seit\", \"Interne ID\", \"Kategorie\",
\"Kaufdatum\", \"Kosten\", \"Modell\", \"Notizen\", \"Ort\", \"Position\", \"Prüfdatum\", \"Serien-
nummer\", \"Signatur Container\", \"Zugewiesen an\", \"Zustand\" FROM Anlagen"
)

```

Copy data to other table with parameter:

```

MBS( "FM.InsertRecordQuery"; ""; "Test"; "FirstName$LastName$CompanyName"; ""; "SELECT \"First\",
\"Last\", \"Company\" FROM Contacts WHERE City=?"; "Hamburg" )

```

Copy from file to fill clone with order and two fields to filter:

```

MBS( "FM.InsertRecordQuery"; "Aufgaben Clone"; "Aufgaben"; "Aufgabe$Fälligkeit$Beschreibung$Sta-
tus$Kategorie"; ""; "SELECT Aufgabe, \"Fälligkeit\", Beschreibung, Status, Kategorie FROM Aufgaben
WHERE IDField=? AND OtherThing=? ORDER BY \"Fälligkeit\" "; 123; "Haus" )

```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.19 FM.InsertRecordCSV 4177
- 81.21 FM.InsertRecordQueryIgnoreDuplicates 4184
- 81.22 FM.InsertRecordTSV 4187
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 81.37 FM.SetSQLBatchMode 4220

81.20. <i>FM.INSERTRECORDQUERY</i>	4183
• 159.71 SQL.InsertOrUpdateRecords	7516
• 159.72 SQL.InsertRecords	7519

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

#### 81.20.1 Blog Entries

- [Dynamically build MBS call and evaluate it](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS FileMaker Plugin, version 5.4pr5](#)
- [MBS FileMaker Plugin 5.1 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.1pr7](#)
- [Quickly copy lots of records](#)

#### 81.20.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)
- [Ausgabe 4/2015, Seite 40](#)
- [Ausgabe 4/2015, Seite 39](#)

Created 29th April 2015, last changed 17th January 2020.

## 81.21 FM.InsertRecordQueryIgnoreDuplicates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordQueryIgnoreDuplicates"; InsertFileName; InsertTableName; FieldNames; QueryFileName; SQL Statement { ; Params } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### QueryFileName

The file name for the database to run the query against. Can be empty to look for the table in all files.

Get(FileName)

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns OK or error.

### Description

Same as FM.InsertRecordQuery, but ignores duplicate records.

On success returns the number of duplicate records instead of OK if there were any.

This function allows to easily copy a lot of records from one table to another table.

Copy can be from one database to other or within same database. Also from one table to other or within a table. Due to passing in new field names, you can even rearrange values from one column to other while copying. In the SQL you can use functions for sums or join data from several tables together to fill a new table. Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Does not copy text styles, only plain text for text fields.

The duplicate check is based on FileMaker checking if a field is unique, e.g. the record ID.  
For inserting records from other database (e.g. MySQL), please use SQL.InsertRecords function.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

### Examples

Copy records within one table in same file:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "Contacts"; "First$Last$Company"; ""; "SELECT \
\"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy records from a table from one database to other (production to development)

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; "ContactsDev.fmp12"; "Contacts"; "First$Last$Company";
"Contacts.fmp12"; "SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Copy data to other table:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "Test"; "FirstName$LastName$CompanyName"; "";
"SELECT \"First\", \"Last\", \"Company\" FROM Contacts" )
```

Query sum of sales grouped by customers in a sales report table:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "SalesReport"; "SumSales$CustomerID"; ""; "SE-
LECT sum(\"InvoiceTotal\"), \"CustomerID\" FROM Clients, Invoices WHERE Invoices. CustomerID
= Clients.CustomerID GROUP by CustomerID" )
```

Copy two fields from one table to other:

```
MBS( "FM.InsertRecordQueryIgnoreDuplicates"; ""; "ASC Apple Script"; "Name$Script"; ""; "select *
from \"AppleScript\"" )
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.23 FM.InsertSetUpdateProgressDialog 4190

- 159.72 SQL.InsertRecords

### 81.21.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr3](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 18th January 2016, last changed 17th January 2020.

## 81.22 FM.InsertRecordTSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "FM.InsertRecordTSV"; InsertFileName; InsertTableName; FieldNames; Text { ; FieldName; Field-Value } )

### Parameters

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### Text

The text to import in TSV format. This means tab character between fields and newline character for new records

"Bob Miller 12345 New York"

#### FieldName

Optional

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

Optional

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns number or error.

### Description

This function allows for easy importing of text to create a log of records.

Filename parameters can be empty.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result. Since version 8.2 we can fill text, number, time, timestamp and date fields and let FileMaker convert the values with your current locale.

Returns number of records added.

For XML, please check XML.Import function. For splitting values with delimiter into a list, please use QuickList.New which also works with comma, tab, newline or other characters.

With plugin version 6.2 or newer you can pass one pair of field name and value for each extra field you like to set in the new records. e.g. a reference ID.

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

### Examples

Import records from text:

```
Delete All Records [ No dialog ]
Set Variable [ $fields; Value:"FirstName$LastName$City" ]
Set Variable [ $r; Value:MBS("FM.InsertRecordTSV"; ""; "Contacts"; $fields; Import::ImportText) ]
```

Import some contacts with passing import ID/timestamp:

```
MBS( "FM.InsertRecordTSV"; "Contacts.fmp12"; "Contacts"; "FirstName$LastName$City"; $tsv; "ImportID"; $importID; "ImportDate"; Get(CurrentHostTimeStamp))
```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.18 FM.InsertRecord 4173
- 81.19 FM.InsertRecordCSV 4177
- 81.20 FM.InsertRecordQuery 4180
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 105.74 QuickList.New 5604



## 81.22. *FM.INSERTRECORDTSV*

4189

- 194.13 XML.Import

9428

### Example Databases

- [Text functions/TSV Import](#)

#### 81.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [MBS FileMaker Plugin, version 6.2pr5](#)
- [MBS FileMaker Plugin, version 6.2pr3](#)
- [\[ ANN \] MBS FileMaker Plugin 5.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.3pr3](#)
- [XML Import for FileMaker](#)
- [New today: FM.InsertRecordTSV](#)

#### 81.22.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 35](#)

Created 8th September 2015, last changed 1st May 2020.

## 81.23 FM.InsertSetUpdateProgressDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.2	Yes	Yes	No	No	No

MBS( "FM.InsertSetUpdateProgressDialog"; Update { ; Base; Factor } )

### Parameters

#### Update

Pass 1 to update Progress Dialog. Pass 0 to disable feature.

1

#### Base

Optional

The progress base in percent. Default is 0.

25

#### Factor

Optional

The factor to apply for progress update. Default is 1.

0.5

**Result** Returns OK or error.

### Description

If you enable progress dialog updates, the functions FM.InsertRecordQuery, FM.InsertRecordQueryIgnoreDuplicates and FM.InsertRecordTSV will update progress dialog.

If cancel button is clicked, the functions may cancel and return an error. Depending on event handling a cancel button may not work while a plugin function runs!

You can use Base/Factor to adjust updates in progress dialog. e.g. if you have 4 things to do and FM.InsertRecordTSV is 2nd one, you can use a base of 25 (so 25% is for first thing to do) and factor of 0.25. Our progress will go from 25 to 50% than.

### Examples

Import tab return text data as records with progress dialog:

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetTitle"; "Please wait." ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetShowButton"; 0 ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.SetTopText"; "Importing text file.." ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.Show" ) ]
```

```
Set Variable [ $r; Value:MBS( "FM.InsertSetUpdateProgressDialog"; 1 ) ]
```

```
Set Variable [ $r; Value:MBS( "FM.InsertRecordTSV"; "" ; "TSV Import"; "First$Last$Street$City$State$Zip$Country"; TSV Import::Text to Import ) ]
```

```
Set Variable [ $r; Value:MBS( "ProgressDialog.Hide" ) ]
```

### See also

<i>81.23. FM.INSERTSETUPDATEPROGRESSDIALOG</i>	4191
• 64.47 Dialog.SetTop	2431
• 81.18 FM.InsertRecord	4173
• 81.20 FM.InsertRecordQuery	4180
• 81.22 FM.InsertRecordTSV	4187
• 81.37 FM.SetSQLBatchMode	4220
• 133.14 ProgressDialog.Hide	6618
• 133.26 ProgressDialog.SetShowButton	6637
• 133.27 ProgressDialog.SetTitle	6639
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647

### **81.23.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr3](#)

Created 3th April 2016, last changed 18th September 2016.

## 81.24 FM.NULL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.NULL" )

**Result** Returns empty container.

### Description

FileMaker doesn't really have a NULL value, but other databases make a difference between empty text ("" ) and no value (NULL).

This function returns a special container value with no content.

SQL.SetParamValue and SQL.SetParamValues can use this value to pass NULL to the database.

### Examples

get null value:

```
MBS("FM.NULL")
```

### See also

- 159.120 SQL.SetParamTypesValues 7589
- 159.122 SQL.SetParamValue 7592
- 159.123 SQL.SetParamValues 7594

### 81.24.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 20th April 2015, last changed 14th September 2015.

## 81.25 FM.SQL.CSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.CSV"; SQLref { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

#### firstCol

Optional

The index of first column. Default is 0.

0

#### lastCol

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

#### rowSeparator

Optional

The row separator. Default is CR.

Char(13)

#### colSeparator

Optional

The column separator. Default is semicolon.

”;"

**Result** Returns text or error.

### Description

You can use this method to quickly get all fields in a given area as text.

If needed, we put values in quotes and escape quotes and newlines.

For numeric values we ask FileMaker to provide text representation, so FileMaker may use dot or comma as

decimal divider depending on your locale.

Please use `Text.WriteTextFile` to write to text file if you need CSV export.

### Examples

Query fields and export as text and CSV:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.Text"; $sql ) ]
Set Variable [ $desktopFolder; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.txt" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.CSV"; $sql ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.csv" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Cleanup
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

### See also

- 81.26 `FM.SQL.Execute` 4196
- 81.27 `FM.SQL.Field` 4199
- 81.28 `FM.SQL.FieldCount` 4201
- 81.34 `FM.SQL.Release` 4213
- 81.35 `FM.SQL.RowCount` 4215
- 81.36 `FM.SQL.Text` 4217
- 124.1 `Path.AddPathComponent` 6243
- 159.10 `SQL.Execute` 7425
- 159.16 `SQL.FieldCount` 7437
- 167.68 `Text.WriteTextFile` 7999

### **81.25.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

### **81.25.2 FileMaker Magazin**

- [Ausgabe 3/2018, Seite 34](#)

Created 8th January 2017, last changed 1st May 2020.

## 81.26 FM.SQL.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Execute"; FileName; SQL Statement { ; Params } )

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### Description

This function requires FileMaker 11 or newer. Please use FM.ExecuteSQL on FileMaker 10 or older.

Returns a SQL Reference, so you can use functions like FM.SQL.RowCount, FM.SQL.FieldCount, FM.SQL.Field and FM.SQL.FieldType to query result. Don't forget to use FM.SQL.Release to release the result from memory when you are done with it.

### Examples

Query only first row:

```
MBS( "FM.SQL.Execute"; ""; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

SELECT records

```
MBS("FM.SQL.Execute"; ""; "select * from Contacts")
```

Select with parameter:

```
MBS("FM.SQL.Execute"; ""; "select Menge from Boxen where Artikel_Nr=? ORDER BY Menge DESC"; "ABC123")
```

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; ""; "select * from Clients" ) ]
```

```
If [ MBS("IsError" ) ]
```

```
Show Custom Dialog [ "SQL error"; $sql ]
```



```

Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If

```

Query record as JSON:

```

Let ( [
fields = MBS( "FM.QueryFieldsForTableName"; "Contacts");
Records = MBS( "FM.SQL.Execute"; ""; "SELECT \" & substitute(fields; $; "\", \") & "\" FROM
\"Contacts\" WHERE \"First\" = ?"; "Joe");

json = MBS( "FM.SQL.JSONRecord"; Records; 0; fields);
r = MBS( "FM.SQL.Release"; Records ) ]
; json )

```

Make a JSON query in one Let statment:

```

Let (
[
$sdatt = "10/1/2019 00:00";
$edatt = "10/10/2019 00:00";
sku = "'PARbh50','PARgy50'";
sql1 = MBS("FM.SQL.Execute"; ""; "Select docnum,linetotal,db from \"MyTable\" where ItemCode in (\"
& sku & \") and DocDate between ? and ?"; $sdatt; $edatt);
json = MBS( "FM.SQL.JSONRecords"; sql1; "DocNum$LineTotal$DB"; 1);
r = MBS( "FM.SQL.Release"; sql1 )
]; json
)

```

Query related records as JSON:

```

# get related teams
Set Variable [ $r; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT \"UUID\", \"ID\", \"ID_De-
partment\", \"Team.Name\", \"MemberCount\" FROM \"Teams\" WHERE ID_Department=?"; Depart-
ment::ID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error" ; $r ]
Else
# fill as json in field
Set Field [ Department::JSON_Department ; MBS( "FM.SQL.JSONRecords"; $r; "UUID$ID$ID_Depart-
ment$Team.Name$MemberCount" ) ]
Set Variable [ $e ; Value: MBS( "FM.SQL.Release"; $r ) ]
End If

```

**See also**

• 81.28 FM.SQL.FieldCount	4201
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 102.2 FM.SQL.JSONRecord	5306
• 102.3 FM.SQL.JSONRecords	5308
• 80.70 FM.SQL.Max	4073
• 80.71 FM.SQL.Min	4075
• 81.35 FM.SQL.RowCount	4215
• 80.74 FM.SQL.Sum	4081
• 81.36 FM.SQL.Text	4217
• 159.16 SQL.FieldCount	7437

### Example Databases

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 81.26.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [Image Gallery in FileMaker using SQL](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [MBS FileMaker Plugin 7.0 - More than 4400 Functions In One Plugin](#)
- [MBS FileMaker Plugin 7.0 - 4400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)

### 81.26.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

## 81.27 FM.SQL.Field

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Field"; SQLref; Row; Column )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.  
\$SQLRef

#### Row

The row number from 0 to FM.SQL.RowCount-1.  
\$row

#### Column

The column number from 0 to FM.SQL.FieldCount-1.  
\$col

**Result** Returns value or error.

### Description

Native data type is preserved so this function can returns styled text, number, time, date, timestamp and container.

### Examples

Query field values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
# query first field of first row:
Set Variable [ $value; MBS( "FM.SQL.Field"; $sql; 0; 0 ) ]
# query other field
Set Variable [ $value; MBS( "FM.SQL.Field"; $sql; $row; $col ) ]
Set Variable [ $r; MBS( "FM.SQL.Release"; $sql ) ]
```

### See also

- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.29 FM.SQL.FieldType 4203
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 81.36 FM.SQL.Text 4217

- 111.14 Matrix.Evaluate 5881
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

### Example Databases

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)

### 81.27.1 Blog Entries

- [Image Gallery in FileMaker using SQL](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)
- [Execute SQL in FileMaker and get back native field types](#)

### 81.27.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 18th April 2015, last changed 1st March 2019.

**81.28 FM.SQL.FieldCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.FieldCount"; SQLref )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$SQLRef

**Result** Returns number or error.

**Description****Examples**

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

**See also**

- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.29 FM.SQL.FieldType 4203
- 81.36 FM.SQL.Text 4217
- 127.6 IsError 6374
- 111.14 Matrix.Evaluate 5881
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

**Example Databases**

- [SQL in FileMaker/SQL Select Container](#)

### 81.28.1 Blog Entries

- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 8th January 2017.

## 81.29 FM.SQL.FieldType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.FieldType"; SQLref; Row; Column )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Row

The row number from 0 to FM.SQL.RowCount-1.

\$row

#### Column

The column number from 0 to FM.SQL.FieldCount-1.

\$col

**Result** Returns text or error.

### Description

Returns text, date, number, time, timestamp, boolean, container or invalid.

**See also**

- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.35 FM.SQL.RowCount 4215
- 159.10 SQL.Execute 7425
- 159.16 SQL.FieldCount 7437

### Example Databases

- [SQL in FileMaker/SQL Select Container](#)

### 81.29.1 Blog Entries

- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 14th September 2015.

## 81.30 FM.SQL.InsertRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.SQL.InsertRecords"; SQLref; InsertFileName; InsertTableName; FieldNames { ; StartRow; EndRow } )
```

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### StartRow

Optional

The index of the start row in the current recordset. First row is 0.

0

#### EndRow

Optional

The index of the end row in the current recordset. First row is 0. Last Row would be FM.SQL.RowCount-1.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a FileMaker table.

Please provide field names in FileMaker. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert from SQL Connection into FileMaker database, please use SQL.InsertRecords.



**Examples**

Copy records:

```
# select some data
Set Variable [ $Records; Value:MBS( "FM.SQL.Execute"; "" ; "SELECT FirstName, LastName, Birthday
FROM test" ) ]
# now insert them somewhere else
Set Variable [ $r; Value:MBS( "FM.SQL.InsertRecords"; $Records; "" ; "test"; "FirstName$LastName$Birth-
Day" ) ]
# and free record set
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $Records ) ]
```

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.26 FM.SQL.Execute 4196
- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 159.10 SQL.Execute 7425
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519

**81.30.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

**81.30.2 FileMaker Magazin**

- Ausgabe 3/2018, Seite 34

Created 1st August 2016, last changed 23th November 2017.

## 81.31 FM.SQL.InsertRecordsToSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.InsertRecordsToSQL"; SQLref; Connection; InsertTableName; FieldNames { ; StartRow; EndRow; Replace } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model\$Names"

#### StartRow

Optional

The index of the start row. First row is 0. Pass -1 or nothing for default which is starting with row 0.

-1

#### EndRow

Optional

The index of the end row. First row is 0. Last Row would be FM.SQL.RowCount-1. Pass -1 to use all rows and the plugin will internally use RowCount-1.

-1

#### Replace

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

Set to 1 to replace existing entries. Currently available for MySQL and databases with same syntax.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a SQL database. Please provide field names in other table. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert within FileMaker, please use FM.SQL.InsertRecords.

### Examples

Insert Records to SQL database:

```
Set Variable [ $InsertResult; Value:MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $connection; $BaseTableName; $FieldNames ) ]
```

Copy records to SQLite:

```
Set Variable [ $Connection ; Value: MBS("SQL.NewConnection") ]
# Tell plugin where SQLite library is
Set Variable [ $result ; Value: MBS("SQL.InternalSQLiteLibrary.Activate") ]
# Tell plugin we want to use SQLite
Set Variable [ $result ; Value: MBS("SQL.SetClient"; $Connection; "SQLite") ]
# Connect to database in read/write/create mode. Creates new file if none exists.
Set Variable [ $result ; Value: MBS("SQL.Connect"; $Connection; "/Users/cs/Desktop/mydatabase.sqlite") ]
]
If [ $result = "OK" ]
# Query records in FileMaker
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT FirstName, LastName, Birthday FROM People") ]
# Transfer to other database
Set Variable [ $Records ; Value: MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $Connection; "People"; "FirstName$LastName$Birthday") ]
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.Commit"; $Connection) ]
Set Variable [ $result2 ; Value: MBS( "FM.SQL.Release"; $Records ) ]
If [ $result "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Show Custom Dialog [ "Record exported." ]
End If
End If
Set Variable [ $result2 ; Value: MBS("SQL.FreeConnection"; $Connection) ]
```

### See also

- 81.26 FM.SQL.Execute 4196
- 81.30 FM.SQL.InsertRecords 4204
- 81.35 FM.SQL.RowCount 4215
- 111.26 Matrix.InsertRecordsToSQL 5896

- 159.7 SQL.Commit 7416
- 159.8 SQL.Connect 7418
- 159.10 SQL.Execute 7425
- 159.19 SQL.FreeConnection 7442
- 159.72 SQL.InsertRecords 7519
- 159.73 SQL.InternalSQLiteLibrary.Activate 7521

### Example Databases

- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 81.31.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

### 81.31.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 1st August 2016, last changed 7th November 2018.

## 81.32 FM.SQL.JSONRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecord"; SQLref; Row; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Row

The row you like to get.

1

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON record:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecord"; $sql; 0; "First$Last$Birthday$Photo"; 2) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Query record as JSON:

```
Let ( [
```

```
fields = MBS( "FM.QueryFieldsForTableName"; "Contacts");
```

```
Records = MBS( "FM.SQL.Execute"; "" ; "SELECT \"\" & substitute(fields; $; \"\", \") & \"\" FROM \"Contacts\" WHERE \"First\" = ?"; "Joe");
```

```
json = MBS( "FM.SQL.JSONRecord"; Records; 0; fields);  
r = MBS( "FM.SQL.Release"; Records ) ]  
; json )
```

**See also**

- 80.53 FM.QueryFieldsForTableName 4039
- 81.26 FM.SQL.Execute 4196
- 102.3 FM.SQL.JSONRecords 5308
- 81.34 FM.SQL.Release 4213
- 159.10 SQL.Execute 7425

**81.32.1 Blog Entries**

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 4th March 2018, last changed 8th April 2019.

## 81.33 FM.SQL.JSONRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecords"; SQLref; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecords"; $sql ; "First$Last$Birthday$Photo"; 2 ) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Make a JSON query in one Let statment:

```
Let (
```

```
[
```

```
$sdat = "10/1/2019 00:00";
```

```
$edat = "10/10/2019 00:00";
```

```
sku = "'PARbh50','PARgy50'";
```

```
sql1 = MBS("FM.SQL.Execute"; "" ; "Select docnum,linetotal,db from \"MyTable\" where ItemCode in (\" & sku & ") and DocDate between ? and ?"; $sdat; $edat);
```

```
json = MBS( "FM.SQL.JSONRecords"; sql1 ; "DocNum$LineTotal$DB"; 1);
```

```
r = MBS( "FM.SQL.Release"; sql1 )
```

```
] ; json
)
```

Query related records as JSON:

```
# get related teams
Set Variable [ $r ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT \"UUID\", \"ID\", \"ID_De-
partment\", \"Team.Name\", \"MemberCount\" FROM \"Teams\" WHERE ID_Department=?"; Depart-
ment::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error" ; $r ]
Else
# fill as json in field
Set Field [ Department::JSON_Department ; MBS( "FM.SQL.JSONRecords"; $r; "UUID$ID$ID_Depart-
ment$Team.Name$MemberCount") ]
Set Variable [ $e ; Value: MBS( "FM.SQL.Release"; $r ) ]
End If
```

### See also

- 81.26 FM.SQL.Execute 4196
- 102.2 FM.SQL.JSONRecord 5306
- 81.34 FM.SQL.Release 4213
- 127.6 IsError 6374
- 159.10 SQL.Execute 7425

### 81.33.1 Blog Entries

- [Query FileMaker records as JSON](#)

### 81.33.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34

Created 4th March 2018, last changed 2nd April 2020.



## 81.34 FM.SQL.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Release"; SQLref )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$\$SQLRef

**Result** Returns OK or error.

### Description

### Examples

Run command and free it later:

```
$ref = MBS( "FM.SQL.Execute"; "" ; "SELECT * FROM ProductImages FETCH FIRST 1 ROWS ONLY")
```

...

```
$r = MBS( "FM.SQL.Release"; $ref )
```

### See also

- 81.25 FM.SQL.CSV 4193
- 81.27 FM.SQL.Field 4199
- 81.30 FM.SQL.InsertRecords 4204
- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 102.2 FM.SQL.JSONRecord 5306
- 80.70 FM.SQL.Max 4073
- 80.71 FM.SQL.Min 4075
- 81.35 FM.SQL.RowCount 4215
- 80.74 FM.SQL.Sum 4081
- 81.36 FM.SQL.Text 4217

### Example Databases

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### 81.34.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [Image Gallery in FileMaker using SQL](#)
- [FileMaker Custom function to query a value from other table or file](#)
- [Execute SQL in FileMaker and get back native field types](#)

Created 18th April 2015, last changed 1st August 2016.

**81.35 FM.SQL.RowCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.RowCount"; SQLref )

**Parameters****SQLref**

The reference number returned by FM.SQL.Execute function.

\$SQLRef

**Result** Returns number or error.

**Description****Examples**

Query some values:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If
```

**See also**

- 81.28 FM.SQL.FieldCount 4201
- 80.70 FM.SQL.Max 4073
- 127.6 IsError 6374
- 111.14 Matrix.Evaluate 5881
- 111.25 Matrix.InsertRecords 5894
- 111.29 Matrix.Max 5900
- 111.30 Matrix.Min 5901
- 111.41 Matrix.Sum 5918
- 111.42 Matrix.Text 5920
- 159.10 SQL.Execute 7425

**Example Databases**

- [SQL in FileMaker/ImageGallery](#)
- [SQL in FileMaker/SQL Select Container](#)
- [SQL to other databases/SQL Export](#)

### 81.35.1 Blog Entries

- [Image Gallery in FileMaker using SQL](#)
- [Execute SQL in FileMaker and get back native field types](#)

### 81.35.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 18th April 2015, last changed 8th January 2017.

## 81.36 FM.SQL.Text

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.Text"; SQLref { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$\$SQLref

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

#### firstCol

Optional

The index of first column. Default is 0.

0

#### lastCol

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

#### rowSeparator

Optional

The row separator. Default is CR.

Char(13)

#### colSeparator

Optional

The column separator. Default is tab character.

Char(9)

**Result** Returns text or error.

### Description

You can use this method to quickly get all fields in a given area as text.

### Examples

Query fields and export as text and CSV:

```
Set Variable [ $sql; Value:MBS( "FM.SQL.Execute"; "" ; "select * from Clients" ) ]
```

```

If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error"; $sql ]
Else
Show Custom Dialog [ "SQL result"; "got " & MBS( "FM.SQL.RowCount"; $sql ) & " rows with each " &
MBS( "FM.SQL.FieldCount"; $sql ) & " ..." ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.Text"; $sql ) ]
Set Variable [ $desktopFolder; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.txt" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Write to text file
Set Variable [ $text; Value:MBS( "FM.SQL.CSV"; $sql ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $desktopFolder; "fields.csv" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
# Cleanup
Set Variable [ $r; Value:MBS( "FM.SQL.Release"; $sql ) ]
End If

```

**See also**

- 81.25 FM.SQL.CSV 4193
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 80.71 FM.SQL.Min 4075
- 81.34 FM.SQL.Release 4213
- 81.35 FM.SQL.RowCount 4215
- 82.8 Folders.UserDesktop 4235
- 127.6 IsError 6374
- 124.1 Path.AddPathComponent 6243
- 159.16 SQL.FieldCount 7437

**81.36.1 Blog Entries**

- [FileMaker SQL with Sum, Min, Max and Avg on results](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

### **81.36.2 FileMaker Magazin**

- Ausgabe 3/2018, Seite 34

Created 8th January 2017, last changed 8th January 2017.

## 81.37 FM.SetSQLBatchMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SetSQLBatchMode"; Value )

### Parameters

#### Value

The chunk size. Default is 1, but 10 or 50 is usually faster.

1

**Result** Returns OK or error.

### Description

For use in FM.InsertRecordQuery.  
(others could be added)

Our plugin can send several SQL commands in one chunk which makes some operation much faster.

### Examples

Move records, 50 inserts per chunk:

```
Set Variable [ $r ; Value: MBS( "ProgressDialog.Reset" ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetTitle"; "Please wait." ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetTopText"; "Copying records..." ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Show" ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.SetProgress"; 0 ) ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Update" ) ]

Set Variable [ $r ; Value: MBS( "FM.SetSQLBatchMode"; 50 ) ]
Set Variable [ $r ; Value: MBS( "FM.InsertSetUpdateProgressDialog"; 1 ) ]
Set Variable [ $r ; Value: MBS( "FM.InsertRecordQuery"; "" ; "dest"; $FieldNames; "" ; "SELECT \"f1\", \"f2\", \"f3\", \"f4\", \"f5\", \"f6\", \"f7\",... ]
Set Variable [ $r ; Value: MBS( "ProgressDialog.Hide" ) ]
```

### See also

- 64.47 Dialog.SetTop 2431
- 81.13 FM.GetSQLBatchMode 4161
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 133.14 ProgressDialog.Hide 6618
- 133.15 ProgressDialog.Reset 6620



<i>81.37. FM.SETSQLBATCHMODE</i>	4221
• 133.25 ProgressDialog.SetProgress	6635
• 133.30 ProgressDialog.SetTopText	6645
• 133.31 ProgressDialog.Show	6647
• 133.32 ProgressDialog.Update	6649

### **81.37.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr8](#)

Created 17th September 2016, last changed 12nd November 2018.

## 81.38 FM.UpdateRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecord"; FileName; TableName; IDField; IDValue; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be RecordID for the record ID.

Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must be unique.

Then you pass one pair of field name and value for each field you like to set in the new record.

Please note that FM.UpdateRecord and FM.UpdateRecords are nearly identical. Just FM.UpdateRecord

provides the check to make sure only one record matches while FM.UpdateRecords allows several records to be updated. So with FM.UpdateRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use GetFieldName() function to query field names and the plugin removes the table prefix with :: in the field name before passing it to SQL engine.

You can use FM.ExecuteSQL.LastSQL function to see later what SQL was created and run.

### Examples

Update a record:

```
MBS( "FM.UpdateRecord";
""; "Asset Management"; /* file and table name */
"Asset ID"; "1"; /* ID field and value */
"Information"; "Just a test"; /* first field and value */
"Category"; "BestItems" ) /* second field and value */
```

Update a record:

```
MBS( "FM.UpdateRecord"; Get(FileName); "Kontakte"; "Vorname"; "Joe"; "Firma"; "Test" )
```

Update a repeating field:

```
Set Variable [ $r ; Value: MBS( "FM.UpdateRecord"; ""; "Contacts"; "RowID"; 1; "repeating [ 5 ] "; "Hello"
) ]
Show Custom Dialog [ Get ( RecordID ) & ": " & Contacts::repeating [ 5 ] ]
```

### See also

- 81.4 FM.DeleteRecord 4131
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.15 FM.InsertOrUpdateRecord2 4165
- 81.16 FM.InsertOrUpdateRecord3 4168
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 81.39 FM.UpdateRecords 4225
- 80.88 FM.UpdateRecords2 4107

- 80.89 FM.UpdateRecords3

### Example Databases

- [Mac and iOS/MapKit/MapView Click Polygons](#)

### 81.38.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS FileMaker Plugin, version 9.3pr1](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)

### 81.38.2 FileMaker Magazin

- Ausgabe 6/2018, Seite 24
- Ausgabe 6/2018, Seite 23
- Ausgabe 3/2018, Seite 35
- Ausgabe 1/2016, Seite 32

Created 5th December 2015, last changed 17th January 2020.

## 81.39 FM.UpdateRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.UpdateRecords"; FileName; TableName; IDField; IDValue; FieldName; FieldValue )

### Parameters

#### FileName

The file name of where the table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### TableName

The name of the table to insert record into. Can be ID of table, so we lookup name by ID. Can be result of GetFieldName() function as we remove field name automatically.

"Assets"

#### IDField

The name of the field which provides an unique ID for each record, so we can identify the field. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"ID"

#### IDValue

The value for the ID field to identify the record. Data type of parameter must match the data type of the field.

\$RecordID

#### FieldName

A field name to set. Can be ID of field, so we lookup name by ID. Can be result of GetFieldName() function as we remove table name automatically.

"Model"

#### FieldValue

A field value to use for setting the field in the parameter before. Data type of parameter must match the data type of the field.

"Test"

**Result** Returns OK or error.

### Description

You pass to this function table name (and optional filename).

To identify the record you pass the name of the ID field and the value for the record. The ID field must not be unique, so several records can be updated at once.

Then you pass one pair of field name and value for each field you like to set in the new record.

Please note that FM.UpdateRecord and FM.UpdateRecords are nearly identical. Just FM.UpdateRecord provides the check to make sure only one record matches while FM.UpdateRecords allows several records to be updated. So with FM.UpdateRecords you can easily erase a lot of data if you pass wrong ID!

With plugin version 7.2 or later, you can specify fields and table via IDs and the plugin will lookup them for you at runtime. Table IDs and table names must be unique across all open files for this to work correctly.

With plugin version 8.4 or newer, you can use `GetFieldName()` function to query field names and the plugin removes the table prefix with `::` in the field name before passing it to SQL engine.

You can use `FM.ExecuteSQL.LastSQL` function to see later what SQL was created and run.

### Examples

Update a few records:

```
MBS( "FM.UpdateRecord";
"; "Asset Management"; /* file and table name */
"Category"; "Houses"; /* ID field and value */
"Information"; "Just a test"; /* first field and value */
"Comment"; "Testing" ) /* second field and value */
```

### See also

- 81.5 FM.DeleteRecords 4134
- 81.8 FM.ExecuteSQL 4146
- 81.11 FM.ExecuteSQL.LastSQL 4157
- 81.38 FM.UpdateRecord 4222
- 80.85 FM.UpdateRecord2 4100
- 80.86 FM.UpdateRecord3 4102
- 80.88 FM.UpdateRecords2 4107
- 80.89 FM.UpdateRecords3 4109

#### 81.39.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 5.5pr3](#)

#### 81.39.2 FileMaker Magazin

- Ausgabe 3/2019, Seite 30
- Ausgabe 6/2018, Seite 23

Created 11st December 2015, last changed 17th January 2020.

# Chapter 82

## Folders

Functions to query special folders.

### 82.1 Folders.Applications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.Applications" )

**Result** Returns path or error.

#### Description

This is a native path. You can use `Path.NativePathToFileMakerPath` if you need to use path in a script step.

#### Examples

Queries path:

MBS( "Folders.Applications" )

#### See also

- 124.7 `Path.NativePathToFileMakerPath`

6255

Created 18th August 2014, last changed 29th April 2016.

## 82.2 Folders.LocalFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	No	Yes, macOS only	No	No

MBS( "Folders.LocalFonts" )

**Result** Returns path or error.

### Description

This is a native path. You can use `Path.NativePathToFileMakerPath` if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.LocalFonts" )

### See also

- [82.11 Folders.UserFonts](#) 4240
- [124.7 Path.NativePathToFileMakerPath](#) 6255

Created 18th August 2014, last changed 17th June 2018.



## 82.3 Folders.LocalPreferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.LocalPreferences" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.LocalPreferences" )

### See also

- 82.15 Folders.UserPreferences 4244
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.

## 82.4 Folders.SharedDocuments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Folders.SharedDocuments" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.SharedDocuments" )

### See also

- [82.9 Folders.UserDocuments](#) 4237
- [124.7 Path.NativePathToFileMakerPath](#) 6255

Created 18th August 2014, last changed 17th June 2018.

## 82.5 Folders.System

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.System" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.System" )

### See also

- 62.12 CURL.CloseOutputFile 1813
- 62.15 CURL.CreateOutputFile 1819
- 62.149 CURL.Release 2011
- 79.36 Files.LaunchFile 3880
- 79.62 Files.WriteFile 3925
- 82.6 Folders.SystemFonts 4232
- 82.7 Folders.SystemTemporary 4233
- 82.16 Folders.UserTemporary 4245
- 124.5 Path.LastPathComponent 6252
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.

## 82.6 Folders.SystemFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	No

MBS( "Folders.SystemFonts" )

**Result** Returns path or error.

### Description

This is a native path. You can use `Path.NativePathToFileMakerPath` if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.SystemFonts" )

### See also

- 82.5 Folders.System 4231
- 82.11 Folders.UserFonts 4240
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.

## 82.7 Folders.SystemTemporary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Folders.SystemTemporary" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

On Mac Folders.UserTemporary is in the user's home folder while the system wide temporary folder is in /var/folders and can be queried with Folders.SystemTemporary.

### Examples

Queries path:

```
MBS( "Folders.SystemTemporary" )
```

Write container to temp file and launch:

```
# get temp folder
Set Variable [ $TempFolder; Value:MBS( "Folders.SystemTemporary" ) ]
# and file name from container
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; test::myContainer ) ]
# add name to folder path
Set Variable [ $TempPath; Value:MBS( "Path.AddPathComponent"; $TempFolder; $name ) ]
# now write temp file
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::myContainer; $TempPath) ]
# and launch file
Set Variable [ $r; Value:MBS( "Files.LaunchFile"; $TempPath) ]
```

Download URL to temp file:

```
Set Variable [ $curl; Value:MBS("CURL.New") ]
# this is URL to download
Set Variable [ $url; Value:"https://www.monkeybreadsoftware.com/filemaker/test.txt" ]
# get file name from URL
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $URL ) ]
# now make temp file path
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.SystemTemporary" ); $name ) ]
# set URL to download
Set Variable [ $r; Value:MBS("CURL.SetOptionURL"; $curl; "https://www.monkeybreadsoftware.com/filemaker/test.txt") ]
# open destination file
```

```
Set Variable [ $r; Value:MBS("CURL.CreateOutputFile"; $curl; $path) ]
# run transfer
Set Field [ CURL Test::Result; MBS("CURL.Perform"; $curl) ]
# close destination file
Set Variable [ $r; Value:MBS("CURL.CloseOutputFile"; $curl) ]
# get debug messages
Set Field [ CURL Test::debug; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
```

**See also**

- 62.15 CURL.CreateOutputFile 1819
- 62.43 CURL.GetDebugAsText 1866
- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992
- 62.373 CURL.SetOptionURL 2329
- 79.35 Files.Launch 3877
- 79.62 Files.WriteFile 3925
- 82.5 Folders.System 4231
- 124.1 Path.AddPathComponent 6243
- 124.5 Path.LastPathComponent 6252

Created 18th August 2014, last changed 19th April 2020.

## 82.8 Folders.UserDesktop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.UserDesktop" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

For FileMaker Server it is possible to not have a desktop folder or to have it on a different location than normal user accounts.

### Examples

Queries path:

```
MBS( "Folders.UserDesktop" )
```

Create folder on Desktop:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDesktop" ) ]
If [ IsEmpty(Container Export::Name) ]
Set Field [ Container Export::Name; "Record " & Get(RecordID) ]
End If
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; Container Export::Name ) ]
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
```

Get file in desktop folder:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; "test.txt" ) ]
```

### See also

- 108.59 MapView.Screenshot 5791
- 124.1 Path.AddPathComponent 6243
- 124.7 Path.NativePathToFileMakerPath 6255
- 151.9 Shell.Execute 7125
- 162.1 SyntaxColoring.AddContextMenuCommand 7679
- 167.49 Text.ReadTextFile 7971
- 127.52 Trace 6434

- 192.3 WordFile.AppendTableRow 8954
- 192.18 WordFile.ReplaceTag 8973
- 193.30 XL.Book.SaveToFile 9027

### Example Databases

- Barcode/Barcode Generation
- CURL/FTP/CURL FTP Download all Files in Directory
- DynaPDF/Invoice/Invoice
- DynaPDF/Shrink PDF pages
- GraphicsMagick/Create Multi Tiff
- Text functions/Text to RTF or HTML
- Third Party/FileMaker Snippet Storage
- WordFile/WordFile Image
- WordFile/WordFile
- XML/XML Import

### 82.8.1 Blog Entries

- Define hot keys for functions in the FileMaker development
- Parsing VCard file

Created 18th August 2014, last changed 7th November 2018.



## 82.9 Folders.UserDocuments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Folders.UserDocuments" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

Version 8.5 and newer return the server documents folder for scripts running on server.

### Examples

Queries path:

```
MBS( "Folders.UserDocuments" )
```

Create folder in documents:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDocuments" ) ]
If [ IsEmpty(Container Export::Name) ]
Set Field [ Container Export::Name; "Record " & Get(RecordID) ]
End If
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; Container Export::Name ) ]
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
```

Get file in documents folder:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDocuments" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; "test.txt" ) ]
```

### See also

- 62.182 CURL.SetOptionCAINFO 2063
- 79.10 Files.CreateDirectory 3839
- 82.4 Folders.SharedDocuments 4230
- 82.10 Folders.UserDownloads 4239
- 82.11 Folders.UserFonts 4240
- 124.1 Path.AddPathComponent 6243
- 124.7 Path.NativePathToFileMakerPath 6255

**Example Databases**

- [CURL/CURL with certificates included with FileMaker](#)

**82.9.1 Blog Entries**

- [Use root certificates included with FileMaker](#)
- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 18th August 2014, last changed 7th November 2018.

## 82.10 Folders.UserDownloads

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	6.2	Yes	Yes	No	No	No

MBS( "Folders.UserDownloads" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

e.g. C:\Users\test\Downloads on Windows or /Users/test/Downloads on Mac.

### Examples

Query download folder path:

```
MBS( "Folders.UserDownloads" )
```

Create folder in downloads:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDownloads" ) ]
If [ IsEmpty(Container Export::Name) ]
Set Field [ Container Export::Name; "Record " & Get(RecordID) ]
End If
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; Container Export::Name ) ]
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
```

Get file in download folder:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDownloads" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; "test.txt" ) ]
```

### See also

- [79.10 Files.CreateDirectory](#) 3839
- [82.9 Folders.UserDocuments](#) 4237
- [124.1 Path.AddPathComponent](#) 6243
- [124.7 Path.NativePathToFileMakerPath](#) 6255

### 82.10.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 22nd March 2016, last changed 7th November 2018.

## 82.11 Folders.UserFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	No	Yes, macOS only	No	No

MBS( "Folders.UserFonts" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

```
MBS( "Folders.UserFonts" )
```

Get file in fonts folder:

```
Set Variable [ $folder; Value:MBS( "Folders.UserFonts" ) ]
```

```
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; "test.txt" ) ]
```

### See also

- 82.2 Folders.LocalFonts 4228
- 82.6 Folders.SystemFonts 4232
- 82.9 Folders.UserDocuments 4237
- 82.12 Folders.UserHome 4241
- 82.13 Folders.UserMusic 4242
- 82.17 Folders.UserTrash 4247
- 82.18 Folders.UserVideo 4248
- 124.1 Path.AddPathComponent 6243
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 7th November 2018.

## 82.12 Folders.UserHome

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Folders.UserHome" )

**Result** Returns path or error.

### Description

### Examples

Query user folder path:

```
MBS("Folders.UserHome")
```

Find Dropbox folder:

```
Set Variable [ $HomeFolder; Value:MBS( "Folders.UserHome" ) ]
```

```
Set Variable [ $DropboxFolder; Value:MBS( "Path.AddPathComponent"; $HomeFolder; "DropBox" ) ]
```

### See also

- 82.11 Folders.UserFonts 4240
- 82.18 Folders.UserVideo 4248
- 124.1 Path.AddPathComponent 6243
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

Created 14th July 2017, last changed 8th April 2020.

## 82.13 Folders.UserMusic

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.UserMusic" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.UserMusic" )

### See also

- 82.11 Folders.UserFonts 4240
- 82.17 Folders.UserTrash 4247
- 82.18 Folders.UserVideo 4248
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.

## 82.14 Folders.UserPictures

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	7.2	Yes	No	Yes, macOS only	No	Yes

MBS( "Folders.UserPictures" )

**Result** Returns path or error.

### Description

This is a native path. You can use `Path.NativePathToFileMakerPath` if you need to use path in a script step.

### See also

- [124.7 Path.NativePathToFileMakerPath](#)

6255

### 82.14.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr7](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 19th March 2017, last changed 19th March 2017.

## 82.15 Folders.UserPreferences

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.UserPreferences" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.UserPreferences" )

### See also

- 82.3 Folders.LocalPreferences 4229
- 124.7 Path.NativePathToFileMakerPath 6255

Created 18th August 2014, last changed 29th April 2016.



## 82.16 Folders.UserTemporary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "Folders.UserTemporary" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

On Mac Folders.UserTemporary is in the user's home folder while the system wide temporary folder is in /var/folders and can be queried with Folders.SystemTemporary.

### Examples

Get path for temp PDF file:

```
Set Variable [ $tempfilepath; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.UserTemporary" ); "temp.pdf" ) ]
```

### See also

- 56.35 Container.WriteFile 1694
- 82.5 Folders.System 4231
- 82.7 Folders.SystemTemporary 4233
- 124.1 Path.AddPathComponent 6243
- 124.3 Path.FilePathToFileURL 6249
- 124.7 Path.NativePathToFileMakerPath 6255
- 141.9 RichText.ReadContainer 6836
- 141.27 RichText.WritePDF 6864
- 167.68 Text.WriteTextFile 7999
- 184.10 WIA.ImageDialog 8644

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [DynaPDF/Signature Appearance](#)
- [Win Only/WIA Scan](#)

### 82.16.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr2](#)

Created 23th April 2016, last changed 17th June 2018.

## 82.17 Folders.UserTrash

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	5.1	Yes	Yes	Yes	No	No

MBS( "Folders.UserTrash" )

**Result** Returns path or error.

### Description

e.g. on Mac this is `"/Users/Bob/.Trash"`

For Windows, there is no real path to a trash folder as it's a virtual path.

### See also

- [82.11 Folders.UserFonts](#) 4240
- [82.13 Folders.UserMusic](#) 4242
- [82.18 Folders.UserVideo](#) 4248

### 82.17.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 7th April 2015, last changed 13th November 2018.

## 82.18 Folders.UserVideo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	Yes	Yes	Yes	No	Yes

MBS( "Folders.UserVideo" )

**Result** Returns path or error.

### Description

This is a native path. You can use `Path.NativePathToFileMakerPath` if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.UserVideo" )

### See also

- [82.11 Folders.UserFonts](#) 4240
- [82.12 Folders.UserHome](#) 4241
- [82.13 Folders.UserMusic](#) 4242
- [82.17 Folders.UserTrash](#) 4247
- [124.7 Path.NativePathToFileMakerPath](#) 6255

### 82.18.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr8](#)

Created 18th August 2014, last changed 29th April 2016.

## 82.19 Folders.Windows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
82 Folders	4.3	No	Yes	Yes, Windows only	No	No

MBS( "Folders.Windows" )

**Result** Returns path or error.

### Description

This is a native path. You can use Path.NativePathToFileMakerPath if you need to use path in a script step.

### Examples

Queries path:

MBS( "Folders.Windows" )

### See also

- 124.7 Path.NativePathToFileMakerPath

6255

Created 18th August 2014, last changed 18th March 2017.



# Chapter 83

## Font

Font functions.

### 83.1 Font.Activate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	2.6	Yes	Yes	No	No	No

MBS( "Font.Activate"; path; local )

#### Parameters

##### path

The native file path to the font file.  
"/Users/test/Desktop/test.ttf"

##### local

Pass 1 to activate only inside app or 0 for globally. You may need to use 0 in order to let FileMaker see the font when you restart.

0

**Result** Returns "OK" or error number from OS.

#### Description

It looks like FileMaker reads font list only on startup, so it may not react to loading this font.

#### Examples

Activate a font:

```
MBS( "Font.Activate"; "/Users/test/Desktop/test.ttf"; 1 )
```

**See also**

- 83.5 Font.Deactivate

## Example Databases

- [Utility functions/Load Fonts](#)

### 83.1.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr5](#)

Created 18th August 2014, last changed 13th July 2019.



## 83.2 Font.CalculateTextFits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	8.4	Yes	Yes	Yes	No	Yes

MBS( "Font.CalculateTextFits"; Text; MaxWidth { ; Font; Size } )

### Parameters

#### Text

The text to measure.

"Hello World"

#### MaxWidth

The maximum width.

100

#### Font

Optional

The font name. Using System font in case of empty parameter.

"Arial"

#### Size

Optional

The font size to use. Default is system font size.

12

**Result** Returns number or error.

### Description

The plugin will check how long the text would be in points.

Then we reduce text to see how much text fits in the space and return the length of the reminding space.

### Examples

Checks how much fits:

MBS( "Font.CalculateTextFits"; "Hello World"; 50; "Arial"; 12)

### See also

- [83.3 Font.CalculateTextHeight](#) 4255
- [83.4 Font.CalculateTextWidth](#) 4257

### 83.2.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)

- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 12nd September 2018, last changed 12nd September 2018.

## 83.3 Font.CalculateTextHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	8.4	Yes	Yes	Yes	No	Yes

MBS( "Font.CalculateTextHeight"; Text; Warp Width { ; Font; Size } )

### Parameters

#### Text

The text to measure.

"Hello World"

#### Warp Width

The width of the text block to use for wrapping. If <50 will be set to 50 to avoid endless loops.  
500

#### Font

Optional

The font name. Using System font in case of empty parameter.

"Arial"

#### Size

Optional

The font size to use. Default is system font size.

12

**Result** Returns number or error.

### Description

The plugin uses system font rendering to calculate height given your wrap width. This may be different from what FileMaker renders with it's own engine.

You can use the measured size to detect if text fits a field.

Mac result in logical points, but on Windows in pixels.

### Examples

Calculates text height for a given text:

MBS( "Font.CalculateTextHeight"; "Hello World. Just a test."; 100; "Arial"; 12 )

Example result: 36

### See also

- 83.2 Font.CalculateTextFits 4253
- 83.4 Font.CalculateTextWidth 4257

### Example Databases

- [Utility functions/Calculate Text Size](#)

### 83.3.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.4pr7](#)

Created 3th September 2018, last changed 16th November 2018.

## 83.4 Font.CalculateTextWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	6.5	Yes	Yes	Yes	No	Yes

MBS( "Font.CalculateTextWidth"; Text { ; Font; Size } )

### Parameters

#### Text

The text to measure.

"Hello World"

#### Font

Optional

The font name. Using System font in case of empty parameter.

"Arial"

#### Size

Optional

The font size to use. Default is system font size.

12

**Result** Returns number or error.

### Description

The plugin uses system font rendering to calculate width. This may be different from what FileMaker renders with it's own engine.

You can use the measured size to detect if text fits a field.

Mac result in logical points, but on Windows in pixels.

### Examples

Calculate width of Hello World:

```
MBS( "Font.CalculateTextWidth"; "Hello World" )
```

# e.g. 70.9 on Mac and 77 on Windows.

Calculate with Arial

```
MBS( "Font.CalculateTextWidth"; "Hello World"; "Arial"; 12 )
```

# e.g. 61 on Windows, 61,7 on Mac

### See also

- 83.2 Font.CalculateTextFits 4253
- 83.3 Font.CalculateTextHeight 4255

**Example Databases**

- [Utility functions/Calculate Text Size](#)
- [Utility functions/FontWidth](#)

**83.4.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr8](#)
- [Measure text length in FileMaker](#)
- [MBS FileMaker Plugin, version 6.5pr4](#)

Created 21st October 2016, last changed 16th November 2018.

## 83.5 Font.Deactivate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	2.6	Yes	Yes	No	No	No

MBS( "Font.Deactivate"; path; local )

### Parameters

#### path

The native file path to the font file.

"C:\test.fon"

#### local

Pass 1 to activate only inside app or 0 for globally.

0

**Result** Returns "OK" or error number from OS.

### Description

### Examples

Deactivate a font:

MBS( "Font.Deactivate"; "/Users/test/Desktop/test.ttf"; 1 )

### See also

- [83.1 Font.Activate](#)

4251

### Example Databases

- [Utility functions/Load Fonts](#)

### 83.5.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr5](#)

Created 18th August 2014, last changed 18th October 2016.

## 83.6 FontManager.FontFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	6.2	Yes	No	No	No	No

MBS( "FontManager.FontFile"; FontName )

### Parameters

#### FontName

The name of the font.

"Helvetica"

**Result** Returns path or error.

### Description

### Examples

Queries file path for Helvetica:

MBS( "FontManager.FontFile"; "Helvetica" )

Created 27th April 2016, last changed 27th April 2016.



## 83.7 FontManager.ListFontFamilies

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	5.1	Yes	Yes	No	No	Yes

MBS( "FontManager.ListFontFamilies" )

**Result** Returns list or error.

### Description

The list is not sorted, but you can sort it with List.Sort function.

### See also

- 105.36 List.Sort

5543

### 83.7.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr5](#)

Created 15th April 2015, last changed 12nd July 2019.

## 83.8 FontManager.ListFonts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
83 Font	5.1	Yes	Yes	No	No	No

MBS( "FontManager.ListFonts" { ; FamilyName } )

### Parameters

#### FamilyName

Optional

The family name whose fonts to query.

"Times"

**Result** Returns list or error.

### Description

The list is not sorted, but you can sort it with List.Sort function.

### Examples

List Arial fonts:

MBS( "FontManager.ListFonts"; "Arial")

### See also

- 105.36 List.Sort

5543

Created 15th April 2015, last changed 16th November 2018.

# Chapter 84

## FSEvents

File System Monitoring

Watch changes on folder or volume and get script triggered for changes. See DirectoryWatcher functions for Windows.

### 84.1 FSEvents.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

```
MBS( "FSEvents.Create"; PathList { ; sinceWhen; Flags; latency } )
```

#### Parameters

##### PathList

List of folders to watch. (or just one path)

\$path

##### sinceWhen

Optional

The event ID from where to start. Can be the latest ID you saw last time or you pass "now" to start with now.

"now"

##### Flags

Optional

The flags. Can be a combination of NoDefer, WatchRoot, IgnoreSelf, FileEvents or MarkSelf.

"IgnoreSelf,FileEvents"

##### latency

Optional

The latency.

2

**Result** Returns reference number or error.

### Description

Works on server and client.

May not work for network shared disks as most drivers don't pass through change events.

Flag values:

NoDefer = 2

Affects the meaning of the latency parameter. If you specify this flag and more than latency seconds have elapsed since the last event, your app will receive the event immediately. The delivery of the event resets the latency timer and any further events will be delivered after latency seconds have elapsed. This flag is useful for apps that are interactive and want to react immediately to changes but avoid getting swamped by notifications when changes are occurring in rapid succession. If you do not specify this flag, then when an event occurs after a period of no events, the latency timer is started. Any events that occur during the next latency seconds will be delivered as one group (including that first event). The delivery of the group of events resets the latency timer and any further events will be delivered after latency seconds. This is the default behavior and is more appropriate for background, daemon or batch processing apps.

WatchRoot = 4

Request notifications of changes along the path to the path(s) you're watching. For example, with this flag, if you watch `"/foo/bar"` and it is renamed to `"/foo/bar.old"`, you would receive a `RootChanged` event. The same is true if the directory `"/foo"` were renamed. The event you receive is a special event: the path for the event is the original path you specified, the flag `kFSEventStreamEventFlagRootChanged` is set and event ID is zero. `RootChanged` events are useful to indicate that you should rescan a particular hierarchy because it changed completely (as opposed to the things inside of it changing). If you want to track the current location of a directory, it is best to open the directory before creating the stream so that you have a file descriptor for it and can issue an `F_GETPATH` `fcntl()` to find the current path.

IgnoreSelf = 8

Don't send events that were triggered by the current process. This is useful for reducing the volume of events that are sent. It is only useful if your process might modify the file system hierarchy beneath the path(s) being monitored. Note: this has no effect on historical events, i.e., those delivered before the `HistoryDone` sentinel event. Also, this does not apply to `RootChanged` events because the `WatchRoot` feature uses a separate mechanism that is unable to provide information about the responsible process.

FileEvents = 16

Request file-level notifications. Your stream will receive events about individual files in the hierarchy you're watching instead of only receiving directory level notifications. Use this flag with care as it will generate significantly more events than without it.

MarkSel = 32

Tag events that were triggered by the current process with the "OwnEvent" flag. This is only useful if your process might modify the file system hierarchy beneath the path(s) being monitored and you wish to know which events were triggered by your process. Note: this has no effect on historical events, i.e., those delivered before the HistoryDone sentinel event.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Initializes FSEvents:

```

Delete All Records [ No dialog ]
Set Variable [ $path; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $sinceWhen; Value:"now" ]
If [ not IsEmpty(FSEvents::LastID) ]
Set Variable [ $sinceWhen; Value:FSEvents::LastID ]
End If
Set Variable [ $fstream; Value:MBS("FSEvents.Create"; $path; $sinceWhen; "IgnoreSelf, FileEvents, Watch-
Root"; 2) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; "Failed to create file system event monitor." ]
Else
Set Variable [ $r; Value:MBS("FSEvents.SetFilename"; $fstream; Get(FileName)) ]
Set Variable [ $r; Value:MBS("FSEvents.SetScriptName"; $fstream; "FSEventsNotification") ]
Set Variable [ $r; Value:MBS("FSEvents.Start"; $fstream) ]
If [ $r = 1 ]
Set Field [ FSEvents::StreamRef; $fstream ]
Else
Show Custom Dialog [ "Error"; "Failed to start file system event monitor." ]
Set Variable [ $r; Value:MBS("FSEvents.Release"; $fstream) ]
End If
End If

```

### See also

- 82.8 Folders.UserDesktop 4235
- 84.5 FSEvents.DeviceBeingWatched 4270
- 84.15 FSEvents.LastEventIdForDeviceBeforeTime 4280
- 84.17 FSEvents.NextEvent 4282
- 84.18 FSEvents.PathsBeingWatched 4286
- 84.19 FSEvents.Release 4287
- 84.22 FSEvents.SetFileName 4290

- 84.25 FSEvents.Start 4293
- 84.28 FSEvents.UUIDForDevice 4296
- 127.6 IsError 6374

### Example Databases

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 13th January 2020.

## 84.2 FSEvents.CreateRelativeToDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.CreateRelativeToDevice"; DeviceID; PathList; sinceWhen { ; Flags; latency } )

### Parameters

#### DeviceID

The device ID. Either a number or the path to a file/folder of that device.

"/"

#### PathList

List of folders to watch. (or just one path)

\$path

#### sinceWhen

The event ID from where to start. Can be the latest ID you saw last time or you pass "now" to start with now.

"now"

#### Flags

Optional

The flags. Can be a combination of NoDefer, WatchRoot, IgnoreSelf, FileEvents or MarkSelf.

"IgnoreSelf,FileEvents"

#### latency

Optional

The latency.

2

**Result** Returns reference number or error.

### Description

You can only pass one path in the pathList. Pass empty text there to watch the root of the device.

### Examples

Watch root device with root folder since now:

```
MBS("FSEvents.CreateRelativeToDevice"; "/" ; "" ; "now")
```

### See also

- 84.1 FSEvents.Create 4263
- 84.5 FSEvents.DeviceBeingWatched 4270
- 84.15 FSEvents.LastEventIdForDeviceBeforeTime 4280

Created 29th November 2015, last changed 6th August 2017.

### 84.3 FSEvents.CurrentEventId

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.CurrentEventId" )

**Result** Returns ID or error.

#### Description

Fetches the most recently generated event ID, system-wide (not just for one stream). By the time it is returned to your application even newer events may have already been generated.

#### Examples

Show current event ID:

Show Custom Dialog [ "Current event ID"; MBS( "FSEvents.CurrentEventId" ) ]

#### See also

- 84.16 FSEvents.LatestEventId

4281

Created 18th November 2015, last changed 13th March 2016.



## 84.4 FSEvents.Description

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Description" )

**Result** Returns text or error.

### Description

For debugging only.

Created 18th November 2015, last changed 19th November 2015.

## 84.5 FSEvents.DeviceBeingWatched

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.DeviceBeingWatched"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns number or error.

### Description

Only useful if created with FSEvents.CreateRelativeToDevice.

### See also

- 84.1 FSEvents.Create 4263
- 84.2 FSEvents.CreateRelativeToDevice 4267
- 84.18 FSEvents.PathsBeingWatched 4286

Created 29th November 2015, last changed 29th November 2015.

## 84.6 FSEvents.DeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.DeviceID"; Path )

### Parameters

#### Path

The path to the disk.

"/"

**Result** Returns ID or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query ID for root:

```
MBS( "FSEvents.DeviceID"; "/" )
```

Query ID for volume Test:

```
MBS( "FSEvents.DeviceID"; "/Volumes/Test" )
```

### See also

- 124.2 Path.FileMakerPathToNativePath

6247

Created 29th November 2015, last changed 12nd August 2017.

## 84.7 FSEvents.EventCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.EventCount"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns number or error.

### Description

#### Examples

Shows event count:

```
Show Custom Dialog [ "Current event count"; MBS( "FSEvents.EventCount"; $fsEvents ) ]
```

Created 18th November 2015, last changed 12nd August 2017.

## 84.8 FSEvents.FlushASync

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.FlushASync"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$stream

**Result** Returns ID or error.

### Description

Asks the FS Events service to flush out any events that have occurred but have not yet been delivered, due to the latency parameter that was supplied when the stream was created. This flushing occurs asynchronously – do not expect the events to have already been delivered by the time this call returns. FSEvents.FlushASync can only be called after the stream has been started, via FSEvents.Start.

### See also

- 84.9 FSEvents.FlushSync 4274
- 84.25 FSEvents.Start 4293

Created 18th November 2015, last changed 19th November 2015.

## 84.9 FSEvents.FlushSync

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.FlushSync"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns OK or error.

### Description

Asks the FS Events service to flush out any events that have occurred but have not yet been delivered, due to the latency parameter that was supplied when the stream was created. This flushing occurs synchronously – by the time this call returns, your callback will have been invoked for every event that had already occurred at the time you made this call. FSEvents.FlushSync can only be called after the stream has been started, via FSEvents.Start.

### Examples

Flush events:

MBS( "FSEvents.FlushSync"; \$FSEvents )

### See also

- 84.8 FSEvents.FlushASync 4273
- 84.25 FSEvents.Start 4293

Created 18th November 2015, last changed 13th March 2016.

## 84.10 FSEvents.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.2	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.GetEvaluate"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.  
\$fstream

**Result** Returns OK or error.

### Description

#### See also

- 84.20 FSEvents.SetEvaluate

4288

### 84.10.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

## 84.11 FSEvents.GetExclusionPaths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.GetExclusionPaths"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns list or error.

### Description

### See also

- 84.21 FSEvents.SetExclusionPaths

4289

Created 29th November 2015, last changed 29th November 2015.



## 84.12 FSEvents.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.GetFileName"; FSEventsRef )

### Parameters

#### **FSEventsRef**

The reference number for this FSEvents object.  
\$fstream

**Result** Returns text or error.

### Description

#### See also

- 84.13 FSEvents.GetScriptName 4278
- 84.22 FSEvents.SetFileName 4290

Created 18th November 2015, last changed 18th November 2015.

## 84.13 FSEvents.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.GetScriptName"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns text or error.

### Description

### See also

- 84.12 FSEvents.GetFileName 4277
- 84.23 FSEvents.SetScriptName 4291

Created 18th November 2015, last changed 18th November 2015.

## 84.14 FSEvents.HasNextEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.HasNextEvent"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns 0 or 1 or error.

### Description

Returns 1 if there is an event in the queue or zero if no event is there.

### See also

- [84.16 FSEvents.LatestEventId](#) 4281
- [84.17 FSEvents.NextEvent](#) 4282

### Example Databases

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 18th November 2015.

## 84.15 FSEvents.LastEventIdForDeviceBeforeTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.LastEventIdForDeviceBeforeTime"; Path; TimeStamp )

### Parameters

#### Path

The path to the disk.

"/"

#### TimeStamp

The timestamp to use.

**Result** Returns ID or error.

### Description

Gets the last event ID for the given device that was returned before the given time. This is conservative in the sense that if you then use the returned event ID as the sinceWhen parameter of FSEvents.CreateRelativeToDevice that you will not miss any events that happened since that time. On the other hand, you might receive some (harmless) extra events.

Beware: there are things that can cause this to fail to be accurate. For example, someone might change the system's clock (either backwards or forwards). Or an external drive might be used on different systems without perfectly synchronized clocks.

### Examples

Queries event ID for root device:

```
MBS( "FSEvents.LastEventIdForDeviceBeforeTime"; "/" ; Date( 1 ; 1 ; 2015 ) )
```

### See also

- 84.1 FSEvents.Create 4263
- 84.2 FSEvents.CreateRelativeToDevice 4267

Created 29th November 2015, last changed 12nd August 2017.

**84.16 FSEvents.LatestEventId**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.LatestEventId"; FSEventsRef )

**Parameters****FSEventsRef**

The reference number for this FSEvents object.

\$fstream

**Result** Returns ID or error.

**Description**

Fetches the sinceWhen property of the stream. Upon receiving an event (and just before invoking the client's callback) this attribute is updated to the highest-numbered event ID mentioned in the event.

**Examples**

Query last event ID:

MBS( "FSEvents.LatestEventId"; \$FSE )

**See also**

- 84.3 FSEvents.CurrentEventId 4268
- 84.14 FSEvents.HasNextEvent 4279

Created 18th November 2015, last changed 13th March 2016.

## 84.17 FSEvents.NextEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.NextEvent"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns event data or error.

### Description

Returns a list of values. First entry is the path, second entry the ID number for this event. Third is the flags value as number and forth as text values. This allows you to check for some values like "ItemCreated".

Flags that are returned for file system events.

It is important to note that event flags are simply hints about the sort of operations that occurred at that path.

Furthermore, the FSEvent stream should NOT be treated as a form of historical log that could somehow be replayed to arrive at the current state of the file system.

The FSEvent stream simply indicates what paths changed; and clients need to reconcile what is really in the file system with their internal data model - and recognize that what is actually in the file system can change immediately after you check it.

MustScanSubDirs = 1

Your application must rescan not just the directory given in the event, but all its children, recursively. This can happen if there was a problem whereby events were coalesced hierarchically. For example, an event in /Users/jsmith/Music and an event in /Users/jsmith/Pictures might be coalesced into an event with this flag set and path=/Users/jsmith. If this flag is set you may be able to get an idea of whether the bottleneck happened in the kernel (less likely) or in your client (more likely) by checking for the presence of the informational flags UserDropped or KernelDropped.

UserDropped = 2

KernelDropped = 4

The UserDropped or KernelDropped flags may be set in addition to the MustScanSubDirs flag to indicate that a problem occurred in buffering the events (the particular flag set indicates where the problem occurred) and that the client must do a full scan of any directories (and their subdirectories, recursively) being monitored by this stream. If you asked to monitor multiple paths with this stream then you will be notified about all of them. Your code need only check for the MustScanSubDirs flag; these flags (if present) only provide information to help you diagnose the problem.

EventIdsWrapped = 8

If `EventIdsWrapped` is set, it means the 64-bit event ID counter wrapped around. As a result, previously-issued event ID's are no longer valid arguments for the `sinceWhen` parameter of the `FSEvent.Create` function.

`HistoryDone = 16`

Denotes a sentinel event sent to mark the end of the "historical" events sent as a result of specifying a `sinceWhen` value in the `FSEvents.Create...`() call that created this event stream. (It will not be sent if `kFSEventStreamEventIdSinceNow` was passed for `sinceWhen`.) After invoking the client's callback with all the "historical" events that occurred before now, the client's callback will be invoked with an event where the `HistoryDone` flag is set. The client should ignore the path supplied in this callback.

`RootChanged = 32`

Denotes a special event sent when there is a change to one of the directories along the path to one of the directories you asked to watch. When this flag is set, the event ID is zero and the path corresponds to one of the paths you asked to watch (specifically, the one that changed). The path may no longer exist because it or one of its parents was deleted or renamed. Events with this flag set will only be sent if you passed the flag `kFSEvents.CreateFlagWatchRoot` to `FSEvents.Create` when you created the stream.

`Mount = 64`

Denotes a special event sent when a volume is mounted underneath one of the paths being monitored. The path in the event is the path to the newly-mounted volume. You will receive one of these notifications for every volume mount event inside the kernel (independent of `DiskArbitration`). Beware that a newly-mounted volume could contain an arbitrarily large directory hierarchy. Avoid pitfalls like triggering a recursive scan of a non-local filesystem, which you can detect by checking for the absence of the `MNT_LOCAL` flag in the `f_flags` returned by `statfs()`. Also be aware of the `MNT_DONTBROWSE` flag that is set for volumes which should not be displayed by user interface elements.

`Unmount = 128`

Denotes a special event sent when a volume is unmounted underneath one of the paths being monitored. The path in the event is the path to the directory from which the volume was unmounted. You will receive one of these notifications for every volume unmount event inside the kernel. This is not a substitute for the notifications provided by the `DiskArbitration` framework; you only get notified after the unmount has occurred. Beware that unmounting a volume could uncover an arbitrarily large directory hierarchy, although Mac OS X never does that.

`ItemCreated = 256`

A file system object was created at the specific path supplied in this event.  
(This flag is only ever set if you specified the `FileEvents` flag when creating the stream.)

`ItemRemoved = 512`

A file system object was removed at the specific path supplied in this event.  
(This flag is only ever set if you specified the `FileEvents` flag when creating the stream.)

`ItemInodeMetaMod = 1024`

A file system object at the specific path supplied in this event had its metadata modified.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemRenamed = 2048

A file system object was renamed at the specific path supplied in this event.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemModified = 4096

A file system object at the specific path supplied in this event had its data modified.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemFinderInfoMod = 8192

A file system object at the specific path supplied in this event had its FinderInfo data modified.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemChangeOwner = 16384

A file system object at the specific path supplied in this event had its ownership changed.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemXattrMod = 32768

A file system object at the specific path supplied in this event had its extended attributes modified.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemIsFile = 65536

The file system object at the specific path supplied in this event is a regular file.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemIsDir = 131072

The file system object at the specific path supplied in this event is a directory.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemIsSymlink = 262144

The file system object at the specific path supplied in this event is a symbolic link.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

OwnEvent = 524288

Indicates the event was triggered by the current process.

(This flag is only ever set if you specified the MarkSelf flag when creating the stream.)

ItemIsHardlink = 1048576

Indicates the object at the specified path supplied in this event is a hard link.

(This flag is only ever set if you specified the FileEvents flag when creating the stream.)



#### 84.17. *FSEVENTS.NEXTEVENT*

4285

ItemIsLastHardlink = 2097152

Indicates the object at the specific path supplied in this event was the last hard link.  
(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

ItemCloned = 4194304

The file system object at the specific path supplied in this event is a clone or was cloned.  
(This flag is only ever set if you specified the FileEvents flag when creating the stream.)

**See also**

- 77.93 Events.NewEvent 3667
- 84.1 FSEvents.Create 4263
- 84.14 FSEvents.HasNextEvent 4279

#### **Example Databases**

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 10th September 2017.

## 84.18 FSEvents.PathsBeingWatched

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.PathsBeingWatched"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns path list or error.

### Description

#### Examples

Query paths being watched:

```

Delete All Records [ No dialog ]
Set Variable [ $path; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $sinceWhen; Value:"now" ]
If [ not IsEmpty(FSEvents::LastID) ]
Set Variable [ $sinceWhen; Value:FSEvents::LastID ]
End If
Set Variable [ $fstream; Value:MBS("FSEvents.Create"; $path; $sinceWhen; "IgnoreSelf, FileEvents, Watch-Root"; 2) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; "Failed to create file system event monitor." ]
Else
Show Custom Dialog [ "Paths"; MBS( "FSEvents.PathsBeingWatched"; $fstream ) ]
....
End If

```

### See also

- 82.8 Folders.UserDesktop 4235
- 84.1 FSEvents.Create 4263
- 84.5 FSEvents.DeviceBeingWatched 4270
- 127.6 IsError 6374

Created 18th November 2015, last changed 13th March 2016.

## 84.19 FSEvents.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Release"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns OK or error.

### Description

### Examples

Release FSEvents object:

```
Set Variable [ $r; Value:MBS("FSEvents.Release"; $fstream) ]
```

### See also

- 84.1 FSEvents.Create

4263

### Example Databases

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 13th March 2016.

## 84.20 FSEvents.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.2	Yes	No	No	No	No

MBS( "FSEvents.SetEvaluate"; FSEventsRef; Expression )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the FSEventsRef, so you can pass it to other functions if needed.

### See also

- 84.10 FSEvents.GetEvaluate

4275

### 84.20.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 4th April 2018.

## 84.21 FSEvents.SetExclusionPaths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.SetExclusionPaths"; FSEventsRef; Paths )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

#### Paths

The list of directories to filter.

**Result** Returns 1, 0 or error.

### Description

A maximum of 8 directories maybe specified.

Requires OS X 10.9 or newer.

Returns 1 on success or 0 on failure.

### Examples

Pass two paths to ignore:

```
Set Variable [ $r; Value:MBS( "FSEvents.SetExclusionPaths"; $FSEvents; "/Backups$/Data/Temp" ) ]
```

### See also

- 84.11 FSEvents.GetExclusionPaths

4276

Created 29th November 2015, last changed 13th March 2016.

## 84.22 FSEvents.SetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	No	No	No

MBS( "FSEvents.SetFileName"; FSEventsRef; Filename )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

#### Filename

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

### Description

### Examples

Sets script to trigger:

```
Set Variable [ $r; Value:MBS("FSEvents.SetFilename"; $fstream; Get(FileName)) ]
```

```
Set Variable [ $r; Value:MBS("FSEvents.SetScriptName"; $fstream; "FSEventsNotification") ]
```

### See also

- 84.1 FSEvents.Create 4263
- 84.12 FSEvents.GetFileName 4277
- 84.23 FSEvents.SetScriptName 4291

Created 18th November 2015, last changed 29th March 2016.

## 84.23 FSEvents.SetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	No	No	No

MBS( "FSEvents.SetScriptName"; FSEventsRef; Scriptname )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

#### Scriptname

The new script name.

""

**Result** Returns OK or error.

### Description

The script trigger feature does not work with FileMaker server. Please schedule a script there to check regularly.

### Examples

Sets script to trigger:

```
Set Variable [ $r; Value:MBS("FSEvents.SetFilename"; $fstream; Get(FileName)) ]
```

```
Set Variable [ $r; Value:MBS("FSEvents.SetScriptName"; $fstream; "FSEventsNotification") ]
```

### See also

- [84.1 FSEvents.Create](#) 4263
- [84.13 FSEvents.GetScriptName](#) 4278
- [84.22 FSEvents.SetFileName](#) 4290

### Example Databases

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 29th March 2016.

## 84.24 FSEvents.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Show"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns OK or error.

### Description

For debugging only.

### See also

- 84.27 FSEvents.Stop

4295

Created 18th November 2015, last changed 19th November 2015.



## 84.25 FSEvents.Start

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Start"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns 1, 0 or error.

### Description

Returns 1 on success or 0 on failure.

Attempts to register with the FS Events service to receive events per the parameters in the stream.

Once started, the stream can be stopped via FSEvents.Stop.

### Examples

Start FSEvents:

```
Set Variable [ $r; Value:MBS("FSEvents.Start"; $fstream) ]
```

### See also

- [84.1 FSEvents.Create](#) 4263
- [84.8 FSEvents.FlushASync](#) 4273
- [84.9 FSEvents.FlushSync](#) 4274
- [84.26 FSEvents.Started](#) 4294
- [84.27 FSEvents.Stop](#) 4295

### Example Databases

- [Mac only/FSEvents](#)

Created 18th November 2015, last changed 13th March 2016.

## 84.26 FSEvents.Started

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Started"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$fstream

**Result** Returns 0, 1 or error.

### Description

Returns 1 if started, 0 if stopped.

### See also

- 84.25 FSEvents.Start

4293

Created 18th November 2015, last changed 18th November 2015.

## 84.27 FSEvents.Stop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	5.4	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.Stop"; FSEventsRef )

### Parameters

#### FSEventsRef

The reference number for this FSEvents object.

\$stream

**Result** Returns OK or error.

### Description

Unregisters with the FS Events service. The trigger will not be called for this stream while it is stopped. Stop can only be called if the stream has been started, via FSEvents.Start. Once stopped, the stream can be restarted via FSEvents.Start, at which point it will resume receiving events from where it left off ("sinceWhen").

### See also

- 84.24 FSEvents.Show 4292
- 84.25 FSEvents.Start 4293

Created 18th November 2015, last changed 19th November 2015.

## 84.28 FSEvents.UUIDForDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
84 FSEvents	6.0	Yes	No	Yes, macOS only	No	No

MBS( "FSEvents.UUIDForDevice" )

**Result** Returns UUID or error.

### Description

Returns empty text if not possible (for example, on read-only device).

A (non-empty) UUID uniquely identifies a given stream of FSEvents. If this (non-empty) UUID is different than one that you stored from a previous run then the event stream is different (for example, because FSEvents were purged, because the disk was erased, or because the event ID counter wrapped around back to zero). An empty return value indicates that "historical" events are not available, i.e., you should not supply a "sinceWhen" value to FSEvents.Create other than "now".

The UUID is returned as 32 hex characters.

### Examples

Queries UUID for root:

```
MBS( "FSEvents.UUIDForDevice"; "/" )
```

### See also

- 84.1 FSEvents.Create

4263

Created 29th November 2015, last changed 29th November 2015.

# Chapter 85

## GameKit

Functions for Game Center on MacOS and iOS

Please read documentation from Apple on the concept of Game Center. Your iOS/Mac app needs to be setup with Apple and get entitlements and signature.

### 85.1 GameKit.Achievement.Completed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.Completed"; AchievementRef )

#### Parameters

##### AchievementRef

The identifier for the achievement.

\$Achievement

**Result** Returns 1, 0 or error.

#### Description

A Boolean value that states whether the player has completed the achievement.

The value of this property is 1 if the percentComplete property is equal to 100.0; otherwise, it is 0.

#### See also

- 85.6 GameKit.Achievement.Player

4302

Created 5th November 2018, last changed 8th November 2018.

## 85.2 GameKit.Achievement.GetPercentComplete

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.GetPercentComplete"; AchievementRef )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

**Result** Returns number or error.

### Description

A percentage value that states how far the player has progressed on this achievement.

The default value for a newly initialized achievement object is 0.0. The range of legal values is between 0.0 and 100.0, inclusive. You decide how that percentage is calculated and when it changes. For example, if the player earns an achievement simply for discovering a location in your game, then you would simply report the achievement as 100 percent complete the first time you report progress to Game Center. On the other hand, for an achievement like “Capture 10 pirates”, your reporting mechanism increments by 10 percent each time the player captures a pirate.

### See also

- 85.7 GameKit.Achievement.SetPercentComplete 4303

Created 5th November 2018, last changed 8th November 2018.

## 85.3 GameKit.Achievement.GetShowsCompletionBanner

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.GetShowsCompletionBanner"; AchievementRef )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

**Result** Returns 1, 0 or error.

### Description

A Boolean value that states whether a banner is displayed when the achievement is completed.

When an achievement is completed and the value of this property is 1, a notification banner is displayed to the player to inform them of the completed achievement. If the value of this property is 0, there is no visual indication that the achievement is completed. Your game should set this property to 0 to provide its own visual indicator that the achievement was earned. The default value is 0.

### See also

- 85.8 GameKit.Achievement.SetShowsCompletionBanner

4304

Created 5th November 2018, last changed 8th November 2018.

## 85.4 GameKit.Achievement.LastReportedDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.LastReportedDate"; AchievementRef )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

**Result** Returns timestamp or error.

### Description

The last time that progress on the achievement was successfully reported to Game Center.

On a newly initialized achievement object, this property holds the current date.

### Examples

Query last reported date:

MBS( "GameKit.Achievement.LastReportedDate"; "de.mbsplugins.test")

Created 5th November 2018, last changed 8th November 2018.



## 85.5 GameKit.Achievement.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.New"; Identifier { ; Player } )

### Parameters

#### Identifier

The identifier for the achievement.

#### Player

Optional

The identifier for the player.

**Result** Returns achievement identifier or error.

### Description

Your game initializes a new achievement object only when it has not previously reported progress for that achievement. If your game has previously reported progress on an achievement, you should first retrieve the current progress by calling the GameKit.LoadAchievements function.

The identifier string should be a reverse DNS style string, such as "com.mycompany.myapplication.myactivity". Zero-length strings are not allowed.

### Examples

Make new achievement:

```
MBS( "GameKit.Achievement.New"; "de.mbsplugins.test")
```

### See also

- 85.6 GameKit.Achievement.Player 4302
- 85.61 GameKit.LoadAchievements 4357

Created 5th November 2018, last changed 8th November 2018.

## 85.6 GameKit.Achievement.Player

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.Player"; AchievementRef )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

**Result** Returns player identifier or error.

### Description

#### See also

- 85.1 GameKit.Achievement.Completed 4297
- 85.5 GameKit.Achievement.New 4301

Created 5th November 2018, last changed 8th November 2018.

## 85.7 GameKit.Achievement.SetPercentComplete

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.SetPercentComplete"; AchievementRef; Value )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

#### Value

The new percent value.

100

**Result** Returns OK or error.

### Description

A percentage value that states how far the player has progressed on this achievement.

The default value for a newly initialized achievement object is 0.0. The range of legal values is between 0.0 and 100.0, inclusive. You decide how that percentage is calculated and when it changes. For example, if the player earns an achievement simply for discovering a location in your game, then you would simply report the achievement as 100 percent complete the first time you report progress to Game Center. On the other hand, for an achievement like “Capture 10 pirates”, your reporting mechanism increments by 10 percent each time the player captures a pirate.

### See also

- 85.2 GameKit.Achievement.GetPercentComplete

4298

Created 5th November 2018, last changed 8th November 2018.

## 85.8 GameKit.Achievement.SetShowsCompletionBanner

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Achievement.SetShowsCompletionBanner"; AchievementRef; Value )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

#### Value

The new boolean value. Pass 1 to show or 0 to hide banner.

**Result** Returns OK or error.

### Description

A Boolean value that states whether a banner is displayed when the achievement is completed.

When an achievement is completed and the value of this property is 1, a notification banner is displayed to the player to inform them of the completed achievement. If the value of this property is 0, there is no visual indication that the achievement is completed. Your game should set this property to 0 to provide its own visual indicator that the achievement was earned. The default value is 0.

### See also

- 85.3 GameKit.Achievement.GetShowsCompletionBanner

4299

Created 5th November 2018, last changed 8th November 2018.

## 85.9 GameKit.AchievementDescription.AchievedDescription

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.AchievedDescription"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns text or error.

### Description

A localized description to be used after the local player has completed the achievement.

### See also

- 85.18 GameKit.AchievementDescription.UnachievedDescription

4314

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.10 GameKit.AchievementDescription.GroupIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.GroupIdentifier"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns group identifier or error.

### Description

The identifier for the group the achievement description is part of.

If your game is configured to be part of a game group in App Store Connect, this property holds the identifier you assigned to the achievement in the game group. If the game is not part of a game group, this property is empty.

Created 5th November 2018, last changed 8th November 2018.

## 85.11 GameKit.AchievementDescription.Hidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.Hidden"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns 1, 0 or error.

### Description

A Boolean value that states whether this achievement is initially visible to players.

If the value of this property is 0, this achievement is always visible to the player. If 1, the achievement is not displayed in any of the standard achievement user interface screens. It remains hidden until the first time your game reports progress towards completing this achievement.

### See also

- 85.12 GameKit.AchievementDescription.Image 4308
- 85.14 GameKit.AchievementDescription.MaximumPoints 4310
- 85.16 GameKit.AchievementDescription.Replayable 4312
- 85.17 GameKit.AchievementDescription.Title 4313

Created 5th November 2018, last changed 8th November 2018.

## 85.12 GameKit.AchievementDescription.Image

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.Image"; AchievementDescriptionRef { ; Filename; Type } )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

Loading and displaying achievements using a custom interface is a two-step process, with the first step being to call the GameKit.LoadAchievementDescriptions function. The second step is to call the GameKit.AchievementDescription.Image function for each achievement the user has completed. Your game should display the placeholder image until the image is successfully downloaded.

### See also

- 85.11 GameKit.AchievementDescription.Hidden 4307
- 85.16 GameKit.AchievementDescription.Replayable 4312
- 85.17 GameKit.AchievementDescription.Title 4313
- 85.60 GameKit.LoadAchievementDescriptions 4356

Created 8th November 2018, last changed 8th November 2018.



## 85.13 GameKit.AchievementDescription.IncompleteAchievementImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.IncompleteAchievementImage" { ; Filename; Type } )

### Parameters

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

### See also

- 85.15 GameKit.AchievementDescription.PlaceholderCompletedAchievementImage 4311

Created 5th November 2018, last changed 8th November 2018.

## 85.14 GameKit.AchievementDescription.MaximumPoints

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.MaximumPoints"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns number or error.

### Description

The number of points the player earns by completing this achievement.

### See also

- 85.11 GameKit.AchievementDescription.Hidden

4307

Created 5th November 2018, last changed 8th November 2018.

## 85.15 GameKit.AchievementDescription.PlaceholderCompletedAchievementImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.PlaceholderCompletedAchievementImage" { ; Filename; Type } )

### Parameters

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

When an achievement is completed, your game can display this image until the custom image for an achievement finishes loading.

### See also

- 85.13 GameKit.AchievementDescription.IncompleteAchievementImage

4309

Created 5th November 2018, last changed 8th November 2018.

## 85.16 GameKit.AchievementDescription.Replayable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.Replayable"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns 1, 0 or error.

### Description

A Boolean value that states whether this achievement can be earned multiple times.

If the value of this property is 0, then the achievement may only be earned once. After the achievement is earned, Game Center ignores any further progress submitted for it. If the value of this property is 1, then the achievement is considered earned each time your game reports progress to Game Center that completes the achievement. This means that any appropriate banners are displayed to the player again, challenges based on the achievement are completed, and so on.

### See also

- 85.11 GameKit.AchievementDescription.Hidden 4307
- 85.12 GameKit.AchievementDescription.Image 4308
- 85.17 GameKit.AchievementDescription.Title 4313

Created 5th November 2018, last changed 28th November 2019.

## 85.17 GameKit.AchievementDescription.Title

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.Title"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns title text or error.

### Description

#### See also

- 85.11 GameKit.AchievementDescription.Hidden 4307
- 85.12 GameKit.AchievementDescription.Image 4308
- 85.16 GameKit.AchievementDescription.Replayable 4312
- 85.60 GameKit.LoadAchievementDescriptions 4356

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.18 GameKit.AchievementDescription.UnachievedDescription

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AchievementDescription.UnachievedDescription"; AchievementDescriptionRef )

### Parameters

#### AchievementDescriptionRef

The identifier for the achievement description.

\$AchievementDescription

**Result** Returns text or error.

### Description

A localized description of the achievement to be used when the local player has not completed the achievement.

### See also

- 85.9 GameKit.AchievementDescription.AchievedDescription 4305

Created 5th November 2018, last changed 8th November 2018.

## 85.19 GameKit.AnonymousGuestPlayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.AnonymousGuestPlayer"; guestIdentifier )

### Parameters

#### guestIdentifier

A developer created text used to identify the guest player.  
"OtherPlayer"

**Result** Returns player identifier or error.

### Description

This method is used to create a new player object for a guest player. Treat the guest player the same as a authenticated user in regards to matchmaking services.

Created 5th November 2018, last changed 8th November 2018.

## 85.20 GameKit.Challenge.Achievement

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.Achievement"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns achievement identifier or error.

### Description

A challenge sent to another player urging them to complete a specific achievement.

Only for achievement challenges.

Created 5th November 2018, last changed 8th November 2018.



## 85.21 GameKit.Challenge.CompletionDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.CompletionDate"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns date or error.

### Description

If the challenge is not complete, this value is empty.

Created 5th November 2018, last changed 8th November 2018.

## 85.22 GameKit.Challenge.Decline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.Decline"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns OK or error.

### Description

If your game implements a custom user interface to display challenges, it should include controls that allow a player to decline a challenge. If the player uses your user interface to decline a challenge, call this method.

#### See also

- 85.25 GameKit.Challenge.Message 4321
- 85.27 GameKit.Challenge.Score 4323
- 85.28 GameKit.Challenge.State 4324

Created 5th November 2018, last changed 8th November 2018.

**85.23 GameKit.Challenge.IssueDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.IssueDate"; ChallengeRef )

**Parameters****ChallengeRef**

The identifier for the challenge.

\$challenge

**Result** Returns date or error.

**Description****See also**

- 85.24 GameKit.Challenge.IssuingPlayer 4320
- 85.25 GameKit.Challenge.Message 4321
- 85.28 GameKit.Challenge.State 4324

Created 5th November 2018, last changed 8th November 2018.

## 85.24 GameKit.Challenge.IssuingPlayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.IssuingPlayer"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns player identifier or error.

### Description

The player identifier associated with the player who issued the challenge.

### See also

- 85.23 GameKit.Challenge.IssueDate 4319
- 85.26 GameKit.Challenge.ReceivingPlayer 4322

Created 5th November 2018, last changed 8th November 2018.

**85.25 GameKit.Challenge.Message**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.Message"; ChallengeRef )

**Parameters****ChallengeRef**

The identifier for the challenge.

\$challenge

**Result** Returns text or error.

**Description****See also**

- 85.22 GameKit.Challenge.Decline 4318
- 85.23 GameKit.Challenge.IssueDate 4319
- 85.27 GameKit.Challenge.Score 4323
- 85.28 GameKit.Challenge.State 4324

Created 5th November 2018, last changed 8th November 2018.

## 85.26 GameKit.Challenge.ReceivingPlayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.ReceivingPlayer"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns player identifier or error.

### Description

Queries the player identifier associated with the player who received the challenge.

### See also

- 85.24 GameKit.Challenge.IssuingPlayer

4320

Created 5th November 2018, last changed 8th November 2018.

**85.27 GameKit.Challenge.Score**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.Score"; ChallengeRef )

**Parameters****ChallengeRef**

The identifier for the challenge.

\$challenge

**Result** Returns score identifier or error.

**Description**

Only for score challenges.

**See also**

- 85.22 GameKit.Challenge.Decline 4318
- 85.25 GameKit.Challenge.Message 4321
- 85.28 GameKit.Challenge.State 4324

Created 5th November 2018, last changed 8th November 2018.

## 85.28 GameKit.Challenge.State

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Challenge.State"; ChallengeRef )

### Parameters

#### ChallengeRef

The identifier for the challenge.

\$challenge

**Result** Returns state or error.

### Description

Possible values:

Invalid	An error occurred. The state of this challenge is not valid.
Pending	The challenge has been issued, but is not yet completed nor declined.
Completed	The receiving player successfully completed the challenge.
Declined	The receiving player declined the challenge.

### See also

- 85.22 GameKit.Challenge.Decline 4318
- 85.23 GameKit.Challenge.IssueDate 4319
- 85.25 GameKit.Challenge.Message 4321
- 85.27 GameKit.Challenge.Score 4323

Created 5th November 2018, last changed 8th November 2018.



**85.29 GameKit.DefaultLeaderboardIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.DefaultLeaderboardIdentifier" )

**Result** Returns category ID or error.

**Description**

Returns the category ID string for the local player's default leaderboard.

**See also**

- 85.87 GameKit.Score.LeaderboardIdentifier 4383
- 85.95 GameKit.SetDefaultLeaderboardIdentifier 4391

Created 5th November 2018, last changed 8th November 2018.

## 85.30 GameKit.GameCenterView.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.Dismiss" )

**Result** Returns OK or error.

**Description**

**See also**

- 85.34 GameKit.GameCenterView.Initialize 4330
- 85.35 GameKit.GameCenterView.Present 4331

Created 5th November 2018, last changed 8th November 2018.

## 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.GetLeaderboardIdentifier" )

**Result** Returns leaderboard identifier or error.

### Description

The named leaderboard that is displayed by the view controller.

### See also

- 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope 4328
- 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier 4332
- 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope 4333

Created 5th November 2018, last changed 8th November 2018.

## 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.GetLeaderboardTimeScope" )

**Result** Returns value or error.

### Description

A filter used to restrict the search to scores that were posted within a specific period of time. Can be "Week", "Today" or "AllTime".

### See also

- 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier 4327
- 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier 4332
- 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope 4333

Created 5th November 2018, last changed 8th November 2018.

## 85.33 GameKit.GameCenterView.GetViewState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.GetViewState" )

**Result** Returns state or error.

### Description

The content displayed by the Game Center controller.

When you first present the Game Center view controller, the content displayed by the view controller is determined by this property. If the player navigates to different content, the view state is automatically updated. For example, to preserve the player's selections, you can read the viewState property after the screen is dismissed, and set that value the next time you initialize the view controller.

Value can be Default, Leaderboards, Achievements or Challenges.

### See also

- 85.39 GameKit.GameCenterView.SetViewState 4335

Created 5th November 2018, last changed 8th November 2018.

## 85.34 GameKit.GameCenterView.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.Initialize" )

**Result** Returns OK or error.

### Description

The Game Center view provides a single user interface used to display achievements and leaderboards supported by Game Center.

### See also

- 85.30 GameKit.GameCenterView.Dismiss 4326

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.35 GameKit.GameCenterView.Present

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.Present" )

**Result** Returns OK or error.

### Description

For iOS this is full screen and for MacOS on the current window.

### See also

- 85.30 GameKit.GameCenterView.Dismiss

4326

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.SetLeaderboardIdentifier"; leaderboardIdentifier )

### Parameters

#### leaderboardIdentifier

The leaderboard identifier for the leaderboard to use.

**Result** Returns OK or error.

### Description

The named leaderboard that is displayed by the view controller.

The leaderboardIdentifier property must either be empty or it must match a leaderboard identifier you defined when you created your leaderboards in App Store Connect. If empty, the view displays scores for the aggregate leaderboard. Default is empty.

When the leaderboard is presented, the value of this property determines which leaderboard content is displayed to the player. As the player changes which leaderboard content they view, the leaderboardIdentifier property is automatically updated. For example, to preserve the player's selections, you can read the leaderboardIdentifier property after the screen is dismissed, and set that value the next time you initialize the view controller.

### See also

- 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier 4327
- 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope 4328
- 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope 4333

Created 5th November 2018, last changed 8th November 2018.



## 85.37 GameKit.GameCenterView.SetLeaderboardTimeScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.SetLeaderboardTimeScope"; Scope )

### Parameters

#### Scope

The new time scope. Can be Today, Week or AllTime.

"Week"

**Result** Returns OK or error.

### Description

A filter used to restrict the search to scores that were showed within a specific period of time.

Can be "Week", "Today" or "AllTime".

This property determines which tab view of the scores screen is displayed to the player. The default value is AllTime, which shows the best score each player has earned. For more information on time scopes, see Leaderboard functions.

When the leaderboard is presented, the value of this property determines the initial tab that is displayed to the player. As the player changes which tab they view, the leaderboardTimeScope property is automatically updated. For example, to preserve the player's selections, you can read the leaderboardTimeScope property after the screen is dismissed, and set that value the next time you initialize the view controller.

### See also

- 85.31 GameKit.GameCenterView.GetLeaderboardIdentifier 4327
- 85.32 GameKit.GameCenterView.GetLeaderboardTimeScope 4328
- 85.36 GameKit.GameCenterView.SetLeaderboardIdentifier 4332

Created 5th November 2018, last changed 8th November 2018.

## 85.38 GameKit.GameCenterView.SetScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.SetScriptTrigger"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

#### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.39 GameKit.GameCenterView.SetViewState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.SetViewState"; ViewState )

### Parameters

#### ViewState

The view state to use. Can be Leaderboards, Achievements, Challenges or Default. "Leaderboards"

**Result** Returns OK or error.

### Description

The content displayed by the Game Center controller.

When you first present the Game Center view controller, the content displayed by the view controller is determined by this property. If the player navigates to different content, the view state is automatically updated. For example, to preserve the player's selections, you can read the viewState property after the screen is dismissed, and set that value the next time you initialize the view controller.

Value can be Default, Leaderboards, Achievements or Challenges.

### See also

- 85.33 GameKit.GameCenterView.GetViewState

4329

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.40 GameKit.GameCenterView.ShowBannerWithTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.GameCenterView.ShowBannerWithTitle"; Title; Message { ; Duration } )

### Parameters

#### Title

The title for the banner.

#### Message

A secondary message to be displayed.

#### Duration

Optional

The amount of time that the banner should be displayed to the player. In seconds.

5

**Result** Returns OK or error.

### Description

Optional for a specified period of time.

Created 5th November 2018, last changed 8th November 2018.

## 85.41 GameKit.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Initialize" )

**Result** Returns OK or error.

### Description

Loads the framework, setups script triggers and loads local player.  
Must be called once before doing any other method.

### Examples

Initialize GameKit:

```
# Try to init GameKit
Set Variable [ $r ; Value: MBS( "GameKit.Initialize" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to initialize GameKit." ; $r ]
Exit Script [ Text Result: ]
End If
# Set script to call when player changes
Set Variable [ $r ; Value: MBS( "GameKit.SetPlayerDidChangeScriptTrigger"; Get(FileName); "Player-Changed" ) ]
# Login if needed
If [ MBS( "GameKit.LocalPlayer.isAuthenticated" ) = 0 ]
# Show Login dialog
Set Variable [ $r ; Value: MBS( "GameKit.LocalPlayer.Authenticate" ) ]
End If
```

### See also

- [85.66 GameKit.LocalPlayer](#) 4362
- [85.67 GameKit.LocalPlayer.Authenticate](#) 4363
- [85.70 GameKit.LocalPlayer.isAuthenticated](#) 4366
- [85.96 GameKit.SetPlayerDidChangeScriptTrigger](#) 4392
- [127.6 IsError](#) 6374

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.42 GameKit.Leaderboard.GetPlayerScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.GetPlayerScope"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns value or error.

### Description

A filter used to restrict the search to a subset of the players on Game Center.

The `playerScope` property is ignored if the leaderboard request was initialized using the player identifiers list. Otherwise, the `playerScope` property determines which players are included in the request for high scores. The default is `Global`.

Value can be `FriendsOnly` or `Global`.

### See also

- 85.44 GameKit.Leaderboard.GetTimeScope 4340
- 85.49 GameKit.Leaderboard.LocalPlayerScore 4345
- 85.53 GameKit.Leaderboard.SetPlayerScope 4349
- 85.55 GameKit.Leaderboard.SetTimeScope 4351

Created 5th November 2018, last changed 8th November 2018.

## 85.43 GameKit.Leaderboard.GetRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.GetRange"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns range values or error.

### Description

Returns list of two values, first is start value and second is length.

### See also

- 85.44 GameKit.Leaderboard.GetTimeScope 4340
- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.44 GameKit.Leadersboard.GetTimeScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leadersboard.GetTimeScope"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns value or error.

### Description

A filter used to restrict the search to scores that were posted within a specific period of time. Can be "Week", "Today" or "AllTime".

### See also

- 85.42 GameKit.Leadersboard.GetPlayerScope 4338
- 85.43 GameKit.Leadersboard.GetRange 4339
- 85.53 GameKit.Leadersboard.SetPlayerScope 4349
- 85.55 GameKit.Leadersboard.SetTimeScope 4351

Created 5th November 2018, last changed 8th November 2018.



## 85.45 GameKit.Leaderboard.GroupIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.GroupIdentifier"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns group identifier or error.

### Description

If your game was configured to be part of a group in App Store Connect, this property holds the identifier you assigned to the group.

### See also

- 85.57 GameKit.LeaderboardSet.GroupIdentifier 4353

Created 5th November 2018, last changed 8th November 2018.

## 85.46 GameKit.Leaderboard.Image

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.Image"; LeaderboardIdentifier { ; Filename; Type } )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

### See also

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.51 GameKit.Leaderboard.New 4347
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.47 GameKit.Leadersboard.LoadScores

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leadersboard.LoadScores"; LeadersboardIdentifier )

### Parameters

#### LeadersboardIdentifier

The identifier of the leadersboard.

**Result** Returns list of score identifiers or error.

### Description

#### See also

- 85.48 GameKit.Leadersboard.Loading 4344
- 85.49 GameKit.Leadersboard.LocalPlayerScore 4345
- 85.50 GameKit.Leadersboard.MaxRange 4346
- 85.52 GameKit.Leadersboard.Scores 4348
- 85.56 GameKit.Leadersboard.Title 4352

Created 5th November 2018, last changed 8th November 2018.

## 85.48 GameKit.Leaderboard.Loading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.Loading"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns 1, 0 or error.

### Description

A Boolean value that indicates whether the leaderboard object is retrieving scores.

The value of the loading property is 1 if the leaderboard object has any pending requests for scores.

### See also

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.46 GameKit.Leaderboard.Image 4342
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.49 GameKit.Leaderboard.LocalPlayerScore

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.LocalPlayerScore"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns score identifier or error.

### Description

This property is invalid until a call to GameKit.Leaderboard.LoadScores is completed. Afterward, it contains a score object representing the local player's score on the leaderboard given the filters you applied to the query.

### See also

- 85.42 GameKit.Leaderboard.GetPlayerScope 4338
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.53 GameKit.Leaderboard.SetPlayerScope 4349

Created 5th November 2018, last changed 8th November 2018.

## 85.50 GameKit.Leaderboard.MaxRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.MaxRange"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns number or error.

### Description

This property is invalid until a call to GameKit.Leaderboard.LoadScores is completed. Afterward, it contains the total number of entries available to return to your game given the filters you applied to the query.

### See also

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.51 GameKit.Leaderboard.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.New" { ; playerIdentifiers } )

### Parameters

#### playerIdentifiers

Optional

The list of player identifiers.

**Result** Returns leaderboard identifier or error.

### Description

If player list is given, returns an identifier for the leaderboard object initialized with this method ignores the playerScope and range properties. Instead, it retrieves scores for the specific list of players whose player identifiers are included in the players parameter.

If no player list is given, a leaderboard object initialized with this method uses the playerScope, timeScope, and range properties to search Game Center for scores.

### See also

- 85.46 GameKit.Leaderboard.Image 4342
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.56 GameKit.Leaderboard.Title 4352

### 85.51.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.52 GameKit.Leaderboard.Scores

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.Scores"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns list of score identifiers or error.

### Description

An array of score objects that contains the scores returned by the search.

This property is invalid until a call to GameKit.Leaderboard.LoadScores is completed. Afterward, it contains the same score objects that were returned to the completion handler.

### See also

- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.47 GameKit.Leaderboard.LoadScores 4343
- 85.51 GameKit.Leaderboard.New 4347
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.56 GameKit.Leaderboard.Title 4352

Created 5th November 2018, last changed 8th November 2018.



## 85.53 GameKit.Leadersboard.SetPlayerScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leadersboard.SetPlayerScope"; LeaderboardIdentifier; Value )

### Parameters

#### LeaderboardIdentifier

The identifier of the leadersboard.

#### Value

The new scope value. Can be Global or FriendsOnly.  
"global"

**Result** Returns OK or error.

### Description

#### See also

- 85.42 GameKit.Leadersboard.GetPlayerScope 4338
- 85.44 GameKit.Leadersboard.GetTimeScope 4340
- 85.49 GameKit.Leadersboard.LocalPlayerScore 4345
- 85.55 GameKit.Leadersboard.SetTimeScope 4351

Created 5th November 2018, last changed 8th November 2018.

## 85.54 GameKit.Leaderboard.SetRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.SetRange"; LeaderboardIdentifier; Start; Length )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

#### Start

The new start value of the range.

1

#### Length

The new length value of the range.

10

**Result** Returns OK or error.

### Description

The range property is ignored if the leaderboard request was initialized using the player list option. Otherwise, the range property is used to filter which scores are returned to your game. For example, if you specified a range of [ 1,10 ] , after the search is complete, your game receives the best ten scores. The default range is [ 1,25 ] .

The minimum index is 1. The maximum length is 100.

### See also

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.52 GameKit.Leaderboard.Scores 4348
- 85.55 GameKit.Leaderboard.SetTimeScope 4351
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.55 GameKit.Leaderboard.SetTimeScope

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.SetTimeScope"; LeaderboardIdentifier; TimeScope )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

#### TimeScope

Can be "Week", "Today" or "AllTime".

"Week"

**Result** Returns OK or error.

### Description

A filter used to restrict the search to scores that were posted within a specific period of time.

Can be "Week", "Today" or "AllTime".

### See also

- 85.42 GameKit.Leaderboard.GetPlayerScope 4338
- 85.44 GameKit.Leaderboard.GetTimeScope 4340
- 85.53 GameKit.Leaderboard.SetPlayerScope 4349
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.58 GameKit.LeaderboardSet.Image 4354
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

## 85.56 GameKit.Leaderboard.Title

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Leaderboard.Title"; LeaderboardIdentifier )

### Parameters

#### LeaderboardIdentifier

The identifier of the leaderboard.

**Result** Returns text or error.

### Description

If you initialized a new leaderboard object, this property is invalid until a call to `GameKit.Leaderboard.LoadScores` is complete. Afterward, it contains the localized title for the leaderboard identified by the category property.

### See also

- 85.43 `GameKit.Leaderboard.GetRange` 4339
- 85.46 `GameKit.Leaderboard.Image` 4342
- 85.48 `GameKit.Leaderboard.Loading` 4344
- 85.47 `GameKit.Leaderboard.LoadScores` 4343
- 85.50 `GameKit.Leaderboard.MaxRange` 4346
- 85.51 `GameKit.Leaderboard.New` 4347
- 85.52 `GameKit.Leaderboard.Scores` 4348
- 85.54 `GameKit.Leaderboard.SetRange` 4350
- 85.58 `GameKit.LeaderboardSet.Image` 4354
- 85.59 `GameKit.LeaderboardSet.Title` 4355

Created 5th November 2018, last changed 8th November 2018.

**85.57 GameKit.LeaderboardSet.GroupIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LeaderboardSet.GroupIdentifier"; LeaderboardSetIdentifier )

**Parameters****LeaderboardSetIdentifier**

The identifier of the leaderboard set.

**Result** Returns group identifier or error.

**Description****See also**

- 85.45 GameKit.Leaderboard.GroupIdentifier

4341

Created 5th November 2018, last changed 8th November 2018.

## 85.58 GameKit.LeaderboardSet.Image

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LeaderboardSet.Image"; LeaderboardSetIdentifier { ; Filename; Type } )

### Parameters

#### LeaderboardSetIdentifier

The identifier of the leaderboard set.

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

### See also

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.55 GameKit.Leaderboard.SetTimeScope 4351
- 85.56 GameKit.Leaderboard.Title 4352
- 85.59 GameKit.LeaderboardSet.Title 4355

Created 5th November 2018, last changed 8th November 2018.

**85.59 GameKit.LeaderboardSet.Title**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LeaderboardSet.Title"; LeaderboardSetIdentifier )

**Parameters****LeaderboardSetIdentifier**

The identifier of the leaderboard set.

**Result** Returns text or error.

**Description****See also**

- 85.43 GameKit.Leaderboard.GetRange 4339
- 85.46 GameKit.Leaderboard.Image 4342
- 85.48 GameKit.Leaderboard.Loading 4344
- 85.50 GameKit.Leaderboard.MaxRange 4346
- 85.54 GameKit.Leaderboard.SetRange 4350
- 85.55 GameKit.Leaderboard.SetTimeScope 4351
- 85.56 GameKit.Leaderboard.Title 4352
- 85.58 GameKit.LeaderboardSet.Image 4354

Created 5th November 2018, last changed 8th November 2018.

## 85.60 GameKit.LoadAchievementDescriptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadAchievementDescriptions" )

**Result** Returns achievement descriptions list or error.

**Description**

**See also**

- 85.12 GameKit.AchievementDescription.Image 4308
- 85.17 GameKit.AchievementDescription.Title 4313

**Example Databases**

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.



## 85.61 GameKit.LoadAchievements

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadAchievements" )

**Result** Returns OK or error.

### Description

Loads previously submitted achievement progress for the local player from Game Center.

### See also

- 85.5 GameKit.Achievement.New 4301
- 85.77 GameKit.ReportAchievements 4373
- 85.81 GameKit.ResetAchievements 4377

Created 5th November 2018, last changed 8th November 2018.

## 85.62 GameKit.LoadLeaderboardSets

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadLeaderboardSets" )

**Result** Returns list of leaderboard set identifiers or error.

**Description**

**See also**

- 85.63 GameKit.LoadLeaderboards

4359

Created 5th November 2018, last changed 8th November 2018.

## 85.63 GameKit.LoadLeaderboards

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadLeaderboards"; LeaderboardSetIdentifier )

### Parameters

#### LeaderboardSetIdentifier

The identifier of the leaderboard set.

**Result** Returns leaderboard identifier list or error.

### Description

#### See also

- 85.62 GameKit.LoadLeaderboardSets

4358

Created 5th November 2018, last changed 27th January 2019.

## 85.64 GameKit.LoadPlayers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadPlayers" )

**Result** Returns list of player identifiers or error.

**Description**

**See also**

- 85.66 GameKit.LocalPlayer

4362

Created 5th November 2018, last changed 8th November 2018.

## 85.65 GameKit.LoadReceivedChallenges

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LoadReceivedChallenges" )

**Result** Returns list or error.

### Description

Returns list of challenge identifiers or error.

Created 5th November 2018, last changed 8th November 2018.

## 85.66 GameKit.LocalPlayer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer" )

**Result** Returns player identifier or error.

### Description

You never directly create a local player object. Instead, you retrieve the Singleton object by calling this function.

Identifier changes when authenticated, but the plugin can always use local player if you pass "localplayer" as player identifier.

### See also

- 85.41 GameKit.Initialize 4337
- 85.64 GameKit.LoadPlayers 4360
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364
- 85.69 GameKit.LocalPlayer.ClearAuthenticateHandler 4365
- 85.70 GameKit.LocalPlayer.isAuthenticated 4366
- 85.89 GameKit.Score.Player 4385

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.67 GameKit.LocalPlayer.Authenticate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer.Authenticate" )

**Result** Returns OK or error.

### Description

Your game should authenticate the player as early as possible after launching, ideally as soon as you can present a user interface to the player. For example, your game may be launched because the player accepted an invitation to join a match or to take a turn in a turn-based match, so you want your game to authenticate the player and process the match invitation as quickly as possible. After you set a handler, authentication begins automatically and is repeated when your game moves to the background and then back to the foreground.

Check later status via `GameKit.LocalPlayer.isAuthenticated` and `GameKit.LocalPlayer.AuthenticateError` functions.

### Examples

Login if needed:

```
If [ MBS( "GameKit.LocalPlayer.isAuthenticated" ) = 0 ]
# Show Login dialog
Set Variable [ $r ; Value: MBS( "GameKit.LocalPlayer.Authenticate" ) ]
End If
```

### See also

- 85.41 `GameKit.Initialize` 4337
- 85.66 `GameKit.LocalPlayer` 4362
- 85.68 `GameKit.LocalPlayer.AuthenticateError` 4364
- 85.69 `GameKit.LocalPlayer.ClearAuthenticateHandler` 4365
- 85.70 `GameKit.LocalPlayer.isAuthenticated` 4366

Created 5th November 2018, last changed 8th November 2018.

## 85.68 GameKit.LocalPlayer.AuthenticateError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer.AuthenticateError" )

**Result** Returns error text or nothing.

### Description

Set by GameKit.LocalPlayer.Authenticate function.

### See also

- [85.66 GameKit.LocalPlayer](#) 4362
- [85.67 GameKit.LocalPlayer.Authenticate](#) 4363
- [85.69 GameKit.LocalPlayer.ClearAuthenticateHandler](#) 4365
- [85.70 GameKit.LocalPlayer.isAuthenticated](#) 4366

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.



## 85.69 GameKit.LocalPlayer.ClearAuthenticateHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer.ClearAuthenticateHandler" )

**Result** Returns OK or error.

### Description

Once cleared, the authenticate dialog is no longer coming when needed. You can call GameKit.LocalPlayer.Authenticate again to authenticate later.

### See also

- 85.66 GameKit.LocalPlayer 4362
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364

Created 8th November 2018, last changed 8th November 2018.

## 85.70 GameKit.LocalPlayer.isAuthenticated

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer.isAuthenticated" )

**Result** Returns 1, 0 or error.

### Description

A Boolean value that indicates whether a local player is currently signed in to Game Center.

### Examples

Login if needed:

```
If [ MBS( "GameKit.LocalPlayer.isAuthenticated" ) = 0 ]
# Show Login dialog
Set Variable [ $r ; Value: MBS( "GameKit.LocalPlayer.Authenticate" ) ]
End If
```

### See also

- 85.41 GameKit.Initialize 4337
- 85.66 GameKit.LocalPlayer 4362
- 85.67 GameKit.LocalPlayer.Authenticate 4363
- 85.68 GameKit.LocalPlayer.AuthenticateError 4364

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.71 GameKit.LocalPlayer.isUnderage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.LocalPlayer.isUnderage" )

**Result** Returns 1, 0 or error.

### Description

A Boolean value that declares whether the local player is underage.

Some Game Center features are disabled if the local player is underage. Your game can also test this property if it wants to disable some of its own features based on the player's age.

### Example Databases

- [iOS/GameCenter](#)

Created 5th November 2018, last changed 8th November 2018.

## 85.72 GameKit.Player.Alias

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Player.Alias"; PlayerID )

### Parameters

#### PlayerID

The player identifier.

\$player

**Result** Returns alias name or error.

### Description

A string chosen by the player to identify themselves to other players.

### See also

- 85.75 GameKit.Player.Photo

4371

Created 5th November 2018, last changed 8th November 2018.

## 85.73 GameKit.Player.DisplayName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Player.DisplayName"; PlayerID )

### Parameters

#### PlayerID

The player identifier.

\$player

**Result** Returns name or error.

### Description

Returns the string to display for the player.

The display name for a player depends on whether the player is a friend of the local player authenticated on the device. If the player is a friend of the local player, then the display name is the actual name of the player. If the player is not a friend, then the display name is the player's alias.

Created 5th November 2018, last changed 8th November 2018.

## 85.74 GameKit.Player.GuestIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Player.GuestIdentifier"; PlayerID )

### Parameters

#### PlayerID

The player identifier.

\$player

**Result** Returns text or error.

### Description

A developer created string used to identify a guest player.

Created 5th November 2018, last changed 8th November 2018.

## 85.75 GameKit.Player.Photo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Player.Photo"; PlayerID { ; Filename; Type } )

### Parameters

#### PlayerID

The player identifier.

\$player

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns image container or error.

### Description

### See also

- 85.72 GameKit.Player.Alias

4368

Created 5th November 2018, last changed 8th November 2018.

## 85.76 GameKit.RecentPlayers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.RecentPlayers" )

**Result** Returns player identifiers or error.

### Description

This method retrieves an array of players who have previously played with the local player or any players that are on the local player's legacy friends list.

Created 5th November 2018, last changed 8th November 2018.



## 85.77 GameKit.ReportAchievements

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ReportAchievements"; achievementIdentifiers )

### Parameters

#### achievementIdentifiers

The list of achievement identifiers.

**Result** Returns OK or error.

### Description

Use this class method whenever you need to submit one or more achievement updates at the same time. Calling this method reports each of the achievements in the array. Processing multiple achievements at once allows the entire operation to be processed more efficiently.

### See also

- 85.61 GameKit.LoadAchievements 4357
- 85.81 GameKit.ResetAchievements 4377

Created 5th November 2018, last changed 8th November 2018.

## 85.78 GameKit.ReportAchievementsWithEligibleChallenges

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ReportAchievementsWithEligibleChallenges"; challengeIdentifiers; achievementIdentifiers )

### Parameters

#### **challengeIdentifiers**

The list of challenge identifiers.

#### **achievementIdentifiers**

The list of achievement identifiers.

**Result** Returns OK or error.

### Description

Reports a list of achievements and limits the challenges those achievements may complete.

### See also

- 85.80 GameKit.ReportScoresWithEligibleChallenges

4376

Created 5th November 2018, last changed 8th November 2018.

## 85.79 GameKit.ReportScores

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ReportScores"; scoreIdentifiers )

### Parameters

#### scoreIdentifiers

The list of score identifiers.

**Result** Returns OK or error.

### Description

Use this function whenever you need to submit scores to Game Center, whether you are reporting a single score or multiple scores. The method runs through the array of Score identifiers, submitting scores one at a time.

Created 5th November 2018, last changed 8th November 2018.

## 85.80 GameKit.ReportScoresWithEligibleChallenges

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ReportScoresWithEligibleChallenges"; challengeIdentifiers; scoreIdentifiers )

### Parameters

#### **challengeIdentifiers**

The list of challenge identifiers.

#### **scoreIdentifiers**

The list of score identifiers.

**Result** Returns OK or error.

### Description

### See also

- 85.78 GameKit.ReportAchievementsWithEligibleChallenges 4374

Created 5th November 2018, last changed 8th November 2018.

**85.81 GameKit.ResetAchievements**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ResetAchievements" )

**Result** Returns OK or error.

**Description**

Calling this class method deletes all progress towards achievements previously reported for the local player. Hidden achievements that were previously visible are now hidden again.

**See also**

- 85.61 GameKit.LoadAchievements 4357
- 85.77 GameKit.ReportAchievements 4373

Created 5th November 2018, last changed 8th November 2018.

## 85.82 GameKit.Score.Date

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.Date"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns timestamp or error.

### Description

When you initialize the new score object, the date property is automatically set to the current date and time.

### See also

- 85.88 GameKit.Score.New 4384
- 85.89 GameKit.Score.Player 4385
- 85.90 GameKit.Score.Rank 4386

Created 5th November 2018, last changed 8th November 2018.

## 85.83 GameKit.Score.FormattedValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.FormattedValue"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns text or error.

### Description

This property is invalid on a newly initialized score object. On a score returned from GameKit, it contains a formatted string based on the player's score. You determine how a score is formatted when you define the leaderboard in App Store Connect.

Never convert the value property into a string directly; always use this method to receive the formatted string.

Created 5th November 2018, last changed 8th November 2018.

## 85.84 GameKit.Score.GetContext

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.GetContext"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns number or error.

### Description

An integer value used by your game.

The context property is stored and returned to your game, but is otherwise ignored by Game Center. It allows your game to associate an arbitrary 64-bit unsigned integer value with the score data reported to Game Center. You decide how this integer value is interpreted by your game. For example, you might use the context property to store flags that provide game-specific details about a player's score, or you might use the context as a key to other data stored on the device or on your own server. The context is most useful when your game displays a custom leaderboard user interface.

### See also

- 85.86 GameKit.Score.GetValue 4382
- 85.91 GameKit.Score.SetContext 4387

Created 5th November 2018, last changed 8th November 2018.



## 85.85 GameKit.Score.GetShouldSetDefaultLeaderboard

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.GetShouldSetDefaultLeaderboard"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns 1, 0 or error.

### Description

A Boolean value that indicates whether this score should also update the default leaderboard.

If the value of this property is true, when the score is reported to Game Center, Game Center also updates the local player's default leaderboard to match the value stored in the leaderboardIdentifier property of the score object.

If the value of this property is false, the default leaderboard is not changed by reporting the score. The default value of this property is false.

### See also

- 85.92 GameKit.Score.SetShouldSetDefaultLeaderboard

4388

Created 5th November 2018, last changed 8th November 2018.

## 85.86 GameKit.Score.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.GetValue"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns value or error.

### Description

The score earned by the player.

You can use any algorithm you want to calculate scores in your game. Your game must set the value property before reporting a score, otherwise an error is returned.

The value provided by a score object is interpreted by Game Center only when formatted for display. You determine how your scores are formatted when you define the leaderboard in App Store Connect.

### See also

- 85.84 GameKit.Score.GetContext 4380
- 85.93 GameKit.Score.SetValue 4389

Created 5th November 2018, last changed 8th November 2018.

## 85.87 GameKit.Score.LeaderboardIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.LeaderboardIdentifier"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns leaderboard identifier or error.

### Description

#### See also

- 85.29 GameKit.DefaultLeaderboardIdentifier 4325
- 85.95 GameKit.SetDefaultLeaderboardIdentifier 4391

Created 5th November 2018, last changed 8th November 2018.

## 85.88 GameKit.Score.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.New"; LeaderboardIdentifier { ; PlayerIdentifier } )

### Parameters

#### LeaderboardIdentifier

The identifier for the leaderboard for this score.

#### PlayerIdentifier

Optional

The player identifier, if not the current one.

**Result** Returns score identifier or error.

### Description

Returns score identifier for a new score object for the specified leaderboard and optional player.

Your game explicitly allocates and initializes a score object using the designated player and current date when it needs to report a new score to Game Center.

### See also

- 85.82 GameKit.Score.Date 4378
- 85.89 GameKit.Score.Player 4385
- 85.90 GameKit.Score.Rank 4386

Created 5th November 2018, last changed 8th November 2018.

## 85.89 GameKit.Score.Player

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.Player"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns player identifier or error.

### Description

When you initialize a new score object, the player property is set to the identifier for the local player. If the score object was returned to your game by loading scores from Game Center, the player property identifies the player who recorded that score.

### See also

- 85.66 GameKit.LocalPlayer 4362
- 85.82 GameKit.Score.Date 4378
- 85.88 GameKit.Score.New 4384
- 85.90 GameKit.Score.Rank 4386

Created 5th November 2018, last changed 8th November 2018.

## 85.90 GameKit.Score.Rank

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.Rank"; ScoreIdentifier )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

**Result** Returns number or error.

### Description

The value of this property is only valid on score objects returned from Game Center. The rank property represents the position of the score in the returned results, with 1 being the best score, 2 being the second best, and so on.

### See also

- 85.82 GameKit.Score.Date 4378
- 85.88 GameKit.Score.New 4384
- 85.89 GameKit.Score.Player 4385

Created 5th November 2018, last changed 8th November 2018.

## 85.91 GameKit.Score.SetContext

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.SetContext"; ScoreIdentifier; Value )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

#### Value

The new context value. This is a 64-bit number you can store with the score.

**Result** Returns OK or error.

### Description

An integer value used by your game.

The context property is stored and returned to your game, but is otherwise ignored by Game Center. It allows your game to associate an arbitrary 64-bit unsigned integer value with the score data reported to Game Center. You decide how this integer value is interpreted by your game. For example, you might use the context property to store flags that provide game-specific details about a player's score, or you might use the context as a key to other data stored on the device or on your own server. The context is most useful when your game displays a custom leaderboard user interface.

### See also

- 85.84 GameKit.Score.GetContext 4380
- 85.93 GameKit.Score.SetValue 4389

Created 5th November 2018, last changed 8th November 2018.

## 85.92 GameKit.Score.SetShouldSetDefaultLeaderboard

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.SetShouldSetDefaultLeaderboard"; ScoreIdentifier; Value )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

#### Value

The new value. Pass 1 to update default leaderboard or 0 if not.

1

**Result** Returns OK or error.

### Description

A Boolean value that indicates whether this score should also update the default leaderboard.

If the value of this property is true, when the score is reported to Game Center, Game Center also updates the local player's default leaderboard to match the value stored in the leaderboardIdentifier property of the score object.

If the value of this property is false, the default leaderboard is not changed by reporting the score. The default value of this property is false.

### See also

- 85.85 GameKit.Score.GetShouldSetDefaultLeaderboard 4381

Created 5th November 2018, last changed 8th November 2018.



## 85.93 GameKit.Score.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.Score.SetValue"; ScoreIdentifier; Value )

### Parameters

#### ScoreIdentifier

The identifier for the score object.

#### Value

The new score value.

**Result** Returns OK or error.

### Description

The score earned by the player.

You can use any algorithm you want to calculate scores in your game. Your game must set the value property before reporting a score, otherwise an error is returned.

The value provided by a score object is interpreted by Game Center only when formatted for display. You determine how your scores are formatted when you define the leaderboard in App Store Connect.

### See also

- 85.86 GameKit.Score.GetValue 4382
- 85.91 GameKit.Score.SetContext 4387

Created 5th November 2018, last changed 8th November 2018.

## 85.94 GameKit.SelectChallengeablePlayers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.SelectChallengeablePlayers"; AchievementRef; playerIdentifiers )

### Parameters

#### AchievementRef

The identifier for the achievement.

\$Achievement

#### playerIdentifiers

The list of player identifiers.

**Result** Returns player identifier list or error.

### Description

The list of players is used to find those players that are eligible to earn the achievement.

Created 5th November 2018, last changed 8th November 2018.

**85.95 GameKit.SetDefaultLeaderboardIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.SetDefaultLeaderboardIdentifier"; leaderboardIdentifier )

**Parameters****leaderboardIdentifier**

The new default leaderboard identifier.

**Result** Returns OK or error.

**Description**

The default leaderboard is configured in App Store Connect as part of configuring your game's leaderboards. All players normally start with this leaderboard as the default leaderboard. Calling this method changes the default leaderboard only for the local player.

**See also**

- 85.29 GameKit.DefaultLeaderboardIdentifier 4325
- 85.87 GameKit.Score.LeaderboardIdentifier 4383

Created 5th November 2018, last changed 8th November 2018.

## 85.96 GameKit.SetPlayerDidChangeScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.SetPlayerDidChangeScriptTrigger"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Script is called when player changed.

### Examples

Set script to call when player changes:

```
Set Variable [ $r ; Value: MBS( "GameKit.SetPlayerDidChangeScriptTrigger"; Get(Filename); "Player-Changed" ) ]
```

### See also

- 85.41 GameKit.Initialize

4337

Created 5th November 2018, last changed 8th November 2018.

## 85.97 GameKit.ShowChallengeComposeDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
85 GameKit	8.5	Yes	No	No	No	Yes

MBS( "GameKit.ShowChallengeComposeDialog"; scoreRef or AchievementRef; Message; playerIdentifiers { ; Filename; ScriptName } )

### Parameters

#### scoreRef or AchievementRef

The score or achievement identifier.

#### Message

The message text.

#### playerIdentifiers

The list of player identifiers.

#### Filename

Optional

The database file name where the script is located.

"test.fmp12"

#### ScriptName

Optional

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Provides a challenge compose view controller with pre-selected player identifiers and a pre-formatted, player-editable message.

Once dialog finishes, the given script is triggered and passed either didIssueChallenge or cancel as parameter.

Created 5th November 2018, last changed 8th November 2018.



# Chapter 86

## GUIImage

Image functions to convert between image formats and apply effects.

### 86.1 GUIImage.ReadFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
86 GUIImage	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "GUIImage.ReadFromContainer"; ImageRef; data { ; Geometry; Depth; Magick } )

#### Parameters

##### ImageRef

The image reference number.

1

##### data

A value from a Container Field.

##### Geometry

Optional

The rectangle. Geometry is specified as a width and height "100x200". Can be empty.

##### Depth

Optional

Color depth parameter.

0

##### Magick

Optional

The codec to use to read file.

**Result** Returns OK or error.

**Description**

This allows you to set options before reading in image.

You may want to use `GMImage.SetBackgroundColor`, `GMImage.SetMagick`, `GMImage.SetFilename` or other settings before calling this.

**Examples**

Convert a SVG image to PNG with alpha channel:

```
# Load image from container
Set Variable [ $image ; Value: MBS( "GMImage.New"; "500x500"; "transparent" ) ]
# turn on alpha channel and set background to transparent
Set Variable [ $r ; Value: MBS( "GMImage.SetType"; $image; 7 ) ]
Set Variable [ $r ; Value: MBS( "GMImage.SetBackgroundColor"; $Image; "transparent" ) ]
# read SVG
Set Variable [ $r ; Value: MBS( "GMImage.ReadFromContainer"; $image; SVG to PNG::InputFile; "500x500";
0; "SVG" ) ]
# Output to container and release image
Set Field [ SVG to PNG::OutputFile ; MBS( "GMImage.WriteToPNGContainer"; $image; "test.png" ) ]
Set Variable [ $r ; Value: MBS("GMImage.Free"; $image) ]
```

**See also**

- 87.81 `GMImage.Free` 4517
- 87.191 `GMImage.New` 4642
- 87.193 `GMImage.NewFromContainer` 4646
- 87.196 `GMImage.NewImagesFromContainer` 4651
- 87.212 `GMImage.Read` 4671
- 87.233 `GMImage.SetBackgroundColor` 4701
- 87.252 `GMImage.SetFileName` 4725
- 87.335 `GMImage.WriteToContainer` 4829
- 87.340 `GMImage.WriteToPNGContainer` 4840
- 49.5 `PKCS12.ReadFromContainer` 1384

**Example Databases**

- [GraphicsMagick/SVG to PNG](#)



### 86.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Convert a SVG image to PNG with alpha channel](#)

Created 7th April 2020, last changed 7th April 2020.



# Chapter 87

## GraphicsMagick

Image functions to convert between image formats and apply effects.

### 87.1 GImage.AdaptiveThreshold

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AdaptiveThreshold"; ImageRef; Width; height { ; offset } )

#### Parameters

##### ImageRef

The image reference number.

1

##### Width

defines the size of the pixel neighborhood

100

##### height

defines the size of the pixel neighborhood

100

##### offset

Optional

Optional, constant to subtract from pixel neighborhood mean

0

**Result** Returns "OK" on success.

#### Description

**See also**

- 87.237 GImage.SetCacheThreshold

Created 18th August 2014, last changed 18th August 2014.

## 87.2 GImage.AddNoise

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddNoise"; ImageRef; noiseType )

### Parameters

#### ImageRef

The image reference number.

1

#### noiseType

UniformNoise = 0, GaussianNoise = 1, MultiplicativeGaussianNoise = 2, ImpulseNoise = 3, LaplacianNoise = 4, PoissonNoise = 5.

0

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

### 87.3 GImage.AddNoiseChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddNoiseChannel"; ImageRef; ChannelType; noiseType )

#### Parameters

##### ImageRef

The image reference number.

1

##### ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

##### noiseType

UniformNoise = 0, GaussianNoise = 1, MultiplicativeGaussianNoise = 2, ImpulseNoise = 3, LaplacianNoise = 4, PoissonNoise = 5.

0

**Result** Returns "OK" on success.

#### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.4 GImage.AddPathArcAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathArcAbs"; ImageRef; radiusX; radiusY; xAxisRotation; largeArcFlag; sweepFlag; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### radiusX

The radius in x direction.

100

#### radiusY

The radius in y direction.

100

#### xAxisRotation

The rotation value.

0

#### largeArcFlag

Pass 1 or 0 to decide if you want to draw larger arcs.

0

#### sweepFlag

Whether to draw the arc matching a clock-wise rotation.

0

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

Draws an elliptical arc from the current point to (x, y). The size and orientation of the ellipse are defined by two radii (radiusX, radiusY) and an xAxisRotation, which indicates how the ellipse as a whole is rotated relative to the current coordinate system. The center (cx, cy) of the ellipse is calculated automatically to satisfy the constraints imposed by the other parameters. largeArcFlag and sweepFlag contribute to the automatic calculations and help determine how the arc is drawn. If largeArcFlag is 1 then draw the larger of the available arcs. If sweepFlag is 1, then draw the arc matching a clock-wise rotation.

With absolute coordinate.

**See also**

- 87.5 GImage.AddPathArcRel 4405
- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.9 GImage.AddPathLinetoAbs 4412
- 87.15 GImage.AddPathMovetoAbs 4418

Created 18th August 2014, last changed 18th August 2014.



## 87.5 GImage.AddPathArcRel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathArcRel"; ImageRef; radiusX; radiusY; xAxisRotation; largeArcFlag; sweepFlag; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### radiusX

The radius in x direction.

100

#### radiusY

The radius in y direction.

100

#### xAxisRotation

The rotation value.

0

#### largeArcFlag

Pass 1 or 0 to decide if you want to draw larger arcs.

0

#### sweepFlag

Whether to draw the arc matching a clock-wise rotation.

0

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

Draws an elliptical arc from the current point to (x, y). The size and orientation of the ellipse are defined by two radii (radiusX, radiusY) and an xAxisRotation, which indicates how the ellipse as a whole is rotated relative to the current coordinate system. The center (cx, cy) of the ellipse is calculated automatically to satisfy the constraints imposed by the other parameters. largeArcFlag and sweepFlag contribute to the automatic calculations and help determine how the arc is drawn. If largeArcFlag is 1 then draw the larger of the available arcs. If sweepFlag is 1, then draw the arc matching a clock-wise rotation.

With relative coordinate.

**See also**

- 87.4 GImage.AddPathArcAbs 4403
- 87.8 GImage.AddPathCurvetoRel 4410
- 87.12 GImage.AddPathLinetoRel 4415
- 87.16 GImage.AddPathMovetoRel 4419

Created 18th August 2014, last changed 18th August 2014.

## 87.6 **GImage.AddPathClosePath**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathClosePath"; ImageRef )

### **Parameters**

#### **ImageRef**

The image reference number.

1

**Result** Returns OK or error.

### **Description**

Created 18th August 2014, last changed 18th August 2014.

## 87.7 GImage.AddPathCurvetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "GImage.AddPathCurvetoAbs"; ImageRef; x1; y1; x2; y2; x; y )
```

### Parameters

#### ImageRef

The image reference number.

1

#### x1

The first control point.

#### y1

The first control point.

#### x2

The second control point.

#### y2

The second control point.

#### x

Destination point coordinate.

#### y

Destination point coordinate.

**Result** Returns OK or error.

### Description

Draws a cubic Bézier curve from the current point to (x,\*y\*) using (x1,\*y1\*) as the control point at the beginning of the curve and (x2,\*y2\*) as the control point at the end of the curve. GImage.AddPathCurveToAbs indicates that absolute coordinates will follow; GImage.AddPathCurvetoRel indicates that relative coordinates will follow. Multiple sets of coordinates may be specified to draw a polybezier. At the end of the command, the new current point becomes the final (x,\*y\*) coordinate pair used in the polybezier.

### Examples

Draws a bezier curve:

```
$r = MBS("GImage.AddPathMovetoAbs"; $img; 100; 100 )
```

```
$r = MBS("GImage.AddPathCurvetoAbs"; $img; 100; 300; 300; 100; 300; 300 )
```

```
$r = MBS("GImage.DrawPath"; $img )
```

### See also

- 87.4 GImage.AddPathArcAbs

87.7. <i>GMIMAGE.ADDPATHCURVETOABS</i>	4409
• 87.8 <i>GMImage.AddPathCurvetoRel</i>	4410
• 87.9 <i>GMImage.AddPathLinetoAbs</i>	4412
• 87.12 <i>GMImage.AddPathLinetoRel</i>	4415
• 87.15 <i>GMImage.AddPathMovetoAbs</i>	4418
• 87.16 <i>GMImage.AddPathMovetoRel</i>	4419
• 87.19 <i>GMImage.AddPathSmoothCurvetoAbs</i>	4422
• 87.57 <i>GMImage.DrawPath</i>	4480

### **Example Databases**

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.8 GImage.AddPathCurvetoRel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathCurvetoRel"; ImageRef; x1; y1; x2; y2; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x1

The first control point.

#### y1

The first control point.

#### x2

The second control point.

#### y2

The second control point.

#### x

Destination point coordinate.

#### y

Destination point coordinate.

**Result** Returns OK or error.

### Description

Draws a cubic Bézier curve from the current point to (x,\*y\*) using (x1,\*y1\*) as the control point at the beginning of the curve and (x2,\*y2\*) as the control point at the end of the curve. GImage.AddPathCurve-toAbs indicates that absolute coordinates will follow; GImage.AddPathCurvetoRel indicates that relative coordinates will follow. Multiple sets of coordinates may be specified to draw a polybezier. At the end of the command, the new current point becomes the final (x,\*y\*) coordinate pair used in the polybezier.

### See also

- 87.5 GImage.AddPathArcRel 4405
- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.9 GImage.AddPathLinetoAbs 4412
- 87.12 GImage.AddPathLinetoRel 4415
- 87.15 GImage.AddPathMovetoAbs 4418
- 87.16 GImage.AddPathMovetoRel 4419

87.8. *GMIMAGE.ADDPATHCURVETOREL*

4411

- 87.20 *GImage.AddPathSmoothCurvetoRel*

4423

Created 18th August 2014, last changed 18th August 2014.

## 87.9 GImage.AddPathLinetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathLinetoAbs"; ImageRef; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

Draw a line from the current point to the given coordinate which becomes the new current point. Relative coordinates are used. At the end of the command, the new current point is set to the final set of coordinates provided.

### See also

- 87.4 GImage.AddPathArcAbs 4403
- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.8 GImage.AddPathCurvetoRel 4410
- 87.12 GImage.AddPathLinetoRel 4415
- 87.15 GImage.AddPathMovetoAbs 4418
- 87.16 GImage.AddPathMovetoRel 4419

### Example Databases

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.



## 87.10 GMImage.AddPathLinetoHorizontalAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathLinetoHorizontalAbs"; ImageRef; x )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The new x coordinate.

100

**Result** Returns OK or error.

### Description

GMImage.AddPathLinetoHorizontalAbs indicates that absolute coordinates are supplied. At the end of the command, the new current point becomes (x, cpy) for the final value of x

### See also

- 87.11 GMImage.AddPathLinetoHorizontalRel 4414
- 87.13 GMImage.AddPathLinetoVerticalAbs 4416

Created 18th August 2014, last changed 18th August 2014.

## 87.11 GImage.AddPathLinetoHorizontalRel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathLinetoHorizontalRel"; ImageRef; x )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The new relative x coordinate.

100

**Result** Returns OK or error.

### Description

GImage.AddPathLinetoHorizontalRel indicates that relative coordinates are supplied. At the end of the command, the new current point becomes (x, cpy) for the final value of x.

### See also

- 87.10 GImage.AddPathLinetoHorizontalAbs 4413
- 87.14 GImage.AddPathLinetoVerticalRel 4417

Created 18th August 2014, last changed 18th August 2014.

**87.12 GMImage.AddPathLinetoRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathLinetoRel"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The x coordinate.

10

**y**

The y coordinate.

10

**Result** Returns OK or error.

**Description**

Draw a line from the current point to the given coordinate which becomes the new current point. Relative coordinates are used. At the end of the command, the new current point is set to the final set of coordinates provided.

**See also**

- 87.5 GMImage.AddPathArcRel 4405
- 87.7 GMImage.AddPathCurvetoAbs 4408
- 87.8 GMImage.AddPathCurvetoRel 4410
- 87.9 GMImage.AddPathLinetoAbs 4412
- 87.15 GMImage.AddPathMovetoAbs 4418
- 87.16 GMImage.AddPathMovetoRel 4419

Created 18th August 2014, last changed 18th August 2014.

## 87.13 GImage.AddPathLinetoVerticalAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathLinetoVerticalAbs"; ImageRef; y )

### Parameters

#### ImageRef

The image reference number.

1

#### y

The new relative y coordinate.

100

**Result** Returns OK or error.

### Description

PathLinetoVerticalAbs indicates that absolute coordinates are supplied. At the end of the command, the new current point becomes (cpx, y) for the final value of y.

### See also

- 87.10 GImage.AddPathLinetoHorizontalAbs 4413
- 87.14 GImage.AddPathLinetoVerticalRel 4417

Created 18th August 2014, last changed 18th August 2014.

**87.14 GMImage.AddPathLinetoVerticalRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathLinetoVerticalRel"; ImageRef; y )

**Parameters****ImageRef**

The image reference number.

1

**y**

The new relative y coordinate.

100

**Result** Returns OK or error.

**Description**

GMImage.AddPathLinetoVerticalRel indicates that relative coordinates are supplied. At the end of the command, the new current point becomes (cpx, y) for the final value of y.

**See also**

- 87.11 GMImage.AddPathLinetoHorizontalRel 4414
- 87.13 GMImage.AddPathLinetoVerticalAbs 4416

Created 18th August 2014, last changed 18th August 2014.

## 87.15 GImage.AddPathMovetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathMovetoAbs"; ImageRef; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

#### See also

- 87.4 GImage.AddPathArcAbs 4403
- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.8 GImage.AddPathCurvetoRel 4410
- 87.9 GImage.AddPathLinetoAbs 4412
- 87.12 GImage.AddPathLinetoRel 4415
- 87.16 GImage.AddPathMovetoRel 4419

### Example Databases

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

**87.16 GMImage.AddPathMovetoRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathMovetoRel"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The x coordinate.

10

**y**

The y coordinate.

10

**Result** Returns OK or error.

**Description****See also**

- 87.5 GMImage.AddPathArcRel 4405
- 87.7 GMImage.AddPathCurvetoAbs 4408
- 87.8 GMImage.AddPathCurvetoRel 4410
- 87.9 GMImage.AddPathLinetoAbs 4412
- 87.12 GMImage.AddPathLinetoRel 4415
- 87.15 GMImage.AddPathMovetoAbs 4418

Created 18th August 2014, last changed 18th August 2014.

## 87.17 GImage.AddPathQuadraticCurvetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathQuadraticCurvetoAbs"; ImageRef; x1; y1; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x1

The first control point.

#### y1

The first control point.

#### x

The target point.

#### y

The target point.

**Result** Returns OK or error.

### Description

The quadratic Bézier commands depend on the argument x1/y1 and x/y.

#### See also

- 87.18 GImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GImage.AddPathSmoothCurvetoAbs 4422
- 87.21 GImage.AddPathSmoothQuadraticCurvetoAbs 4424
- 87.22 GImage.AddPathSmoothQuadraticCurvetoRel 4425

Created 18th August 2014, last changed 18th August 2014.



**87.18 GMImage.AddPathQuadraticCurvetoRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathQuadraticCurvetoRel"; ImageRef; x1; y1; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x1**

The first control point.

**y1**

The first control point.

**x**

The target point.

**y**

The target point.

**Result** Returns OK or error.

**Description**

The quadratic Bézier commands depend on the argument x1/y1 and x/y.

**See also**

- 87.17 GMImage.AddPathQuadraticCurvetoAbs 4420
- 87.20 GMImage.AddPathSmoothCurvetoRel 4423
- 87.21 GMImage.AddPathSmoothQuadraticCurvetoAbs 4424
- 87.22 GMImage.AddPathSmoothQuadraticCurvetoRel 4425

Created 18th August 2014, last changed 18th August 2014.

## 87.19 GImage.AddPathSmoothCurvetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathSmoothCurvetoAbs"; ImageRef; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

#### See also

- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.17 GImage.AddPathQuadraticCurvetoAbs 4420
- 87.20 GImage.AddPathSmoothCurvetoRel 4423
- 87.21 GImage.AddPathSmoothQuadraticCurvetoAbs 4424

Created 18th August 2014, last changed 18th August 2014.

**87.20 GMImage.AddPathSmoothCurvetoRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathSmoothCurvetoRel"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The x coordinate.

10

**y**

The y coordinate.

10

**Result** Returns OK or error.

**Description****See also**

- 87.8 GMImage.AddPathCurvetoRel 4410
- 87.18 GMImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GMImage.AddPathSmoothCurvetoAbs 4422
- 87.22 GMImage.AddPathSmoothQuadraticCurvetoRel 4425

Created 18th August 2014, last changed 18th August 2014.

## 87.21 GImage.AddPathSmoothQuadraticCurvetoAbs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AddPathSmoothQuadraticCurvetoAbs"; ImageRef; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate.

10

#### y

The y coordinate.

10

**Result** Returns OK or error.

### Description

#### See also

- 87.17 GImage.AddPathQuadraticCurvetoAbs 4420
- 87.18 GImage.AddPathQuadraticCurvetoRel 4421
- 87.19 GImage.AddPathSmoothCurvetoAbs 4422
- 87.22 GImage.AddPathSmoothQuadraticCurvetoRel 4425

Created 18th August 2014, last changed 18th August 2014.

**87.22 GMImage.AddPathSmoothQuadraticCurvetoRel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AddPathSmoothQuadraticCurvetoRel"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The x coordinate.

10

**y**

The y coordinate.

10

**Result** Returns OK or error.

**Description****See also**

- 87.17 GMImage.AddPathQuadraticCurvetoAbs 4420
- 87.18 GMImage.AddPathQuadraticCurvetoRel 4421
- 87.20 GMImage.AddPathSmoothCurvetoRel 4423
- 87.21 GMImage.AddPathSmoothQuadraticCurvetoAbs 4424

Created 18th August 2014, last changed 18th August 2014.

## 87.23 GImage.Affine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Affine"; ImageRef; sx; sy; rx; ry; tx; ty )

### Parameters

#### ImageRef

The image reference number.

1

#### sx

The x scale factors.

1

#### sy

The y scale factors.

1

#### rx

The x rotate factors.

0

#### ry

The y rotate factors.

0

#### tx

The x translation value.

0

#### ty

The y translation value.

0

**Result** Returns OK or error.

### Description

Specify a transformation matrix to adjust scaling, rotation, and translation (coordinate transformation) for subsequently drawn objects in the same or decendent drawing context. The sx & sy parameters represent the x & y scale factors, the rx & ry parameters represent the x & y rotation, and the tx & ty parameters represent the x & y translation:

#### See also

- 87.218 GImage.Resize

4681

Created 18th August 2014, last changed 18th August 2014.

## 87.24 GMImage.Annotate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Annotate"; ImageRef; text { ; boundingArea; gravity; degrees } )

### Parameters

#### ImageRef

The image reference number.

1

#### text

Some text

"Hello World"

#### boundingArea

Optional

The rectangle where to draw. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200%!"

"100x200+10+20"

#### gravity

Optional

The position of the text. Can be number of text value. Can be ForgetGravity=0, NorthWestGravity=1, NorthGravity=2, NorthEastGravity=3, WestGravity=4, CenterGravity=5, EastGravity=6, SouthWestGravity=7, SouthGravity=8, SouthEastGravity=9, StaticGravity=10.

"SouthWestGravity"

#### degrees

Optional

The rotation in degrees.

0

**Result** Returns "OK" on success.

### Description

Annotates an image with text. Optionally you can include any of the following bits of information about the image by embedding the appropriate special characters:

% b file size in bytes. % c comment. % d directory in which the image resides. % e extension of the image file. % f original filename of the image. % h height of image. % i filename of the image. % k number of unique colors. % l image label. % m image file format. % n number of images in a image sequence. % o output image filename. % p page number of the image. % q image depth (8 or 16). % p page number of the image. % q image depth (8 or 16). % s image scene number. % t image filename without any extension. % u a unique temporary filename. % w image width. % x x resolution of the image. % y y resolution of the image.

Set a font with full path and @ in front. e.g. "@/Library/Fonts/Arial.ttf". This way the plugin loads it directly.

Gravity values:

NorthWestGravity	1	text bottom-left corner placed at top-left
NorthGravity	2	text bottom-center placed at top-center
NorthEastGravity	3	text bottom-right corner placed at top-right
WestGravity	4	text left-center placed at left-center
CenterGravity	5	text center placed at center
EastGravity	6	text right-center placed at right-center
SouthWestGravity	7	text top-left placed at bottom-left
SouthGravity	8	text top-center placed at bottom-center
SouthEastGravity	9	text top-right placed at bottom-right
StaticGravity	10	static

You can pass empty text for parameters or not pass parameters. This function can work in 5 modes:

- Annotate with text using specified text, bounding area, placement gravity, and rotation.
- Annotate using specified text, bounding area, and placement gravity
- Annotate with text (bounding area is entire image) and placement gravity
- Annotate using specified text, and placement location
- Annotate with text (bounding area is entire image) and placement south

Depending on which parameters you specify or leave empty, we pick the best mode.

The function does not wrap text.

Please use `GMImage.FontTypeMetrics` to measure how much space text needs.

With version 8.3 or newer you can pass font names without file path, as we now recognize most standard fonts. Only for special fonts you need full path.

### Examples

Write three lines at 200/200 into the picture:

```
MBS( "GMImage.Annotate"; $ImageRef; "Hello\nWorld\nAgain"; "200x200"; 0; 0 )
```

Setup and write Hello:

```
MBS("GMImage.SetLineWidth"; $img; 1)
MBS("GMImage.SetStrokeColor"; $img; "RGB 0 0 0")
```



```
MBS("GImage.SetFont"; $img; "@/Library/Fonts/Arial.ttf")
MBS("GImage.SetfontPointSize"; $img; 14)
MBS("GImage.Annotate"; $img; "Hello World"; "+20+20")
```

For Windows use different font path:

```
MBS("GImage.SetFont"; $img; "@c:\Windows\Fonts\Tahoma.ttf")
MBS("GImage.Annotate"; $img; "Hello World"; "+20+20")
```

Load pictures, sets puts text on it in yellow and centered:

```
# load image from container
Set Variable [ $ref; Wert:MBS("GImage.NewFromContainer"; Annotate Image::InputImage) ]
# set font and font size
Set Variable [ $r; Wert:MBS("GImage.SetFontPointSize"; $ref; Annotate Image::FontSize) ]
Set Variable [ $r; Wert:MBS("GImage.SetFont"; $ref; Annotate Image::FontPath) ]
# set color to yellow
Set Variable [ $r; Wert:MBS("GImage.SetFillColor"; $ref; "RGB 1 1 0") ]
# draw in rectangle with width and height of image (here 640 by 480) centered.
Set Variable [ $r; Wert:MBS("GImage.Annotate"; $ref; Annotate Image::Text; "640x480"; "CenterGravity") ]
# save image
Set Field [ Annotate Image::OutputImage; MBS( "GImage.WriteToPNGContainer"; $ref ) ]
# and free memory
Set Variable [ $Error; Wert:MBS("GMImage.Release";$ref) ]
```

Text and gravity only:

```
MBS("GImage.Annotate"; $ref; Annotate Image::Text; ""; "SouthWestGravity")
```

Write text with Arial Black:

```
Set Variable [ $ref ; Value: MBS("GImage.NewFromContainer"; Annotate Image::InputImage) ]
Set Variable [ $r ; Value: MBS("GImage.SetFontPointSize"; $ref; 72) ]
Set Variable [ $r ; Value: MBS("GImage.SetFont"; $ref; "Arial Black") ]
Set Variable [ $r ; Value: MBS("GImage.SetFillColor"; $ref; "RGB 0 0 0") ]
Set Variable [ $r ; Value: MBS("GImage.Annotate"; $ref; "Hello World"; "100x200+10+80"; 1) ]
Set Field [ Annotate Image::OutputImage ; MBS( "GImage.WriteToPNGContainer"; $ref ) ]
Set Variable [ $Error ; Value: MBS("GMImage.Release";$ref) ]
```

Write Japanese text with unicode font and UTF-8 encoding:

```
# This script loads the original picture to an image environment set the settings for the font and write a
text on a picture. Then we save the image in a container.
#
Set Variable [ $ref ; Value: MBS("GImage.NewFromContainer"; Annotate Image::InputImage) ]
# Settings for the font
```

```

Set Variable [ $r ; Value: MBS("GImage.SetTextEncoding"; $ref; "UTF-8") ]
Set Variable [ $r ; Value: MBS("GImage.SetFontSize"; $ref; 40) ]
Set Variable [ $r ; Value: MBS("GImage.SetFont"; $ref; "ArialUnicodeMS") ]
Set Variable [ $r ; Value: MBS("GImage.SetFillColor"; $ref; "RGB 0 0 0") ]
# Write the text to the picture
Set Variable [ $r ; Value: MBS("GImage.Annotate"; $ref; "Hello "; "100x200+10+40"; 1) ]
Set Field [ Annotate Image::OutputImage ; MBS( "GImage.WriteToPNGContainer"; $ref ) ]
# Free image
Set Variable [ $Error ; Value: MBS("GImage.Free";$ref) ]

```

### See also

- [87.78 GImage.FontTypeMetrics](#) 4512
- [87.81 GImage.Free](#) 4517
- [87.191 GImage.New](#) 4642
- [87.193 GImage.NewFromContainer](#) 4646
- [87.214 GImage.Release](#) 4674
- [87.221 GImage.Rotate](#) 4685
- [87.253 GImage.SetFillColor](#) 4726
- [87.256 GImage.SetFont](#) 4730
- [87.264 GImage.SetLineWidth](#) 4739
- [87.294 GImage.SetTextEncoding](#) 4778

### Example Databases

- [GraphicsMagick/Annotate Image](#)

#### 87.24.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 7.4pr7](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)
- [MBS Filemaker Plugin, version 4.2pr9](#)

Created 18th August 2014, last changed 9th April 2020.

## 87.25 **GMImage.AutoOrient**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.AutoOrient"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

This allows the image to be viewed correctly when the orientation attribute is not available, or is not respected.

### 87.25.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 14th May 2019.

## 87.26 GImage.AveragePixelValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.AveragePixelValue"; ImageRef { ; X; Y; Width; Height } )

### Parameters

#### ImageRef

The image reference number.

1

#### X

Optional

X-Position of the rectangle.

\$left

#### Y

Optional

Y-Position of the rectangle.

\$top

#### Width

Optional

The width of the rectangle. Default is width of image.

\$width

#### Height

Optional

The height of the rectangle. Default is height of image.

\$height

**Result** Returns the average pixel value.

### Description

Value is in range from 0.0 to 1.0 depending if it is more black (0.0) or white (1.0).

Make sure the pixels are in RGB format before you call this method. (Use GImage.SetType with value 6.)

This function is designed to test if a certain area in the image is white or black.

Does not check alpha channel!

Version 9.1 and later uses full image if rectangle is missed.

### See also

- 87.296 GImage.SetType

4780

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)

### 87.26.1 Blog Entries

- [Create PDF from scanned images and skip blank pages](#)
- [MBS FileMaker Plugin, version 9.1pr4](#)
- [MBS Filemaker Plugin, version 3.0pr10](#)

Created 18th August 2014, last changed 18th February 2019.

**87.27 GImage.BaseColumns**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.BaseColumns"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number for the base image width (before transformations).

**Description****See also**

- 87.42 GImage.Columns

4455

Created 18th August 2014, last changed 18th August 2014.

## 87.28 **GMImage.BaseFilename**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.BaseFilename"; ImageRef )

### Parameters

#### **ImageRef**

The image reference number.

1

**Result** Returns a string.

### Description

#### See also

- 87.114 [GMImage.GetFileName](#) 4554
- 87.252 [GMImage.SetFileName](#) 4725

Created 18th August 2014, last changed 18th August 2014.

## 87.29 GImage.BaseRows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.BaseRows"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.



## 87.30 GMImage.Blur

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Blur"; ImageRef { ; radius; sigma } )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

Optional

Optional, The radius of the Gaussian, in pixels, not counting the center pixel.

0

#### sigma

Optional

Optional, The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Blurs image

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Blur"; $Image; 10; 5);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release"; $Image)
];
$Result)
```

### See also

- 87.70 GMImage.Flip 4500
- 87.76 GMImage.Flop 4509
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674

- [87.340 GImage.WriteToPNGContainer](#)

### Example Databases

- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.31 GMImage.BlurChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.BlurChannel"; ImageRef; ChannelType; radius; sigma )

### Parameters

#### ImageRef

The image reference number.

1

#### ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

#### radius

The radius of the Gaussian, in pixels, not counting the center pixel.

0

#### sigma

The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

### Description

#### See also

- 87.34 GMImage.Channel 4443
- 87.48 GMImage.CopyChannel 4464
- 87.175 GMImage.InvertChannel 4621
- 87.178 GMImage.LevelChannel 4625

Created 18th August 2014, last changed 18th August 2014.

## 87.32 GImage.Border

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Border"; ImageRef { ; Geometry } )

### Parameters

#### ImageRef

The image reference number.

1

#### Geometry

Optional

Optional, The rectangle with border width and height. Geometry is specified as a width and height "100x200". "100x200"

**Result** Returns "OK" on success.

### Description

The color of the border is specified by the borderColor attribute.

Offset from geometry is not used, just width and height.

### Examples

Add whitespace on top and bottom of image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$r = MBS( "GImage.SetBorderColor"; $Image; "white" );
$r = MBS("GImage.Border";$Image; "0x100");
$Result = MBS("GImage.WriteToPNGContainer"; $Image);

$r = MBS("GImage.Release";$Image)
];
$Result)
```

Add white space:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromContainer"; ScancodeTests::MyImage ) ]
Set Variable [ $r ; Value: MBS("GImage.SetBorderColor"; $image; "white") ]
Set Variable [ $r ; Value: MBS("GImage.Border"; $image; "20x2") ]
```

### See also

- 87.39 GImage.Coders

<i>87.32. GMIMAGE.BORDER</i>	4441
• 87.49 GImage.Crop	4467
• 87.79 GImage.Format	4514
• 87.191 GImage.New	4642
• 87.193 GImage.NewFromContainer	4646
• 87.214 GImage.Release	4674
• 87.235 GImage.SetBorderColor	4704
• 87.340 GImage.WriteToPNGContainer	4840

Created 18th August 2014, last changed 21st December 2018.

## 87.33 GImage.BoundingBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.BoundingBox"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a string with a geometry.

### Description

The current fuzz value is used when discriminating between pixels. This is the crop bounding box used by `crop(Geometry(0,0))`;

### See also

- 87.329 GImage.Trim

4821

Created 18th August 2014, last changed 18th August 2014.

## 87.34 GMImage.Channel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Channel"; ImageRef; ChannelType )

### Parameters

#### ImageRef

The image reference number.

1

#### ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

**Result** Returns "OK" on success.

### Description

#### Examples

Extracts the red channel:

```
Let ( [
  $Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
  $Result = MBS("GMImage.Channel";$Image; 1);
  $Result = MBS("GMImage.WriteToPNGContainer"; $Image);
  $Error = MBS("GMImage.Release";$Image)
] ;
$Result)
```

### See also

- 87.31 GMImage.BlurChannel 4439
- 87.35 GMImage.Charcoal 4445
- 87.48 GMImage.CopyChannel 4464
- 87.62 GMImage.Enhance 4489
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674

- 87.303 GImage.Sharpen 4789
- 87.340 GImage.WriteToPNGContainer 4840

**Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.



## 87.35 GMImage.Charcoal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Charcoal"; ImageRef { ; radius; sigma } )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

Optional

Optional, The radius of the Gaussian, in pixels, not counting the center pixel.

0

#### sigma

Optional

Optional, The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

### Description

### Examples

Apply Charcoal effect to an image

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Charcoal"; $Image; 10; 5);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release"; $Image)
];
$Result)
```

### See also

- 87.34 GMImage.Channel 4443
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840

**Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.36 GMImage.Chop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Chop"; ImageRef; Geometry )

### Parameters

#### ImageRef

The image reference number.

1

#### Geometry

The area to remove. A Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

### Description

#### See also

- 87.47 GMImage.Copy 4463
- 87.49 GMImage.Crop 4467
- 87.70 GMImage.Flip 4500
- 87.76 GMImage.Flop 4509
- 87.181 GMImage.Map 4629
- 87.344 GMImage.Zoom 4847

Created 18th August 2014, last changed 18th August 2014.

**87.37 GImage.ClipMask**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ClipMask"; ImageRef; clipMask )

**Parameters****ImageRef**

The image reference number.

1

**clipMask**

The image reference number.

2

**Result** Returns "OK" on success.

**Description**

The clip mask must be the same dimensions as the image. Pass an invalid image to unset an existing clip mask.

**See also**

- 87.38 GImage.ClipPath 4449
- 87.100 GImage.GetClipMask 4539

Created 18th August 2014, last changed 18th August 2014.

## 87.38 GImage.ClipPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ClipPath"; ImageRef; name )

### Parameters

#### ImageRef

The image reference number.

1

#### name

The clipping path name.

"Clip1"

**Result** Returns OK or error.

### Description

#### See also

- 87.37 GImage.ClipMask 4448
- 87.57 GImage.DrawPath 4480
- 87.204 GImage.PopClipPath 4661
- 87.206 GImage.PushClipPath 4663

Created 18th August 2014, last changed 18th August 2014.

## 87.39 GImage.Coders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Coders" )

**Result** Returns JSON or error.

### Description

For each coder, we have the following entries:

Name	Format ID ("magick")
Description	Format description
Note	Usage note for user
Version	Support library version
Module	Name of loadable module
Readable	Whether this coder can read.
Writable	Whether this coder can write.
MultiFrame	Coder may read/write multiple frames (default True)
BlobSupport	Coder uses BLOB APIs (default True)
ThreadSupport	Coder is thread safe (default True)

### See also

- [87.32 GImage.Border](#) 4440
- [87.42 GImage.Columns](#) 4455
- [87.43 GImage.Compare](#) 4456
- [87.46 GImage.Contrast](#) 4462

### 87.39.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 23th July 2018, last changed 28th July 2018.

## 87.40 GMImage.Colorize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Colorize"; ImageRef; opacity; penColor )

### Parameters

#### ImageRef

The image reference number.

1

#### opacity

Percent from 0 to 100.

50

#### penColor

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Blends the fill color with each pixel in the image.

A percentage blend is specified with opacity. Control the application of different color components by specifying a different percentage for each component (e.g. 90/100/10 is 90% red, 100% green, and 10% blue).

### Examples

Colorize an image:

```
Set Variable [ $image ; Value: MBS( "GMImage.NewFromContainer"; test::Input ) ]
```

```
Set Variable [ $r ; Value: MBS( "GMImage.Colorize"; $image; 50; "RGB 1 0 0" ) ]
```

```
Set Field [ test::Output ; MBS( "GMImage.WriteToPNGContainer"; $image ) ]
```

```
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $image ) ]
```

### See also

- 87.41 GMImage.ColorizeRGB 4453
- 87.44 GMImage.Composite 4458
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646

- 87.214 GImage.Release 4674
- 87.310 GImage.Solarize 4798
- 87.340 GImage.WriteToPNGContainer 4840

Created 18th August 2014, last changed 11st November 2019.



## 87.41 GMImage.ColorizeRGB

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.ColorizeRGB"; ImageRef; opacityRed; opacityGreen; opacityBlue; penColor )

### Parameters

#### ImageRef

The image reference number.

1

#### opacityRed

Percent from 0 to 100.

50

#### opacityGreen

Percent from 0 to 100.

50

#### opacityBlue

Percent from 0 to 100.

50

#### penColor

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Blends the fill color with each pixel in the image.

A percentage blend is specified with opacity. Control the application of different color components by specifying a different percentage for each component (e.g. 90/100/10 is 90% red, 100% green, and 10% blue).

### Examples

Colorize an image

```
MBS("GMImage.ColorizeRGB"; $BigImageRef; 10; 0; 0; "green")
```

Colorize by adding 10% blue:

```
Set Variable [ $BigImageRef; Value:MBS("GMImage.NewFromContainer"; Test::BigImage) ]
```

```
# 10% blue
```

```
Set Variable [ $Result; Value:MBS("GMImage.ColorizeRGB"; $BigImageRef; 10; 10; 10; "blue") ]
```

Set Field [ Test::Result; MBS( "GMImage.WriteToJPEGContainer"; \$BigImageRef ) ]

Set Variable [ \$Error; Value:MBS("GMImage.Release";\$BigImageRef) ]

### See also

- 87.40 GMImage.Colorize 4451
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.338 GMImage.WriteToJPEGContainer 4836

Created 18th August 2014, last changed 11st November 2019.

## 87.42 GMImage.Columns

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Columns"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the Image width.

### Description

#### See also

- [87.27 GMImage.BaseColumns](#) 4434
- [87.39 GMImage.Coders](#) 4450

### Example Databases

- [GraphicsMagick/Annotate Image](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.43 GImage.Compare

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Compare"; ImageRef; OtherImageRef )

### Parameters

#### ImageRef

The image reference number.

1

#### OtherImageRef

The image reference number.

1

**Result** Returns true if equal and false if not equal.

### Description

Sets meanErrorPerPixel, normalizedMaxError, and normalizedMeanError in the current image. False is returned if the images are identical.

### Examples

Compare images:

```
Set Variable [ $img1; Value:MBS( "GImage.NewFromContainer"; test::Container1 ) ]
Set Variable [ $img2; Value:MBS( "GImage.NewFromContainer"; test::Container2 ) ]
Set Variable [ $result; Value:MBS( "GImage.Compare"; $img1; $img2 ) ]
If [ $result = 1 ]
Show Custom Dialog [ "Image Comparison"; "equal" ]
Else If [ $result = 0 ]
Set Variable [ $e; Value:MBS( "GImage.NormalizedMaxError"; $img1 ) ]
If [ $e 0 and $e <,03 ]
Show Custom Dialog [ "Image Comparison"; "very similar: " & MBS( "GImage.NormalizedMaxError";
$img1 ) ]
Else
Show Custom Dialog [ "Image Comparison"; "not equal" ]
End If
End If
Set Variable [ $r; Value:MBS("GImage.Release"; $img1) ]
Set Variable [ $r; Value:MBS("GImage.Release"; $img2) ]
```

### See also

- 87.39 GImage.Coders 4450
- 87.44 GImage.Composite 4458
- 87.191 GImage.New 4642

87.43. <i>GMIMAGE.COMPARE</i>	4457
• 87.193 GImage.NewFromContainer	4646
• 87.198 GImage.Normalize	4654
• 87.199 GImage.NormalizedMaxError	4655
• 87.214 GImage.Release	4674
• 87.216 GImage.Repage	4677
• 87.221 GImage.Rotate	4685
• 87.224 GImage.Sample	4689

Created 18th August 2014, last changed 21st December 2018.

## 87.44 GImage.Composite

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Composite"; ImageRef; OtherImageRef; GravityType { ; CompositeOperator } )

### Parameters

#### ImageRef

The image reference number.

1

#### OtherImageRef

The second image reference (a number returned from the GImage.New functions)

2

#### GravityType

The Gravity Type. Can be ForgetGravity=0, NorthWestGravity=1, NorthGravity=2, NorthEastGravity=3, WestGravity=4, CenterGravity=5, EastGravity=6, SouthWestGravity=7, SouthGravity=8, SouthEastGravity=9, StaticGravity=10.

0

#### CompositeOperator

Optional

Optional operator. Can be one of the following numbers: UndefinedCompositeOp = 0, OverCompositeOp = 1, InCompositeOp = 2, OutCompositeOp = 3, AtopCompositeOp = 4, XorCompositeOp = 5, PlusCompositeOp = 6, MinusCompositeOp = 7, AddCompositeOp = 8, SubtractCompositeOp = 9, DifferenceCompositeOp = 10, MultiplyCompositeOp = 11, BumpmapCompositeOp = 12, CopyCompositeOp = 13, CopyRedCompositeOp = 14, CopyGreenCompositeOp = 15, CopyBlueCompositeOp = 16, CopyOpacityCompositeOp = 17, ClearCompositeOp = 18, DissolveCompositeOp = 19, DisplaceCompositeOp = 20, ModulateCompositeOp = 21, ThresholdCompositeOp = 22, NoCompositeOp = 23, DarkenCompositeOp = 24, LightenCompositeOp = 25, HueCompositeOp = 26, SaturateCompositeOp = 27, ColorizeCompositeOp = 28, LuminizeCompositeOp = 29, CopyCyanCompositeOp = 32, CopyMagentaCompositeOp = 33, CopyYellowCompositeOp = 34, CopyBlackCompositeOp = 35, DivideCompositeOp = 36. Default is 2.

2

**Result** Returns "OK" on success.

### Description

#### Examples

Load image and compose it on another one:

```
# load images...
Set Variable [ $Image1 ; Value: MBS( "GImage.NewFromFile"; "/Users/cs/Pictures/logo.png" ) ]
Set Variable [ $Image2 ; Value: MBS( "GImage.NewFromFile"; "/Users/cs/Pictures/input.jpg" ) ]
# maybe scale it?
Set Variable [ $r ; Value: MBS( "GImage.Scale"; $Image1; "500x500" ) ]
# put first on second
```

```
Set Variable [ $r ; Value: MBS( "GMImage.Composite"; $Image2; $Image1; 5; 1) ]  
# and save to file  
Set Variable [ $r ; Value: MBS( "GMImage.WriteToFile"; $Image2; "/Users/cs/Pictures/output.jpg") ]  
# free memory  
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image1) ]  
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image2) ]
```

**See also**

- 87.40 *GMImage.Colorize* 4451
- 87.43 *GMImage.Compare* 4456
- 87.45 *GMImage.CompositeXY* 4460
- 87.48 *GMImage.CopyChannel* 4464
- 87.105 *GMImage.GetCompose* 4545
- 87.191 *GMImage.New* 4642
- 87.194 *GMImage.NewFromFile* 4648
- 87.214 *GMImage.Release* 4674
- 87.225 *GMImage.Scale* 4690
- 87.243 *GMImage.SetCompose* 4714

**Example Databases**

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [GraphicsMagick/Annotate Image](#)

**87.44.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr5](#)
- [QR Codes for Invoices in Switzerland](#)

**87.44.2 FileMaker Magazin**

- Ausgabe 5/2018, Seite 29

Created 18th August 2014, last changed 11st December 2019.

## 87.45 GMMImage.CompositeXY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMMImage.CompositeXY"; ImageRef; OtherImageRef; xOffset; yOffset { ; CompositeOperator } )

### Parameters

#### ImageRef

The image reference number.

1

#### OtherImageRef

The second image reference (a number returned from the GMMImage.New functions)

2

#### xOffset

The x offset.

0

#### yOffset

The y offset.

0

#### CompositeOperator

Optional

Optional operator. Can be one of the following numbers: UndefinedCompositeOp = 0, OverCompositeOp = 1, InCompositeOp = 2, OutCompositeOp = 3, AtopCompositeOp = 4, XorCompositeOp = 5, PlusCompositeOp = 6, MinusCompositeOp = 7, AddCompositeOp = 8, SubtractCompositeOp = 9, DifferenceCompositeOp = 10, MultiplyCompositeOp = 11, BumpmapCompositeOp = 12, CopyCompositeOp = 13, CopyRedCompositeOp = 14, CopyGreenCompositeOp = 15, CopyBlueCompositeOp = 16, CopyOpacityCompositeOp = 17, ClearCompositeOp = 18, DissolveCompositeOp = 19, DisplaceCompositeOp = 20, ModulateCompositeOp = 21, ThresholdCompositeOp = 22, NoCompositeOp = 23, DarkenCompositeOp = 24, LightenCompositeOp = 25, HueCompositeOp = 26, SaturateCompositeOp = 27, ColorizeCompositeOp = 28, LuminizeCompositeOp = 29, CopyCyanCompositeOp = 32, CopyMagentaCompositeOp = 33, CopyYellowCompositeOp = 34, CopyBlackCompositeOp = 35, DivideCompositeOp = 36. Default is 2.

2

**Result** Returns "OK" on success.

### Description

You can use this function for example to add a watermark image.

### Examples

Compose a picture on second:

```
# load images...
Set Variable [ $Image1 ; Value: MBS( "GMMImage.NewFromFile"; "/Users/cs/Pictures/IMG_3625.jpg" ) ]
Set Variable [ $Image2 ; Value: MBS( "GMMImage.NewFromFile"; "/Users/cs/Pictures/mond.jpg" ) ]
# put first on second
```



```
Set Variable [ $r ; Value: MBS( "GMImage.CompositeXY"; $Image2; $Image1; 500; 200) ]  
# and save to file  
Set Variable [ $r ; Value: MBS( "GMImage.WriteToFile"; $Image2; "/Users/cs/Pictures/output.jpg") ]  
# free memory  
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image1) ]  
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image2) ]
```

### See also

- [87.44 GMImage.Composite](#) 4458
- [87.48 GMImage.CopyChannel](#) 4464
- [87.191 GMImage.New](#) 4642
- [87.194 GMImage.NewFromFile](#) 4648
- [87.214 GMImage.Release](#) 4674
- [87.336 GMImage.WriteToFile](#) 4831

### Example Databases

- [GraphicsMagick/Apply Mask](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Combine Pictures](#)
- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/Reduce Image](#)

### 87.45.1 Blog Entries

- [Circle crop images in FileMaker with MBS Plugin](#)
- [QR Codes for Invoices in Switzerland](#)

### 87.45.2 FileMaker Magazin

- [Ausgabe 5/2011, Seite 31](#)

## 87.46 GImage.Contrast

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Contrast"; ImageRef; sharpen )

### Parameters

#### ImageRef

The image reference number.

1

#### sharpen

The sharpen value. An integer number, either 0 or 1.

1

**Result** Returns "OK" on success.

### Description

Enhances the intensity differences between the lighter and darker elements of the image. Set sharpen to a value other than 0 to increase the image contrast otherwise the contrast is reduced.

### Examples

Changes contrast:

```
# load images...
Set Variable [ $Image ; Value: MBS( "GImage.NewFromContainer"; test::Input ) ]
# change contrast
Set Variable [ $r ; Value: MBS( "GImage.Contrast"; $Image; 1 ) ]
# and save to container
Set Field [ test::Output ; MBS( "GImage.WriteToPNGContainer"; $Image; "test.png" ) ]
# free memory
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image ) ]
```

### See also

- 87.39 GImage.Coders 4450
- 87.77 GImage.FontMap 4511
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.340 GImage.WriteToPNGContainer 4840

Created 18th August 2014, last changed 11st December 2019.

## 87.47 GMImage.Copy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Copy"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the ImageRef number on success.

### Description

Please call GMImage.Release later to free memory for this image.

#### See also

- [87.36 GMImage.Chop](#) 4447
- [87.48 GMImage.CopyChannel](#) 4464
- [87.49 GMImage.Crop](#) 4467
- [87.76 GMImage.Flop](#) 4509
- [87.181 GMImage.Map](#) 4629
- [87.214 GMImage.Release](#) 4674
- [87.219 GMImage.Roll](#) 4683
- [87.223 GMImage.Rows](#) 4688
- [87.344 GMImage.Zoom](#) 4847

### Example Databases

- [GraphicsMagick/Find Pixels](#)

### 87.47.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 18th August 2014, last changed 31st July 2019.

## 87.48 GImage.CopyChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.CopyChannel"; SourceImage; SourceChannel; DestImage; DestChannel )

### Parameters

#### SourceImage

The image reference number of source image.

\$sourceImage

#### SourceChannel

The source channel. Can be Red, Green, Blue or Opacity.

"Opacity"

#### DestImage

The image reference number of dest image.

\$destImage

#### DestChannel

The dest channel. Can be Red, Green, Blue or Opacity.

"Opacity"

**Result** Returns OK or error.

### Description

e.g. to copy opacity from one image to other.

### Examples

Clip an image:

```
Set Variable [ $gray ; Value: "# 777777" ]
# Read in source image
Set Variable [ $SourceImage ; Value: MBS( "GImage.NewFromContainer"; Clip Image::Input ) ]
Set Variable [ $sourceWidth ; Value: MBS( "GImage.GetWidth"; $SourceImage ) ]
Set Variable [ $sourceHeight ; Value: MBS( "GImage.GetHeight"; $SourceImage ) ]
#
# Scale to dest size
Set Variable [ $sourceSize ; Value: If($sourceWidth >$sourceHeight; $sourceHeight; $sourceWidth) ]
Set Variable [ $destWidth ; Value: GetAsNumber ( Clip Image::Width ) ]
Set Variable [ $destHeight ; Value: GetAsNumber ( Clip Image::Height ) ]
Set Variable [ $destSize ; Value: If($destWidth >$destHeight; $destHeight; $destWidth) ]
Set Variable [ $tempImage ; Value: MBS( "GImage.New"; $sourceSize & "x" & $sourceSize; "transparent"
) ]
Set Variable [ $r ; Value: MBS( "GImage.CompositeXY"; $tempImage; $sourceImage; -($sourceWidth-
$sourceSize)/2; -($sourceHeight-$sourceSize)/2; 1) ]
Set Variable [ $r ; Value: MBS( "GImage.Scale"; $tempImage; $destSize & "x" & $destSize ) ]
#
```

```

# Build mask
Set Variable [ $clipImage ; Value: MBS( "GMImage.New"; $destSize & "x" & $destSize; "transparent" ) ]
Set Variable [ $r ; Value: MBS( "GMImage.SetFillColor"; $clipImage; "black" ) ]
Set Variable [ $radius ; Value: $destSize/2 ]
Set Variable [ $r ; Value: MBS( "GMImage.DrawCircle"; $clipImage; $radius; $radius; 0; $radius ) ]
#
# Apply mask
Set Variable [ $r ; Value: MBS( "GMImage.CopyChannel"; $tempImage; "Opacity"; $clipImage; "Opacity" ) ]
#
# Create destination image
Set Variable [ $destImage ; Value: MBS( "GMImage.New"; $destWidth & "x" & $destHeight; $gray ) ]
Set Variable [ $r ; Value: MBS( "GMImage.CompositeXY"; $destImage; $tempImage; ($destWidth-$destSize)/2; ($destHeight-$destSize)/2; 1 ) ]
Set Field [ Clip Image::Output ; MBS( "GMImage.WriteToPNGContainer"; $destImage ) ]
#
# Memory cleanup
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $SourceImage ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $tempImage ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $clipImage ) ]

```

**See also**

- 87.31 *GMImage.BlurChannel* 4439
- 87.54 *GMImage.DrawCircle* 4474
- 87.123 *GMImage.GetHeight* 4563
- 87.169 *GMImage.GetWidth* 4612
- 87.178 *GMImage.LevelChannel* 4625
- 87.191 *GMImage.New* 4642
- 87.193 *GMImage.NewFromContainer* 4646
- 87.225 *GMImage.Scale* 4690
- 87.253 *GMImage.SetFillColor* 4726
- 87.340 *GMImage.WriteToPNGContainer* 4840

**Example Databases**

- [GraphicsMagick/Clip Image](#)

### 87.48.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [Circle crop images in FileMaker with MBS Plugin](#)

Created 16th July 2017, last changed 21st December 2018.

## 87.49 GImage.Crop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Crop"; ImageRef; geometry )

### Parameters

#### ImageRef

The image reference number.

1

#### geometry

The rectangle to crop. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

### Description

You can add pixels with GImage.Border function.

### Examples

Crops the image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Width = MBS("GImage.GetWidth";$Image);
$Height = MBS("GImage.GetHeight";$Image);
$Width = $Width/2;
$Height = $Height/2;
$ScaleResult = MBS("GImage.Crop";$Image; $Width & "x" & $Height);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

Create barcode and crop it:

```
Set Field [ Barcode Generation::Image ; "" ]
Set Variable [ $img ; Value: MBS("Barcode.Generate"; Barcode Generation::Symbology; Barcode Generation::Text) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $ImageHeight ; Value: MBS("GImage.GetHeight"; $img) ]
Set Variable [ $ImageWidth ; Value: MBS("GImage.GetWidth"; $img) ]
# calculate the crop rectangle
Set Variable [ $w ; Value: $ImageWidth ]
Set Variable [ $h ; Value: $ImageHeight ]
```

```

Set Variable [ $x ; Value: 0 ]
Set Variable [ $y ; Value: $ImageHeight - 50 ]
# crop
Set Variable [ $r ; Value: MBS("GImage.Crop"; $img; $w & "x" & $h & "+" & $x & "+" & $y) ]
Set Field [ Barcode Generation::Image ; MBS( "GImage.WriteToPNGContainer"; $img; "barcode.png") ]
Set Variable [ $r ; Value: MBS( "GImage.Destroy"; $img ) ]
End If

```

**See also**

- [87.36 GImage.Chop](#) 4447
- [87.47 GImage.Copy](#) 4463
- [87.70 GImage.Flip](#) 4500
- [87.169 GImage.GetWidth](#) 4612
- [87.181 GImage.Map](#) 4629
- [87.191 GImage.New](#) 4642
- [87.193 GImage.NewFromContainer](#) 4646
- [87.214 GImage.Release](#) 4674
- [87.340 GImage.WriteToPNGContainer](#) 4840
- [87.344 GImage.Zoom](#) 4847

**Example Databases**

- [Barcode/Barcode Generation](#)
- [GraphicsMagick/GraphicsMagick Sample](#)
- [GraphicsMagick/Image Cropping](#)
- [WebView/MethodDraw SVG Editor/MethodDraw](#)

Created 18th August 2014, last changed 20th August 2019.



## 87.50 **GMImage.CycleColormap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.CycleColormap"; ImageRef; amount )

### **Parameters**

#### **ImageRef**

The image reference number.

1

#### **amount**

the number of colors to cycle.

1

**Result** Returns "OK" on success.

### **Description**

Created 18th August 2014, last changed 18th August 2014.

## 87.51 GImage.Despeckle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Despeckle"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.52 GMImage.Directory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Directory"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the directory string.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.53 GImage.DrawArc

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawArc"; ImageRef; startX; startY; endX; endY; startDegrees; endDegrees )

### Parameters

#### ImageRef

The image reference number.

1

#### startX

The X coordinate for start position.

#### startY

The Y coordinate for start position.

#### endX

The X coordinate for end position.

#### endY

The Y coordinate for end position.

#### startDegrees

The start degree value.

#### endDegrees

The end degree value.

**Result** Returns OK or error message.

### Description

Draw an arc using the stroke color and based on the circle starting at coordinates startX,startY, and ending with coordinates endX,endY, and bounded by the rotational arc startDegrees,endDegrees.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Creates a new image with a round rectangle:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $r; Wert:MBS("GImage.DrawArc"; $img; 50; 50; 250; 150; 0; 90) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```

87.53. *GMIMAGE.DRAWARC* 4473

**See also**

- 87.54 *GMImage.DrawCircle* 4474
- 87.56 *GMImage.DrawLine* 4478
- 87.57 *GMImage.DrawPath* 4480
- 87.191 *GMImage.New* 4642
- 87.214 *GMImage.Release* 4674
- 87.253 *GMImage.SetFillColor* 4726
- 87.264 *GMImage.SetLineWidth* 4739
- 87.285 *GMImage.SetStrokeColor* 4768
- 87.340 *GMImage.WriteToPNGContainer* 4840

**Example Databases**

- [GraphicsMagick/Drawing](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.54 GImage.DrawCircle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawCircle"; ImageRef; originX; originY; perimX; perimY )

### Parameters

#### ImageRef

The image reference number.

1

#### originX

The X coordinate for start position.

#### originY

The Y coordinate for start position.

#### perimX

The perimeter width.

#### perimY

The perimeter height.

**Result** Returns OK or error message.

### Description

Draw a circle using the stroke color and thickness using specified origin and perimeter coordinates. If a fill color is specified, then the object is filled.

PerimX/PerimY define a point where the circle goes through, so put it a radius away from the origin. e.g. PerimX is originX + radius while PerimY is originY.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Creates a new image and draws a circle inside:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1") ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $f; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $l; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $c; Wert:MBS("GImage.DrawCircle"; $img; 150; 100; 100; 100) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```

Draws a circle in a rectangle in a circle:

```

Set Variable [ $img; Value:MBS( "GMImage.New"; "100x100"; "white" ) ]
Set Variable [ $r; Value:MBS( "GMImage.SetFillColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $s; Value:MBS( "GMImage.SetStrokeColor"; $img; "RGB 0 0 1" ) ]
Set Variable [ $r; Value:MBS( "GMImage.DrawCircle"; $img; 50; 50; 50; 90 ) ]
Set Variable [ $r; Value:MBS( "GMImage.DrawRectangle"; $img; 22; 22; 100-22; 100-22 ) ]
Set Variable [ $r; Value:MBS( "GMImage.DrawCircle"; $img; 50; 50; 50; 100-22 ) ]
Set Field [ test::test; MBS( "GMImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]

```

Draw a circle at x/y with w as radius:

```
MBS( "GMImage.DrawCircle"; $image ; $x; $y; $x+$w ; $y)
```

### See also

- 87.48 GMImage.CopyChannel 4464
- 87.53 GMImage.DrawArc 4472
- 87.56 GMImage.DrawLine 4478
- 87.57 GMImage.DrawPath 4480
- 87.58 GMImage.DrawRectangle 4481
- 87.191 GMImage.New 4642
- 87.214 GMImage.Release 4674
- 87.253 GMImage.SetFillColor 4726
- 87.285 GMImage.SetStrokeColor 4768
- 87.340 GMImage.WriteToPNGContainer 4840

### Example Databases

- [DynaPDF/Click Points](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)

#### 87.54.1 Blog Entries

- [Circle crop images in FileMaker with MBS Plugin](#)

Created 18th August 2014, last changed 7th May 2020.

## 87.55 GImage.DrawEllipse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawEllipse"; ImageRef; originX; originY; radiusX; radiusY; arcStart; arcEnd )

### Parameters

#### ImageRef

The image reference number.

1

#### originX

The X coordinate for origin position.

#### originY

The Y coordinate for origin position.

#### radiusX

The radius.

#### radiusY

The radius.

#### arcStart

The start degree value.

#### arcEnd

The end degree value.

**Result** Returns OK or error message.

### Description

Draw an ellipse using the stroke color and thickness, specified origin, x & y radius, as well as specified start and end of arc in degrees. If a fill color is specified, then the object is filled.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Draws an ellipse in a new image:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $r; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $r; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $r; Wert:MBS("GImage.DrawEllipse"; $img; 150; 100; 80; 60; 0; 360) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```



87.55. *GMIMAGE.DRAWELLIPSE* 4477

**See also**

- 87.57 *GMImage.DrawPath* 4480
- 87.191 *GMImage.New* 4642
- 87.214 *GMImage.Release* 4674
- 87.253 *GMImage.SetFillColor* 4726
- 87.264 *GMImage.SetLineWidth* 4739
- 87.285 *GMImage.SetStrokeColor* 4768
- 87.340 *GMImage.WriteToPNGContainer* 4840

**Example Databases**

- [GraphicsMagick/Drawing](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.56 GImage.DrawLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawLine"; ImageRef; startX; startY; endX; endY )

### Parameters

#### ImageRef

The image reference number.

1

#### startX

The start X position.

#### startY

The start Y position.

#### endX

The end X position.

#### endY

The end Y position.

**Result** Returns OK or error message.

### Description

Draw a line using stroke color and thickness using starting and ending coordinates.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Create an image with a line:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1") ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $f; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $l; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $d; Wert:MBS("GImage.DrawLine"; $img; 50; 50; 250; 150) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```

Draw a line from pos to pos2 on column x:

```
MBS( "GImage.DrawLine"; $img; $x; $pos; $x; $pos2 )
```

### See also

87.56. <i>GMIMAGE.DRAWLINE</i>	4479
• 87.53 GImage.DrawArc	4472
• 87.54 GImage.DrawCircle	4474
• 87.57 GImage.DrawPath	4480
• 87.191 GImage.New	4642
• 87.214 GImage.Release	4674
• 87.253 GImage.SetFillColor	4726
• 87.264 GImage.SetLineWidth	4739
• 87.284 GImage.SetStrokeAntiAlias	4766
• 87.285 GImage.SetStrokeColor	4768
• 87.340 GImage.WriteToPNGContainer	4840

### **Example Databases**

- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/Find Pixels](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.57 GImage.DrawPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawPath"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

#### See also

- 87.7 GImage.AddPathCurvetoAbs 4408
- 87.38 GImage.ClipPath 4449
- 87.53 GImage.DrawArc 4472
- 87.54 GImage.DrawCircle 4474
- 87.55 GImage.DrawEllipse 4476
- 87.56 GImage.DrawLine 4478
- 87.58 GImage.DrawRectangle 4481
- 87.59 GImage.DrawRoundRectangle 4484
- 87.291 GImage.SetStrokeWidth 4775

### Example Databases

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.58 GImage.DrawRectangle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawRectangle"; ImageRef; upperLeftX; upperLeftY; lowerRightX; lowerRightY )

### Parameters

#### ImageRef

The image reference number.

1

#### upperLeftX

Upper left X position.

#### upperLeftY

Upper left Y position.

#### lowerRightX

Lower right X position.

#### lowerRightY

Lower right Y position.

**Result** Returns OK or error message.

### Description

Draw a rectangle using stroke color and thickness from upper-left coordinates to lower-right coordinates. If a fill color is specified, then the object is filled.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Creates a new image and draws a rectangle inside:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1" ) ]
Set Variable [ $r; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $r; Wert:MBS("GImage.DrawRectangle"; $img; 50; 50; 250; 150) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```

Draws a circle in a rectangle in a circle:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "100x100"; "white" ) ]
Set Variable [ $r; Value:MBS( "GImage.SetFillColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $r; Value:MBS( "GImage.SetStrokeColor"; $img; "RGB 0 0 1" ) ]
```

```

Set Variable [ $r; Value:MBS( "GMImage.DrawCircle"; $img; 50; 50; 50; 90 ) ]
Set Variable [ $r; Value:MBS( "GMImage.DrawRectangle"; $img; 22; 22; 100-22; 100-22 ) ]
Set Variable [ $r; Value:MBS( "GMImage.DrawCircle"; $img; 50; 50; 50; 100-22 ) ]
Set Field [ test::test; MBS( "GMImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]

```

Draw something and write to file on desktop:

```

# New Image
Set Variable [ $img; Value:MBS("GMImage.New"; "300x200"; "RGB 1 1 1") ]
# Set colors and line width
Set Variable [ $r; Value:MBS("GMImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $r; Value:MBS("GMImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $r; Value:MBS("GMImage.SetLineWidth"; $img; 5) ]
# draw a rectangle
Set Variable [ $r; Value:MBS("GMImage.DrawRectangle"; $img; 50; 50; 250; 150) ]
# save to test.png on desktop:
Set Variable [ $DesktopPath; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $DesktopPath; "test.png") ]
Set Variable [ $r; Value:MBS("GMImage.WriteToFile"; $img; $path) ]
# cleanup
Set Variable [ $r; Value:MBS("GMImage.Release"; $img) ]

```

### See also

- 82.8 Folders.UserDesktop 4235
- 87.54 GMImage.DrawCircle 4474
- 87.57 GMImage.DrawPath 4480
- 87.59 GMImage.DrawRoundRectangle 4484
- 87.253 GMImage.SetFillColor 4726
- 87.264 GMImage.SetLineWidth 4739
- 87.284 GMImage.SetStrokeAntiAlias 4766
- 87.285 GMImage.SetStrokeColor 4768
- 87.323 GMImage.TransformRotation 4814
- 124.1 Path.AddPathComponent 6243

### Example Databases

- [GraphicsMagick/Drawing](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)

### 87.58.1 Blog Entries

- [Face detection via CoreImage in FileMaker](#)

Created 18th August 2014, last changed 11st November 2019.

## 87.59 GImage.DrawRoundRectangle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.DrawRoundRectangle"; ImageRef; upperLeftX; upperLeftY; lowerRightX; lowerRightY; cornerWidth; cornerHeight )

### Parameters

#### ImageRef

The image reference number.

1

#### upperLeftX

Upper left X position.

#### upperLeftY

Upper left Y position.

#### lowerRightX

Lower right X position.

#### lowerRightY

Lower right Y position.

#### cornerWidth

The width of the corner arc.

#### cornerHeight

The height of the corner arc.

**Result** Returns OK or error message.

### Description

Draw a rounded rectangle using stroke color and thickness, with specified center coordinate, specified width and height, and specified corner width and height. If a fill color is specified, then the object is filled.

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

### Examples

Creates a new image and draws a round rectangle inside:

```
Set Variable [ $img; Wert:MBS("GImage.New"; "300x200"; "RGB 1 1 1") ]
Set Variable [ $r; Wert:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $r; Wert:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $r; Wert:MBS("GImage.SetLineWidth"; $img; 5) ]
Set Variable [ $r; Wert:MBS("GImage.DrawRoundRectangle"; $img; 50; 50; 250; 150; 10; 10) ]
Set Variable [ $png; Wert:MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Set Variable [ $r; Wert:MBS("GImage.Release"; $img) ]
Set Field [ Drawing::Image; $png ]
```



87.59. *GMIMAGE.DRAWROUNDRECTANGLE* 4485

**See also**

- 87.57 *GMImage.DrawPath* 4480
- 87.58 *GMImage.DrawRectangle* 4481
- 87.191 *GMImage.New* 4642
- 87.214 *GMImage.Release* 4674
- 87.253 *GMImage.SetFillColor* 4726
- 87.264 *GMImage.SetLineWidth* 4739
- 87.285 *GMImage.SetStrokeColor* 4768
- 87.340 *GMImage.WriteToPNGContainer* 4840

**Example Databases**

- [GraphicsMagick/Drawing](#)

Created 18th August 2014, last changed 13th January 2020.

**87.60 GImage.Edge**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Edge"; ImageRef { ; radius } )

**Parameters****ImageRef**

The image reference number.

1

**radius**

Optional

Optional the radius value.

0.0

**Result** Returns "OK" on success.

**Description****See also**

- 87.64 GImage.Erase 4491
- 87.81 GImage.Free 4517
- 87.332 GImage.Wave 4825

Created 18th August 2014, last changed 18th August 2014.

## 87.61 GMImage.Emboss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Emboss"; ImageRef { ; radius; sigma } )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

Optional

Optional, The radius of the Gaussian, in pixels, not counting the center pixel.

0

#### sigma

Optional

Optional, The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

### Description

### Examples

Apply an emboss effect to an image

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Emboss"; $Image; 10; 5);
$result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release"; $Image)
];
$result)
```

### See also

- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.62 GMImage.Enhance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Enhance"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Apply an enhance effect to the image:

```
Let ( [
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GMImage.Enhance";$Image);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$error = MBS("GMImage.Release";$Image)
];
$Result)
```

#### See also

- 87.34 GMImage.Channel 4443
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840

#### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.63 GImage.Equalize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Equalize"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Apply equalize effect to an image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Equalize";$Image);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

### See also

- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.198 GImage.Normalize 4654
- 87.207 GImage.Quantize 4664
- 87.214 GImage.Release 4674
- 87.310 GImage.Solarize 4798
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.64 GMImage.Erase

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Erase"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

### Examples

Create a transparent picture by erasing with transparent color:

```
Set Variable [ $img ; Value: MBS("GMImage.New"; $width & "x" & $height; "RGB 1 1 1") ]
```

```
Set Variable [ $r ; Value: MBS( "GMImage.SetMatte"; $img; 1) ]
```

```
Set Variable [ $r ; Value: MBS( "GMImage.SetBackgroundColor"; $img; "transparent") ]
```

```
Set Variable [ $r ; Value: MBS("GMImage.Erase"; $img) ]
```

### See also

- 87.60 GMImage.Edge 4486
- 87.80 GMImage.Frame 4515
- 87.172 GMImage.Hash 4617
- 87.209 GMImage.Raise 4667
- 87.225 GMImage.Scale 4690
- 87.233 GMImage.SetBackgroundColor 4701
- 87.266 GMImage.SetMatte 4742
- 87.302 GMImage.Shade 4788
- 87.305 GMImage.Shave 4792
- 87.332 GMImage.Wave 4825

Created 18th August 2014, last changed 8th May 2020.

## 87.65 GImage.ExifThumbnail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ExifThumbnail"; ImageRef { ; FileName } )

### Parameters

#### ImageRef

The image reference number.

1

#### FileName

Optional

File name to pass to FileMaker with container.

"test.jpg"

**Result** Returns container value or error.

### Description

Returns a JPEG in a container.

### 87.65.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 22nd February 2020, last changed 22nd February 2020.



## 87.66 GMImage.Extent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Extent"; ImageRef; geometry { ; Color; GravityType } )

### Parameters

#### ImageRef

The image reference number.

1

#### geometry

The rectangle to use. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

#### Color

Optional

The background color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. #FF0000 for full red.

"RGB 1 0 0"

#### GravityType

Optional

The Gravity Type. Can be number of text value. Can be ForgetGravity=0, NorthWestGravity=1, NorthGravity=2, NorthEastGravity=3, WestGravity=4, CenterGravity=5, EastGravity=6, SouthWestGravity=7, SouthGravity=8, SouthEastGravity=9, StaticGravity=10.

0

**Result** Returns OK or error.

### Description

Create an image canvas using background color sized according to geometry and composite existing image on it, with image placement controlled by gravity.

Parameters are obtained from existing image properties if they are not specified via a method parameter. Parameters which are supported by image properties (gravity and backgroundColor) update those image properties as a side-effect.

### Examples

Extent image with red space around:

```
Set Variable [ $BigImageRef ; Value: MBS("GMImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result ; Value: MBS("GMImage.Extent"; $BigImageRef; "1000x1000"; "red"; "center") ]
Set Field [ Test::Result ; MBS( "GMImage.WriteToPNGContainer"; $BigImageRef; "test.png" ) ]
Set Variable [ $Error ; Value: MBS("GMImage.Destroy";$BigImageRef) ]
```

**See also**

- 87.119 GImage.GetFont 4559
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.227 GImage.Segment 4695
- 87.256 GImage.SetFont 4730
- 87.340 GImage.WriteToPNGContainer 4840

**87.66.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 11st November 2019.

## 87.67 **GImage.FillPattern**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FillPattern"; ImageRef; fillPatternRef )

### **Parameters**

#### **ImageRef**

The image reference number.

1

#### **fillPatternRef**

The image reference number.

2

**Result** Returns "OK" on success.

### **Description**

Created 18th August 2014, last changed 18th August 2014.

## 87.68 GImage.FindColorInColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FindColorInColumn"; ImageRef; x; y; color { ; Invert; Tolerance } )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate. Zero based from 0 to GImage.GetWidth-1.

10

#### y

The y coordinate. Zero based from 0 to GImage.GetHeight-1.

10

#### color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

#### Invert

Optional

If 0, we find first pixel matching your color. If 1 we find first pixel not matching the color. Default is 0.

0

#### Tolerance

Optional

The tolerance for comparison. Normally a small value like 3. So if color is 255, 255, 255 and pixel is 252, 252, 252 we have a match for tolerance being 3.

3

**Result** Returns position or error.

### Description

You can find first pixel matching your given color in the column starting with given y position and given tolerance. If you set Invert to 1, the plugin returns row for first pixel not matching color.

Returns -1 if not found.

### Examples

Finds color in column:

```
MBS("GImage.FindColorInColumn"; $img; $x; $y; $ColorToSearch; 1; 3)
```

87.68. *GMIMAGE.FINDCOLORINCOLUMN*

4497

**See also**

- 87.69 *GMImage.FindColorInRow* 4498
- 87.123 *GMImage.GetHeight* 4563
- 87.169 *GMImage.GetWidth* 4612

**Example Databases**

- [GraphicsMagick/Find Pixels](#)

**87.68.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 4th February 2015, last changed 11st November 2019.

## 87.69 GImage.FindColorInRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FindColorInRow"; ImageRef; x; y; color { ; Invert; Tolerance } )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The x coordinate. Zero based from 0 to GImage.GetWidth-1.

10

#### y

The y coordinate. Zero based from 0 to GImage.GetHeight-1.

10

#### color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

#### Invert

Optional

If 0, we find first pixel matching your color. If 1 we find first pixel not matching the color. Default is 0.

0

#### Tolerance

Optional

The tolerance for comparison. Normally a small value like 3. So if color is 65535, 65535, 65535 and pixel is 64764, 64764, 64764 we have a match for tolerance being 800.

800

**Result** Returns position or error.

### Description

You can find first pixel matching your given color in the row starting with given x position and given tolerance. If you set Invert to 1, the plugin returns column for first pixel not matching color.

Returns -1 if not found.

### Examples

Finds color in row:

MBS("GImage.FindColorInRow"; \$img; \$x; \$y; \$ColorToSearch; 1; 3)

87.69. *GMIMAGE.FINDCOLORINROW*

4499

**See also**

- 87.68 *GMImage.FindColorInColumn* 4496
- 87.123 *GMImage.GetHeight* 4563
- 87.169 *GMImage.GetWidth* 4612

**Example Databases**

- [GraphicsMagick/Find Pixels](#)

**87.69.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 4th February 2015, last changed 11st November 2019.

## 87.70 GImage.Flip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Flip"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Mirror the picture.

```
Let (
[
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GImage.Flip"; $Image);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GImage.Release"; $Image)
];
$Result)
```

### See also

- 87.30 GImage.Blur 4437
- 87.49 GImage.Crop 4467
- 87.76 GImage.Flop 4509
- 87.81 GImage.Free 4517
- 87.172 GImage.Hash 4617
- 87.181 GImage.Map 4629
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.314 GImage.Strip 4803
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases



- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/GraphicsMagick Sample](#)

### **87.70.1 Blog Entries**

- [Correct Image Orientation in FileMaker](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.71 GImage.FloodFillColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FloodFillColor"; ImageRef; Geometry; fillColor { ; borderColor } )

### Parameters

#### ImageRef

The image reference number.

1

#### Geometry

The point. A Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" +20+30

#### fillColor

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

#### borderColor

Optional

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Fill pixels starting at target-pixel and stopping at pixels matching specified border color. Uses current fuzz setting when determining color match:

### See also

- 87.72 GImage.FloodFillColorXY 4504
- 87.74 GImage.FloodFillTexture 4507
- 87.116 GImage.GetFillColor 4556
- 87.239 GImage.SetColorFuzz 4709
- 87.253 GImage.SetFillColor 4726

87.71. *GMIMAGE.FLOODFILLCOLOR*

4503

- 87.328 *GUIImage.Transparent*

4819

Created 18th August 2014, last changed 11st November 2019.

## 87.72 GImage.FloodFillColorXY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FloodFillColorXY"; ImageRef; x; y; fillColor { ; borderColor } )

### Parameters

#### ImageRef

The image reference number.

1

**x**

x Position

0

**y**

y Position

0

#### fillColor

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

#### borderColor

Optional

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Uses current fuzz setting when determining color match.

### Examples

Make a picture transparent:

```
# load a picture
Set Variable [ $image; Value:MBS( "GImage.NewFromContainer"; Test::BigImage) ]
# white in RGB
Set Variable [ $f; Value:"white" ]
# Replace all white with nearly white
```

```

Set Variable [ $r; Value:MBS( "GMImage.ReplaceColor"; $image; $f; "COLOR 65535 65278 65535"; 0 ) ]
# now flood fill it with 5 as tolerance
Set Variable [ $r; Value:MBS( "GMImage.SetColorFuzz"; $image; 5 ) ]
Set Variable [ $r; Value:MBS( "GMImage.FloodFillColorXY"; $image; 0; 0; $f ) ]
# now set back fuzz and make transparent using white
Set Variable [ $r; Value:MBS( "GMImage.SetColorFuzz"; $image; 0 ) ]
Set Variable [ $imagecolor; Value:MBS( "GMImage.Transparent"; $image; $f ) ]
# write back to container
Set Field [ Test::Result; MBS( "GMImage.WriteToPNGContainer"; $image; ) ]
# cleanup
Set Variable [ $Error; Value:MBS("GMImage.Release";$image) ]

```

**See also**

- 87.71 GMImage.FloodFillColor 4502
- 87.73 GMImage.FloodFillOpacity 4506
- 87.75 GMImage.FloodFillTextureXY 4508
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.217 GMImage.ReplaceColor 4678
- 87.239 GMImage.SetColorFuzz 4709
- 87.328 GMImage.Transparent 4819
- 87.340 GMImage.WriteToPNGContainer 4840

## 87.73 GImage.FloodFillOpacity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FloodFillOpacity"; ImageRef; x; y; opacity; PaintMethod )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The X Position

0

#### y

The Y Position

0

#### opacity

A value from 0 to 65535.

127\*257

#### PaintMethod

PointMethod = 0, ReplaceMethod = 1, FloodfillMethod = 2, FillToBorderMethod = 3, ResetMethod = 4

1

**Result** Returns "OK" on success.

### Description

#### See also

- 87.72 GImage.FloodFillColorXY 4504
- 87.74 GImage.FloodFillTexture 4507

Created 18th August 2014, last changed 11st November 2019.

## 87.74 GMImage.FloodFillTexture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.FloodFillTexture"; ImageRef; Geometry; texture { ; borderColor } )

### Parameters

#### ImageRef

The image reference number.

1

#### Geometry

The point. A Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" +20+30

#### texture

The image reference number.

2

#### borderColor

Optional

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Fills pixels starting at target-pixel and stopping at pixels matching specified border color. Uses current fuzz setting when determining color match.

#### See also

- 87.71 GMImage.FloodFillColor 4502
- 87.72 GMImage.FloodFillColorXY 4504
- 87.73 GMImage.FloodFillOpacity 4506
- 87.75 GMImage.FloodFillTextureXY 4508

Created 18th August 2014, last changed 11st November 2019.

## 87.75 GImage.FloodFillTextureXY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FloodFillTextureXY"; ImageRef; x; y; texture { ; borderColor } )

### Parameters

#### ImageRef

The image reference number.

1

#### x

x Position

0

#### y

y Position

0

#### texture

The image reference number.

2

#### borderColor

Optional

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

Fills pixels that match the color of the target pixel and are neighbors of the target pixel. Uses current fuzz setting when determining color match.

### See also

- 87.72 GImage.FloodFillColorXY 4504
- 87.74 GImage.FloodFillTexture 4507

Created 18th August 2014, last changed 11st November 2019.



## 87.76 GMImage.Flop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Flop"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Mirror the picture.

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Flop"; $Image);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release"; $Image)
];
$Result)
```

### See also

- 87.30 GMImage.Blur 4437
- 87.47 GMImage.Copy 4463
- 87.70 GMImage.Flip 4500
- 87.81 GMImage.Free 4517
- 87.172 GMImage.Hash 4617
- 87.181 GMImage.Map 4629
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/GraphicsMagick Sample](#)

### 87.76.1 Blog Entries

- [Correct Image Orientation in FileMaker](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.77 GImage.FontMap

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FontMap" )

**Result** Returns XML text or error.

### Description

The MBS Plugin provides to GraphicsMagick the font map to use.

This is a XML defining which fonts are available.

Use this function to learn what fonts may be available or debug to see why a font doesn't load.

### See also

- [87.46 GImage.Contrast](#) 4462
- [87.79 GImage.Format](#) 4514

### 87.77.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 2nd February 2020, last changed 2nd February 2020.

## 87.78 GImage.FontTypeMetrics

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FontTypeMetrics"; ImageRef; text )

### Parameters

#### ImageRef

The image reference number.

1

#### text

Some text

"Hello World"

**Result** Returns list or error.

### Description

Obtain font metrics for text string given current font, point size, and density settings.

Returns list with following values:

- text width in pixel
- text height in pixel
- Ascent, the distance in pixels from the text baseline to the highest/upper grid coordinate used to place an outline point.
- Descent, the distance in pixels from the baseline to the lowest grid coordinate used to place an outline point. Always a negative value.
- Maximum horizontal advance in pixels.
- Font size

To extract values, please pass through `Math.TextToNumber` or similar functions which always uses dot as decimal separator.

### Examples

Draw some text on a picture:

```
# open a picture
Set Variable [ $ref ; Value: MBS("GImage.NewFromContainer"; Annotate Image::InputImage) ]
# set font size
Set Variable [ $r ; Value: MBS("GImage.SetFontPointsize"; $ref; 20) ]
# set the font
Set Variable [ $r ; Value: MBS("GImage.SetFont"; $ref; "@/System/Library/Fonts/LucidaGrande.ttc") ]
# set the fill color
```

```

Set Variable [ $r ; Value: MBS("GMImage.SetFillColor"; $ref; "RGB 0 0 0") ]
# Query size for this text:
Set Variable [ $r ; Value: MBS("GMImage.FontTypeMetrics"; $ref; Annotate Image::Text) ]
# draw the text:
Set Variable [ $r ; Value: MBS("GMImage.Annotate"; $ref; Annotate Image::Text; "100x200+10+40"; 1) ]
# write image
Set Field [ Annotate Image::OutputImage ; MBS( "GMImage.WriteToPNGContainer"; $ref ) ]
# free memory
Set Variable [ $Error ; Value: MBS("GMImage.Release";$ref) ]

```

Measure text:

```
MBS("GMImage.FontTypeMetrics"; $ref; Annotate Image::Text)
```

Example result: "528.000000

47.000000

39.000000

-8.000000

66.000000

40.000000"

#### See also

- 87.24 GMImage.Annotate 4427
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.253 GMImage.SetFillColor 4726
- 87.256 GMImage.SetFont 4730
- 87.257 GMImage.SetFontPointsize 4731
- 87.340 GMImage.WriteToPNGContainer 4840
- 110.20 Math.TextToNumber 5862

#### Example Databases

- [GraphicsMagick/Text Wrap](#)

#### 87.78.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr3](#)

Created 20th June 2017, last changed 21st December 2018.

**87.79 GImage.Format**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Format"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the long image format description.

**Description****See also**

- 87.32 GImage.Border 4440
- 87.77 GImage.FontMap 4511
- 87.80 GImage.Frame 4515
- 87.221 GImage.Rotate 4685
- 87.311 GImage.Spread 4800

Created 18th August 2014, last changed 18th August 2014.

## 87.80 GMImage.Frame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Frame"; ImageRef; width; height; innerBevel; outerBevel )

### Parameters

#### ImageRef

The image reference number.

1

#### width

The width of the frame

300

#### height

The height of the frame

200

#### innerBevel

The inner bevel size

6

#### outerBevel

The outer bevel size

6

**Result** Returns "OK" on success.

### Description

### Examples

Adds a frame to the image:

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Frame"; $Image);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release"; $Image)
];
$Result)
```

### See also

- 87.64 GMImage.Erase 4491
- 87.79 GMImage.Format 4514

- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.225 GImage.Scale 4690
- 87.302 GImage.Shade 4788
- 87.329 GImage.Trim 4821
- 87.332 GImage.Wave 4825
- 87.340 GImage.WriteToPNGContainer 4840

**Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.



## 87.81 GMImage.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Free"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

Please call this function when you are done with the image to free memory.

The plugin doesn't know whether you need the image later, so it can't free the memory for you.

You can use GMImage.ImageCount to find out how many images are open in memory.

### See also

- 87.24 GMImage.Annotate 4427
- 87.60 GMImage.Edge 4486
- 87.64 GMImage.Erase 4491
- 87.70 GMImage.Flip 4500
- 87.76 GMImage.Flop 4509
- 87.80 GMImage.Frame 4515
- 87.191 GMImage.New 4642
- 86.1 GMImage.ReadFromContainer 4395
- 87.233 GMImage.SetBackgroundColor 4701
- 87.332 GMImage.Wave 4825

### Example Databases

- [GraphicsMagick/Colors](#)
- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/Create Multi Tiff](#)
- [GraphicsMagick/Export Images](#)
- [GraphicsMagick/Find Pixels](#)

- [GraphicsMagick/GraphicsMagick Exif](#)
- [GraphicsMagick/Image Scaling](#)
- [GraphicsMagick/Reduce Image](#)
- [GraphicsMagick/SVG to PNG](#)
- [GraphicsMagick/Trim Picture Border](#)

### 87.81.1 Blog Entries

- [Convert a SVG image to PNG with alpha channel](#)
- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 21st September 2018.

## 87.82 **GImage.FreeAll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.FreeAll" )

**Result** Returns OK or error.

**Description**

**See also**

- 87.81 GImage.Free

4517

### 87.82.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.

## 87.83 GImage.Gamma

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Gamma"; ImageRef; gammaRed; gammaGreen; gammaBlue )

### Parameters

#### ImageRef

The image reference number.

1

#### gammaRed

The gamma value for the red channel. (or if only one value is given the gamma value for all channels)

0.5

#### gammaGreen

The gamma value for the green channel.

0.5

#### gammaBlue

The gamma value for the blue channel.

0.5

**Result** Returns "OK" on success.

### Description

You can also pass only one gamma value for all three channels.

### See also

- 87.121 GImage.GetGamma

4561

Created 18th August 2014, last changed 18th August 2014.

## 87.84 GMImage.GaussianBlur

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.GaussianBlur"; ImageRef; width; sigma )

### Parameters

#### ImageRef

The image reference number.

1

#### width

The number of neighbor pixels to be included in the convolution mask is specified by width

100

#### sigma

Specifies the standard deviation of the gaussian bell curve

1

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.85 GImage.GaussianBlurChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GaussianBlurChannel"; ImageRef; ChannelType; width; sigma )

### Parameters

#### ImageRef

The image reference number.

1

#### ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

#### width

The number of neighbor pixels to be included in the convolution mask is specified by width

100

#### sigma

Specifies the standard deviation of the gaussian bell curve

1

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.86 GMImage.Geometry

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Geometry"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the geometry string.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.87 GImage.GetAdjoin

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetAdjoin"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a boolean value.

### Description

#### See also

- 87.113 GImage.GetEndian 4553
- 87.228 GImage.SetAdjoin 4696

Created 18th August 2014, last changed 18th August 2014.



**87.88 GImage.GetAnimationDelay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetAnimationDelay"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns animation delay value as number.

**Description**

Time in 1/100ths of a second which must expire before displaying the next image in an animated sequence.

Time in 1/100ths of a second (0 to 65535) which must expire before displaying the next image in an animated sequence. This option is useful for regulating the animation of a sequence of GIF images within Netscape.

**See also**

- 87.229 GImage.SetAnimationDelay

4697

Created 18th August 2014, last changed 11st September 2017.

## 87.89 GImage.GetAnimationIterations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetAnimationIterations"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the Number of iterations to loop an animation for.

### Description

#### See also

- 87.230 GImage.SetAnimationIterations

4698

Created 18th August 2014, last changed 18th August 2014.

## 87.90 **GImage.GetAntiAlias**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetAntiAlias"; ImageRef )

### Parameters

#### **ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

### Description

#### See also

- 87.231 *GImage.SetAntiAlias*

4699

Created 18th August 2014, last changed 18th August 2014.

## 87.91 GImage.GetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "GImage.GetAttribute"; ImageRef; name { ; Encoding } )
```

### Parameters

#### ImageRef

The image reference number.

1

#### name

The name of the attribute.

#### Encoding

Optional

The text encoding. Default is UTF-8.

UTF8

**Result** Returns the value as string.

### Description

Any number of named attributes may be attached to the image. For example, the image comment is a named image attribute with the name "comment". EXIF tags are attached to the image as named attributes. Use the syntax "EXIF:<tag>" to request an EXIF tag similar to "EXIF:DateTime":

### Examples

Read EXIF DateTime:

```
MBS( "GImage.GetAttribute"; $image; "EXIF:DateTime" )
```

Query IPTC Keywords:

```
MBS("GImage.GetAttribute"; $img; "IPTC:2:25"; "UTF-8")
```

Query JPEG Quality used to compress image:

```
Set Variable [ $img; Value:MBS("GImage.NewFromContainer"; Image::InputImage) ]
Set Variable [ $value; Value:MBS("GImage.GetAttribute"; $img; "JPEG-Quality") ]
Show Custom Dialog [ "JPEG Quality used to compress image"; $value ]
Set Variable [ $r; Value:MBS("GImage.Release"; $img) ]
```

Read PNG original color type:

```
MBS("GImage.GetAttribute"; $image; "png:IHDR.color-type-orig")
// Value is combination of 0 = gray, 1 = palette, 2 = color, 4 = alpha
// e.g. 4 = Gray + Alpha, 6 = RGBA, 2 = RGB, 0 = Gray
```

Query JPEG Colorspace:

```
MBS("GMImage.GetAttribute"; $img; "JPEG-Colorspace-Name") & " " & MBS("GMImage.GetAttribute";
$img; "JPEG-Colorspace")
// the numbers are: 1 = grayscale, 2 = RGB, 3 = YCbCr, 4 = CMYK, 5 = YCCK
```

Show GPS location:

```
Set Variable [ $img ; Value: MBS("GMImage.NewFromContainer"; GraphicsMagick Exif::InputImage) ]
Set Variable [ $lat ; Value: MBS("GMImage.GetAttribute"; $img; "EXIF:GPSLatitude") ]
Set Variable [ $long ; Value: MBS("GMImage.GetAttribute"; $img; "EXIF:GPSLongitude") ]
Show Custom Dialog [ "GPS" ; $lat & " / " & $long ]
Set Variable [ $r ; Value: MBS("GMImage.Release"; $img) ]
```

### See also

- [87.92 GMImage.GetAttributeNames](#) 4530
- [87.93 GMImage.GetAttributesJSON](#) 4531
- [87.191 GMImage.New](#) 4642
- [87.193 GMImage.NewFromContainer](#) 4646
- [87.214 GMImage.Release](#) 4674
- [87.232 GMImage.SetAttribute](#) 4700

### Example Databases

- [GraphicsMagick/GraphicsMagick Exif](#)
- [GraphicsMagick/GraphicsMagick IPTC](#)

#### 87.91.1 Blog Entries

- [JPEG Quality Estimate](#)

Created 18th August 2014, last changed 10th June 2019.

## 87.92 GImage.GetAttributeNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetAttributeNames"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns list or error.

### Description

Only attributes created before are visible, so e.g. EXIF data may not yet be loaded and parsed.

### Examples

Show attributes:

```
Set Variable [ $ImageRef ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image2.png") ]
Show Custom Dialog [ "Attributes" ; MBS( "GImage.GetAttributeNames"; $ImageRef ) ]
Set Variable [ $r ; Value: MBS("GImage.Release"; $ImageRef) ]
```

### See also

- [87.91 GImage.GetAttribute](#) 4528
- [87.93 GImage.GetAttributesJSON](#) 4531
- [87.191 GImage.New](#) 4642
- [87.194 GImage.NewFromFile](#) 4648
- [87.214 GImage.Release](#) 4674

### 87.92.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr4](#)

Created 18th April 2019, last changed 18th April 2019.

## 87.93 GMImage.GetAttributesJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.GetAttributesJSON"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns JSON object or error.

### Description

Only attributes created before are visible, so e.g. EXIF data may not yet be loaded and parsed. e.g. for a PNG this may include the original color type and the bit depth:

```
{
```

```
  "png:IHDR.color-type-orig":  "4",
  "png:IHDR.bit-depth-orig":  "16"
```

```
}
```

### Examples

Show attributes:

```
Set Variable [ $ImageRef ; Value: MBS("GMImage.NewFromFile"; "/Users/cs/Desktop/image2.png") ]
Show Custom Dialog [ "Attributes" ; MBS( "GMImage.GetAttributesJSON"; $ImageRef ) ]
Set Variable [ $r ; Value: MBS("GMImage.Release"; $ImageRef) ]
```

### See also

- 87.91 GMImage.GetAttribute 4528
- 87.92 GMImage.GetAttributeNames 4530
- 87.191 GMImage.New 4642
- 87.194 GMImage.NewFromFile 4648
- 87.214 GMImage.Release 4674

### 87.93.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr4](#)





## 87.94 **GMImage.GetBackgroundColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.GetBackgroundColor"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a color value as string.

### Description

#### See also

- 87.95 *GMImage.GetBackgroundTexture* 4534
- 87.233 *GMImage.SetBackgroundColor* 4701
- 87.234 *GMImage.SetBackgroundTexture* 4703

Created 18th August 2014, last changed 18th August 2014.

## 87.95 GImage.GetBackgroundTexture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetBackgroundTexture"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the image name as string.

### Description

#### See also

- 87.94 GImage.GetBackgroundColor 4533
- 87.233 GImage.SetBackgroundColor 4701
- 87.234 GImage.SetBackgroundTexture 4703

Created 18th August 2014, last changed 18th August 2014.

**87.96 GMImage.GetBorderColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.GetBorderColor"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a color value as string.

**Description****See also**

- 87.97 GMImage.GetBoxColor 4536
- 87.135 GMImage.GetMatteColor 4576
- 87.142 GMImage.GetPixelColor 4584
- 87.155 GMImage.GetStrokeColor 4598
- 87.235 GMImage.SetBorderColor 4704
- 87.236 GMImage.SetBoxColor 4706
- 87.267 GMImage.SetMatteColor 4744
- 87.272 GMImage.SetPixelColor 4750
- 87.285 GMImage.SetStrokeColor 4768

Created 18th August 2014, last changed 18th August 2014.

**87.97 GImage.GetBoxColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetBoxColor"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a color value as string.

**Description****See also**

- 87.96 GImage.GetBorderColor 4535
- 87.116 GImage.GetFillColor 4556
- 87.135 GImage.GetMatteColor 4576
- 87.142 GImage.GetPixelColor 4584
- 87.155 GImage.GetStrokeColor 4598
- 87.235 GImage.SetBorderColor 4704
- 87.236 GImage.SetBoxColor 4706
- 87.253 GImage.SetFillColor 4726
- 87.272 GImage.SetPixelColor 4750

Created 18th August 2014, last changed 18th August 2014.

**87.98 GMImage.GetChannelDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.GetChannelDepth"; ImageRef; ChannelType )

**Parameters****ImageRef**

The image reference number.

1

**ChannelType**

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

**Result** Returns a depth value.

**Description****See also**

- 87.300 GMImage.SetchannelDepth

4786

Created 18th August 2014, last changed 27th May 2018.

## 87.99 GImage.GetClassType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetClassType"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the class type number.

### Description

Value is either 1 for DirectClass or 2 for PseudoClass.

### Examples

Show image class type:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
Set Variable [ $value ; Value: MBS("GImage.GetClassType"; $image) ]
Show Custom Dialog [ "Class" ; $value ]
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

### See also

- 87.106 GImage.GetCompressType 4546
- 87.118 GImage.GetFilterType 4558
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.238 GImage.SetClassType 4708

Created 18th August 2014, last changed 17th April 2019.

**87.100 GImage.GetClipMask**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetClipMask"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns image reference or error.

**Description**

Please call GImage.Release later to free memory for this image.

**See also**

- 87.37 GImage.ClipMask 4448
- 87.105 GImage.GetCompose 4545
- 87.214 GImage.Release 4674

Created 16th July 2017, last changed 31st July 2019.

**87.101 GImage.GetColorFuzz**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetColorFuzz"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.171 GImage.GetcolorMap 4616
- 87.103 GImage.GetColorSpace 4542
- 87.239 GImage.SetColorFuzz 4709

Created 18th August 2014, last changed 18th August 2014.



**87.102 GImage.GetColorMapSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetColorMapSize"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.171 GImage.GetcolorMap 4616
- 87.103 GImage.GetColorSpace 4542
- 87.240 GImage.SetColorMapSize 4711
- 87.241 GImage.SetColorSpace 4712

Created 18th August 2014, last changed 18th August 2014.

## 87.103 GImage.GetColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetColorSpace"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the color space type as number.

### Description

UndefinedColorspace = 0, RGBColorspace = 1 (Plain old RGB colorspace), GRAYColorspace = 2 (Plain old full-range grayscale), TransparentColorspace = 3 (RGB but preserve matte channel during quantize), OHTAColorspace = 4, XYZColorspace = 5 (CIE XYZ), YCCColorspace = 6 (Kodak PhotoCD PhotoYCC), YIQColorspace = 7, YPbPrColorspace = 8, YUVCColorspace = 9, CMYKColorspace = 10 (Cyan, magenta, yellow, black, alpha), sRGBColorspace = 11 (Kodak PhotoCD sRGB), HSLColorspace = 12 (Hue, saturation, luminosity), HWBColorspace = 13 (Hue, whiteness, blackness), LABColorspace = 14 (LAB colorspace not supported yet other than via lcms), CineonLogRGBColorspace = 15 (RGB data with Cineon Log scaling, 2.048 density range), Rec601LumaColorspace = 16 (Luma (Y) according to ITU-R 601), Rec601YCbCrColorspace = 17 (YCbCr according to ITU-R 601), Rec709LumaColorspace = 18 (Luma (Y) according to ITU-R 709), Rec709YCbCrColorspace = 19 (YCbCr according to ITU-R 709)

### Examples

Shows color space for image:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image2.png") ]
Set Variable [ $value ; Value: MBS("GImage.GetColorSpace"; $image) ]
Show Custom Dialog [ "ColorSpace" ; $value ]
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

### See also

- 87.101 GImage.GetColorFuzz 4540
- 87.171 GImage.GetcolorMap 4616
- 87.102 GImage.GetColorMapSize 4541
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.240 GImage.SetColorMapSize 4711

87.103. *GMIMAGE.GETCOLORSPACE*

4543

- 87.241 *GImage.SetColorSpace*

4712

Created 18th August 2014, last changed 17th April 2019.

**87.104 GImage.GetComment**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetComment"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the comment.

**Description****See also**

- 87.105 GImage.GetCompose 4545
- 87.119 GImage.GetFont 4559
- 87.242 GImage.SetComment 4713
- 87.243 GImage.SetCompose 4714

Created 18th August 2014, last changed 18th August 2014.

**87.105 GImage.GetCompose**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetCompose"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.44 GImage.Composite 4458
- 87.100 GImage.GetClipMask 4539
- 87.104 GImage.GetComment 4544
- 87.167 GImage.GetVerbose 4610
- 87.242 GImage.SetComment 4713
- 87.243 GImage.SetCompose 4714
- 87.297 GImage.SetVerbose 4783

Created 18th August 2014, last changed 18th August 2014.

**87.106 GImage.GetCompressType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetCompressType"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedCompression = 0, NoCompression = 1, BZipCompression = 2, FaxCompression = 3, Group4Compression = 4, JPEGCompression = 5, LosslessJPEGCompression = 6, LZWCompression = 7, RLECompression = 8, ZipCompression = 9

**Examples**

Shows compression:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
```

```
Set Variable [ $value ; Value: MBS("GImage.GetCompressType"; $image) ]
```

```
Show Custom Dialog [ "Compress type" ; $value ]
```

```
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

**See also**

- 87.99 GImage.GetClassType 4538
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.244 GImage.SetCompressType 4715

Created 18th August 2014, last changed 17th April 2019.

**87.107 GImage.GetDebug**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetDebug"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

**Description****See also**

- 87.111 GImage.GetDepth 4551
- 87.131 GImage.GetLabel 4572
- 87.245 GImage.SetDebug 4717
- 87.249 GImage.SetDepth 4722

Created 18th August 2014, last changed 18th August 2014.

**87.108 GImage.GetDefineSet**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetDefineSet"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

**Description**

Tagged image format define. Similar to the get/setdefineValue() functions except that passing the flag value 'true' creates a value-less define with that format and key. Passing the flag value 'false' removes any existing matching definition. The method returns 'true' if a matching key exists, and 'false' if no matching key exists.

**See also**

- 87.109 GImage.GetDefineValue 4549
- 87.246 GImage.SetDefineSet 4718

Created 18th August 2014, last changed 18th August 2014.



**87.109 GImage.GetDefineValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetDefineValue"; ImageRef; magick; key )

**Parameters****ImageRef**

The image reference number.

1

**magick**

The name of the codec

**key**

A key name as string

**Result** Returns the value as string.

**Description**

Tagged image format define (set/access coder-specific option) The magick option specifies the coder the define applies to. The key option provides the key specific to that coder. The value option provides the value to set (if any). See the get/set defineSet functions if the key must be removed entirely.

**See also**

- 87.108 GImage.GetDefineSet 4548
- 87.247 GImage.SetDefineValue 4719

Created 18th August 2014, last changed 18th August 2014.

## 87.110 GImage.GetDensity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetDensity"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a geomery as string.

### Description

### Examples

Load image and get density:

```
$image = MBS( "GImage.NewFromContainer"; MediaField)
$res = MBS( "GImage.GetDensity"; $image )
MBS( "GMimage.Release"; $image )
```

### See also

- 87.111 GImage.GetDepth 4551
- 87.113 GImage.GetEndian 4553
- 87.123 GImage.GetHeight 4563
- 87.144 GImage.GetQuality 4587
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.248 GImage.SetDensity 4720
- 87.274 GImage.SetQuality 4754

### Example Databases

- [GraphicsMagick/Apply Mask](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.111 GImage.GetDepth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetDepth"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

### Examples

Queries color depth:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
```

```
Set Variable [ $value ; Value: MBS("GImage.GetDepth"; $image) ]
```

```
Show Custom Dialog [ "Depth" ; $value ]
```

```
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

### See also

- 87.107 GImage.GetDebug 4547
- 87.110 GImage.GetDensity 4550
- 87.123 GImage.GetHeight 4563
- 87.134 GImage.GetMatte 4575
- 87.166 GImage.GetType 4609
- 87.169 GImage.GetWidth 4612
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.245 GImage.SetDebug 4717
- 87.249 GImage.SetDepth 4722

Created 18th August 2014, last changed 17th April 2019.

## 87.112 GImage.GetEXIFOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetEXIFOrientation"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns value or error.

### Description

Returns number from 0 to 8 depending on rotation.

This function can only read orientation, if there is an EXIF block in image.

### Examples

Shows EXIF orientation:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
Set Variable [ $value ; Value: MBS("GImage.GetEXIFOrientation"; $image) ]
Show Custom Dialog [ "Orientation in EXIF" ; $value ]
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

### See also

- 87.138 GImage.GetOrientation 4579
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.250 GImage.SetEXIFOrientation 4723
- 87.270 GImage.SetOrientation 4747

### 87.112.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 30th November 2016, last changed 17th April 2019.

**87.113 GImage.GetEndian**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetEndian"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedEndian = 0, LSBEndian = 1, MSBEndian = 2

**See also**

- 87.87 GImage.GetAdjoin 4524
- 87.110 GImage.GetDensity 4550
- 87.133 GImage.GetMagick 4574
- 87.251 GImage.SetEndian 4724

Created 18th August 2014, last changed 18th August 2014.

**87.114 GImage.GetFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFileName"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.28 GImage.BaseFilename 4435
- 87.115 GImage.GetFileSize 4555
- 87.117 GImage.GetFillRule 4557
- 87.118 GImage.GetFilterType 4558
- 87.165 GImage.GetTileName 4608
- 87.252 GImage.SetFileName 4725
- 87.254 GImage.SetFillRule 4728
- 87.295 GImage.SetTileName 4779

Created 18th August 2014, last changed 18th August 2014.

**87.115 GImage.GetFileSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFileSize"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.114 GImage.GetFileName 4554
- 87.117 GImage.GetFillRule 4557
- 87.118 GImage.GetFilterType 4558
- 87.153 GImage.GetSize 4596
- 87.165 GImage.GetTileName 4608
- 87.252 GImage.SetFileName 4725
- 87.254 GImage.SetFillRule 4728
- 87.295 GImage.SetTileName 4779

Created 18th August 2014, last changed 18th August 2014.

**87.116 GImage.GetFillColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFillColor"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a color value as string.

**Description****See also**

- 87.71 GImage.FloodFillColor 4502
- 87.97 GImage.GetBoxColor 4536
- 87.117 GImage.GetFillRule 4557
- 87.135 GImage.GetMatteColor 4576
- 87.142 GImage.GetPixelColor 4584
- 87.236 GImage.SetBoxColor 4706
- 87.253 GImage.SetFillColor 4726
- 87.254 GImage.SetFillRule 4728
- 87.272 GImage.SetPixelColor 4750

**Example Databases**

- [GraphicsMagick/Find Pixels](#)

Created 18th August 2014, last changed 18th August 2014.



**87.117 GImage.GetFillRule**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFillRule"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedRule = 0, EvenOddRule = 1, NonZeroRule = 2

**See also**

- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.116 GImage.GetFillColor 4556
- 87.165 GImage.GetTileName 4608
- 87.252 GImage.SetFileName 4725
- 87.253 GImage.SetFillColor 4726
- 87.254 GImage.SetFillRule 4728

Created 18th August 2014, last changed 18th August 2014.

**87.118 GImage.GetFilterType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFilterType"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedFilter = 0, PointFilter = 1, BoxFilter = 2, TriangleFilter = 3, HermiteFilter = 4, HanningFilter = 5, HammingFilter = 6, BlackmanFilter = 7, GaussianFilter = 8, QuadraticFilter = 9, CubicFilter = 10, CatromFilter = 11, MitchellFilter = 12, LanczosFilter = 13, BesselFilter = 14, SincFilter = 15

**See also**

- 87.99 GImage.GetClassType 4538
- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.255 GImage.SetFilterType 4729

Created 18th August 2014, last changed 18th August 2014.

**87.119 GImage.GetFont**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFont"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.141 GImage.GetPage 4583
- 87.149 GImage.GetQuiet 4592
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.169 GImage.GetWidth 4612
- 87.170 GImage.GetXMP 4614
- 87.227 GImage.Segment 4695
- 87.256 GImage.SetFont 4730

Created 18th August 2014, last changed 18th August 2014.

## 87.120 GImage.GetFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFontSize"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

#### See also

- 87.257 GImage.SetFontSize

4731

Created 18th August 2014, last changed 18th August 2014.

**87.121 GImage.GetGamma**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetGamma"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the Gamma level of the image as number.

**Description****See also**

- 87.83 GImage.Gamma 4520
- 87.131 GImage.GetLabel 4572
- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583

Created 18th August 2014, last changed 18th August 2014.

## 87.122 GImage.GetGifDisposeMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetGifDisposeMethod"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

#### See also

- 87.258 GImage.SetGifDisposeMethod

4732

Created 18th August 2014, last changed 18th August 2014.

## 87.123 GImage.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetHeight"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the image height.

### Description

#### Examples

Show with and height

```
Let ( [
  $Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
  $Width = MBS("GImage.GetWidth"; $Image);
  $Height = MBS("GImage.GetHeight"; $Image);
  $Error = MBS("GImage.Release"; $Image)
];
$Width & " x " & $Height )
```

Query size of image into \$h and \$w:

```
Set Variable [ $Image ; Value: MBS( "GImage.NewFromContainer"; ImageView::ImageContainer ) ]
Set Variable [ $w ; Value: MBS( "GImage.GetWidth"; $Image ) ]
Set Variable [ $h ; Value: MBS( "GImage.GetHeight"; $Image ) ]
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image ) ]
```

### See also

- 87.48 GImage.CopyChannel 4464
- 87.49 GImage.Crop 4467
- 87.69 GImage.FindColorInRow 4498
- 87.110 GImage.GetDensity 4550
- 87.111 GImage.GetDepth 4551
- 87.142 GImage.GetPixelColor 4584
- 87.169 GImage.GetWidth 4612

- 87.191 GImage.New 4642
- 95.3 ImageView.CreateWithSize 5164
- 193.279 XL.Sheet.SetPictureWithSize 9376

### Example Databases

- [Barcode/Barcode Generation](#)
- [DynaPDF/Click Points](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Combine Pictures](#)
- [GraphicsMagick/GraphicsMagick Sample](#)
- [GraphicsMagick/Image Cropping](#)
- [GraphicsMagick/Reduce Image](#)
- [Mac and iOS/ImageView](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)

### 87.123.1 Blog Entries

- [Create PDF from scanned images and skip blank pages](#)
- [Circle crop images in FileMaker with MBS Plugin](#)
- [Face detection via CoreImage in FileMaker](#)

### 87.123.2 FileMaker Magazin

- [Ausgabe 5/2011, Seite 32](#)

Created 18th August 2014, last changed 21st December 2018.



## 87.124 GImage.GetICCColorProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetICCColorProfile"; ImageRef { ; Filename } )

### Parameters

#### ImageRef

The image reference number.

1

#### Filename

Optional

The filename to use for the profile. Default is "profile.icc".

"myprofile.icc"

**Result** Returns a container value with the profile file inside.

### Description

### Examples

Queries profile:

```
$Profile = MBS("GImage.GeticcColorProfile"; $Image);
```

### See also

- [87.125 GImage.GetIPTCProfile](#) 4566
- [87.259 GImage.SetICCColorProfile](#) 4733

### 87.124.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)

Created 18th August 2014, last changed 10th October 2017.

## 87.125 GImage.GetIPTCProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetIPTCProfile"; ImageRef { ; Filename } )

### Parameters

#### ImageRef

The image reference number.

1

#### Filename

Optional

The filename to use for the profile. Default is "profile.iptc".  
"myprofile.iptc"

**Result** Returns a container value with the profile file inside.

### Description

### See also

- [87.124 GImage.GetICCColorProfile](#) 4565
- [87.126 GImage.GetIPTCProfileValues](#) 4567
- [87.143 GImage.GetProfile](#) 4586
- [87.260 GImage.SetIPTCProfile](#) 4735
- [87.273 GImage.SetProfile](#) 4752

### 87.125.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)

Created 18th August 2014, last changed 30th August 2018.

**87.126 GImage.GetIPTCProfileValues**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetIPTCProfileValues"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns list or error.

**Description****Examples**

Queries IPTC values:

```
Set Variable [ $img; Value:MBS("GImage.NewFromContainer"; IPTC::InputImage) ]
```

```
Set Field [ IPTC::values; MBS("GImage.GetiptcProfileValues"; $img) ]
```

```
Set Variable [ $r; Value:MBS("GImage.Release"; $img) ]
```

**See also**

- 87.125 GImage.GetIPTCProfile 4566
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674

**87.126.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 15th March 2016, last changed 21st December 2018.

## 87.127 GImage.GetInterlaceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetInterlaceType"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

UndefinedInterlace = 0, NoInterlace = 1, LineInterlace = 2, PlaneInterlace = 3, PartitionInterlace = 4

### See also

- 87.261 GImage.SetInterlaceType 4736

Created 18th August 2014, last changed 18th August 2014.

## 87.128 **GImage.IsValid**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.IsValid"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a boolean value.

### Description

#### See also

- 87.144 [GImage.GetQuality](#) 4587
- 87.262 [GImage.SetIsValid](#) 4737

Created 18th August 2014, last changed 18th August 2014.

**87.129 GImage.GetJPEGAsBase64**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetJPEGAsBase64"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns text.

**Description**

For the quality setting use the SetQuality function.

Useful for sending JPEG image as email.

**See also**

- [87.130 GImage.GetJPEGAsHex](#) 4571
- [87.139 GImage.GetPNGAsBase64](#) 4581

**Example Databases**

- [GraphicsMagick/Picture Text Encoding](#)

**87.129.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 18th August 2014.

**87.130 GImage.GetJPEGAsHex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetJPEGAsHex"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns text.

**Description**

For the quality setting use the SetQuality function.

Useful for storing in database.

**See also**

- 87.129 GImage.GetJPEGAsBase64 4570
- 87.140 GImage.GetPNGAsHex 4582

**Example Databases**

- [GraphicsMagick/Picture Text Encoding](#)

**87.130.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 18th August 2014.

**87.131 GImage.GetLabel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetLabel"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.107 GImage.GetDebug 4547
- 87.121 GImage.GetGamma 4561
- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583
- 87.149 GImage.GetQuiet 4592
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.263 GImage.SetLabel 4738
- 87.271 GImage.SetPage 4749

Created 18th August 2014, last changed 18th August 2014.



## 87.132 GImage.GetLineWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetLineWidth"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

### Examples

Set and Query line width:

```
Set Variable [ $Image ; Value: MBS("GImage.New"; "200x200"; "white") ]
```

```
Set Variable [ $r ; Value: MBS("GImage.SetLineWidth"; $Image; 5) ]
```

```
Show Custom Dialog [ "LineWidth" ; MBS("GImage.GetLineWidth";$Image;) ]
```

```
Set Variable [ $r ; Value: MBS("GImage.Release";$Image) ]
```

### See also

- 87.161 GImage.GetStrokeWidth 4604
- 87.169 GImage.GetWidth 4612
- 87.191 GImage.New 4642
- 87.214 GImage.Release 4674
- 87.264 GImage.SetLineWidth 4739

Created 18th August 2014, last changed 21st December 2018.

**87.133 GImage.GetMagick**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetMagick"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.113 GImage.GetEndian 4553
- 87.123 GImage.GetHeight 4563
- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583
- 87.144 GImage.GetQuality 4587
- 87.265 GImage.SetMagick 4740

Created 18th August 2014, last changed 18th August 2014.

## 87.134 GImage.GetMatte

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetMatte"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a boolean value.

### Description

#### See also

- 87.141 GImage.GetPage 4583
- 87.149 GImage.GetQuiet 4592
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.169 GImage.GetWidth 4612
- 87.190 GImage.Negate 4640
- 87.221 GImage.Rotate 4685
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749

### Example Databases

- [GraphicsMagick/Reduce Image](#)

Created 18th August 2014, last changed 18th August 2014.

**87.135 GImage.GetMatteColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetMatteColor"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a color value as string.

**Description****See also**

- 87.97 GImage.GetBoxColor 4536
- 87.116 GImage.GetFillColor 4556
- 87.142 GImage.GetPixelColor 4584
- 87.146 GImage.GetQuantizeColors 4589
- 87.155 GImage.GetStrokeColor 4598
- 87.217 GImage.ReplaceColor 4678
- 87.235 GImage.SetBorderColor 4704
- 87.267 GImage.SetMatteColor 4744
- 87.272 GImage.SetPixelColor 4750
- 87.285 GImage.SetStrokeColor 4768

Created 18th August 2014, last changed 18th August 2014.

## 87.136 GImage.GetModulusDepth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetModulusDepth"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

That is the minimum number of bits required to support red/green/blue components without loss of accuracy.

#### See also

- 87.268 GImage.SetModulusDepth

4745

Created 18th August 2014, last changed 18th August 2014.

## 87.137 GImage.GetMonochrome

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetMonochrome"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a boolean value.

### Description

#### See also

- 87.269 GImage.SetMonochrome

4746

Created 18th August 2014, last changed 18th August 2014.

## 87.138 GImage.GetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetOrientation"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

UndefinedOrientation = 0, TopLeftOrientation = 1, (Line direction: Left to right, Frame Direction: Top to bottom) TopRightOrientation = 2, (Line direction: Right to left, Frame Direction: Top to bottom) BottomRightOrientation = 3, (Line direction: Right to left, Frame Direction: Bottom to top) BottomLeftOrientation = 4, (Line direction: Left to right, Frame Direction: Bottom to top) LeftTopOrientation = 5, (Line direction: Top to bottom, Frame Direction: Left to right) RightTopOrientation = 6, (Line direction: Top to bottom, Frame Direction: Right to left) RightBottomOrientation = 7, (Line direction: Bottom to top, Frame Direction: Right to left) LeftBottomOrientation = 8 (Line direction: Bottom to top, Frame Direction: Left to right)

### Examples

Set and query orientation:

```
Set Variable [ $Image ; Value: MBS("GImage.New"; "200x200"; "white") ]
Set Variable [ $r ; Value: MBS("GImage.SetOrientation"; $Image; 5) ]
Show Custom Dialog [ "LineWidth" ; MBS("GImage.GetOrientation";$Image;) ]
Set Variable [ $r ; Value: MBS("GImage.Release";$Image) ]
```

### See also

- 87.112 GImage.GetEXIFOrientation 4552
- 87.191 GImage.New 4642
- 87.214 GImage.Release 4674
- 87.250 GImage.SetEXIFOrientation 4723
- 87.270 GImage.SetOrientation 4747

### Example Databases

- [GraphicsMagick/Correct Image Orientation](#)

### 87.138.1 Blog Entries

- [Correct Image Orientation in FileMaker](#)

Created 18th August 2014, last changed 21st December 2018.



**87.139 GImage.GetPNGAsBase64**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetPNGAsBase64"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns text.

**Description**

For the quality setting use the SetQuality function.

Useful for sending PNG image as email.

**See also**

- 87.129 GImage.GetJPEGAsBase64 4570
- 87.140 GImage.GetPNGAsHex 4582

**87.139.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.140 GImage.GetPNGAsHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetPNGAsHex"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns text.

### Description

For the quality setting use the SetQuality function.

Useful for storing in database.

### See also

- [87.130 GImage.GetJPEGAsHex](#) 4571
- [87.139 GImage.GetPNGAsBase64](#) 4581

### Example Databases

- [GraphicsMagick/Picture Text Encoding](#)

### 87.140.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 18th August 2014.

**87.141 GImage.GetPage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetPage"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a geometry string.

**Description****See also**

- 87.170 GImage.GetXMP 4614
- 87.190 GImage.Negate 4640
- 87.214 GImage.Release 4674
- 87.216 GImage.Repage 4677
- 87.221 GImage.Rotate 4685
- 87.263 GImage.SetLabel 4738
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780

Created 18th August 2014, last changed 18th August 2014.

## 87.142 GImage.GetPixelColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetPixelColor"; ImageRef; x; y )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The horizontal position. Range from 0 to GImage.GetWidth-1.

0

#### y

The vertical position. Range from 0 to GImage.GetHeight-1.

0

**Result** Returns a color value as string.

### Description

Returned color is 16bit in v9.0 or later.

You may need to divide values by 257 if you need 8 bit values.

### Examples

Open picture and read first pixel:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$colorValue = MBS("GImage.GetPixelColor"; $Image; 0; 0);
$error = MBS("GImage.Release"; $Image)
];
$colorValue )
```

Trims space around image and make transparent:

```
Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS( "GImage.SetBackgroundColor"; $BigImageRef; "RGB 1 0 0" ) ]
Set Variable [ $Result; Value:MBS("GImage.Trim"; $BigImageRef) ]
Set Variable [ $Result; Value:MBS( "GImage.SetColorFuzz"; $BigImageRef; 5 ) ]
Set Variable [ $Result; Value:MBS( "GImage.SetMatte"; $BigImageRef; 1 ) ]
Set Variable [ $farbe; Value:MBS( "GImage.GetPixelColor"; $BigImageRef; 0; 0 ) ]
Set Variable [ $Result; Value:MBS( "GImage.ReplaceColor"; $BigImageRef; $farbe; "RGB 1 1 1"; 5) ]
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release"; $BigImageRef) ]
```

**See also**

- 87.96 *GImage.GetBorderColor* 4535
- 87.123 *GImage.GetHeight* 4563
- 87.135 *GImage.GetMatteColor* 4576
- 87.155 *GImage.GetStrokeColor* 4598
- 87.169 *GImage.GetWidth* 4612
- 87.235 *GImage.SetBorderColor* 4704
- 87.236 *GImage.SetBoxColor* 4706
- 87.239 *GImage.SetColorFuzz* 4709
- 87.253 *GImage.SetFillColor* 4726
- 87.267 *GImage.SetMatteColor* 4744

**Example Databases**

- [GraphicsMagick/Find Pixels](#)
- [GraphicsMagick/Trim Picture Border](#)

**87.142.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 18th August 2014, last changed 9th January 2020.

## 87.143 GImage.GetProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetProfile"; ImageRef; name { ; Filename } )

### Parameters

#### ImageRef

The image reference number.

1

#### name

the string with the name of the profile.

"IPTC"

#### Filename

Optional

The filename to use for the profile. Default is "profile".

"myprofile.icc"

**Result** Returns a container file value with the embedded profile file.

### Description

Valid names are: "8BIM", "8BIMTEXT", "APP1", "EXIF", "APP1JPEG", "ICC", "ICM", & "IPTC" or an existing user/format-defined profile name.

### Examples

Get EXIF data blob:

```
MBS( "GImage.Getprofile"; $img; "EXIF" )
```

### See also

- 87.125 GImage.GetIPTCProfile 4566
- 87.194 GImage.NewFromFile 4648
- 87.260 GImage.SetIPTCProfile 4735
- 87.273 GImage.SetProfile 4752

### 87.143.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)

Created 18th August 2014, last changed 19th January 2018.

**87.144 GImage.GetQuality**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuality"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.110 GImage.GetDensity 4550
- 87.128 GImage.GetIsValid 4569
- 87.133 GImage.GetMagick 4574
- 87.149 GImage.GetQuiet 4592
- 87.248 GImage.SetDensity 4720
- 87.274 GImage.SetQuality 4754

Created 18th August 2014, last changed 18th August 2014.

## 87.145 GImage.GetQuantizeColorSpace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuantizeColorSpace"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

UndefinedColorspace = 0, RGBColorspace = 1 (Plain old RGB colorspace), GRAYColorspace = 2 (Plain old full-range grayscale), TransparentColorspace = 3 (RGB but preserve matte channel during quantize), OHTAColorspace = 4, XYZColorspace = 5 (CIE XYZ), YCCColorspace = 6 (Kodak PhotoCD PhotoYCC), YIQColorspace = 7, YPbPrColorspace = 8, YUVCColorspace = 9, CMYKColorspace = 10 (Cyan, magenta, yellow, black, alpha), sRGBColorspace = 11 (Kodak PhotoCD sRGB), HSLColorspace = 12 (Hue, saturation, luminosity), HWBColorspace = 13 (Hue, whiteness, blackness), LABColorspace = 14 (LAB colorspace not supported yet other than via lcms), CineonLogRGBColorspace = 15 (RGB data with Cineon Log scaling, 2.048 density range), Rec601LumaColorspace = 16 (Luma (Y) according to ITU-R 601), Rec601YCbCrColorspace = 17 (YCbCr according to ITU-R 601), Rec709LumaColorspace = 18 (Luma (Y) according to ITU-R 709), Rec709YCbCrColorspace = 19 (YCbCr according to ITU-R 709)

### See also

- 87.146 GImage.GetQuantizeColors 4589
- 87.276 GImage.SetQuantizeColors 4757
- 87.275 GImage.SetQuantizeColorSpace 4756

Created 18th August 2014, last changed 18th August 2014.



**87.146 GImage.GetQuantizeColors**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuantizeColors"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.135 GImage.GetMatteColor 4576
- 87.145 GImage.GetQuantizeColorSpace 4588
- 87.147 GImage.GetQuantizeDither 4590
- 87.276 GImage.SetQuantizeColors 4757
- 87.275 GImage.SetQuantizeColorSpace 4756
- 87.277 GImage.SetQuantizeDither 4758

Created 18th August 2014, last changed 18th August 2014.

**87.147 GImage.GetQuantizeDither**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuantizeDither"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

**Description****See also**

- 87.146 GImage.GetQuantizeColors 4589
- 87.276 GImage.SetQuantizeColors 4757
- 87.277 GImage.SetQuantizeDither 4758

Created 18th August 2014, last changed 18th August 2014.

**87.148 GImage.GetQuantizeTreeDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuantizeTreeDepth"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.278 GImage.SetQuantizeTreeDepth

4759

Created 18th August 2014, last changed 18th August 2014.

## 87.149 GImage.GetQuiet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetQuiet"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns 1, 0 or error.

### Description

If enabled, suppress all warning messages. Error messages are still reported.

### See also

- 87.131 GImage.GetLabel 4572
- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583
- 87.144 GImage.GetQuality 4587
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.169 GImage.GetWidth 4612
- 87.279 GImage.SetQuiet 4760
- 87.298 GImage.SetView 4784

### 87.149.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 28th December 2018.

## 87.150 **GUIImage.GetRenderingIntent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GUIImage.GetRenderingIntent"; ImageRef )

### Parameters

#### **ImageRef**

The image reference number.

1

**Result** Returns a number.

### Description

UndefinedIntent = 0, SaturationIntent = 1, PerceptualIntent = 2, AbsoluteIntent = 3, RelativeIntent = 4

### See also

- 87.280 **GUIImage.SetRenderingIntent** 4761

Created 18th August 2014, last changed 18th August 2014.

## 87.151 GImage.GetResolutionUnits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetResolutionUnits"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a number.

### Description

UndefinedResolution = 0, PixelsPerInchResolution = 1, PixelsPerCentimeterResolution = 2

### See also

- 87.281 GImage.SetResolutionUnits 4762

### Example Databases

- [GraphicsMagick/Apply Mask](#)

### 87.151.1 FileMaker Magazin

- Ausgabe 5/2011, Seite 32

Created 18th August 2014, last changed 18th August 2014.

**87.152 GImage.GetScene**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetScene"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.119 GImage.GetFont 4559
- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.282 GImage.SetScene 4764
- 87.283 GImage.SetSize 4765

Created 18th August 2014, last changed 18th August 2014.

**87.153 GImage.GetSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetSize"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description****Examples**

Shows size:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
```

```
Set Variable [ $value ; Value: MBS("GImage.GetSize"; $image) ]
```

```
Show Custom Dialog [ "size" ; $value ]
```

```
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

**See also**

- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.169 GImage.GetWidth 4612
- 87.170 GImage.GetXMP 4614
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.218 GImage.Resize 4681
- 87.271 GImage.SetPage 4749
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784

Created 18th August 2014, last changed 17th April 2019.



**87.154 GImage.GetStrokeAntiAlias**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeAntiAlias"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

**Description****See also**

- 87.156 GImage.GetStrokeDashArray 4599
- 87.158 GImage.GetStrokeLineCap 4601
- 87.284 GImage.SetStrokeAntiAlias 4766

Created 18th August 2014, last changed 18th August 2014.

**87.155 GImage.GetStrokeColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeColor"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a color value as string.

**Description****See also**

- 87.96 GImage.GetBorderColor 4535
- 87.97 GImage.GetBoxColor 4536
- 87.135 GImage.GetMatteColor 4576
- 87.142 GImage.GetPixelColor 4584
- 87.161 GImage.GetStrokeWidth 4604
- 87.235 GImage.SetBorderColor 4704
- 87.267 GImage.SetMatteColor 4744
- 87.285 GImage.SetStrokeColor 4768
- 87.291 GImage.SetStrokeWidth 4775

Created 18th August 2014, last changed 18th August 2014.

**87.156 GImage.GetStrokeDashArray**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeDashArray"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns list of values or error.

**Description**

The strokeDashArray represents an array of numbers that specify the lengths of alternating dashes and gaps in pixels. If an odd number of values is provided, then the list of values is repeated to yield an even number of values. A typical strokeDashArray array might contain the members 5 3 2.

**See also**

- 87.154 GImage.GetStrokeAntiAlias 4597
- 87.157 GImage.GetStrokeDashOffset 4600
- 87.286 GImage.SetStrokeDashArray 4770
- 87.287 GImage.SetStrokeDashOffset 4771

**87.156.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

**87.157 GImage.GetStrokeDashOffset**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeDashOffset"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

While drawing using a dash pattern, specify distance into the dash pattern to start the dash (default 0).

**See also**

- 87.156 GImage.GetStrokeDashArray 4599
- 87.286 GImage.SetStrokeDashArray 4770
- 87.287 GImage.SetStrokeDashOffset 4771

Created 18th August 2014, last changed 18th August 2014.

**87.158 GImage.GetStrokeLineCap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeLineCap"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedCap = 0, ButtCap = 1, RoundCap = 2, SquareCap = 3

**See also**

- 87.154 GImage.GetStrokeAntiAlias 4597
- 87.159 GImage.GetStrokeLineJoin 4602
- 87.161 GImage.GetStrokeWidth 4604
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773

Created 18th August 2014, last changed 18th August 2014.

**87.159 GImage.GetStrokeLineJoin**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeLineJoin"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

UndefinedJoin = 0, MiterJoin = 1, RoundJoin = 2, BevelJoin = 3

**See also**

- 87.158 GImage.GetStrokeLineCap 4601
- 87.160 GImage.GetStrokeMiterLimit 4603
- 87.288 GImage.SetStrokeLineCap 4772
- 87.289 GImage.SetStrokeLineJoin 4773

Created 18th August 2014, last changed 18th August 2014.

**87.160 GImage.GetStrokeMiterLimit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeMiterLimit"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description**

When two line segments meet at a sharp angle and miter joins have been specified for 'lineJoin', it is possible for the miter to extend far beyond the thickness of the line stroking the path. The miterLimit' imposes a limit on the ratio of the miter length to the 'lineWidth'. The default value of this parameter is 4.

**See also**

- 87.159 GImage.GetStrokeLineJoin 4602
- 87.290 GImage.SetStrokeMiterLimit 4774

Created 18th August 2014, last changed 18th August 2014.

**87.161 GImage.GetStrokeWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetStrokeWidth"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.132 GImage.GetLineWidth 4573
- 87.155 GImage.GetStrokeColor 4598
- 87.158 GImage.GetStrokeLineCap 4601
- 87.285 GImage.SetStrokeColor 4768
- 87.291 GImage.SetStrokeWidth 4775

Created 18th August 2014, last changed 18th August 2014.



**87.162 GImage.GetSubImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetSubImage"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.163 GImage.GetSubRange 4606
- 87.292 GImage.SetSubImage 4776
- 87.293 GImage.SetSubRange 4777

Created 18th August 2014, last changed 18th August 2014.

**87.163 GImage.GetSubRange**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetSubRange"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a number.

**Description****See also**

- 87.162 GImage.GetSubImage 4605
- 87.292 GImage.SetSubImage 4776
- 87.293 GImage.SetSubRange 4777

Created 18th August 2014, last changed 18th August 2014.

## 87.164 **GUIImage.GetTextEncoding**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GUIImage.GetTextEncoding"; ImageRef )

### Parameters

#### **ImageRef**

The image reference number.

1

**Result** Returns a string.

### Description

#### See also

- 87.294 [GUIImage.SetTextEncoding](#)

4778

Created 18th August 2014, last changed 18th August 2014.

**87.165 GImage.GetFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetFileName"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.117 GImage.GetFillRule 4557
- 87.252 GImage.SetFileName 4725
- 87.295 GImage.SetTileName 4779

Created 18th August 2014, last changed 18th August 2014.

## 87.166 GImage.GetType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetType"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the image type number.

### Description

UndefinedType = 0, BilevelType = 1, GrayscaleType = 2, GrayscaleMatteType = 3, PaletteType = 4, PaletteMatteType = 5, TrueColorType = 6, TrueColorMatteType = 7, ColorSeparationType = 8, ColorSeparationMatteType = 9, OptimizeType = 10

### Examples

Shows type:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromFile"; "/Users/cs/Desktop/image4.png") ]
```

```
Set Variable [ $value ; Value: MBS("GImage.GetType"; $image) ]
```

```
Show Custom Dialog [ "Type"; $value ]
```

```
Set Variable [ $r ; Value: MBS("GImage.Release"; $image) ]
```

### See also

- 87.134 GImage.GetMatte 4575
- 87.149 GImage.GetQuiet 4592
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.271 GImage.SetPage 4749
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780

Created 18th August 2014, last changed 17th April 2019.

**87.167 GImage.GetVerbose**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetVerbose"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a boolean value.

**Description****See also**

- 87.105 GImage.GetCompose 4545
- 87.243 GImage.SetCompose 4714
- 87.297 GImage.SetVerbose 4783

Created 18th August 2014, last changed 18th August 2014.

**87.168 GImage.Get View**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetView"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a string.

**Description****See also**

- 87.141 GImage.GetPage 4583
- 87.149 GImage.GetQuiet 4592
- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.169 GImage.GetWidth 4612
- 87.170 GImage.GetXMP 4614
- 87.279 GImage.SetQuiet 4760
- 87.283 GImage.SetSize 4765
- 87.298 GImage.SetView 4784

Created 18th August 2014, last changed 18th August 2014.

**87.169 GImage.GetWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetWidth"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the Image width.

**Description****Examples**

Show with and height

```
Let ( [
  $Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
  $Width = MBS("GImage.GetWidth"; $Image);
  $Height = MBS("GImage.GetHeight"; $Image);
  $Error = MBS("GImage.Release"; $Image)
];
$Width & " x " & $Height )
```

Query size of image into \$h and \$w:

```
Set Variable [ $Image ; Value: MBS( "GImage.NewFromContainer"; ImageView::ImageContainer ) ]
Set Variable [ $w ; Value: MBS( "GImage.GetWidth"; $Image ) ]
Set Variable [ $h ; Value: MBS( "GImage.GetHeight"; $Image ) ]
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image ) ]
```

**See also**

- 87.69 GImage.FindColorInRow 4498
- 87.142 GImage.GetPixelColor 4584
- 87.149 GImage.GetQuiet 4592
- 87.168 GImage.GetView 4611
- 87.214 GImage.Release 4674
- 87.249 GImage.SetDepth 4722
- 87.272 GImage.SetPixelColor 4750



87.169. <i>GMIMAGE.GETWIDTH</i>	4613
• 95.2 <i>ImageView.CreateWithControl</i>	5162
• 95.3 <i>ImageView.CreateWithSize</i>	5164
• 193.4 <i>XL.Book.AddPictureContainer</i>	8995

### **Example Databases**

- [Barcode/Barcode Generation](#)
- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [DynaPDF/Click Points](#)
- [GraphicsMagick/Apply Mask](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Combine Pictures](#)
- [GraphicsMagick/Find Pixels](#)
- [GraphicsMagick/Image Cropping](#)
- [GraphicsMagick/Reduce Image](#)
- [Mac and iOS/ImageView](#)

### **87.169.1 Blog Entries**

- [Create PDF from scanned images and skip blank pages](#)
- [Circle crop images in FileMaker with MBS Plugin](#)
- [QR Codes for Invoices in Switzerland](#)

### **87.169.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2011, Seite 32](#)

Created 18th August 2014, last changed 21st December 2018.

**87.170 GImage.GetXMP**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetXMP"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns XML text or error.

**Description**

XMP data is a XML file with a given structure.

You can easily use the XML.Query function to get values.

**Examples**

Query XMP data from image:

```
Variable setzen [ $img; Wert:MBS( "GImage.NewImagesFromFile"; "/Users/cs/Desktop/test.tif" ) ]
```

```
Variable setzen [ $xmp; Wert:MBS( "GImage.GetXMP"; $img ) ]
```

```
Variable setzen [ $r; Wert:MBS( "GImage.Release"; $img ) ]
```

**See also**

- 87.119 GImage.GetFont 4559
- 87.141 GImage.GetPage 4583
- 87.153 GImage.GetSize 4596
- 87.166 GImage.GetType 4609
- 87.168 GImage.GetView 4611
- 87.191 GImage.New 4642
- 87.197 GImage.NewImagesFromFile 4652
- 87.214 GImage.Release 4674
- 87.299 GImage.SetXMP 4785
- 194.27 XML.Query 9448

### 87.170.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 8th June 2016, last changed 21st December 2018.

**87.171 GImage.GetcolorMap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.GetcolorMap"; ImageRef; index )

**Parameters****ImageRef**

The image reference number.

1

**index**

Position of the entry. Zero based.

0

**Result** Returns a color as string.

**Description****See also**

- 87.101 GImage.GetColorFuzz 4540
- 87.102 GImage.GetColorMapSize 4541
- 87.103 GImage.GetColorSpace 4542
- 87.301 GImage.SetcolorMap 4787

Created 18th August 2014, last changed 18th August 2014.

## 87.172 GImage.Hash

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Hash"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns text or error.

### Description

Hash is returned as 64 characters being 1 or 0.

We convert image to 8x8, turn grayscale and check if pixels are above or below mean value.

This hash is quite immune against resizing, compression artifacts and hue changes.

You can use Text.LevenshteinDistance or Text.JaroWinklerDistance to compare two hashes.

### Examples

Play with hash function:

```
Set Variable [ $ImageRef ; Value: MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Hash1 ; Value: MBS("GImage.Hash"; $ImageRef) ]
Set Variable [ $r ; Value: MBS( "GImage.Flip"; $ImageRef ) ]
Set Variable [ $Hash2 ; Value: MBS("GImage.Hash"; $ImageRef) ]
Set Variable [ $r ; Value: MBS( "GImage.Flop"; $ImageRef ) ]
Set Variable [ $Hash3 ; Value: MBS("GImage.Hash"; $ImageRef) ]
Set Variable [ $Error ; Value: MBS("GImage.Release"; $ImageRef) ]
Show Custom Dialog [ "Hash original: " & $hash1 & §& "Hash after 1x mirror: " & $hash2 & §& "Hash
after 2x mirror: " & ... ]
```

### See also

- 87.64 GImage.Erase 4491
- 87.70 GImage.Flip 4500
- 87.76 GImage.Flop 4509
- 87.181 GImage.Map 4629
- 87.191 GImage.New 4642
- 87.209 GImage.Raise 4667
- 87.214 GImage.Release 4674
- 87.332 GImage.Wave 4825

- 167.41 Text.JaroWinklerDistance 7962
- 167.43 Text.LevenshteinDistance 7964

### 87.172.1 Blog Entries

- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 10th September 2019, last changed 12nd September 2019.

**87.173 GImage.ImageCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ImageCount" )

**Result** Returns Number.

**Description**

This function allows you to check if you properly released all images from memory when your script is done. See also GImage.Release.

**See also**

- 87.81 GImage.Free 4517
- 87.214 GImage.Release 4674

Created 24th February 2015, last changed 21st December 2018.

## 87.174 GImage.Implode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Implode"; ImageRef; factor )

### Parameters

#### ImageRef

The image reference number.

1

#### factor

The implode factor.

0

**Result** Returns "OK" on success.

### Description

### Examples

Applies the implode effect:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Implode";$Image; 5);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

### See also

- [87.191 GImage.New](#) 4642
- [87.193 GImage.NewFromContainer](#) 4646
- [87.214 GImage.Release](#) 4674
- [87.224 GImage.Sample](#) 4689
- [87.340 GImage.WriteToPNGContainer](#) 4840

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.



## 87.175 GImage.InvertChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.InvertChannel"; ImageRef; Channel )

### Parameters

#### ImageRef

The image reference number.

1

#### Channel

Which channel to work with. Can be opacity, red, green or blue. The value rgb will apply effect to all three color channels.

"rgb"

**Result** Returns OK or error.

### Description

All pixel values are negated.

This is same as MBS( "GImage.MultiplyChannel"; ImageRef; Channel; -1; 0; 65535), but a bit faster.

### Examples

Invert image:

```
Set Variable [ $image ; Value: MBS( "GImage.NewFromContainer"; Invert::Input ) ]
# each channel...
// Set Variable [ $r ; Value: MBS( "GImage.InvertChannel"; $image; "red" ) ]
// Set Variable [ $g ; Value: MBS( "GImage.InvertChannel"; $image ) ]
// Set Variable [ $b ; Value: MBS( "GImage.InvertChannel"; $image; "blue" ) ]
# all channels...
Set Variable [ $r ; Value: MBS( "GImage.InvertChannel"; $image; "rgb" ) ]
Set Field [ Invert::Output ; MBS( "GImage.WriteToPNGContainer"; $image; "output.png" ) ]
Set Variable [ $r ; Value: MBS( "GImage.Release"; $image ) ]
```

### See also

- 87.31 GImage.BlurChannel 4439
- 87.178 GImage.LevelChannel 4625
- 87.189 GImage.MultiplyChannel 4638
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646

- 87.214 GImage.Release 4674
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/Invert](#)

### 87.175.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 13th September 2018, last changed 11st November 2019.

## 87.176 GImage.IsGray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.IsGray"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns value or error.

### Description

Returns 1 for gray or 0 if one pixel at least is not gray.

### 87.176.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)

Created 4th July 2018, last changed 28th November 2019.

**87.177 GImage.Level**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Level"; ImageRef; blackPoint; whitePoint { ; midPoint } )

**Parameters****ImageRef**

The image reference number.

1

**blackPoint**

The black point.

0

**whitePoint**

The white point.

1.0

**midPoint**

Optional

The middle point.

1.0

**Result** Returns "OK" on success.

**Description**

Adjust the levels of the image by scaling the colors falling between specified white and black points to the full available quantum range. The parameters provided represent the black, mid (gamma), and white points. The black point specifies the darkest color in the image. Colors darker than the black point are set to zero. Mid point (gamma) specifies a gamma correction to apply to the image. White point specifies the lightest color in the image. Colors brighter than the white point are set to the maximum quantum value. The black and white point have the valid range 0 to MaxRGB while mid (gamma) has a useful range of 0 to ten.

**See also**

- 87.332 GImage.Wave

4825

Created 18th August 2014, last changed 18th August 2014.

## 87.178 GMImage.LevelChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.LevelChannel"; ImageRef; ChannelType; blackPoint; whitePoint { ; midPoint } )

### Parameters

#### ImageRef

The image reference number.

1

#### ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

#### blackPoint

The black point.

0

#### whitePoint

The white point.

1.0

#### midPoint

Optional

The middle point.

1.0

**Result** Returns "OK" on success.

### Description

Adjust the levels of the image by scaling the colors falling between specified white and black points to the full available quantum range. The parameters provided represent the black, mid (gamma), and white points. The black point specifies the darkest color in the image. Colors darker than the black point are set to zero. Mid point (gamma) specifies a gamma correction to apply to the image. White point specifies the lightest color in the image. Colors brighter than the white point are set to the maximum quantum value. The black and white point have the valid range 0 to MaxRGB while mid (gamma) has a useful range of 0 to ten.

### See also

- 87.31 GMImage.BlurChannel 4439
- 87.48 GMImage.CopyChannel 4464
- 87.175 GMImage.InvertChannel 4621



## 87.179 GImage.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.List" )

**Result** Returns list or error.

### Description

Returns IDs for all images in memory. If this list is growing, you may have forgotten to call GImage.Release in your scripts.

Normally after all scripts are done, this list should be empty, except for static images you want to load once and reuse from time to time.

### See also

- [87.172 GImage.Hash](#) 4617
- [87.209 GImage.Raise](#) 4667
- [87.214 GImage.Release](#) 4674

### 87.179.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr3](#)

Created 12nd February 2018, last changed 21st December 2018.

**87.180 GImage.Magnify**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Magnify"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description**

Increases image size to 200% .

**Examples**

Magnificates an image:

```
# load images...
Set Variable [ $Image ; Value: MBS( "GImage.NewFromFile"; "/Users/cs/Pictures/IMG_3625.jpg" ) ]
# put first on second
Set Variable [ $r ; Value: MBS( "GImage.Magnify"; $Image ) ]
# magnify image
Set Variable [ $r ; Value: MBS( "GImage.WriteToFile"; $Image; "/Users/cs/Pictures/output.jpg" ) ]
# free memory
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image ) ]
```

**See also**

- 87.185 GImage.Minify 4633
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.336 GImage.WriteToFile 4831

Created 18th August 2014, last changed 11st December 2019.



**87.181 GImage.Map**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Map"; ImageRef; mapImage { ; dither } )

**Parameters****ImageRef**

The image reference number.

1

**mapImage**

The image reference number.

2

**dither**

Optional

Optional, a boolean whether to dither.

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.36 GImage.Chop 4447
- 87.47 GImage.Copy 4463
- 87.49 GImage.Crop 4467
- 87.70 GImage.Flip 4500
- 87.76 GImage.Flop 4509
- 87.172 GImage.Hash 4617
- 87.191 GImage.New 4642
- 87.212 GImage.Read 4671
- 87.332 GImage.Wave 4825

Created 18th August 2014, last changed 18th August 2014.

**87.182 GImage.MatteFloodfill**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MatteFloodfill"; ImageRef; target; opacity; x; y; PaintMethod )

**Parameters****ImageRef**

The image reference number.

1

**target**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**opacity**

The opacity value from 0 to 65535.

127\*257

**x**

The X Position.

0

**y**

The Y Position.

0

**PaintMethod**

PointMethod = 0, ReplaceMethod = 1, FloodfillMethod = 2, FillToBorderMethod = 3, ResetMethod = 4

2

**Result** Returns "OK" on success.

**Description**

Created 18th August 2014, last changed 11st November 2019.

**87.183 GImage.MeanErrorPerPixel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MeanErrorPerPixel"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the mean error per pixel as number.

**Description**

Created 18th August 2014, last changed 18th August 2014.

## 87.184 GImage.MedianFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MedianFilter"; ImageRef; radius )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

The radius.

0.0

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.185 GImage.Minify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Minify"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns "OK" on success.

### Description

Reduces image size to 50% .

### Examples

Shrinks image:

```
# load images...
Set Variable [ $Image ; Value: MBS( "GImage.NewFromFile"; "/Users/cs/Pictures/IMG_3625.jpg" ) ]
# minimize first
Set Variable [ $r ; Value: MBS( "GImage.Minify"; $Image ) ]
# and save to file
Set Variable [ $r ; Value: MBS( "GImage.WriteToFile"; $Image; "/Users/cs/Pictures/output.jpg" ) ]
# free memory
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image ) ]
```

### See also

- 87.180 GImage.Magnify 4628
- 87.191 GImage.New 4642
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.336 GImage.WriteToFile 4831

Created 18th August 2014, last changed 11st December 2019.

## 87.186 GImage.Modulate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Modulate"; ImageRef; brightness; saturation; hue )

### Parameters

#### ImageRef

The image reference number.

1

#### brightness

The brightness value.

100

#### saturation

The saturation value.

0

#### hue

The hue value.

100

**Result** Returns "OK" on success.

### Description

Modulation of saturation and brightness is as a ratio of the current value (100 for no change). Modulation of hue is an absolute rotation of -180 degrees to +180 degrees from the current position corresponding to an argument range of 0 to 200 (100 for no change).

### Examples

Increase brightness:

```
MBS("GImage.Modulate"; $Image; 110; 100; 100);
```

Increase saturation:

```
MBS("GImage.Modulate"; $Image; 100; 110; 100);
```

Increase hue:

```
MBS("GImage.Modulate"; $Image; 100; 100; 110);
```

Modulate an image:

```
Set Variable [ $image ; Value: MBS("GImage.NewFromContainer"; MyTable::InputImage) ]
Set Variable [ $r ; Value: MBS ("GImage.Modulate" ; $image ; 150 ; 150 ; 150 ) ]
Set Field [ MyTable::Brightened ; MBS("GImage.WriteToJPEGContainer";$image) ]
```

87.186. *GMIMAGE.MODULATE* 4635  
Set Variable [ \$r ; Value: MBS("GMImage.Release"; \$image) ]

**See also**

- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.221 GMImage.Rotate 4685
- 87.338 GMImage.WriteToJPEGContainer 4836

Created 18th August 2014, last changed 26th April 2019.

## 87.187 GImage.MontageGeometry

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MontageGeometry"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns a geometry string.

### Description

Created 18th August 2014, last changed 18th August 2014.



**87.188 GImage.MotionBlur**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MotionBlur"; ImageRef; radius; sigma; angle )

**Parameters****ImageRef**

The image reference number.

1

**radius**

Specifies the radius of the Gaussian, in pixels, not counting the center pixel.

10

**sigma**

Specifies the standard deviation of the Laplacian, in pixels.

5

**angle**

specifies the angle the object appears to be coming from (zero degrees is from the right).

0

**Result** Returns "OK" on success.

**Description**

Created 18th August 2014, last changed 18th August 2014.

**87.189 GImage.MultiplyChannel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.MultiplyChannel"; ImageRef; Channel; Factor { ; Add1; Add2 } )

**Parameters****ImageRef**

The image reference number.

1

**Channel**

Which channel to work with. Can be opacity, red, green or blue. The value rgb will apply effect to all three color channels.

"rgb"

**Factor**

The multiplication factor. Range from -1.0 to 1.0.

0.1

**Add1**

Optional

The value to add before multiply. Usually between -65535 and 65535.

0

**Add2**

Optional

The value to add after multiply. Usually in range from -65535 to 65535.

65535\*0.9

**Result** Returns OK or error.

**Description**

For every pixel component, we apply the formula:

$$\text{newValue} = ((\text{Add1} + \text{oldValue}) * \text{Factor}) + \text{Add2}$$

This can be used to change brightness or make opacity less/more transparent.

**Examples**

Multiplies existing opacity channel to make image 90% transparent:

```
// existing values * 0.1 and add 90% to the value to move to higher range.
```

```
MBS("GImage.MultiplyChannel"; $ImageRef; "opacity"; 0.1; 0; 255*0.9)
```

Invert image via multiply:

```
Set Variable [ $image ; Value: MBS( "GImage.NewFromContainer"; Invert::Input ) ]
```

```
# each channel...
```

```
// Set Variable [ $r ; Value: MBS( "GImage.MultiplyChannel"; $image; "red"; -1; 0; 65535) ]
```

```
// Set Variable [ $r ; Value: MBS( "GImage.MultiplyChannel"; $image; "green"; -1; 0; 65535) ]
```

## 87.189. GMIMAGE.MULTIPLYCHANNEL

4639

```
// Set Variable [ $r ; Value: MBS( "GMImage.MultiplyChannel"; $image; "blue"; -1; 0; 65535) ]  
# all channels...  
Set Variable [ $r ; Value: MBS( "GMImage.MultiplyChannel"; $image; "rgb"; -1; 0; 65535) ]  
Set Field [ Invert::Output ; MBS( "GMImage.WriteToPNGContainer"; $image; "output.png" ) ]  
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $image) ]
```

### See also

- 87.175 GMImage.InvertChannel 4621
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.340 GMImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/Invert](#)

### 87.189.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 3th February 2015, last changed 11st November 2019.

**87.190 GImage.Negate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Negate"; ImageRef; grayscale )

**Parameters****ImageRef**

The image reference number.

1

**grayscale**

Set grayscale to only negate grayscale values in image.

1

**Result** Returns "OK" on success.

**Description****Examples**

Negates an image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Negate";$Image);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

**See also**

- 87.134 GImage.GetMatte 4575
- 87.141 GImage.GetPage 4583
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.216 GImage.Repage 4677
- 87.218 GImage.Resize 4681
- 87.221 GImage.Rotate 4685
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749

87.190. *GMIMAGE.NEGATE*

4641

- 87.340 GImage.WriteToPNGContainer

4840

### **Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

**87.191 GImage.New**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.New"; Geometry; Color )

**Parameters****Geometry**

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns the ImageRef number on success.

**Description**

Please call GImage.Release later to free memory for this image.

Image reference numbers are starting at 18000 and counting up for each new image.

**Examples**

New white image:

```
MBS( "GImage.New"; "16x16"; "white" )
```

New red image:

```
MBS( "GImage.New"; "16x16"; "# FF0000" )
```

Create red square and save to container:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "16x16"; "red" ) ]
Set Field [ test::test; MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

Build in a calculation:

```
SetVars ( [
```

```
img = MBS( "GImage.New"; "16x16"; "random" );
result = MBS( "GImage.WriteToPNGContainer"; img; "test.png" );
```

```
r = MBS( "GMImage.Release"; img)

]; result )
```

Create picture with red and 50% alpha:

```
# Create picture
Set Variable [ $img; Value:MBS( "GMImage.New"; "16x16"; "white" ) ]
# Add alpha channel
Set Variable [ $r; Value:MBS( "GMImage.SetMatte"; $img; 1 ) ]
# Set background color and fill
Set Variable [ $r; Value:MBS( "GMImage.SetBackgroundColor"; $img; "COLOR 65535 0 0 0.5" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Erase"; $img ) ]
# Write to field
Set Variable [ $pic; Value:MBS( "GMImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Field [ test::r; $pic ]
# Cleanup
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]
```

Create a transparent picture by erasing with transparent color:

```
Set Variable [ $img ; Value: MBS("GMImage.New"; $width & "x" & $height; "RGB 1 1 1" ) ]
Set Variable [ $r ; Value: MBS( "GMImage.SetMatte"; $img; 1 ) ]
Set Variable [ $r ; Value: MBS( "GMImage.SetBackgroundColor"; $img; "transparent" ) ]
Set Variable [ $r ; Value: MBS("GMImage.Erase"; $img) ]
```

### See also

- 87.212 GMImage.Read 4671
- 87.309 GMImage.SkewY 4797
- 87.341 GMImage.WriteToTiffContainer 4843
- 95.2 ImageView.CreateWithControl 5162
- 123.6 OCR.GetText 6222
- 123.14 OCR.SetImage 6233
- 133.28 ProgressDialog.SetTitleIcon 6641
- 185.96 Window.SetTitleIcon 8789
- 193.4 XL.Book.AddPictureContainer 8995
- 193.279 XL.Sheet.SetPictureWithSize 9376

### Example Databases

- [Color Panel](#)
- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Colors](#)
- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)
- [GraphicsMagick/SVG to PNG](#)
- [GraphicsMagick/Text Wrap](#)
- [Utility functions/Colors](#)

### 87.191.1 Blog Entries

- [Convert a SVG image to PNG with alpha channel](#)
- [Gradients in GraphicsMagick](#)
- [Circle crop images in FileMaker with MBS Plugin](#)

Created 18th August 2014, last changed 8th May 2020.



## 87.192 GImage.NewFromBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NewFromBase64"; text )

### Parameters

#### text

The text to decode.

**Result** Returns the ImageRef number on success.

### Description

Please call GImage.Release later to free memory for this image.

This is useful for images you got from an email.

Image reference numbers are starting at 18000 and counting up for each new image.

### See also

- 87.194 GImage.NewFromFile 4648
- 87.195 GImage.NewFromHex 4650
- 87.214 GImage.Release 4674

### Example Databases

- [GraphicsMagick/Picture Text Encoding](#)

### 87.192.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr5](#)
- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.193 GImage.NewFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "GImage.NewFromContainer"; data )
```

### Parameters

#### data

A value from a Container Field. Can include various image formats like JPEG, PNG or just containers with FILE data.

**Result** Returns the ImageRef number on success.

### Description

Please call GImage.Release later to free memory for this image.

Image reference numbers are starting at 18000 and counting up for each new image.

### Examples

Show with and height

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Width = MBS("GImage.GetWidth";$Image);
$Height = MBS("GImage.GetHeight";$Image);
$error = MBS("GImage.Release";$Image)
];
$Width & " x " & $Height )
```

Load from container:

```
MBS( "GImage.NewFromContainer"; test::test)
```

### See also

- 87.196 GImage.NewImagesFromContainer 4651
- 86.1 GImage.ReadFromContainer 4395
- 87.329 GImage.Trim 4821
- 87.335 GImage.WriteToContainer 4829
- 87.336 GImage.WriteToFile 4831
- 87.339 GImage.WriteToPDFContainer 4838
- 95.3 ImageView.CreateWithSize 5164
- 123.7 OCR.GetTextWithCoordinates 6224

87.193. GMIMAGE.NEWFROMCONTAINER	4647
• 123.14 OCR.SetImage	6233
• 193.4 XL.Book.AddPictureContainer	8995

### Example Databases

- [GraphicsMagick/Combine Pictures](#)
- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/Export Images](#)
- [GraphicsMagick/Find Pixels](#)
- [GraphicsMagick/GraphicsMagick Exif](#)
- [GraphicsMagick/GraphicsMagick IPTC](#)
- [GraphicsMagick/Image Cropping](#)
- [GraphicsMagick/Invert](#)
- [GraphicsMagick/Rotate Orientation](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

### 87.193.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr3](#)
- [New MBS FileMaker Plugin 9.0](#)
- [Neues MBS FileMaker Plugin 9.0](#)
- [MBS FileMaker Plugin, version 9.0pr6](#)
- [MBS FileMaker Plugin, version 8.6pr5](#)
- [Correct Image Orientation in FileMaker](#)
- [MBS FileMaker Plugin, version 8.3pr7](#)
- [Circle crop images in FileMaker with MBS Plugin](#)

### 87.193.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2011, Seite 32](#)

Created 18th August 2014, last changed 7th April 2020.

## 87.194 GImage.NewFromFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NewFromFile"; Path { ; Magick } )

### Parameters

#### Path

The platform specific file path.

"/test.jpg"

#### Magick

Optional

Available in MBS FileMaker Plugin 8.4 or newer.

The magick setting to define which codec to use.

"JPG"

**Result** Returns the ImageRef number on success.

### Description

Please call GImage.Release later to free memory for this image.

Image reference numbers are starting at 18000 and counting up for each new image.

### See also

- 87.99 GImage.GetClassType 4538
- 87.106 GImage.GetCompressType 4546
- 87.111 GImage.GetDepth 4551
- 87.143 GImage.GetProfile 4586
- 87.153 GImage.GetSize 4596
- 87.180 GImage.Magnify 4628
- 87.185 GImage.Minify 4633
- 87.192 GImage.NewFromBase64 4645
- 87.209 GImage.Raise 4667
- 87.214 GImage.Release 4674

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)

### 87.194.1 **Blog Entries**

- [Create PDF from scanned images and skip blank pages](#)
- [MBS FileMaker Plugin, version 8.4pr4](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS Filemaker Plugin, version 4.4pr7](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.195 GImage.NewFromHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NewFromHex"; text )

### Parameters

#### text

The text to decode.

**Result** Returns the ImageRef number on success.

### Description

Please call GImage.Release later to free memory for this image.

This is useful for images you got from a database.

Image reference numbers are starting at 18000 and counting up for each new image.

### See also

- [87.192 GImage.NewFromBase64](#) 4645
- [87.194 GImage.NewFromFile](#) 4648
- [87.214 GImage.Release](#) 4674

### Example Databases

- [GraphicsMagick/Picture Text Encoding](#)

### 87.195.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.196 GImage.NewImagesFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NewImagesFromContainer"; data )

### Parameters

#### data

A value from a Container Field.

**Result** Returns list of image references or error.

### Description

This is for loading multi image tiff files.

Please call GImage.Release later to free memory each image.

Image reference numbers are starting at 18000 and counting up for each new image.

### See also

- 87.193 GImage.NewFromContainer 4646
- 87.197 GImage.NewImagesFromFile 4652
- 86.1 GImage.ReadFromContainer 4395
- 87.214 GImage.Release 4674
- 87.333 GImage.WriteImages 4826
- 133.28 ProgressDialog.SetTitleIcon 6641
- 185.96 Window.SetTitleIcon 8789

### Example Databases

- [GraphicsMagick/Split Multi Tiff](#)

### 87.196.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 11st March 2015, last changed 31st July 2019.

## 87.197 GImage.NewImagesFromFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NewImagesFromFile"; Path )

### Parameters

#### Path

The platform specific file path.

"/test.tif"

**Result** Returns list of image references or error.

### Description

This is for loading multi image tiff files.

Please call GImage.Release later to free memory for each image.

Image reference numbers are starting at 18000 and counting up for each new image.

### Examples

Loads from file and writes to other file:

```
Set Variable [ $img; Value:MBS("GImage.NewImagesFromFile"; "/Users/cs/Desktop/test.jpg") ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r; Value:MBS( "GImage.WriteToFile"; $img; "/Users/cs/Desktop/test.tif" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
End If
```

### See also

- 87.170 GImage.GetXMP 4614
- 87.191 GImage.New 4642
- 87.196 GImage.NewImagesFromContainer 4651
- 87.214 GImage.Release 4674
- 87.333 GImage.WriteImages 4826
- 87.336 GImage.WriteToFile 4831
- 127.6 IsError 6374

### 87.197.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr8](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)



87.197. *GMIMAGE.NEWIMAGESFROMFILE*

4653

Created 11st March 2015, last changed 31st July 2019.

**87.198 GImage.Normalize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Normalize"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.43 GImage.Compare 4456
- 87.63 GImage.Equalize 4490
- 87.199 GImage.NormalizedMaxError 4655
- 87.310 GImage.Solarize 4798

Created 18th August 2014, last changed 18th August 2014.

**87.199 GImage.NormalizedMaxError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NormalizedMaxError"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the normalized max error as number.

**Description****Examples**

Compares two images:

```

Set Variable [ $img1; Value:MBS( "GImage.NewFromContainer"; test::Container1 ) ]
Set Variable [ $img2; Value:MBS( "GImage.NewFromContainer"; test::Container2 ) ]
Set Variable [ $result; Value:MBS( "GImage.Compare"; $img1; $img2 ) ]
If [ $result = 1 ]
Show Custom Dialog [ "Image Comparison"; "equal" ]
Else If [ $result = 0 ]
Set Variable [ $e; Value:MBS( "GImage.NormalizedMaxError"; $img1 ) ]
If [ $e 0 and $e <,03 ]
Show Custom Dialog [ "Image Comparison"; "very similar: " & MBS( "GImage.NormalizedMaxError";
$img1 ) ]
Else
Show Custom Dialog [ "Image Comparison"; "not equal" ]
End If
End If
Set Variable [ $r; Value:MBS("GImage.Release"; $img1) ]
Set Variable [ $r; Value:MBS("GImage.Release"; $img2) ]

```

**See also**

- 87.43 GImage.Compare 4456
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.198 GImage.Normalize 4654
- 87.200 GImage.NormalizedMeanError 4657
- 87.214 GImage.Release 4674



**87.200 GImage.NormalizedMeanError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.NormalizedMeanError"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the normalized mean error as number.

**Description****See also**

- 87.199 GImage.NormalizedMaxError

4655

Created 18th August 2014, last changed 18th August 2014.

## 87.201 GImage.OilPaint

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.OilPaint"; ImageRef { ; radius } )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

Optional

The radius.

3.0

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.202 GImage.Opacity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Opacity"; ImageRef; opacity )

### Parameters

#### ImageRef

The image reference number.

1

#### opacity

The opacity, range from 0 to 255.

127

**Result** Returns "OK" on success.

### Description

If the image pixels are opaque then they are set to the specified opacity value, otherwise they are blended with the supplied opacity value. The value of opacity ranges from 0 (completely opaque) to MaxRGB (65535). The defines OpaqueOpacity and TransparentOpacity are available to specify completely opaque or completely transparent, respectively.

### See also

- [87.203 GImage.Opaque](#)

4660

### 87.202.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 18th August 2014, last changed 7th May 2020.

**87.203 GImage.Opacity**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Opacity"; ImageRef; opaqueColor; penColor )

**Parameters****ImageRef**

The image reference number.

1

**opaqueColor**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**penColor**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description****See also**

- 87.202 GImage.Opacity 4659
- 87.216 GImage.Repage 4677

Created 18th August 2014, last changed 11st November 2019.



## 87.204 GImage.PopClipPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.PopClipPath"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

#### See also

- 87.38 GImage.ClipPath 4449
- 87.206 GImage.PushClipPath 4663

Created 18th August 2014, last changed 18th August 2014.

## 87.205 GImage.PurgeTemporaryFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.PurgeTemporaryFiles" )

**Result** Returns OK or error.

### Description

The plugin checks if images are in use and refuses to purge if there are current image references.

If you process images in a batch and you finish your work, you can call this method after freeing the last image to clear temp files.

### 87.205.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr12](#)

Created 14th February 2015, last changed 14th February 2015.

**87.206 GImage.PushClipPath**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.PushClipPath"; ImageRef; name )

**Parameters****ImageRef**

The image reference number.

1

**name**

The name of the new clippath.

"Clip1"

**Result** Returns OK or error.

**Description**

Clip patch definition consists of subsequent drawing commands, terminated by GImage.PopClipPath.

**See also**

- 87.38 GImage.ClipPath 4449
- 87.204 GImage.PopClipPath 4661

Created 18th August 2014, last changed 18th August 2014.

## 87.207 GImage.Quantize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Quantize"; ImageRef { ; measureError } )

### Parameters

#### ImageRef

The image reference number.

1

#### measureError

Optional

Optionally, a boolean value.

0

**Result** Returns "OK" on success.

### Description

See GImage.SetQuantizeColorSpace, GImage.SetQuantizeColors, GImage.SetQuantizeDither and GImage.SetQuantizeTreeDepth for options.

### Examples

Quantize picture:

```
Set Variable [ $BigImageRef ; Value: MBS("GImage.NewFromContainer"; Test::BigImage) ]
# reduce to 20 colors, so we see the effect. Normally 256
Set Variable [ $Result ; Value: MBS( "GImage.SetQuantizeColors"; $BigImageRef; 20) // 256 ) ]
# Enable dithering, turn off to really see the effect
Set Variable [ $Result ; Value: MBS( "GImage.SetQuantizeDither"; $BigImageRef; 1 ) ]
# Quantize to palette colors
Set Variable [ $Result ; Value: MBS( "GImage.SetQuantizeColorSpace"; $BigImageRef; 4 /* palette */ )
]
# Do it!
Set Variable [ $Result ; Value: MBS("GImage.Quantize"; $BigImageRef) ]
# Type should now be 4 for palette
Set Variable [ $Result ; Value: MBS("GImage.GetType"; $BigImageRef) ]
# save as GIF
Set Field [ Test::Result ; MBS( "GImage.WriteToGIFContainer"; $BigImageRef ) ]
Set Variable [ $Error ; Value: MBS("GImage.Release";$BigImageRef) ]
```

### See also

- 87.63 GImage.Equalize 4490
- 87.166 GImage.GetType 4609
- 87.191 GImage.New 4642

87.207. <i>GMIMAGE.QUANTIZE</i>	4665
• 87.193 GImage.NewFromContainer	4646
• 87.214 GImage.Release	4674
• 87.276 GImage.SetQuantizeColors	4757
• 87.275 GImage.SetQuantizeColorSpace	4756
• 87.277 GImage.SetQuantizeDither	4758
• 87.278 GImage.SetQuantizeTreeDepth	4759
• 87.337 GImage.WriteToGIFContainer	4834

Created 18th August 2014, last changed 21st December 2018.

## 87.208 GImage.QuantumDepth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.QuantumDepth" )

**Result** Returns bit number.

### Description

This is bit depth used to store one component of a pixel.  
The MBS Plugin can be build with 8 or 16 bit.

### 87.208.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 25th May 2018, last changed 27th May 2018.

## 87.209 GImage.Raise

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Raise"; ImageRef { ; geometry; raisedFlag } )

### Parameters

#### ImageRef

The image reference number.

1

#### geometry

Optional

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

#### raisedFlag

Optional

A boolean flag.

0

**Result** Returns "OK" on success.

### Description

#### Examples

Raises the border of an image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$ScaleResult = MBS("GImage.Raise";$Image);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

Raise an image:

```
# load images...
Set Variable [ $Image ; Value: MBS( "GImage.NewFromFile"; "/Users/cs/Pictures/IMG_3625.jpg") ]
# raise image
Set Variable [ $r ; Value: MBS( "GImage.Raise"; $Image) ]
# and save to file
Set Variable [ $r ; Value: MBS( "GImage.WriteToFile"; $Image; "/Users/cs/Pictures/output.jpg") ]
# free memory
Set Variable [ $r ; Value: MBS( "GImage.Release"; $Image) ]
```

**See also**

- 87.64 GImage.Erase 4491
- 87.172 GImage.Hash 4617
- 87.179 GImage.List 4627
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.194 GImage.NewFromFile 4648
- 87.214 GImage.Release 4674
- 87.223 GImage.Rows 4688
- 87.332 GImage.Wave 4825
- 87.336 GImage.WriteToFile 4831

**Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 11st December 2019.



**87.210 GImage.RandomThreshold**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.RandomThreshold"; ImageRef; thresholds )

**Parameters****ImageRef**

The image reference number.

1

**thresholds**

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

**Description**

Changes the value of individual pixels based on the intensity of each pixel compared to a random threshold. The result is a low-contrast, two color image. The thresholds\_ argument is a geometry containing LOWx-HIGH thresholds. If the string contains 2x2, 3x3, or 4x4, then an ordered dither of order 2, 3, or 4 will be performed instead. If a ChannelType argument is specified then only the specified channel is altered. This is a very fast alternative to 'quantize' based dithering.

Created 18th August 2014, last changed 18th August 2014.

## 87.211 GImage.RandomThresholdChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.RandomThresholdChannel"; ImageRef; thresholds; ChannelType )

### Parameters

#### ImageRef

The image reference number.

1

#### thresholds

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20".

For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

"100x200"

#### ChannelType

ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

**Result** Returns "OK" on success.

### Description

Changes the value of individual pixels based on the intensity of each pixel compared to a random threshold. The result is a low-contrast, two color image. The thresholds\_ argument is a geometry containing LOWx-HIGH thresholds. If the string contains 2x2, 3x3, or 4x4, then an ordered dither of order 2, 3, or 4 will be performed instead. If a ChannelType argument is specified then only the specified channel is altered. This is a very fast alternative to 'quantize' based dithering.

Created 18th August 2014, last changed 18th August 2014.

## 87.212 GImage.Read

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Read"; ImageRef; Spec { ; Geometry } )

### Parameters

#### ImageRef

The image reference number.

1

#### Spec

The image specification. e.g. native file path

#### Geometry

Optional

The image size. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns OK or error.

### Description

This allows you to directly specify the coders to use and include options.

e.g. gradient coder takes a range of two colors to create gradient.

### Examples

Reads in a gradient image:

```
Set Variable [ $image ; Value: MBS( "GImage.New"; "200x200"; "white" ) ]
Set Variable [ $r ; Value: MBS( "GImage.Read"; $image; "gradient:# 20a0ff-# ffff00;" ) ]
// Set Variable [ $r ; Value: MBS( "GImage.Read"; $image; "gradient:white-black" ) ]
Set Field [ Contacts::Photo Container ; MBS( "GImage.WriteToPNGContainer"; $image; "gradient.png" ) ]
Set Variable [ $r ; Value: MBS( "GImage.Release"; $image) ]
```

### See also

- 87.181 GImage.Map 4629
- 87.191 GImage.New 4642
- 86.1 GImage.ReadFromContainer 4395
- 87.216 GImage.Repage 4677
- 87.219 GImage.Roll 4683

- 87.223 GImage.Rows 4688
- 87.233 GImage.SetBackgroundColor 4701
- 87.302 GImage.Shade 4788
- 87.311 GImage.Spread 4800
- 87.340 GImage.WriteToPNGContainer 4840

### 87.212.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Gradients in GraphicsMagick](#)

Created 25th May 2018, last changed 21st December 2018.

**87.213 GImage.ReduceNoise**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ReduceNoise"; ImageRef { ; order } )

**Parameters****ImageRef**

The image reference number.

1

**order**

Optional

The order value.

0

**Result** Returns "OK" on success.

**Description**

Created 18th August 2014, last changed 18th August 2014.

## 87.214 GImage.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Release"; ImageRef )

(old name: GImage.Destroy)

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

Please call this function when you are done with the image to free memory.

The plugin doesn't know whether you need the image later, so it can't free the memory for you.

You can use GImage.ImageCount to find out how many images are open in memory.

On the long term, we will change all examples to use GImage.Release instead of GImage.Destroy and later deprecate GImage.Destroy and hide it in documentation.

You need to release all image references returned by functions GImage.New, GImage.NewFromBase64, GImage.NewFromContainer, GImage.NewFromFile, GImage.NewFromHex, GImage.NewImagesFromContainer, GImage.NewImagesFromFile, GImage.Copy, GImage.GetClipMask, MenuItem.GetImage, MenuItem.GetMixedStateImage, MenuItem.GetOffStateImage, MenuItem.GetOnStateImage, Twain.CurrentImage, and Barcode.Generate.

### Examples

Show with and height

```
Let ( [
  $Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
  $Width = MBS("GImage.GetWidth";$Image);
  $Height = MBS("GImage.GetHeight";$Image);
  $Error = MBS("GImage.Destroy";$Image)
];
$Width & " x " & $Height )
```

Create red square and save to container:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "16x16"; "red" ) ]
Set Field [ test::test; MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GImage.Destroy"; $img ) ]
```

87.214. *GMIMAGE.RELEASE* 4675

**See also**

- 87.190 *GImage.Negate* 4640
- 87.216 *GImage.Repage* 4677
- 87.218 *GImage.Resize* 4681
- 114.55 *MenuItem.GetOffStateImage* 6022
- 114.56 *MenuItem.GetOnStateImage* 6023
- 123.6 *OCR.GetText* 6222
- 123.7 *OCR.GetTextWithCoordinates* 6224
- 172.7 *Twain.CurrentImage* 8122
- 193.4 *XL.Book.AddPictureContainer* 8995
- 193.279 *XL.Sheet.SetPictureWithSize* 9376

**Example Databases**

- [DynaPDF/Scan with WIA to PDF](#)

**87.214.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 18th August 2014, last changed 31st July 2019.

## 87.215 GImage.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ReleaseAll" )

(old name: GImage.DestroyAll)

**Result** Returns OK or error.

### Description

On the long term, we will change all examples to use GImage.ReleaseAll instead of GImage.DestroyAll and later deprecate GImage.DestroyAll and hide it in documentation.

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 87.214 GImage.Release

4674

Created 2nd January 2017, last changed 9th January 2020.



## 87.216 GImage.Repage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Repage"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns OK or error.

### Description

#### See also

- 87.43 GImage.Compare 4456
- 87.141 GImage.GetPage 4583
- 87.190 GImage.Negate 4640
- 87.203 GImage.Opaque 4660
- 87.212 GImage.Read 4671
- 87.214 GImage.Release 4674
- 87.218 GImage.Resize 4681
- 87.221 GImage.Rotate 4685
- 87.271 GImage.SetPage 4749

### 87.216.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 28th December 2018.

## 87.217 GImage.ReplaceColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.ReplaceColor"; ImageRef; color1; color2 { ; Tolerance } )

### Parameters

#### ImageRef

The image reference number.

1

#### color1

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

#### color2

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 0 1 0"

#### Tolerance

Optional

The tolerance to allow for a match. Pass 1 to have one channel be matched if value is one away, e.g. 128 is accepted if searched for 127 or 129. Default is 0.

500

**Result** Returns OK or error.

### Description

Match is exact, so no fuzzy matching unless you pass tolerance parameter.

### Examples

Replaces a nearly white color with red:

```
Set Variable [ $img; Wert:MBS( "GImage.NewFromContainer"; Replace Colors::Input) ]
Set Variable [ $r; Wert:MBS( "GImage.ReplaceColor"; $img; "COLOR 65278 65278 65278"; "COLOR 65535 0 0") ]
Set Variable [ Replace Colors::Output; MBS( "GImage.WriteToPNGContainer"; $img; "logo.png" ) ]
Set Variable [ $r; Wert:MBS( "GImage.Release"; $img ) ]
```

Replace white with transparent:

```

Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
# Set type to RGBA
Set Variable [ $Result; Value:MBS("GImage.SetType"; $BigImageRef; 7) ]
# Replace white with transparent
Set Variable [ $Result; Value:MBS("GImage.ReplaceColor"; $BigImageRef; "white"; "transparent"; 10) ]
# save as PNG
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]

```

Trims space around image and make transparent:

```

Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS( "GImage.SetBackgroundColor"; $BigImageRef; "RGB 1 0 0" ) ]
Set Variable [ $Result; Value:MBS("GImage.Trim"; $BigImageRef) ]
Set Variable [ $Result; Value:MBS( "GImage.SetColorFuzz"; $BigImageRef; 5 ) ]
Set Variable [ $Result; Value:MBS( "GImage.SetMatte"; $BigImageRef; 1 ) ]
Set Variable [ $farbe; Value:MBS( "GImage.GetPixelColor"; $BigImageRef; 0; 0 ) ]
Set Variable [ $Result; Value:MBS( "GImage.ReplaceColor"; $BigImageRef; $farbe; "RGB 1 1 1"; 5) ]
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]

```

Replace black in black & white picture with red:

```

Set Variable [ $image ; Value: MBS( "GImage.NewFromContainer"; test::Input ) ]
Set Variable [ $r ; Value: MBS( "GImage.ReplaceColor"; $image; "black"; "red"; 1) ]
Set Field [ test::Output ; MBS( "GImage.WriteToPNGContainer"; $image) ]
Set Variable [ $r ; Value: MBS( "GImage.Release"; $image) ]

```

### See also

- 44.4 Barcode.Generate 1177
- 87.72 GImage.FloodFillColorXY 4504
- 87.135 GImage.GetMatteColor 4576
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.233 GImage.SetBackgroundColor 4701
- 87.239 GImage.SetColorFuzz 4709
- 87.266 GImage.SetMatte 4742
- 87.329 GImage.Trim 4821

**Example Databases**

- [GraphicsMagick/Trim Picture Border](#)

**87.217.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.3pr10](#)

**87.217.2 FileMaker Magazin**

- Ausgabe 5/2018, Seite 27

Created 6th September 2014, last changed 27th April 2020.

## 87.218 GImage.Resize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Resize"; ImageRef; geometry { ; FilterTypes; Blur } )

### Parameters

#### ImageRef

The image reference number.

1

#### geometry

The rectangle to use. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

#### FilterTypes

Optional

Which filter to use. Can be one of Undefined, Point, Box, Triangle, Hermite, Hanning, Hamming, Blackman, Gaussian, Quadratic, Cubic, Catrom, Mitchell, Lanczos, Bessel, or Sinc. "Cubic"

#### Blur

Optional

The blur radius. Only used if filter is specified.

3

**Result** Returns OK or error.

### Description

If filter or blur is not specified, we use image defaults.

### Examples

Resize image to 1000x1000 with cubic filter:

```
Set Variable [ $BigImageRef ; Value: MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result ; Value: MBS("GImage.Resize"; $BigImageRef; "1000x1000"; "Cubic"; 0) ]
Set Field [ Test::Result ; MBS( "GImage.WriteToPNGContainer"; $BigImageRef; "test.png" ) ]
Set Variable [ $Error ; Value: MBS("GImage.Destroy";$BigImageRef) ]
```

### See also

- 87.23 GImage.Affine 4426
- 87.153 GImage.GetSize 4596
- 87.190 GImage.Negate 4640
- 87.191 GImage.New 4642

- 87.193 GImage.NewFromContainer 4646
- 87.209 GImage.Raise 4667
- 87.216 GImage.Repage 4677
- 87.221 GImage.Rotate 4685
- 87.283 GImage.SetSize 4765
- 87.340 GImage.WriteToPNGContainer 4840

### 87.218.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 13th May 2019.

**87.219 GMImage.Roll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Roll"; ImageRef; Geometry )

**Parameters****ImageRef**

The image reference number.

1

**Geometry**

The point. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "+20+20"

**Result** Returns "OK" on success.

**Description****See also**

- 87.47 GMImage.Copy 4463
- 87.76 GMImage.Flop 4509
- 87.212 GMImage.Read 4671
- 87.220 GMImage.Rollxy 4684
- 87.223 GMImage.Rows 4688
- 87.344 GMImage.Zoom 4847

Created 18th August 2014, last changed 18th August 2014.

**87.220 GImage.Rollxy**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Rollxy"; ImageRef; columns; rows )

**Parameters****ImageRef**

The image reference number.

1

**columns**

The column index.

0

**rows**

The row index.

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.219 GImage.Roll 4683
- 87.221 GImage.Rotate 4685

Created 18th August 2014, last changed 18th August 2014.



**87.221 GImage.Rotate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Rotate"; ImageRef; degrees )

**Parameters****ImageRef**

The image reference number.

1

**degrees**

The angle in degrees.

90

**Result** Returns "OK" on success.

**Description**

Positive angles rotate the image in a clockwise direction while negative angles rotate counter-clockwise.

**Examples**

Rotates image by 90 degree to right

```
Let (
[
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GImage.Rotate"; $Image; 90);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GImage.Release"; $Image)
];
$Result)
```

Custom function to rotate image:

```
/*
MBS_Image_Rotate (Picture; rotation)
```

Picture: Container 'MyTable::MyField'  
rotation: Grad ° - numeric Value, positiv OR negative

Benjamin Fehr, EfficientBizz GmbH  
<http://www.efficientbizz.com>  
/

```
Let (
[
```

```

$image = MBS("GMImage.NewFromContainer"; Picture);
$rotateResult = MBS("GMImage.Rotate"; $image; rotation);
$result = MBS("GMImage.WriteToPNGContainer"; $image);
$destroyResult = MBS("GMImage.Release"; $image)
];

$result)

```

### See also

- 87.141 GMImage.GetPage 4583
- 87.190 GMImage.Negate 4640
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.218 GMImage.Resize 4681
- 87.220 GMImage.Rollxy 4684
- 87.222 GMImage.Rotating 4687
- 87.266 GMImage.SetMatte 4742
- 87.323 GMImage.TransformRotation 4814

### Example Databases

- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/GraphicsMagick Sample](#)

#### 87.221.1 Blog Entries

- [Correct Image Orientation in FileMaker](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.222 GImage.Rotating

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Rotating"; ImageRef; angle )

### Parameters

#### ImageRef

The image reference number.

1

#### angle

The rotation angle.

10

**Result** Returns OK or error.

### Description

#### See also

- 87.221 GImage.Rotate 4685
- 87.226 GImage.Scaling 4694

Created 18th August 2014, last changed 18th August 2014.

**87.223 GImage.Rows**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Rows"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the image height.

**Description****See also**

- 87.47 GImage.Copy 4463
- 87.191 GImage.New 4642
- 87.209 GImage.Raise 4667
- 87.212 GImage.Read 4671
- 87.219 GImage.Roll 4683
- 87.344 GImage.Zoom 4847

**Example Databases**

- [GraphicsMagick/Annotate Image](#)

Created 18th August 2014, last changed 18th August 2014.

**87.224 GMImage.Sample**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Sample"; ImageRef; Geometry )

**Parameters****ImageRef**

The image reference number.

1

**Geometry**

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "300x200"

**Result** Returns "OK" on success.

**Description****See also**

- 87.43 GMImage.Compare 4456
- 87.174 GMImage.Implode 4620
- 87.225 GMImage.Scale 4690
- 87.303 GMImage.Sharpen 4789

Created 18th August 2014, last changed 18th August 2014.

## 87.225 GImage.Scale

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Scale"; ImageRef; Geometry )

### Parameters

#### ImageRef

The image reference number.

1

#### Geometry

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "300x200"

**Result** Returns "OK" on success.

### Description

GraphicsMagick has added a number of qualifiers to the standard geometry string for use when resizing images. The form of an extended geometry string is "<width>x<height>{ +- } <xoffset>{ +- } <yoffset>{ % } { ! } { < } { > } ". Extended geometry strings should only be used when resizing an image. Using an extended geometry string for other applications may cause the API call to fail. The available qualifiers are shown in the following table:

Qualifier	Description
%	Interpret width and height as a percentage of the current size.
!	Resize to width and height exactly, losing original aspect ratio.
<	Resize only if the image is smaller than the geometry specification.
>	Resize only if the image is greater than the geometry specification.

### Examples

Scales the image to 50% with calculating ourself

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Width = MBS("GImage.GetWidth";$Image);
$Height = MBS("GImage.GetHeight";$Image);
$Width = $Width/2;
$Height = $Height/2;
$ScaleResult = MBS("GImage.Scale";$Image; $Width & "x" & $Height);
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
```

```
$Result)
```

Scales the image to 50% easily

```
Let ( [
$Image = MBS("GUIImage.NewFromContainer"; GraphicsMagick::image);
$ScaleResult = MBS("GUIImage.Scale";$Image; "50% ");
$Result = MBS("GUIImage.WriteToPNGContainer"; $Image);
$error = MBS("GMimage.Release";$Image)
] ;
$Result)
```

Scales the image down to 640 pixel width, if it is bigger

```
Let ( [
$Image = MBS("GUIImage.NewFromContainer"; GraphicsMagick::image);
$ScaleResult = MBS("GUIImage.Scale";$Image; "640>");
$Result = MBS("GUIImage.WriteToPNGContainer"; $Image);
$error = MBS("GMimage.Release";$Image)
] ;
$Result)
```

Scale as script:

```
Set Variable [ $Image; Value:MBS("GUIImage.NewFromContainer"; Image Scaling::InputImage) ]
Set Variable [ $r; Value:MBS("GUIImage.Scale"; $Image; "800x600") ]
Set Field [ Image Scaling::Result; MBS("GUIImage.WriteToPNGContainer"; $Image) ]
Set Variable [ $r; Value: MBS("GMimage.Release"; $Image) ]
```

Download picture and scale it down:

```
Set Variable [ $curl ; Value: MBS("CURL.New") ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionURL"; $curl; MIX::URL) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionFollowLocation"; $curl; 1) ]
Set Variable [ $r ; Value: MBS("CURL.SetOptionMaxRedirs"; $curl; 3) ]
Set Variable [ $result ; Value: MBS("CURL.Perform"; $curl) ]
Set Variable [ $debug ; Value: MBS( "CURL.GetDebugAsText"; $curl) ]
If [ $result = "OK" ]
Set Variable [ $Image ; Value: MBS( "CURL.GetResultAsContainer"; $curl) ]
Set Variable [ $ImageRef ; Value: MBS("GUIImage.NewFromContainer"; $image) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS("GUIImage.Scale";$ImageRef; "256x256>") ]
Set Variable [ $ScaledImage ; Value: MBS("GUIImage.WriteToJPEGContainer"; $ImageRef) ]
If [ MBS("IsError") = 0 ]
Set Field [ MIX::Image ; $ScaledImage ]
End If
Set Variable [ $r ; Value: MBS("GMimage.Release";$ImageRef) ]
```

End If

End If

Set Variable [ \$r ; Value: MBS(”CURL.Release”; \$curl) ]

### See also

- [87.64 GImage.Erase](#) 4491
- [87.80 GImage.Frame](#) 4515
- [87.191 GImage.New](#) 4642
- [87.214 GImage.Release](#) 4674
- [87.224 GImage.Sample](#) 4689
- [87.226 GImage.Scaling](#) 4694
- [87.281 GImage.SetResolutionUnits](#) 4762
- [87.324 GImage.TransformScale](#) 4815
- [87.338 GImage.WriteToJPEGContainer](#) 4836
- [87.340 GImage.WriteToPNGContainer](#) 4840

### Example Databases

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/GraphicsMagick Sample](#)
- [GraphicsMagick/Image Scaling](#)
- [GraphicsMagick/Reduce Image](#)
- [GraphicsMagick/SVG to PNG](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

#### 87.225.1 Blog Entries

- [Circle crop images in FileMaker with MBS Plugin](#)
- [QR Codes for Invoices in Switzerland](#)
- [Filemaker Magazine](#)
- [Filemaker Notes](#)



## **87.225.2 FileMaker Magazin**

- Ausgabe 5/2018, Seite 29
- Ausgabe 5/2011, Seite 33
- Ausgabe 5/2011, Seite 32

Created 18th August 2014, last changed 19th April 2020.

**87.226 GImage.Scaling**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Scaling"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The x scaling factor.

1

**y**

The y scaling factor.

1

**Result** Returns OK or error.

**Description****See also**

- 87.222 GImage.Rotating 4687
- 87.225 GImage.Scale 4690

Created 18th August 2014, last changed 18th August 2014.

## 87.227 GImage.Segment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Segment"; ImageRef; clusterThreshold; smoothingThreshold )

### Parameters

#### ImageRef

The image reference number.

1

#### clusterThreshold

the cluster threshold

1.0

#### smoothingThreshold

the smoothing threshold

1.5

**Result** Returns "OK" on success.

### Description

Segment (coalesce similar image components) by analyzing the histograms of the color components and identifying units that are homogeneous with the fuzzy c-means technique. Also uses QuantizeColorSpace and Verbose image attributes

### See also

- 87.66 GImage.Extent 4493
- 87.119 GImage.GetFont 4559
- 87.242 GImage.SetComment 4713
- 87.249 GImage.SetDepth 4722
- 87.256 GImage.SetFont 4730
- 87.282 GImage.SetScene 4764
- 87.312 GImage.Stegano 4801

Created 18th August 2014, last changed 18th August 2014.

**87.228 GImage.SetAdjoin**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetAdjoin"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

a boolean value

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.87 GImage.GetAdjoin 4524
- 87.251 GImage.SetEndian 4724

Created 18th August 2014, last changed 18th August 2014.

**87.229 GImage.SetAnimationDelay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetAnimationDelay"; ImageRef; delay )

**Parameters****ImageRef**

The image reference number.

1

**delay**

Time in 1/100ths of a second

10

**Result** Returns "OK" on success.

**Description**

Time in 1/100ths of a second which must expire before displaying the next image in an animated sequence.

Time in 1/100ths of a second (0 to 65535) which must expire before displaying the next image in an animated sequence. This option is useful for regulating the animation of a sequence of GIF images within Netscape.

**See also**

- 87.88 GImage.GetAnimationDelay

4525

**Example Databases**

- [GraphicsMagick/Create GIF](#)

Created 18th August 2014, last changed 11st September 2017.

## 87.230 GImage.SetAnimationIterations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetAnimationIterations"; ImageRef; iterations )

### Parameters

#### ImageRef

The image reference number.

1

#### iterations

the Number of iterations to loop an animation for

10

**Result** Returns "OK" on success.

### Description

#### See also

- [87.89 GImage.GetAnimationIterations](#) 4526

### Example Databases

- [GraphicsMagick/Create GIF](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.231 GImage.SetAntiAlias

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetAntiAlias"; ImageRef; flag )

### Parameters

#### ImageRef

The image reference number.

1

#### flag

a boolean value

0

**Result** Returns "OK" on success.

### Description

#### See also

- 87.90 GImage.GetAntiAlias

4527

Created 18th August 2014, last changed 18th August 2014.

## 87.232 GImage.SetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetAttribute"; ImageRef; name; value { ; Encoding } )

### Parameters

#### ImageRef

The image reference number.

1

#### name

The name of the attribute.

#### value

The value of the attribute.

#### Encoding

Optional

The text encoding. Default is UTF-8.

UTF8

**Result** Returns "OK" on success.

### Description

GraphicsMagick does not support writing attributes back to files, so this only stores new value in memory for GImage.GetAttribute to query.

### See also

- [87.91 GImage.GetAttribute](#) 4528

### 87.232.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 18th August 2014, last changed 18th April 2019.



## 87.233 GImage.SetBackgroundColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetBackgroundColor"; ImageRef; color )

### Parameters

#### ImageRef

The image reference number.

1

#### color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

### Examples

Create picture with red and 50% alpha:

```
# Create picture
Set Variable [ $img; Value:MBS( "GImage.New"; "16x16"; "white" ) ]
# Add alpha channel
Set Variable [ $r; Value:MBS( "GImage.SetMatte"; $img; 1 ) ]
# Set background color and fill
Set Variable [ $r; Value:MBS( "GImage.SetBackgroundColor"; $img; "COLOR 65535 0 0 0.5" ) ]
Set Variable [ $r; Value:MBS( "GImage.Erase"; $img ) ]
# Write to field
Set Variable [ $pic; Value:MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Field [ test::r; $pic ]
# Cleanup
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

Convert a SVG image to PNG with alpha channel:

```
# Load image from container
Set Variable [ $image ; Value: MBS( "GImage.New"; "500x500"; "transparent" ) ]
# turn on alpha channel and set background to transparent
Set Variable [ $r ; Value: MBS( "GImage.SetType"; $image; 7 ) ]
Set Variable [ $r ; Value: MBS( "GImage.SetBackgroundColor"; $image; "transparent" ) ]
# read SVG
```

```

Set Variable [ $r ; Value: MBS( "GImage.ReadFromContainer"; $image; SVG to PNG::InputFile; "500x500";
0; "SVG" ) ]
# Output to container and release image
Set Field [ SVG to PNG::OutputFile ; MBS( "GImage.WriteToPNGContainer"; $image; "test.png" ) ]
Set Variable [ $r ; Value: MBS("GImage.Free"; $image) ]

```

Create a transparent picture by erasing with transparent color:

```

Set Variable [ $img ; Value: MBS("GImage.New"; $width & "x" & $height; "RGB 1 1 1") ]
Set Variable [ $r ; Value: MBS( "GImage.SetMatte"; $img; 1) ]
Set Variable [ $r ; Value: MBS( "GImage.SetBackgroundColor"; $img; "transparent") ]
Set Variable [ $r ; Value: MBS("GImage.Erase"; $img) ]

```

### See also

- 87.81 GImage.Free 4517
- 87.95 GImage.GetBackgroundTexture 4534
- 87.142 GImage.GetPixelColor 4584
- 87.191 GImage.New 4642
- 87.212 GImage.Read 4671
- 86.1 GImage.ReadFromContainer 4395
- 87.214 GImage.Release 4674
- 87.217 GImage.ReplaceColor 4678
- 87.329 GImage.Trim 4821
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/SVG to PNG](#)
- [GraphicsMagick/Trim Picture](#)

#### 87.233.1 Blog Entries

- [Convert a SVG image to PNG with alpha channel](#)

Created 18th August 2014, last changed 8th May 2020.

**87.234 GImage.SetBackgroundTexture**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetBackgroundTexture"; ImageRef; Name )

**Parameters****ImageRef**

The image reference number.

1

**Name**

The image name

**Result** Returns "OK" on success.

**Description****See also**

- 87.94 GImage.GetBackgroundColor 4533
- 87.95 GImage.GetBackgroundTexture 4534
- 87.233 GImage.SetBackgroundColor 4701

Created 18th August 2014, last changed 18th August 2014.

**87.235 GImage.SetBorderColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetBorderColor"; ImageRef; color )

**Parameters****ImageRef**

The image reference number.

1

**color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description**

You can set this and call GImage.Border to add border with given color.

**Examples**

Add whitespace on top and bottom of image:

```
Let ( [
```

```
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$r = MBS( "GImage.SetBorderColor"; $Image; "white" );
$r = MBS("GImage.Border";$Image; "0x100");
$result = MBS("GImage.WriteToPNGContainer"; $Image);
```

```
$r = MBS("GMImage.Release";$Image)
```

```
];
```

```
$Result)
```

**See also**

- 87.32 GImage.Border 4440
- 87.96 GImage.GetBorderColor 4535
- 87.135 GImage.GetMatteColor 4576
- 87.155 GImage.GetStrokeColor 4598

<i>87.235. GMIMAGE.SETBORDERCOLOR</i>	4705
• 87.191 GImage.New	4642
• 87.214 GImage.Release	4674
• 87.236 GImage.SetBoxColor	4706
• 87.267 GImage.SetMatteColor	4744
• 87.272 GImage.SetPixelColor	4750
• 87.340 GImage.WriteToPNGContainer	4840

Created 18th August 2014, last changed 11st November 2019.

**87.236 GImage.SetBoxColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetBoxColor"; ImageRef; color )

**Parameters****ImageRef**

The image reference number.

1

**color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description****See also**

- 87.96 GImage.GetBorderColor 4535
- 87.97 GImage.GetBoxColor 4536
- 87.116 GImage.GetFillColor 4556
- 87.142 GImage.GetPixelColor 4584
- 87.235 GImage.SetBorderColor 4704
- 87.253 GImage.SetFillColor 4726
- 87.267 GImage.SetMatteColor 4744
- 87.272 GImage.SetPixelColor 4750
- 87.285 GImage.SetStrokeColor 4768

Created 18th August 2014, last changed 11st November 2019.

**87.237 GImage.SetCacheThreshold**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetCacheThreshold"; threshold )

**Parameters****threshold**

The Pixel cache threshold in megabytes

1

**Result** Returns "OK" on success.

**Description**

Once this memory threshold is exceeded, all subsequent pixels cache operations are to/from disk. This setting is shared by all Image objects.

**See also**

- 87.1 GImage.AdaptiveThreshold

4399

Created 18th August 2014, last changed 11st March 2017.

**87.238 GImage.SetClassType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetClassType"; ImageRef; classtype )

**Parameters****ImageRef**

The image reference number.

1

**classtype**

The class type number

2

**Result** Returns "OK" on success.

**Description**

setting a DirectClass image to PseudoClass will result in the loss of color information if the number of colors in the image is greater than the maximum palette size (either 256 or 65536 entries depending on the value of QuantumDepth when ImageMagick was built).

Value can be DirectClass = 1 or PseudoClass = 2.

**See also**

- 87.99 GImage.GetClassType 4538
- 87.244 GImage.SetCompressType 4715
- 87.255 GImage.SetFilterType 4729

Created 18th August 2014, last changed 10th March 2020.



**87.239 GMImage.SetColorFuzz**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.SetColorFuzz"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

a float number.

1.0

**Result** Returns "OK" on success.

**Description**

Used for example with GMImage.Trim function.

Range is from 0 to 65535 with zero being no fuzz and 65535 to match all colors.

Useful range may be around 50\*257.

**Examples**

Trim a picture:

```
Set Variable [ $BigImageRef; Value:MBS("GMImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS( "GMImage.SetBackgroundColor"; $BigImageRef; "white" ) ]
Set Variable [ $Result; Value:MBS( "GMImage.SetColorFuzz"; $BigImageRef; 100 ) ]
Set Variable [ $Result; Value:MBS("GMImage.Trim"; $BigImageRef) ]
Set Field [ Test::Result; MBS( "GMImage.WriteToJPEGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GMImage.Release";$BigImageRef) ]
```

Make a picture transparent:

```
# load a picture
Set Variable [ $image; Value:MBS( "GMImage.NewFromContainer"; Test::BigImage) ]
# white in RGB
Set Variable [ $f; Value:"white" ]
# Replace all white with nearly white
Set Variable [ $r; Value:MBS( "GMImage.ReplaceColor"; $image; $f; "white"; 0 ) ]
# now flood fill it with 5 as tolerance
Set Variable [ $r; Value:MBS( "GMImage.SetColorFuzz"; $image; 5 ) ]
Set Variable [ $r; Value:MBS( "GMImage.FloodFillColorXY"; $image; 0; 0; $f ) ]
# now set back fuzz and make transparent using white
Set Variable [ $r; Value:MBS( "GMImage.SetColorFuzz"; $image; 0 ) ]
Set Variable [ $imagecolor; Value:MBS( "GMImage.Transparent"; $image; $f ) ]
# write back to container
```

```
Set Field [ Test::Result; MBS( "GMImage.WriteToPNGContainer"; $image; ) ]
# cleanup
Set Variable [ $Error; Value:MBS("GMImage.Release";$image) ]
```

**See also**

- 87.71 GMImage.FloodFillColor 4502
- 87.72 GMImage.FloodFillColorXY 4504
- 87.142 GMImage.GetPixelColor 4584
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.217 GMImage.ReplaceColor 4678
- 87.233 GMImage.SetBackgroundColor 4701
- 87.241 GMImage.SetColorSpace 4712
- 87.338 GMImage.WriteToJPEGContainer 4836
- 87.340 GMImage.WriteToPNGContainer 4840

**Example Databases**

- [GraphicsMagick/Trim Picture Border](#)

Created 18th August 2014, last changed 11st November 2019.

**87.240 GImage.SetColorMapSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetColorMapSize"; ImageRef; colorMapSize )

**Parameters****ImageRef**

The image reference number.

1

**colorMapSize**

The size number.

256

**Result** Returns "OK" on success.

**Description****See also**

- 87.102 GImage.GetColorMapSize 4541
- 87.103 GImage.GetColorSpace 4542
- 87.301 GImage.SetcolorMap 4787
- 87.241 GImage.SetColorSpace 4712

Created 18th August 2014, last changed 18th August 2014.

**87.241 GImage.SetColorSpace**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetColorSpace"; ImageRef; ColorSpaceType )

**Parameters****ImageRef**

The image reference number.

1

**ColorSpaceType**

UndefinedColorspace = 0, RGBColorspace = 1 (Plain old RGB colorspace), GRAYColorspace = 2 (Plain old full-range grayscale), TransparentColorspace = 3 (RGB but preserve matte channel during quantize), OHTAColorspace = 4, XYZColorspace = 5 (CIE XYZ), YCCColorspace = 6 (Kodak PhotoCD PhotoYCC), YIQColorspace = 7, YPbPrColorspace = 8, YUVColorspace = 9, CMYKColorspace = 10 (Cyan, magenta, yellow, black, alpha), sRGBColorspace = 11 (Kodak PhotoCD sRGB), HSLColorspace = 12 (Hue, saturation, luminosity), HWBColorspace = 13 (Hue, whiteness, blackness), LABColorspace = 14 (LAB colorspace not supported yet other than via lcms), CineonLogRGBColorspace = 15 (RGB data with Cineon Log scaling, 2.048 density range), Rec601LumaColorspace = 16 (Luma (Y) according to ITU-R 601), Rec601YCbCrColorspace = 17 (YCbCr according to ITU-R 601), Rec709LumaColorspace = 18 (Luma (Y) according to ITU-R 709), Rec709YCbCrColorspace = 19 (YCbCr according to ITU-R 709)

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.102 GImage.GetColorMapSize 4541
- 87.103 GImage.GetColorSpace 4542
- 87.239 GImage.SetColorFuzz 4709
- 87.301 GImage.SetcolorMap 4787
- 87.240 GImage.SetColorMapSize 4711

Created 18th August 2014, last changed 18th August 2014.

**87.242 GImage.SetComment**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetComment"; ImageRef; comment )

**Parameters****ImageRef**

The image reference number.

1

**comment**

The new comment.

"Hello World"

**Result** Returns "OK" on success.

**Description****See also**

- 87.104 GImage.GetComment 4544
- 87.105 GImage.GetCompose 4545
- 87.227 GImage.Segment 4695
- 87.243 GImage.SetCompose 4714
- 87.256 GImage.SetFont 4730

Created 18th August 2014, last changed 18th August 2014.

## 87.243 GImage.SetCompose

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetCompose"; ImageRef; CompositeOperator )

### Parameters

#### ImageRef

The image reference number.

1

#### CompositeOperator

UndefinedCompositeOp = 0, OverCompositeOp = 1, InCompositeOp = 2, OutCompositeOp = 3, AtopCompositeOp = 4, XorCompositeOp = 5, PlusCompositeOp = 6, MinusCompositeOp = 7, AddCompositeOp = 8, SubtractCompositeOp = 9, DifferenceCompositeOp = 10, MultiplyCompositeOp = 11, BumpmapCompositeOp = 12, CopyCompositeOp = 13, CopyRedCompositeOp = 14, CopyGreenCompositeOp = 15, CopyBlueCompositeOp = 16, CopyOpacityCompositeOp = 17, ClearCompositeOp = 18, DissolveCompositeOp = 19, DisplaceCompositeOp = 20, ModulateCompositeOp = 21, ThresholdCompositeOp = 22, NoCompositeOp = 23, DarkenCompositeOp = 24, LightenCompositeOp = 25, HueCompositeOp = 26, SaturateCompositeOp = 27, ColorizeCompositeOp = 28, LuminizeCompositeOp = 29, CopyCyanCompositeOp = 32, CopyMagentaCompositeOp = 33, CopyYellowCompositeOp = 34, CopyBlackCompositeOp = 35, DivideCompositeOp = 36.

1

**Result** Returns "OK" on success.

### Description

#### See also

- 87.44 GImage.Composite 4458
- 87.104 GImage.GetComment 4544
- 87.105 GImage.GetCompose 4545
- 87.167 GImage.GetVerbose 4610
- 87.242 GImage.SetComment 4713
- 87.297 GImage.SetVerbose 4783

Created 18th August 2014, last changed 18th August 2014.

**87.244 GMImage.SetCompressType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.SetCompressType"; ImageRef; CompressionType )

**Parameters****ImageRef**

The image reference number.

1

**CompressionType**

UndefinedCompression = 0, NoCompression = 1, BZipCompression = 2, FaxCompression = 3, Group4Compression = 4, JPEGCompression = 5, LosslessJPEGCompression = 6, LZWCompression = 7, RLECompression = 8, ZipCompression = 9

1

**Result** Returns "OK" on success.

**Description****Examples**

Convert image to 1 bit TIFF:

```
# Load from container
$image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);

# make black and white with threshold
$result = MBS("GMImage.Threshold"; $image; 127);

# mark as monochrome image
$result = MBS("GMImage.SetMonochrome"; $image; 1);

# set type to 1 for black/white
$result = MBS("GMImage.SetType"; $image; 1);

# set to use TIFF for compression
$result = MBS("GMImage.SetMagick"; $image; "TIFF");

# set to use CCITT 4 Fax compression
$result = MBS("GMImage.SetCompressType"; $image; 4);

# and write to a file
$result = MBS("GMImage.WriteToFile"; $image; "/tmp/test.tif");

# cleanup
$error = MBS("GMImage.Release"; $image)
```

**See also**

- 87.106 GImage.GetCompressType 4546
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.238 GImage.SetClassType 4708
- 87.265 GImage.SetMagick 4740
- 87.269 GImage.SetMonochrome 4746
- 87.296 GImage.SetType 4780
- 87.318 GImage.Threshold 4807
- 87.336 GImage.WriteToFile 4831
- 87.341 GImage.WriteToTiffContainer 4843

Created 18th August 2014, last changed 21st December 2018.



**87.245 GImage.SetDebug**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetDebug"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.107 GImage.GetDebug 4547
- 87.111 GImage.GetDepth 4551
- 87.249 GImage.SetDepth 4722
- 87.263 GImage.SetLabel 4738

Created 18th August 2014, last changed 18th August 2014.

**87.246 GImage.SetDefineSet**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetDefineSet"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description**

Tagged image format define. Similar to the get/setdefineValue() functions except that passing the flag value 'true' creates a value-less define with that format and key. Passing the flag value 'false' removes any existing matching definition. The method returns 'true' if a matching key exists, and 'false' if no matching key exists.

**See also**

- 87.108 GImage.GetDefineSet 4548
- 87.247 GImage.SetDefineValue 4719

Created 18th August 2014, last changed 18th August 2014.

**87.247 GImage.SetDefineValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetDefineValue"; ImageRef; magick; key; value )

**Parameters****ImageRef**

The image reference number.

1

**magick**

The name of the codec

**key**

A key name as string

**value**

The value as string

**Result** Returns "OK" on success.

**Description**

Tagged image format define (set/access coder-specific option) The magick option specifies the coder the define applies to. The key option provides the key specific to that coder. The value option provides the value to set (if any). See the get/set defineSet functions if the key must be removed entirely.

**See also**

- 87.109 GImage.GetDefineValue 4549
- 87.246 GImage.SetDefineSet 4718

Created 18th August 2014, last changed 18th August 2014.

## 87.248 GImage.SetDensity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetDensity"; ImageRef; geometry )

### Parameters

#### ImageRef

The image reference number.

1

#### geometry

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

### Description

Please use GImage.SetResolutionUnits to define units.

### Examples

Loads image and writes back with new DPI setting:

```
Set Variable [ $ImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS("GImage.SetDensity"; $ImageRef; "300x300") ]
Set Variable [ $Result; Value:MBS("GImage.SetQuality"; $ImageRef; 90) ]
Set Field [ Test::Result; MBS( "GImage.WriteToJPEGContainer"; $ImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$ImageRef) ]
```

Set resolution and remove all metadata with different resolution:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image );
$r = MBS("GImage.SetDensity"; $Image; "72x72") ;
$r = MBS( "GImage.SetProfile"; $Image; "EXIF"; "" ) ;
$r = MBS( "GImage.SetProfile"; $Image; "IPTC"; "" ) ;
$r = MBS( "GImage.SetProfile"; $Image; "XMP"; "" ) ;
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result
)
```

87.248. *GMIMAGE.SETDENSITY* 4721

**See also**

- 87.110 *GMImage.GetDensity* 4550
- 87.144 *GMImage.GetQuality* 4587
- 87.191 *GMImage.New* 4642
- 87.193 *GMImage.NewFromContainer* 4646
- 87.214 *GMImage.Release* 4674
- 87.249 *GMImage.SetDepth* 4722
- 87.274 *GMImage.SetQuality* 4754
- 87.281 *GMImage.SetResolutionUnits* 4762
- 87.338 *GMImage.WriteToJPEGContainer* 4836
- 87.339 *GMImage.WriteToPDFContainer* 4838

**Example Databases**

- [GraphicsMagick/Apply Mask](#)
- [GraphicsMagick/SVG to PNG](#)

**87.248.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 18th August 2014, last changed 21st December 2018.

**87.249 GImage.SetDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetDepth"; ImageRef; depth )

**Parameters****ImageRef**

The image reference number.

1

**depth**

The bit depth.

8

**Result** Returns "OK" on success.

**Description****See also**

- 87.107 GImage.GetDebug 4547
- 87.111 GImage.GetDepth 4551
- 87.169 GImage.GetWidth 4612
- 87.227 GImage.Segment 4695
- 87.245 GImage.SetDebug 4717
- 87.248 GImage.SetDensity 4720
- 87.256 GImage.SetFont 4730
- 87.266 GImage.SetMatte 4742
- 87.296 GImage.SetType 4780

Created 18th August 2014, last changed 18th August 2014.

## 87.250 GImage.SetEXIFOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetEXIFOrientation"; ImageRef; Orientation )

### Parameters

#### ImageRef

The image reference number.

1

#### Orientation

The orientation value: UndefinedOrientation = 0, TopLeftOrientation = 1, (Line direction: Left to right, Frame Direction: Top to bottom) TopRightOrientation = 2, (Line direction: Right to left, Frame Direction: Top to bottom) BottomRightOrientation = 3, (Line direction: Right to left, Frame Direction: Bottom to top) BottomLeftOrientation = 4, (Line direction: Left to right, Frame Direction: Bottom to top) LeftTopOrientation = 5, (Line direction: Top to bottom, Frame Direction: Left to right) RightTopOrientation = 6, (Line direction: Top to bottom, Frame Direction: Right to left) RightBottomOrientation = 7, (Line direction: Bottom to top, Frame Direction: Right to left) LeftBottomOrientation = 8 (Line direction: Bottom to top, Frame Direction: Left to right)

1

**Result** Returns OK or error.

### Description

Changing orientation may need to set orientation via GImage.SetOrientation and GImage.SetEXIFOrientation. With a JPEG you have orientation both in JPEG header and in EXIF metadata.

#### See also

- [87.112 GImage.GetEXIFOrientation](#) 4552
- [87.138 GImage.GetOrientation](#) 4579
- [87.270 GImage.SetOrientation](#) 4747

### Example Databases

- [GraphicsMagick/Correct Image Orientation](#)

#### 87.250.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)
- [Correct Image Orientation in FileMaker](#)
- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 30th November 2016, last changed 5th December 2016.

**87.251 GImage.SetEndian**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetEndian"; ImageRef; endian )

**Parameters****ImageRef**

The image reference number.

1

**endian**

UndefinedEndian = 0, LSBEndian = 1, MSBEndian = 2

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.113 GImage.GetEndian 4553
- 87.228 GImage.SetAdjoin 4696
- 87.248 GImage.SetDensity 4720
- 87.265 GImage.SetMagick 4740

Created 18th August 2014, last changed 18th August 2014.



**87.252 GImage.SetFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFileName"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****See also**

- 87.28 GImage.BaseFilename 4435
- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.117 GImage.GetFillRule 4557
- 87.165 GImage.GetTileName 4608
- 86.1 GImage.ReadFromContainer 4395
- 87.254 GImage.SetFillRule 4728
- 87.255 GImage.SetFilterType 4729
- 87.295 GImage.SetTileName 4779

Created 18th August 2014, last changed 18th August 2014.

**87.253 GImage.SetFillColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFillColor"; ImageRef; color )

**Parameters****ImageRef**

The image reference number.

1

**color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description****Examples**

Set red fill color:

```
MBS( "GImage.SetFillColor"; $img; "red" )
```

Draws a circle in a rectangle in a circle:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "100x100"; "white" ) ]
Set Variable [ $r; Value:MBS( "GImage.SetFillColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $s; Value:MBS( "GImage.SetStrokeColor"; $img; "RGB 0 0 1" ) ]
Set Variable [ $c; Value:MBS( "GImage.DrawCircle"; $img; 50; 50; 50; 90 ) ]
Set Variable [ $r; Value:MBS( "GImage.DrawRectangle"; $img; 22; 22; 100-22; 100-22 ) ]
Set Variable [ $c; Value:MBS( "GImage.DrawCircle"; $img; 50; 50; 50; 100-22 ) ]
Set Field [ test::test; MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

**See also**

- 87.71 GImage.FloodFillColor 4502
- 87.116 GImage.GetFillColor 4556
- 87.117 GImage.GetFillRule 4557
- 87.142 GImage.GetPixelColor 4584

87.253. <i>GMIMAGE.SETFILLCOLOR</i>	4727
• 87.191 <i>GImage.New</i>	4642
• 87.254 <i>GImage.SetFillRule</i>	4728
• 87.267 <i>GImage.SetMatteColor</i>	4744
• 87.272 <i>GImage.SetPixelColor</i>	4750
• 87.284 <i>GImage.SetStrokeAntiAlias</i>	4766
• 87.285 <i>GImage.SetStrokeColor</i>	4768

### **Example Databases**

- [DynaPDF/Click Points](#)
- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/Clip Image](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/Find Pixels](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)

### **87.253.1 Blog Entries**

- [Circle crop images in FileMaker with MBS Plugin](#)
- [Face detection via CoreImage in FileMaker](#)

Created 18th August 2014, last changed 11st November 2019.

**87.254 GImage.SetFillRule**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFillRule"; ImageRef; fillrule )

**Parameters****ImageRef**

The image reference number.

1

**fillrule**

UndefinedRule = 0, EvenOddRule = 1, NonZeroRule = 2

2

**Result** Returns "OK" on success.

**Description****See also**

- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.116 GImage.GetFillColor 4556
- 87.117 GImage.GetFillRule 4557
- 87.252 GImage.SetFileName 4725
- 87.253 GImage.SetFillColor 4726
- 87.295 GImage.SetFileName 4779

**Example Databases**

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

## 87.255 GImage.SetFilterType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFilterType"; ImageRef; FilterType )

### Parameters

#### ImageRef

The image reference number.

1

#### FilterType

The filter type. Possible values: UndefinedFilter = 0, PointFilter = 1, BoxFilter = 2, TriangleFilter = 3, HermiteFilter = 4, HanningFilter = 5, HammingFilter = 6, BlackmanFilter = 7, GaussianFilter = 8, QuadraticFilter = 9, CubicFilter = 10, CatromFilter = 11, MitchellFilter = 12, LanczosFilter = 13, BesselFilter = 14, SincFilter = 15

2

**Result** Returns "OK" on success.

### Description

Version 9.0 or newer lets you pass filter by name instead of number.

### Examples

Set filter type to 1:

```
MBS( "GImage.SetFilterType"; $cross; 1 )
```

### See also

- 87.118 GImage.GetFilterType 4558
- 87.238 GImage.SetClassType 4708
- 87.252 GImage.SetFileName 4725

Created 18th August 2014, last changed 27th December 2018.

**87.256 GImage.SetFont**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFont"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****See also**

- 87.24 GImage.Annotate 4427
- 87.78 GImage.FontTypeMetrics 4512
- 87.271 GImage.SetPage 4749
- 87.279 GImage.SetQuiet 4760
- 87.282 GImage.SetScene 4764
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.312 GImage.Stegano 4801

**Example Databases**

- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/Text Wrap](#)

Created 18th August 2014, last changed 18th August 2014.

**87.257 GImage.SetFontSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetFontSize"; ImageRef; pointsize )

**Parameters****ImageRef**

The image reference number.

1

**pointsize**

A floating point number.

20.0

**Result** Returns "OK" on success.

**Description****See also**

- [87.24 GImage.Annotate](#) 4427
- [87.78 GImage.FontTypeMetrics](#) 4512
- [87.120 GImage.GetFontSize](#) 4560

**Example Databases**

- [GraphicsMagick/Annotate Image](#)
- [GraphicsMagick/Text Wrap](#)

Created 18th August 2014, last changed 18th August 2014.

**87.258 GImage.SetGifDisposeMethod**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetGifDisposeMethod"; ImageRef; disposeMethod )

**Parameters****ImageRef**

The image reference number.

1

**disposeMethod**

The dispose Method number.

**Result** Returns "OK" on success.

**Description**

Disposal	Description
0	No disposal specified.
1	Do not dispose between frames.
2	Overwrite frame with background color from header.
3	Overwrite with previous frame.

**See also**

- 87.122 GImage.GetGifDisposeMethod 4562

**Example Databases**

- [GraphicsMagick/Create GIF](#)

Created 18th August 2014, last changed 23th November 2016.



## 87.259 GImage.SetICCColorProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetICCColorProfile"; ImageRef; data )

### Parameters

#### ImageRef

The image reference number.

1

#### data

a Container field value with an embedded file containing the profile.

**Result** Returns "OK" on success.

### Description

Supplied via a Blob since GraphicsMagick do not currently support formatting this data structure directly. If there is not already an ICC color profile, the profile is merely attached to the image without transforming the pixels. If there is already an ICC color profile (the source profile), the pixels are translated according to the source and target profiles, and the existing profile is replaced with the target profile.

Also see GImage.SetRenderingIntent, which allows specifying the rendering intent if the profile is executed. Specifications for ICC color profiles and their usage are available from the International Color Consortium for the format of ICC color profiles.

### Examples

Removes an existing profile:

```
MBS("GImage.SetICCColorProfile"; $Image; "")
```

Assigns new profile from container:

```
MBS("GImage.SetICCColorProfile"; $Image; MyTable::ProfileContainer);
```

### See also

- 87.124 GImage.GetICCColorProfile 4565
- 87.260 GImage.SetIPTCProfile 4735
- 87.280 GImage.SetRenderingIntent 4761
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/Reduce Image](#)

### 87.259.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 18th August 2014, last changed 10th October 2017.

**87.260 GImage.SetIPTCProfile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetIPTCProfile"; ImageRef; data )

**Parameters****ImageRef**

The image reference number.

1

**data**

a Container field value with an embedded file containing the profile.

**Result** Returns "OK" on success.

**Description****See also**

- [87.125 GImage.GetIPTCProfile](#) 4566
- [87.143 GImage.GetProfile](#) 4586
- [87.259 GImage.SetICCColorProfile](#) 4733
- [87.273 GImage.SetProfile](#) 4752

**87.260.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 18th August 2014, last changed 30th August 2018.

**87.261 GImage.SetInterlaceType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetInterlaceType"; ImageRef; Interlace )

**Parameters****ImageRef**

The image reference number.

1

**Interlace**

UndefinedInterlace = 0, NoInterlace = 1, LineInterlace = 2, PlaneInterlace = 3, PartitionInterlace = 4

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.127 GImage.GetInterlaceType

4568

Created 18th August 2014, last changed 18th August 2014.

**87.262 GImage.SetIsValid**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetIsValid"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.128 GImage.GetIsValid 4569
- 87.274 GImage.SetQuality 4754

Created 18th August 2014, last changed 18th August 2014.

**87.263 GImage.SetLabel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetLabel"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****See also**

- 87.131 GImage.GetLabel 4572
- 87.141 GImage.GetPage 4583
- 87.245 GImage.SetDebug 4717
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749
- 87.279 GImage.SetQuiet 4760
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784

Created 18th August 2014, last changed 18th August 2014.

**87.264 GImage.SetLineWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetLineWidth"; ImageRef; lineWidth )

**Parameters****ImageRef**

The image reference number.

1

**lineWidth**

The line width.

5.0

**Result** Returns "OK" on success.

**Description****See also**

- 87.24 GImage.Annotate 4427
- 87.53 GImage.DrawArc 4472
- 87.54 GImage.DrawCircle 4474
- 87.55 GImage.DrawEllipse 4476
- 87.56 GImage.DrawLine 4478
- 87.58 GImage.DrawRectangle 4481
- 87.59 GImage.DrawRoundRectangle 4484
- 87.132 GImage.GetLineWidth 4573
- 87.284 GImage.SetStrokeAntiAlias 4766
- 87.336 GImage.WriteToFile 4831

**Example Databases**

- [DynaPDF/Click Points](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

**87.265 GImage.SetMagick**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetMagick"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****Examples**

Convert image to 1 bit TIFF:

```
# Load from container
$image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);

# make black and white with threshold
$result = MBS("GImage.Threshold"; $image; 127);

# mark as monochrome image
$result = MBS("GImage.SetMonochrome"; $image; 1);

# set type to 1 for black/white
$result = MBS("GImage.SetType"; $image; 1);

# set to use TIFF for compression
$result = MBS("GImage.SetMagick"; $image; "TIFF");

# set to use CCITT 4 Fax compression
$result = MBS("GImage.SetCompressType"; $image; 4);

# and write to a file
$result = MBS("GImage.WriteToFile"; $image; "/tmp/test.tif");

# cleanup
$error = MBS("GImage.Release"; $image)
```

**See also**



87.265. <i>GMIMAGE.SETMAGICK</i>	4741
• 86.1 GImage.ReadFromContainer	4395
• 87.244 GImage.SetCompressType	4715
• 87.251 GImage.SetEndian	4724
• 87.266 GImage.SetMatte	4742
• 87.269 GImage.SetMonochrome	4746
• 87.271 GImage.SetPage	4749
• 87.296 GImage.SetType	4780
• 87.335 GImage.WriteToContainer	4829
• 87.336 GImage.WriteToFile	4831
• 87.341 GImage.WriteToTiffContainer	4843

### **Example Databases**

- [GraphicsMagick/Export Images](#)

Created 18th August 2014, last changed 21st December 2018.

**87.266 GImage.SetMatte**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetMatte"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****Examples**

Removes alpha channel:

```
MBS("GImage.SetMatte"; $image; 0)
```

Adds an alpha channel:

```
MBS("GImage.SetMatte"; $image; 1)
```

Create picture with red and 50% alpha:

```
# Create picture
Set Variable [ $img; Value:MBS( "GImage.New"; "16x16"; "white" ) ]
# Add alpha channel
Set Variable [ $r; Value:MBS( "GImage.SetMatte"; $img; 1 ) ]
# Set background color and fill
Set Variable [ $r; Value:MBS( "GImage.SetBackgroundColor"; $img; "COLOR 65535 0 0 0.5" ) ]
Set Variable [ $r; Value:MBS( "GImage.Erase"; $img ) ]
# Write to field
Set Variable [ $pic; Value:MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Field [ test::r; $pic ]
# Cleanup
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

**See also**

- 87.214 GImage.Release

87.266. <i>GMIMAGE.SETMATTE</i>	4743
• 87.217 GImage.ReplaceColor	4678
• 87.233 GImage.SetBackgroundColor	4701
• 87.265 GImage.SetMagick	4740
• 87.271 GImage.SetPage	4749
• 87.279 GImage.SetQuiet	4760
• 87.282 GImage.SetScene	4764
• 87.283 GImage.SetSize	4765
• 87.296 GImage.SetType	4780
• 87.340 GImage.WriteToPNGContainer	4840

### **Example Databases**

- [GraphicsMagick/Trim Picture Border](#)

Created 18th August 2014, last changed 11st November 2019.

**87.267 GImage.SetMatteColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetMatteColor"; ImageRef; color )

**Parameters****ImageRef**

The image reference number.

1

**color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description****See also**

- 87.135 GImage.GetMatteColor 4576
- 87.142 GImage.GetPixelColor 4584
- 87.155 GImage.GetStrokeColor 4598
- 87.217 GImage.ReplaceColor 4678
- 87.235 GImage.SetBorderColor 4704
- 87.236 GImage.SetBoxColor 4706
- 87.253 GImage.SetFillColor 4726
- 87.272 GImage.SetPixelColor 4750
- 87.276 GImage.SetQuantizeColors 4757
- 87.285 GImage.SetStrokeColor 4768

Created 18th August 2014, last changed 11st November 2019.

**87.268 GImage.SetModulusDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetModulusDepth"; ImageRef; modulusDepth )

**Parameters****ImageRef**

The image reference number.

1

**modulusDepth**

The new value.

8

**Result** Returns "OK" on success.

**Description**

The minimum number of bits required to support red/green/blue components without loss of accuracy.

**See also**

- 87.136 GImage.GetModulusDepth

4577

Created 18th August 2014, last changed 18th August 2014.

**87.269 GImage.SetMonochrome**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetMonochrome"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.137 GImage.GetMonochrome 4578
- 87.244 GImage.SetCompressType 4715
- 87.265 GImage.SetMagick 4740
- 87.296 GImage.SetType 4780
- 87.318 GImage.Threshold 4807
- 87.336 GImage.WriteToFile 4831
- 87.341 GImage.WriteToTiffContainer 4843

Created 18th August 2014, last changed 18th August 2014.

## 87.270 GImage.SetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetOrientation"; ImageRef; Orientation )

### Parameters

#### ImageRef

The image reference number.

1

#### Orientation

The orientation value: UndefinedOrientation = 0, TopLeftOrientation = 1, (Line direction: Left to right, Frame Direction: Top to bottom) TopRightOrientation = 2, (Line direction: Right to left, Frame Direction: Top to bottom) BottomRightOrientation = 3, (Line direction: Right to left, Frame Direction: Bottom to top) BottomLeftOrientation = 4, (Line direction: Left to right, Frame Direction: Bottom to top) LeftTopOrientation = 5, (Line direction: Top to bottom, Frame Direction: Left to right) RightTopOrientation = 6, (Line direction: Top to bottom, Frame Direction: Right to left) RightBottomOrientation = 7, (Line direction: Bottom to top, Frame Direction: Right to left) LeftBottomOrientation = 8 (Line direction: Bottom to top, Frame Direction: Left to right)

1

**Result** Returns "OK" on success.

### Description

### Examples

Set orientation

```
# load a picture
Set Variable [ $image; Value:MBS( "GImage.NewFromContainer"; Test::BigImage) ]
# Set orientation to 1
Set Variable [ $r; Value:MBS( "GImage.SetOrientation"; $image; 1) ]
# write back to container
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $image;) ]
# cleanup
Set Variable [ $Error; Value:MBS("GImage.Release";$image) ]
```

### See also

- 87.112 GImage.GetEXIFOrientation 4552
- 87.138 GImage.GetOrientation 4579
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646

- 87.214 GImage.Release 4674
- 87.250 GImage.SetEXIFOrientation 4723
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/Rotate Orientation](#)

### 87.270.1 Blog Entries

- [Correct Image Orientation in FileMaker](#)

Created 18th August 2014, last changed 21st December 2018.



**87.271 GMImage.SetPage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.SetPage"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns a geometry string.

**Description****See also**

- 87.141 GMImage.GetPage 4583
- 87.265 GMImage.SetMagick 4740
- 87.266 GMImage.SetMatte 4742
- 87.279 GMImage.SetQuiet 4760
- 87.282 GMImage.SetScene 4764
- 87.283 GMImage.SetSize 4765
- 87.296 GMImage.SetType 4780
- 87.298 GMImage.SetView 4784
- 87.299 GMImage.SetXMP 4785
- 87.312 GMImage.Stegano 4801

Created 18th August 2014, last changed 18th August 2014.

## 87.272 GImage.SetPixelColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetPixelColor"; ImageRef; x; y; color )

### Parameters

#### ImageRef

The image reference number.

1

#### x

The horizontal position. Range from 0 to GImage.GetWidth-1.

0

#### y

The vertical position. Range from 0 to GImage.GetHeight-1.

0

#### color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

#### See also

- 87.96 GImage.GetBorderColor 4535
- 87.116 GImage.GetFillColor 4556
- 87.123 GImage.GetHeight 4563
- 87.135 GImage.GetMatteColor 4576
- 87.142 GImage.GetPixelColor 4584
- 87.169 GImage.GetWidth 4612
- 87.236 GImage.SetBoxColor 4706
- 87.267 GImage.SetMatteColor 4744
- 87.285 GImage.SetStrokeColor 4768
- 87.329 GImage.Trim 4821

87.272. *GMIMAGE.SETPIXELCOLOR*

4751

Created 18th August 2014, last changed 11st November 2019.

**87.273 GImage.SetProfile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetProfile"; ImageRef; name; data )

**Parameters****ImageRef**

The image reference number.

1

**name**

The string with the name of the profile.

"IPTC"

**data**

The container field value with the embedded profile file.

**Result** Returns "OK" on success.

**Description**

Remove the profile by passing an empty container field. Valid names are "\*", "8BIM", "ICM", "IPTC", "EXIF", or a user/format-defined profile name.

**Examples**

Remove XMP:

```
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $imageRef; "XMP"; "" ) ]
```

Remove IPTC:

```
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $imageRef; "IPTC"; "" ) ]
```

Remove EXIF:

```
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $imageRef; "EXIF"; "" ) ]
```

Clear all profiles:

```
Set Variable [ $Image ; Value: MBS("GImage.NewFromContainer"; MyTable::BMPContainer) ]
# remove metadata
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $Image; "EXIF"; "" ) ]
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $Image; "IPTC"; "" ) ]
Set Variable [ $Result; Value:MBS( "GImage.SetProfile"; $Image; "XMP"; "" ) ]
# write back as JPEG
Set Variable [ $r ; Value: MBS("GImage.SetQuality";$Image; 90) ]
Set Field [ MyTable::JPEGContainer ; MBS("GImage.WriteToJPEGContainer"; $Image) ]
```

87.273. *GMIMAGE.SETPROFILE* 4753  
Set Variable [ \$r ; Value: MBS("GMImage.Release";\$Image) ]

**See also**

- 87.125 GMImage.GetIPTCProfile 4566
- 87.143 GMImage.GetProfile 4586
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.194 GMImage.NewFromFile 4648
- 87.214 GMImage.Release 4674
- 87.248 GMImage.SetDensity 4720
- 87.260 GMImage.SetIPTCProfile 4735
- 87.274 GMImage.SetQuality 4754
- 87.338 GMImage.WriteToJPEGContainer 4836

**87.273.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr6](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.274 GImage.SetQuality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuality"; ImageRef; quality )

### Parameters

#### ImageRef

The image reference number.

1

#### quality

a number in range of 0 to 100.

75

**Result** Returns "OK" on success.

### Description

### Examples

Recompresses the image with JPEG compressor and a really bad quality:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.SetQuality"; $Image; 5);
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release"; $Image)
] ;
$Result)
```

Converts to JPEG with 90% compression:

```
Set Variable [ $ImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS("GImage.SetQuality"; $ImageRef; 90) ]
Set Field [ Test::Result; MBS( "GImage.WriteToJPEGContainer"; $ImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release"; $ImageRef) ]
```

### See also

- 87.110 GImage.GetDensity 4550
- 87.144 GImage.GetQuality 4587
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674

87.274. <i>GMIMAGE.SETQUALITY</i>	4755
• 87.248 GImage.SetDensity	4720
• 87.265 GImage.SetMagick	4740
• 87.273 GImage.SetProfile	4752
• 87.279 GImage.SetQuiet	4760
• 87.338 GImage.WriteToJPEGContainer	4836

### **Example Databases**

- [GraphicsMagick/Combine Pictures](#)
- [GraphicsMagick/GraphicsMagick Sample](#)
- [GraphicsMagick/Reduce Image](#)

### **87.274.1 FileMaker Magazin**

- Ausgabe 5/2011, Seite 33
- Ausgabe 5/2011, Seite 32

Created 18th August 2014, last changed 21st December 2018.

**87.275 GImage.SetQuantizeColorSpace**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuantizeColorSpace"; ImageRef; colorspaceType )

**Parameters****ImageRef**

The image reference number.

1

**colorspaceType**

UndefinedColorspace = 0, RGBColorspace = 1 (Plain old RGB colorspace), GRAYColorspace = 2 (Plain old full-range grayscale), TransparentColorspace = 3 (RGB but preserve matte channel during quantize), OHTAColorspace = 4, XYZColorspace = 5 (CIE XYZ), YCCColorspace = 6 (Kodak PhotoCD PhotoYCC), YIQColorspace = 7, YPbPrColorspace = 8, YUVCColorspace = 9, CMYKColorspace = 10 (Cyan, magenta, yellow, black, alpha), sRGBColorspace = 11 (Kodak PhotoCD sRGB), HSLColorspace = 12 (Hue, saturation, luminosity), HWBColorspace = 13 (Hue, whiteness, blackness), LABColorspace = 14 (LAB colorspace not supported yet other than via lcms), CineonLogRGBColorspace = 15 (RGB data with Cineon Log scaling, 2.048 density range), Rec601LumaColorspace = 16 (Luma (Y) according to ITU-R 601), Rec601YCbCrColorspace = 17 (YCbCr according to ITU-R 601), Rec709LumaColorspace = 18 (Luma (Y) according to ITU-R 709), Rec709YCbCrColorspace = 19 (YCbCr according to ITU-R 709)

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.146 GImage.GetQuantizeColors 4589
- 87.145 GImage.GetQuantizeColorSpace 4588
- 87.207 GImage.Quantize 4664
- 87.276 GImage.SetQuantizeColors 4757

Created 18th August 2014, last changed 18th August 2014.



**87.276 GImage.SetQuantizeColors**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuantizeColors"; ImageRef; colors )

**Parameters****ImageRef**

The image reference number.

1

**colors**

Maximum number of colors to quantize to

10

**Result** Returns "OK" on success.

**Description****See also**

- 87.146 GImage.GetQuantizeColors 4589
- 87.145 GImage.GetQuantizeColorSpace 4588
- 87.147 GImage.GetQuantizeDither 4590
- 87.207 GImage.Quantize 4664
- 87.267 GImage.SetMatteColor 4744
- 87.275 GImage.SetQuantizeColorSpace 4756
- 87.277 GImage.SetQuantizeDither 4758

Created 18th August 2014, last changed 18th August 2014.

**87.277 GImage.SetQuantizeDither**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuantizeDither"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.146 GImage.GetQuantizeColors 4589
- 87.147 GImage.GetQuantizeDither 4590
- 87.207 GImage.Quantize 4664
- 87.276 GImage.SetQuantizeColors 4757

Created 18th August 2014, last changed 18th August 2014.

## 87.278 **GImage.SetQuantizeTreeDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuantizeTreeDepth"; ImageRef; treeDepth )

### Parameters

#### **ImageRef**

The image reference number.

1

#### **treeDepth**

Sets the tree depth.

10

**Result** Returns "OK" on success.

### Description

#### See also

- 87.148 [GImage.GetQuantizeTreeDepth](#) 4591
- 87.207 [GImage.Quantize](#) 4664

Created 18th August 2014, last changed 18th August 2014.

## 87.279 GImage.SetQuiet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetQuiet"; ImageRef; Value )

### Parameters

#### ImageRef

The image reference number.

1

#### Value

The new setting. Pass 1 for quiet.

0

**Result** Returns OK or error.

### Description

If enabled, suppress all warning messages. Error messages are still reported.

#### See also

- 87.149 GImage.GetQuiet 4592
- 87.168 GImage.GetView 4611
- 87.256 GImage.SetFont 4730
- 87.263 GImage.SetLabel 4738
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749
- 87.274 GImage.SetQuality 4754
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784

### 87.279.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 28th December 2018.

**87.280 GImage.SetRenderingIntent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetRenderingIntent"; ImageRef; renderingIntent )

**Parameters****ImageRef**

The image reference number.

1

**renderingIntent**

UndefinedIntent = 0, SaturationIntent = 1, PerceptualIntent = 2, AbsoluteIntent = 3, RelativeIntent = 4

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.150 GImage.GetRenderingIntent 4593
- 87.259 GImage.SetICColorProfile 4733

Created 18th August 2014, last changed 18th August 2014.

**87.281 GImage.SetResolutionUnits**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetResolutionUnits"; ImageRef; ResolutionType )

**Parameters****ImageRef**

The image reference number.

1

**ResolutionType**

UndefinedResolution = 0, PixelsPerInchResolution = 1, PixelsPerCentimeterResolution = 2

1

**Result** Returns "OK" on success.

**Description****Examples**

Convert and Scale:

```
# Load image from container
Variable setzen [ $image ; Wert: MBS( "GImage.NewFromContainer"; SVG to PNG::InputFile ) ]
Variable setzen [ $name ; Wert: MBS( "Files.FileName"; LiesAlsText(SVG to PNG::InputFile) ) ]
# Scale if parameters are filled in fields
Wenn [ IstLeer ( SVG to PNG::Target Width in Pixel ) ]
Wenn [ IstLeer ( SVG to PNG::Target Height in Pixel ) ]
# both empty, do nothing
Sonst
Variable setzen [ $r ; Wert: MBS( "GImage.Scale"; $image; "99999x" & SVG to PNG::Target Height in
Pixel & ">" ) ]
Ende (wenn)
Sonst
Wenn [ IstLeer ( SVG to PNG::Target Height in Pixel ) ]
Variable setzen [ $r ; Wert: MBS( "GImage.Scale"; $image; SVG to PNG::Target Width in Pixel& ">" ) ]
Sonst
Variable setzen [ $r ; Wert: MBS( "GImage.Scale"; // function $image; // pass in picture SVG to
PNG::Target Width in Pixel & // width "x" & // by SVG to PNG::Target Height in Pixel & // height ">"
// scale only if it will get smaller ) ]
Ende (wenn)
Ende (wenn)
# If a resolution is defined, put it in
Wenn [ NICHT IstLeer ( SVG to PNG::Resolution in DPI ) ]
Variable setzen [ $r ; Wert: MBS( "GImage.SetResolutionUnits"; $image; 1 /* pixel per inch */ ) ]
Variable setzen [ $r ; Wert: MBS( "GImage.SetDensity"; $image; SVG to PNG::Resolution in DPI & "x"
& SVG to PNG::Resolution in DPI ) ]
Ende (wenn)
```

```
# Output to container
Feldwert setzen [ SVG to PNG::OutputFile ; MBS( "GMImage.WriteToPNGContainer"; $image; $name &
".png" ) ]
# Cleanup
Variable setzen [ $r ; Wert: MBS("GMImage.Release"; $image) ]
```

**See also**

- 79.23 Files.FileName 3861
- 87.151 GMImage.GetResolutionUnits 4594
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.225 GMImage.Scale 4690
- 87.248 GMImage.SetDensity 4720
- 87.340 GMImage.WriteToPNGContainer 4840

**Example Databases**

- [GraphicsMagick/Apply Mask](#)
- [GraphicsMagick/SVG to PNG](#)

Created 18th August 2014, last changed 21st December 2018.

**87.282 GImage.SetScene**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetScene"; ImageRef; scene )

**Parameters****ImageRef**

The image reference number.

1

**scene**

The scene number.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.152 GImage.GetScene 4595
- 87.153 GImage.GetSize 4596
- 87.227 GImage.Segment 4695
- 87.256 GImage.SetFont 4730
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784

Created 18th August 2014, last changed 18th August 2014.



**87.283 GImage.SetSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetSize"; ImageRef; Size )

**Parameters****ImageRef**

The image reference number.

1

**Size**

The rectangle. A Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

**Description**

Width and height of a raw image (an image which does not support width and height information). Size may also be used to affect the image size read from a multi-resolution format (e.g. Photo CD, JBIG, or JPEG)

**See also**

- 87.153 GImage.GetSize 4596
- 87.263 GImage.SetLabel 4738
- 87.266 GImage.SetMatte 4742
- 87.271 GImage.SetPage 4749
- 87.279 GImage.SetQuiet 4760
- 87.282 GImage.SetScene 4764
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.310 GImage.Solarize 4798

Created 18th August 2014, last changed 16th September 2019.

**87.284 GImage.SetStrokeAntiAlias**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeAntiAlias"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****Examples**

Draw without anti alias:

```

Variable setzen [ $img ; Wert: MBS("GImage.New"; "150x100"; "RGB 1 1 1") ]
# Draw rectangle in blue
Variable setzen [ $r ; Wert: MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Variable setzen [ $r ; Wert: MBS("GImage.DrawRectangle"; $img; 0; 0; 500; 500; "fill") ]
# Draw line without anti alias
Variable setzen [ $r ; Wert: MBS( "GImage.SetStrokeAntiAlias"; $img; 0 ) ]
Variable setzen [ $r ; Wert: MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Variable setzen [ $r ; Wert: MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Variable setzen [ $r ; Wert: MBS("GImage.SetLineWidth"; $img; 1) ]
Variable setzen [ $r ; Wert: MBS("GImage.DrawLine"; $img; 50; 50; 250; 50) ]
# Save picture & cleanup
Variable setzen [ $png ; Wert: MBS("GImage.WriteToPNGContainer"; $img; "test.png") ]
Variable setzen [ $r ; Wert: MBS("GImage.Release"; $img) ]
Feldwert setzen [ Drawing::Image ; $png ]

```

**See also**

- 87.56 GImage.DrawLine 4478
- 87.58 GImage.DrawRectangle 4481
- 87.154 GImage.GetStrokeAntiAlias 4597
- 87.191 GImage.New 4642
- 87.214 GImage.Release 4674

87.284. <i>GMIMAGE.SETSTROKEANTIALIAS</i>	4767
• 87.253 <i>GImage.SetFillColor</i>	4726
• 87.264 <i>GImage.SetLineWidth</i>	4739
• 87.285 <i>GImage.SetStrokeColor</i>	4768
• 87.288 <i>GImage.SetStrokeLineCap</i>	4772
• 87.340 <i>GImage.WriteToPNGContainer</i>	4840

Created 18th August 2014, last changed 21st December 2018.

## 87.285 GImage.SetStrokeColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeColor"; ImageRef; color )

### Parameters

#### ImageRef

The image reference number.

1

#### color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

The plugin has a list so some colors can be simply named like "red".

### Examples

Set color to red:

```
MBS( "GImage.SetStrokeColor"; $img; "red" )
```

Draws a circle in a rectangle in a circle:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "100x100"; "white" ) ]
Set Variable [ $r; Value:MBS( "GImage.SetFillColor"; $img; "RGB 1 0 0" ) ]
Set Variable [ $s; Value:MBS( "GImage.SetStrokeColor"; $img; "RGB 0 0 1" ) ]
Set Variable [ $c; Value:MBS( "GImage.DrawCircle"; $img; 50; 50; 50; 90 ) ]
Set Variable [ $r; Value:MBS( "GImage.DrawRectangle"; $img; 22; 22; 100-22; 100-22 ) ]
Set Variable [ $c; Value:MBS( "GImage.DrawCircle"; $img; 50; 50; 50; 100-22 ) ]
Set Field [ test::test; MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

### See also

- 87.96 GImage.GetBorderColor 4535
- 87.135 GImage.GetMatteColor 4576
- 87.161 GImage.GetStrokeWidth 4604

87.285. <i>GMIMAGE.SETSTROKECOLOR</i>	4769
• 87.235 <i>GImage.SetBorderColor</i>	4704
• 87.236 <i>GImage.SetBoxColor</i>	4706
• 87.253 <i>GImage.SetFillColor</i>	4726
• 87.267 <i>GImage.SetMatteColor</i>	4744
• 87.272 <i>GImage.SetPixelColor</i>	4750
• 87.284 <i>GImage.SetStrokeAntiAlias</i>	4766
• 87.340 <i>GImage.WriteToPNGContainer</i>	4840

### **Example Databases**

- [DynaPDF/Click Points](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/Find Pixels](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 11st November 2019.

## 87.286 GImage.SetStrokeDashArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeDashArray"; ImageRef; Pattern )

### Parameters

#### ImageRef

The image reference number.

1

#### Pattern

The list of pattern numbers. can be separated by space or newline.

"5 3 2"

**Result** Returns OK or error.

### Description

The strokeDashArray represents an array of numbers that specify the lengths of alternating dashes and gaps in pixels. If an odd number of values is provided, then the list of values is repeated to yield an even number of values. A typical strokeDashArray array might contain the members 5 3 2.

### Examples

Set a pattern

MBS( "GImage.SetStrokeDashArray"; \$ImageRef; "5 3 2" )

### See also

- 87.156 GImage.GetStrokeDashArray 4599
- 87.157 GImage.GetStrokeDashOffset 4600
- 87.284 GImage.SetStrokeAntiAlias 4766
- 87.287 GImage.SetStrokeDashOffset 4771

### 87.286.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

**87.287 GImage.SetStrokeDashOffset**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeDashOffset"; ImageRef; offset )

**Parameters****ImageRef**

The image reference number.

1

**offset**

The new value.

1.5

**Result** Returns "OK" on success.

**Description**

While drawing using a dash pattern, specify distance into the dash pattern to start the dash (default 0).

**See also**

- 87.156 GImage.GetStrokeDashArray 4599
- 87.157 GImage.GetStrokeDashOffset 4600
- 87.286 GImage.SetStrokeDashArray 4770

Created 18th August 2014, last changed 18th August 2014.

**87.288 GImage.SetStrokeLineCap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeLineCap"; ImageRef; linecap )

**Parameters****ImageRef**

The image reference number.

1

**linecap**

UndefinedCap = 0, ButtCap = 1, RoundCap = 2, SquareCap = 3

1

**Result** Returns "OK" on success.

**Description**

See also GImage.SetStrokeLineJoin.

**Examples**

Set miter join and round cap:

```
MBS( "GImage.SetStrokeLineJoin"; $img; 1 )
```

```
MBS( "GImage.SetStrokeLineCap"; $img; 2 )
```

**See also**

- 87.158 GImage.GetStrokeLineCap 4601
- 87.159 GImage.GetStrokeLineJoin 4602
- 87.284 GImage.SetStrokeAntiAlias 4766
- 87.289 GImage.SetStrokeLineJoin 4773
- 87.291 GImage.SetStrokeWidth 4775

Created 18th August 2014, last changed 18th August 2014.



**87.289 GImage.SetStrokeLineJoin**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeLineJoin"; ImageRef; linejoin )

**Parameters****ImageRef**

The image reference number.

1

**linejoin**

UndefinedJoin = 0, MiterJoin = 1, RoundJoin = 2, BevelJoin = 3

1

**Result** Returns "OK" on success.

**Description**

See also GImage.SetStrokeLineCap.

**Examples**

Set miter join and round cap:

```
MBS( "GImage.SetStrokeLineJoin"; $img; 1 )
```

```
MBS( "GImage.SetStrokeLineCap"; $img; 2 )
```

**See also**

- 87.158 GImage.GetStrokeLineCap 4601
- 87.159 GImage.GetStrokeLineJoin 4602
- 87.288 GImage.SetStrokeLineCap 4772
- 87.290 GImage.SetStrokeMiterLimit 4774

**Example Databases**

- [GraphicsMagick/GraphicsMagick Path Drawing](#)

Created 18th August 2014, last changed 18th August 2014.

**87.290 GImage.SetStrokeMiterLimit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeMiterLimit"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description**

When two line segments meet at a sharp angle and miter joins have been specified for 'lineJoin', it is possible for the miter to extend far beyond the thickness of the line stroking the path. The miterLimit' imposes a limit on the ratio of the miter length to the 'lineWidth'. The default value of this parameter is 4.

**See also**

- 87.160 GImage.GetStrokeMiterLimit 4603
- 87.289 GImage.SetStrokeLineJoin 4773

Created 18th August 2014, last changed 18th August 2014.

**87.291 GImage.SetStrokeWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetStrokeWidth"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The stroke width.

4

**Result** Returns "OK" on success.

**Description**

If you have an open path, the command is added there for later drawing with GImage.DrawPath.

**See also**

- 87.57 GImage.DrawPath 4480
- 87.155 GImage.GetStrokeColor 4598
- 87.161 GImage.GetStrokeWidth 4604
- 87.264 GImage.SetLineWidth 4739
- 87.285 GImage.SetStrokeColor 4768
- 87.288 GImage.SetStrokeLineCap 4772

Created 18th August 2014, last changed 18th August 2014.

**87.292 GImage.SetSubImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetSubImage"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

the new index

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.162 GImage.GetSubImage 4605
- 87.163 GImage.GetSubRange 4606
- 87.293 GImage.SetSubRange 4777

Created 18th August 2014, last changed 18th August 2014.

**87.293 GImage.SetSubRange**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetSubRange"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.162 GImage.GetSubImage 4605
- 87.163 GImage.GetSubRange 4606
- 87.292 GImage.SetSubImage 4776

Created 18th August 2014, last changed 18th August 2014.

**87.294 GImage.SetTextEncoding**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetTextEncoding"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****Examples**

Set UTF-8 encoding:

```
MBS("GImage.SetTextEncoding"; $ref; "UTF-8")
```

**See also**

- 87.24 GImage.Annotate 4427
- 87.164 GImage.GetTextEncoding 4607

Created 18th August 2014, last changed 9th April 2020.

**87.295 GImage.SetTileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetTileName"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****See also**

- 87.114 GImage.GetFileName 4554
- 87.115 GImage.GetFileSize 4555
- 87.165 GImage.GetTileName 4608
- 87.252 GImage.SetFileName 4725
- 87.254 GImage.SetFillRule 4728

Created 18th August 2014, last changed 18th August 2014.

**87.296 GImage.SetType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetType"; ImageRef; type )

**Parameters****ImageRef**

The image reference number.

1

**type**

UndefinedType = 0, BilevelType = 1, GrayscaleType = 2, GrayscaleMatteType = 3, PaletteType = 4, PaletteMatteType = 5, TrueColorType = 6, TrueColorMatteType = 7, ColorSeparationType = 8, ColorSeparationMatteType = 9, OptimizeType = 10

6

**Result** Returns "OK" on success.

**Description**

Changing the type from TrueColorType to GrayscaleType will convert a color picture to grayscale.

**Examples**

Change the picture to grayscale.

```
Let ( [
  $Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
  $Result = MBS("GImage.SetType";$Image; 2);
  $Result = MBS("GImage.WriteToPNGContainer"; $Image);
  $Error = MBS("GImage.Release";$Image)
] ;
$Result)
```

Convert image to 1 bit TIFF:

```
# Load from container
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);

# make black and white with threshold
$Result = MBS("GImage.Threshold";$Image; 127);

# mark as monochrome image
$Result = MBS("GImage.SetMonochrome";$Image; 1);

# set type to 1 for black/white
$Result = MBS("GImage.SetType";$Image; 1);
```



```
# set to use TIFF for compression
$Result = MBS("GImage.SetMagick";$Image; "TIFF");

# set to use CCITT 4 Fax compression
$Result = MBS("GImage.SetCompressType";$Image; 4);

# and write to a file
$Result = MBS("GImage.WriteToFile"; $Image; "/tmp/test.tif");

# cleanup
$error = MBS("GImage.Release";$Image)
```

Change picture to RGB:

```
MBS("GImage.SetType"; $image; 6);
```

Replace white with transparent:

```
Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
# Set type to RGBA
Set Variable [ $Result; Value:MBS("GImage.SetType"; $BigImageRef; 7) ]
# Replace white with transparent
Set Variable [ $Result; Value:MBS("GImage.ReplaceColor"; $BigImageRef; "white"; "transparent"; 10) ]
# save as PNG
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]
```

### See also

- 87.166 GImage.GetType 4609
- 87.256 GImage.SetFont 4730
- 87.263 GImage.SetLabel 4738
- 87.266 GImage.SetMatte 4742
- 87.269 GImage.SetMonochrome 4746
- 87.279 GImage.SetQuiet 4760
- 87.282 GImage.SetScene 4764
- 87.298 GImage.SetView 4784
- 87.318 GImage.Threshold 4807
- 87.336 GImage.WriteToFile 4831

### Example Databases

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/GraphicsMagick Sample](#)
- [GraphicsMagick/Reduce Image](#)
- [GraphicsMagick/SVG to PNG](#)

### **87.296.1 Blog Entries**

- [Convert a SVG image to PNG with alpha channel](#)
- [Create PDF from scanned images and skip blank pages](#)
- [QR Codes for Invoices in Switzerland](#)

### **87.296.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2018, Seite 27](#)

Created 18th August 2014, last changed 21st December 2018.

**87.297 GImage.SetVerbose**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetVerbose"; ImageRef; flag )

**Parameters****ImageRef**

The image reference number.

1

**flag**

A boolean value.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.105 GImage.GetCompose 4545
- 87.167 GImage.GetVerbose 4610
- 87.243 GImage.SetCompose 4714

Created 18th August 2014, last changed 18th August 2014.

**87.298 GImage.SetView**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetView"; ImageRef; value )

**Parameters****ImageRef**

The image reference number.

1

**value**

The new value.

**Result** Returns "OK" on success.

**Description****See also**

- 87.168 GImage.GetView 4611
- 87.256 GImage.SetFont 4730
- 87.263 GImage.SetLabel 4738
- 87.271 GImage.SetPage 4749
- 87.279 GImage.SetQuiet 4760
- 87.282 GImage.SetScene 4764
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.299 GImage.SetXMP 4785
- 87.313 GImage.Stereo 4802

Created 18th August 2014, last changed 18th August 2014.

**87.299 GImage.SetXMP**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetXMP"; ImageRef; XMP )

**Parameters****ImageRef**

The image reference number.

1

**XMP**

The XML text to save to file.

**Result** Returns OK or error.

**Description****See also**

- 87.170 GImage.GetXMP 4614
- 87.256 GImage.SetFont 4730
- 87.271 GImage.SetPage 4749
- 87.283 GImage.SetSize 4765
- 87.296 GImage.SetType 4780
- 87.298 GImage.SetView 4784
- 87.313 GImage.Stereo 4802

**87.299.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 8th June 2016, last changed 8th June 2016.

**87.300 GImage.SetchannelDepth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetchannelDepth"; ImageRef; ChannelType; depth )

**Parameters****ImageRef**

The image reference number.

1

**ChannelType**

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

**depth**

The depth value.

8

**Result** Returns "OK" on success.

**Description****See also**

- 87.98 GImage.GetChannelDepth

4537

Created 18th August 2014, last changed 18th August 2014.

**87.301 GImage.SetcolorMap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SetcolorMap"; ImageRef; index; color )

**Parameters****ImageRef**

The image reference number.

1

**index**

Position of the entry. Zero based.

0

**color**

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

**Description****See also**

- 87.171 GImage.GetcolorMap 4616
- 87.239 GImage.SetColorFuzz 4709
- 87.240 GImage.SetColorMapSize 4711
- 87.241 GImage.SetColorSpace 4712

Created 18th August 2014, last changed 11st November 2019.

**87.302 GImage.Shade**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Shade"; ImageRef; azimuth; elevation; colorShading )

**Parameters****ImageRef**

The image reference number.

1

**azimuth**

The azimuth.

30

**elevation**

The elevation

30

**colorShading**

A boolean value.

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.64 GImage.Erase 4491
- 87.80 GImage.Frame 4515
- 87.212 GImage.Read 4671
- 87.225 GImage.Scale 4690
- 87.303 GImage.Sharpen 4789
- 87.305 GImage.Shave 4792
- 87.306 GImage.Shear 4794
- 87.332 GImage.Wave 4825

Created 18th August 2014, last changed 18th August 2014.



**87.303 GMImage.Sharpen**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Sharpen"; ImageRef { ; radius; sigma } )

**Parameters****ImageRef**

The image reference number.

1

**radius**

Optional

Optional, The radius of the Gaussian, in pixels, not counting the center pixel.

0

**sigma**

Optional

Optional, The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

**Description****Examples**

Applies the sharpen effect to the image:

```
Let (
[
$Image = MBS("GMImage.NewFromContainer"; GraphicsMagick::image);
$RotateResult = MBS("GMImage.Sharpen"; $Image; 10; 5);
$Result = MBS("GMImage.WriteToPNGContainer"; $Image);
$DestroyResult = MBS("GMImage.Release";$Image)
];
$Result)
```

**See also**

- 87.34 GMImage.Channel 4443
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 87.224 GMImage.Sample 4689

- 87.302 GImage.Shade 4788
- 87.305 GImage.Shave 4792
- 87.313 GImage.Stereo 4802
- 87.340 GImage.WriteToPNGContainer 4840

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

**87.304 GImage.SharpenChannel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SharpenChannel"; ImageRef; ChannelType; radius; sigma )

**Parameters****ImageRef**

The image reference number.

1

**ChannelType**

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

1

**radius**

The radius of the Gaussian, in pixels, not counting the center pixel.

0

**sigma**

The standard deviation of the Laplacian, in pixels.

1

**Result** Returns "OK" on success.

**Description**

Created 18th August 2014, last changed 18th August 2014.

**87.305 GImage.Shave**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Shave"; ImageRef; Geometry )

**Parameters****ImageRef**

The image reference number.

1

**Geometry**

The rectangle where to draw. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200%!"

"100x200"

**Result** Returns "OK" on success.

**Description****Examples**

Shaves an image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$ShaveResult = MBS("GImage.Shave";$Image; "10x10");
$Result = MBS("GImage.WriteToPNGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

**See also**

- 87.64 GImage.Erase 4491
- 87.80 GImage.Frame 4515
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.225 GImage.Scale 4690
- 87.302 GImage.Shade 4788
- 87.303 GImage.Sharpen 4789

87.305. <i>GMIMAGE.SHAVE</i>	4793
• 87.306 GImage.Shear	4794
• 87.340 GImage.WriteToPNGContainer	4840

### **Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

**87.306 GImage.Shear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Shear"; ImageRef; xShearAngle; yShearAngle )

**Parameters****ImageRef**

The image reference number.

1

**xShearAngle**

X Angle

0

**yShearAngle**

Y Angle

0

**Result** Returns "OK" on success.

**Description****See also**

- 87.212 GImage.Read 4671
- 87.302 GImage.Shade 4788
- 87.305 GImage.Shave 4792
- 87.308 GImage.SkewX 4796
- 87.309 GImage.SkewY 4797
- 87.311 GImage.Spread 4800

Created 18th August 2014, last changed 18th August 2014.

## 87.307 GImage.Signature

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Signature"; ImageRef { ; force } )

### Parameters

#### ImageRef

The image reference number.

1

#### force

Optional

Optional, a boolean value.

0

**Result** Returns the signature string.

### Description

Created 18th August 2014, last changed 18th August 2014.

**87.308 GImage.SkewX**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SkewX"; ImageRef; angle )

**Parameters****ImageRef**

The image reference number.

1

**angle**

The angle for the skew operation.

0

**Result** Returns OK or error.

**Description****See also**

- 87.191 GImage.New 4642
- 87.306 GImage.Shear 4794
- 87.309 GImage.SkewY 4797

Created 18th August 2014, last changed 18th August 2014.



## 87.309 GImage.SkewY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.SkewY"; ImageRef; angle )

### Parameters

#### ImageRef

The image reference number.

1

#### angle

The angle for the skew operation.

0

**Result** Returns OK or error.

### Description

#### See also

- 87.191 GImage.New 4642
- 87.306 GImage.Shear 4794
- 87.308 GImage.SkewX 4796

Created 18th August 2014, last changed 18th August 2014.

**87.310 GImage.Solarize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Solarize"; ImageRef { ; factor } )

**Parameters****ImageRef**

The image reference number.

1

**factor**

Optional

The factor.

50.0

**Result** Returns "OK" on success.

**Description****Examples**

Applies the solarize effect to an image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Solarize";$Image);
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
] ;
$Result)
```

**See also**

- 87.40 GImage.Colorize 4451
- 87.63 GImage.Equalize 4490
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.198 GImage.Normalize 4654
- 87.214 GImage.Release 4674
- 87.283 GImage.SetSize 4765
- 87.338 GImage.WriteToJPEGContainer 4836

**Example Databases**

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

**87.311 GImage.Spread**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Spread"; ImageRef; amount )

**Parameters****ImageRef**

The image reference number.

1

**amount**

The amount.

3

**Result** Returns "OK" on success.

**Description****See also**

- 87.79 GImage.Format 4514
- 87.212 GImage.Read 4671
- 87.306 GImage.Shear 4794
- 87.313 GImage.Stereo 4802

Created 18th August 2014, last changed 18th August 2014.

**87.312 GImage.Stegano**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Stegano"; ImageRef; watermark )

**Parameters****ImageRef**

The image reference number.

1

**watermark**

The image reference number.

2

**Result** Returns "OK" on success.

**Description****See also**

- 87.190 GImage.Negate 4640
- 87.227 GImage.Segment 4695
- 87.256 GImage.SetFont 4730
- 87.271 GImage.SetPage 4749
- 87.313 GImage.Stereo 4802

Created 18th August 2014, last changed 18th August 2014.

**87.313 GImage.Stereo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Stereo"; ImageRef; rightImage )

**Parameters****ImageRef**

The image reference number.

1

**rightImage**

The image reference number.

2

**Result** Returns "OK" on success.

**Description****See also**

- 87.298 GImage.SetView 4784
- 87.299 GImage.SetXMP 4785
- 87.303 GImage.Sharpen 4789
- 87.311 GImage.Spread 4800
- 87.312 GImage.Stegano 4801
- 87.314 GImage.Strip 4803

Created 18th August 2014, last changed 18th August 2014.

**87.314 GImage.Strip**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Strip"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.49 GImage.Crop 4467
- 87.70 GImage.Flip 4500
- 87.313 GImage.Stereo 4802
- 87.316 GImage.Swirl 4805
- 87.329 GImage.Trim 4821

Created 18th August 2014, last changed 18th August 2014.

## 87.315 GImage.StrokePattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.StrokePattern"; ImageRef; patternImageRef )

### Parameters

#### ImageRef

The image reference number.

1

#### patternImageRef

The image reference number.

2

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.



## 87.316 GImage.Swirl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Swirl"; ImageRef; degrees )

### Parameters

#### ImageRef

The image reference number.

1

#### degrees

The degrees.

90

**Result** Returns "OK" on success.

### Description

### Examples

Does a swirl on the image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Swirl";$Image; 90);
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
] ;
$Result)
```

### See also

- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 87.314 GImage.Strip 4803
- 87.338 GImage.WriteToJPEGContainer 4836

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.317 GImage.Texture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Texture"; ImageRef; texture )

### Parameters

#### ImageRef

The image reference number.

1

#### texture

The image reference number.

2

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 87.318 GImage.Threshold

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Threshold"; ImageRef { ; threshold } )

### Parameters

#### ImageRef

The image reference number.

1

#### threshold

Optional

The range of the threshold parameter is 0 to MaxRGB (65535).

127\*256

**Result** Returns "OK" on success.

### Description

### Examples

Applies a threshold on the image:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.Threshold";$Image; 127);
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

Convert image to 1 bit TIFF:

```
# Load from container
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);

# make black and white with threshold
$Result = MBS("GImage.Threshold";$Image; 127);

# mark as monochrome image
$Result = MBS("GImage.SetMonochrome";$Image; 1);

# set type to 1 for black/white
$Result = MBS("GImage.SetType";$Image; 1);

# set to use TIFF for compression
$Result = MBS("GImage.SetMagick";$Image; "TIFF");
```

```

# set to use CCITT 4 Fax compression
$Result = MBS("GImage.SetCompressType";$Image; 4);

# and write to a file
$Result = MBS("GImage.WriteToFile"; $Image; "/tmp/test.tif");

# cleanup
$error = MBS("GImage.Release";$Image)

```

Make a picture black and transparent:

```

Set Variable [ $image; Value:MBS( "GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $r; Value:MBS( "GImage.Threshold"; $image; 127) ]
Set Variable [ $imagecolor; Value:MBS( "GImage.Transparent"; $image; "white") ]
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $image;) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$image) ]

```

### See also

- 87.191 GImage.New 4642
- 87.214 GImage.Release 4674
- 87.244 GImage.SetCompressType 4715
- 87.265 GImage.SetMagick 4740
- 87.296 GImage.SetType 4780
- 87.328 GImage.Transparent 4819
- 87.336 GImage.WriteToFile 4831
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843

### Example Databases

- [GraphicsMagick/GraphicsMagick Sample](#)

Created 18th August 2014, last changed 11st November 2019.

**87.319 GImage.TotalColors**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TotalColors"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns the number of colors in the image.

**Description**

Created 18th August 2014, last changed 18th August 2014.

**87.320 GImage.Transform**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Transform"; ImageRef; imageGeometry { ; cropGeometry } )

**Parameters****ImageRef**

The image reference number.

1

**imageGeometry**

The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**cropGeometry**

Optional

Optional, The rectangle. Geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "100x200"

**Result** Returns "OK" on success.

**Description****See also**

- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813
- 87.323 GImage.TransformRotation 4814
- 87.324 GImage.TransformScale 4815
- 87.325 GImage.TransformSkewX 4816
- 87.326 GImage.TransformSkewY 4817
- 87.328 GImage.Transparent 4819

Created 18th August 2014, last changed 13th May 2019.

**87.321 GImage.TransformOrigin**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformOrigin"; ImageRef; x; y )

**Parameters****ImageRef**

The image reference number.

1

**x**

The horizontal offset

0

**y**

The vertical offset

0

**Result** Returns "OK" on success.

**Description**

See GImage.TransformReset to reset current transform.

**Examples**

Draw rectangle 45° rotated at specific coordinate:

```
# move origin
```

```
Variable setzen [ $r ; Wert: MBS( "GImage.TransformOrigin"; $img; 50 + 125; 50 + 75 ) ]
```

```
# draw rectangle centered there
```

```
Variable setzen [ $r ; Wert: MBS("GImage.DrawRectangle"; $img; -125; -75; 125; 75) // 250 x 150 ]
```

```
# rotate 45°
```

```
Variable setzen [ $r ; Wert: MBS( "GImage.TransformRotation"; $img; 45 ) ]
```

```
# draw rectangle centered there
```

```
Variable setzen [ $r ; Wert: MBS("GImage.DrawRectangle"; $img; -125; -75; 125; 75) // 250 x 150 ]
```

**See also**

- 87.58 GImage.DrawRectangle 4481
- 87.320 GImage.Transform 4810
- 87.322 GImage.TransformReset 4813
- 87.323 GImage.TransformRotation 4814
- 87.324 GImage.TransformScale 4815
- 87.325 GImage.TransformSkewX 4816

- 87.326 GImage.TransformSkewY

Created 18th August 2014, last changed 5th May 2020.



**87.322 GImage.TransformReset**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformReset"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description****See also**

- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.323 GImage.TransformRotation 4814
- 87.324 GImage.TransformScale 4815
- 87.325 GImage.TransformSkewX 4816
- 87.326 GImage.TransformSkewY 4817

Created 18th August 2014, last changed 18th August 2014.

**87.323 GImage.TransformRotation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformRotation"; ImageRef; angle )

**Parameters****ImageRef**

The image reference number.

1

**angle**

The angle.

90

**Result** Returns "OK" on success.

**Description**

If you need to rotate the image, please use GImage.Rotate function.

See GImage.TransformReset to reset current transform.

**Examples**

Draw rectangle 45° rotated at specific coordinate:

```
# move origin
Variable setzen [ $r ; Wert: MBS( "GImage.TransformOrigin"; $img; 50 + 125; 50 + 75 ) ]
# draw rectangle centered there
Variable setzen [ $r ; Wert: MBS("GImage.DrawRectangle"; $img; -125; -75; 125; 75) // 250 x 150 ]
# rotate 45°
Variable setzen [ $r ; Wert: MBS( "GImage.TransformRotation"; $img; 45 ) ]
# draw rectangle centered there
Variable setzen [ $r ; Wert: MBS("GImage.DrawRectangle"; $img; -125; -75; 125; 75) // 250 x 150 ]
```

**See also**

- 87.58 GImage.DrawRectangle 4481
- 87.221 GImage.Rotate 4685
- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813

Created 18th August 2014, last changed 5th May 2020.

**87.324 GImage.TransformScale**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformScale"; ImageRef; sx; sy )

**Parameters****ImageRef**

The image reference number.

1

**sx**

the x factor

2

**sy**

the y factor

2

**Result** Returns "OK" on success.

**Description**

If you need to scale the image, please use GImage.Scale function.

See GImage.TransformReset to reset current transform.

**See also**

- 87.225 GImage.Scale 4690
- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813
- 87.325 GImage.TransformSkewX 4816
- 87.326 GImage.TransformSkewY 4817

Created 18th August 2014, last changed 2nd May 2020.

**87.325 GImage.TransformSkewX**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformSkewX"; ImageRef; skewx )

**Parameters****ImageRef**

The image reference number.

1

**skewx**

the skew value

10

**Result** Returns "OK" on success.

**Description****See also**

- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813
- 87.324 GImage.TransformScale 4815
- 87.326 GImage.TransformSkewY 4817

Created 18th August 2014, last changed 18th August 2014.

**87.326 GImage.TransformSkewY**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.TransformSkewY"; ImageRef; skewy )

**Parameters****ImageRef**

The image reference number.

1

**skewy**

The skewy value.

10

**Result** Returns "OK" on success.

**Description****See also**

- 87.320 GImage.Transform 4810
- 87.321 GImage.TransformOrigin 4811
- 87.322 GImage.TransformReset 4813
- 87.324 GImage.TransformScale 4815
- 87.325 GImage.TransformSkewX 4816

Created 18th August 2014, last changed 18th August 2014.

**87.327 GImage.Translation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Translation"; ImageRef; X; Y )

**Parameters****ImageRef**

The image reference number.

1

**X**

The x coordinate.

10

**Y**

The y coordinate.

10

**Result** Returns OK or error.

**Description**

Sets the new coordinate origin.

**See also**

- 87.328 GImage.Transparent

4819

Created 18th August 2014, last changed 18th August 2014.

## 87.328 GImage.Transparent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Transparent"; ImageRef; Color )

### Parameters

#### ImageRef

The image reference number.

1

#### Color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"RGB 1 0 0"

**Result** Returns "OK" on success.

### Description

### Examples

Make a picture transparent:

```
# load a picture
Set Variable [ $image; Value:MBS( "GImage.NewFromContainer"; Test::BigImage) ]
# white in RGB
Set Variable [ $f; Value:"COLOR 65535 65535 65535" ]
# Replace all white with nearly white
Set Variable [ $r; Value:MBS( "GImage.ReplaceColor"; $image; $f; "COLOR 65535 65278 65535"; 0) ]
# now flood fill it with 5 as tolerance
Set Variable [ $r; Value:MBS( "GImage.SetColorFuzz"; $image; 5 ) ]
Set Variable [ $r; Value:MBS( "GImage.FloodFillColorXY"; $image; 0; 0; $f ) ]
# now set back fuzz and make transparent using white
Set Variable [ $r; Value:MBS( "GImage.SetColorFuzz"; $image; 0 ) ]
Set Variable [ $imagecolor; Value:MBS( "GImage.Transparent"; $image; $f) ]
# write back to container
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $image;) ]
# cleanup
Set Variable [ $Error; Value:MBS("GMimage.Release";$image) ]
```

### See also

- 87.71 GImage.FloodFillColor

- 87.72 `GImage.FloodFillColorXY` 4504
- 87.193 `GImage.NewFromContainer` 4646
- 87.214 `GImage.Release` 4674
- 87.217 `GImage.ReplaceColor` 4678
- 87.239 `GImage.SetColorFuzz` 4709
- 87.318 `GImage.Threshold` 4807
- 87.320 `GImage.Transform` 4810
- 87.327 `GImage.Translation` 4818
- 87.340 `GImage.WriteToPNGContainer` 4840

Created 18th August 2014, last changed 11st November 2019.



**87.329 GImage.Trim**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Trim"; ImageRef )

**Parameters****ImageRef**

The image reference number.

1

**Result** Returns "OK" on success.

**Description**

Use GImage.SetColorFuzz to set the fuzzy level.

Trim looks on what pixel colors the edges have and checks if there is a smaller rectangle where all pixel outside have same color. See GImage.BoundingBox for the bounding box of content.

**Examples**

Trim a picture:

```
Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS( "GImage.SetColorFuzz"; $BigImageRef; 100 ) ]
Set Variable [ $Result; Value:MBS("GImage.Trim"; $BigImageRef) ]
Set Field [ Test::Result; MBS( "GImage.WriteToJPEGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]
```

Trim white around picture:

```
Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
# set one white pixel to make sure it trims only white
Set Variable [ $Result; Value:MBS( "GImage.SetPixelColor"; $BigImageRef; 0; 0; "white" ) ]
# allows up to 5 away into gray for comparing to white
Set Variable [ $Result; Value:MBS( "GImage.SetColorFuzz"; $BigImageRef; 5 ) ]
Set Variable [ $Result; Value:MBS("GImage.Trim"; $BigImageRef) ]
Set Field [ Test::Result; MBS( "GImage.WriteToJPEGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]
```

Trims space around image and make transparent:

```
Set Variable [ $BigImageRef; Value:MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result; Value:MBS( "GImage.SetBackgroundColor"; $BigImageRef; "RGB 1 0 0" ) ]
Set Variable [ $Result; Value:MBS("GImage.Trim"; $BigImageRef) ]
Set Variable [ $Result; Value:MBS( "GImage.SetColorFuzz"; $BigImageRef; 5 ) ]
Set Variable [ $Result; Value:MBS( "GImage.SetMatte"; $BigImageRef; 1 ) ]
```

```
Set Variable [ $farbe; Value:MBS( "GImage.GetPixelColor"; $BigImageRef; 0; 0 ) ]
Set Variable [ $Result; Value:MBS( "GImage.ReplaceColor"; $BigImageRef; $farbe; "RGB 1 1 1"; 5 ) ]
Set Field [ Test::Result; MBS( "GImage.WriteToPNGContainer"; $BigImageRef ) ]
Set Variable [ $Error; Value:MBS("GImage.Release";$BigImageRef) ]
```

### See also

- 87.70 GImage.Flip 4500
- 87.80 GImage.Frame 4515
- 87.193 GImage.NewFromContainer 4646
- 87.239 GImage.SetColorFuzz 4709
- 87.266 GImage.SetMatte 4742
- 87.272 GImage.SetPixelColor 4750
- 87.314 GImage.Strip 4803
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.340 GImage.WriteToPNGContainer 4840
- 87.344 GImage.Zoom 4847

### Example Databases

- [GraphicsMagick/Trim Picture Border](#)
- [GraphicsMagick/Trim Picture](#)

Created 18th August 2014, last changed 21st December 2018.

## 87.330 GImage.Unsharpmask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Unsharpmask"; ImageRef; radius; sigma; amount; threshold )

### Parameters

#### ImageRef

The image reference number.

1

#### radius

the radius of the Gaussian, in pixels, not counting the center pixel.

3

#### sigma

the standard deviation of the Gaussian, in pixels.

1

#### amount

the percentage of the difference between the original and the blur image that is added back into the original.

50

#### threshold

the threshold in pixels needed to apply the diffence amount.

3

**Result** Returns "OK" on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

**87.331 GImage.UnsharpmaskChannel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.UnsharpmaskChannel"; ImageRef; ChannelType; radius; sigma; amount; threshold )

**Parameters****ImageRef**

The image reference number.

1

**ChannelType**

ChannelType

One of the following values: RedChannel = 1 (RGB Red channel), CyanChannel = 2 (CMYK Cyan channel), GreenChannel = 3 (RGB Green channel), MagentaChannel = 4 (CMYK Magenta channel), BlueChannel = 5 (RGB Blue channel), YellowChannel = 6 (CMYK Yellow channel), OpacityChannel = 7 (Opacity channel), BlackChannel = 8 (CMYK Black (K) channel), MatteChannel = 9 (Same as Opacity channel (deprecated)), AllChannels = 10 (Color channels), GrayChannel = 11 (Color channels represent an intensity.)

**radius**

the radius of the Gaussian, in pixels, not counting the center pixel.

3

**sigma**

the standard deviation of the Gaussian, in pixels.

1

**amount**

the percentage of the difference between the original and the blur image that is added back into the original.

50

**threshold**

the threshold in pixels needed to apply the diffence amount.

3

**Result** Returns "OK" on success.

**Description**

Created 18th August 2014, last changed 18th August 2014.

**87.332 GImage.Wave**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.Wave"; ImageRef { ; amplitude; wavelength } )

**Parameters****ImageRef**

The image reference number.

1

**amplitude**

Optional

The amplitude

25.0

**wavelength**

Optional

The wave length

150.0

**Result** Returns "OK" on success.

**Description****See also**

- 87.64 GImage.Erase 4491
- 87.80 GImage.Frame 4515
- 87.81 GImage.Free 4517
- 87.172 GImage.Hash 4617
- 87.177 GImage.Level 4624
- 87.181 GImage.Map 4629
- 87.209 GImage.Raise 4667
- 87.225 GImage.Scale 4690
- 87.302 GImage.Shade 4788
- 87.305 GImage.Shave 4792

Created 18th August 2014, last changed 18th August 2014.

## 87.333 GImage.WriteImages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteImages"; ImageList; Path; Adjoin )

### Parameters

#### ImageList

The list of image references (numbers returned from the GImage.New functions) separated by either space or new line character.

"1 2 3"

#### Path

A platform specific filepath where to write the image.

"C:\Test.tif"

#### Adjoin

Whether to write one file per image or one image file with all images.

1

**Result** Returns OK or error message.

### Description

This function can be used to create multi image tiff files.

See GImage.NewImagesFromFile and GImage.NewImagesFromContainer for reading multi picture files.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 87.191 GImage.New 4642
- 87.196 GImage.NewImagesFromContainer 4651
- 87.197 GImage.NewImagesFromFile 4652
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [GraphicsMagick/Create GIF](#)
- [GraphicsMagick/Create Multi Tiff](#)

### **87.333.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 3.4pr1](#)

Created 18th August 2014, last changed 28th November 2019.

**87.334 GImage.WriteToBMPContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToBMPContainer"; ImageRef { ; Filename } )

**Parameters****ImageRef**

The image reference number.

1

**Filename**

Optional

The file name to use for the container. Default is "image.bmp"  
"ball.bmp"

**Result** Returns a container value.

**Description**

For preview a JPEG version is included as well as a file name "image.bmp" and the image size.  
See also GImage.WriteToFile, GImage.WriteToPNGContainer, GImage.WriteToTiffContainer, GImage.WriteToJPEGContainer and GImage.WriteToGIFContainer.

**Examples**

Get a container value from the picture in BMP format.

MBS( "GImage.WriteToBMPContainer"; \$MyImageRef; "logo.bmp" )

**See also**

- 87.335 GImage.WriteToContainer 4829
- 87.336 GImage.WriteToFile 4831
- 87.337 GImage.WriteToGIFContainer 4834
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.339 GImage.WriteToPDFContainer 4838
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843

**87.334.1 FileMaker Magazin**

- Ausgabe 5/2011, Seite 33

Created 18th August 2014, last changed 16th October 2014.



## 87.335 GImage.WriteToContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToContainer"; ImageRef { ; FileName } )

### Parameters

#### ImageRef

The image reference number.

1

#### FileName

Optional

File name to pass to FileMaker with container.

"test.jpg"

**Result** Returns OK or error.

### Description

Please set type you want with GImage.SetMagick function.

Similar to other write functions, but allows you to use whatever magick type is set for codec.

This function is similar to our specialized functions GImage.WriteToBMPContainer, GImage.WriteToGIFContainer, GImage.WriteToJPEGContainer, GImage.WriteToPDFContainer, GImage.WriteToPNGContainer and GImage.WriteToTiffContainer, but you can specify the codec to use. Image is compressed and passed to FileMaker with filename. Then FileMaker (or our plugin for older FileMaker versions before 13) can detect the type from filename and generate required previews.

### Examples

Save an image as PNG:

```
Set Variable [ $BigImageRef ; Value: MBS("GImage.NewFromContainer"; Test::BigImage) ]
Set Variable [ $Result ; Value: MBS("GImage.SetMagick"; $BigImageRef; "PNG") ]
Set Field [ Test::Result ; MBS( "GImage.WriteToContainer"; $BigImageRef; "test.png" ) ]
Set Variable [ $Error ; Value: MBS("GImage.Destroy";$BigImageRef) ]
```

### See also

- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 86.1 GImage.ReadFromContainer 4395
- 87.265 GImage.SetMagick 4740
- 87.334 GImage.WriteToBMPContainer 4828

- 87.337 GImage.WriteToGIFContainer 4834
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.339 GImage.WriteToPDFContainer 4838
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843

### 87.335.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr7](#)

Created 20th July 2019, last changed 22nd February 2020.

**87.336 GImage.WriteToFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToFile"; ImageRef; Path )

**Parameters****ImageRef**

The image reference number.

1

**Path**

A platform specific filepath where to write the image.

"C:\Test.jpg"

**Result** Returns "OK" on success.

**Description**

See also GImage.WriteToPNGContainer, GImage.WriteToBMPCContainer, GImage.WriteToTiffContainer, GImage.WriteToJPEGContainer and GImage.WriteToGIFContainer.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**Examples**

Save file to Bob's desktop as GIF file on Mac OS X:

```
MBS( "GImage.WriteToFile"; $BigImageRef; "/Users/Bob/Desktop/test.gif" )
```

Save file to Bob's desktop as JPG file on Windows:

```
MBS( "GImage.WriteToFile"; $BigImageRef; "C:\Data\logo.jpg" )
```

Convert image to 1 bit TIFF:

```
# Load from container
```

```
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
```

```
# make black and white with threshold
```

```
$Result = MBS("GImage.Threshold";$Image; 127);
```

```
# mark as monochrome image
```

```
$Result = MBS("GImage.SetMonochrome";$Image; 1);
```

```
# set type to 1 for black/white
```

```
$Result = MBS("GImage.SetType";$Image; 1);
```

```

# set to use TIFF for compression
$Result = MBS("GImage.SetMagick";$Image; "TIFF");

# set to use CCITT 4 Fax compression
$Result = MBS("GImage.SetCompressType";$Image; 4);

# and write to a file
$Result = MBS("GImage.WriteToFile"; $Image; "/tmp/test.tif");

# cleanup
$error = MBS("GImage.Release";$Image)

```

Loads from file and writes to other file:

```

Set Variable [ $img; Value:MBS("GImage.NewImagesFromFile"; "/Users/cs/Desktop/test.jpg") ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r; Value:MBS( "GImage.WriteToFile"; $img; "/Users/cs/Desktop/test.tif" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
End If

```

Draw something and write to file on desktop:

```

# New Image
Set Variable [ $img; Value:MBS("GImage.New"; "300x200"; "RGB 1 1 1") ]
# Set colors and line width
Set Variable [ $r; Value:MBS("GImage.SetStrokeColor"; $img; "RGB 1 0 0") ]
Set Variable [ $r; Value:MBS("GImage.SetFillColor"; $img; "RGB 0 0 1") ]
Set Variable [ $r; Value:MBS("GImage.SetLineWidth"; $img; 5) ]
# draw a rectangle
Set Variable [ $r; Value:MBS("GImage.DrawRectangle"; $img; 50; 50; 250; 150) ]
# save to test.png on desktop:
Set Variable [ $DesktopPath; Value:MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $DesktopPath; "test.png") ]
Set Variable [ $r; Value:MBS("GImage.WriteToFile"; $img; $path) ]
# cleanup
Set Variable [ $r; Value:MBS("GImage.Release"; $img) ]

```

### See also

- 87.265 GImage.SetMagick 4740
- 87.285 GImage.SetStrokeColor 4768
- 87.296 GImage.SetType 4780
- 87.334 GImage.WriteToBMPContainer 4828
- 87.337 GImage.WriteToGIFContainer 4834

<i>87.336. GMIMAGE.WRITETOFILE</i>	4833
• 87.338 GImage.WriteToJPEGContainer	4836
• 87.339 GImage.WriteToPDFContainer	4838
• 87.340 GImage.WriteToPNGContainer	4840
• 127.6 IsError	6374
• 124.1 Path.AddPathComponent	6243

## Example Databases

- [GraphicsMagick/Export Images](#)

### 87.336.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr7](#)

### 87.336.2 FileMaker Magazin

- Ausgabe 5/2011, Seite 33

Created 18th August 2014, last changed 26th April 2019.

## 87.337 GImage.WriteToGIFContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToGIFContainer"; ImageRef { ; Filename } )

### Parameters

#### ImageRef

The image reference number.

1

#### Filename

Optional

The file name to use for the container. Default is "image.gif"  
"ball.gif"

**Result** Returns a container value.

### Description

For preview a JPEG version is included as well as a file name "image.gif" and the image size.

See also GImage.WriteToFile, GImage.WriteToPNGContainer, GImage.WriteToTiffContainer, GImage.WriteToBMPContainer and GImage.WriteToJPEGContainer.

### Examples

Get a container value from the picture in GIF format.

MBS( "GImage.WriteToGIFContainer"; \$MyImageRef; "logo.gif" )

### See also

- 87.207 GImage.Quantize 4664
- 87.334 GImage.WriteToBMPContainer 4828
- 87.335 GImage.WriteToContainer 4829
- 87.336 GImage.WriteToFile 4831
- 87.338 GImage.WriteToJPEGContainer 4836
- 87.339 GImage.WriteToPDFContainer 4838
- 87.340 GImage.WriteToPNGContainer 4840
- 87.341 GImage.WriteToTiffContainer 4843

### 87.337.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)

87.337. *GMIMAGE.WRITETOGIFCONTAINER*

4835

- [MBS Filemaker Plugin, version 2.4pr3](#)

### **87.337.2 FileMaker Magazin**

- Ausgabe 5/2011, Seite 33

Created 18th August 2014, last changed 24th August 2017.

**87.338 GImage.WriteToJPEGContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToJPEGContainer"; ImageRef { ; Filename } )

**Parameters****ImageRef**

The image reference number.

1

**Filename**

Optional

The file name to use for the container. Default is "image.jpg"

"ball.jpg"

**Result** Returns a container value.

**Description**

Includes a file name "image.jpg" and the image size.

For the quality setting use the GImage.SetQuality function.

For most cases the PNG file format is the better choice as it supports transparency and lossless compression.

See also GImage.WriteToFile, GImage.WriteToPNGContainer, GImage.WriteToTiffContainer, GImage.WriteToBMPContainer and GImage.WriteToGIFContainer.

**Examples**

Recompresses the image with JPEG compressor and a really bad quality:

```
Let ( [
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
$Result = MBS("GImage.SetQuality";$Image; 5);
$Result = MBS("GImage.WriteToJPEGContainer"; $Image);
$error = MBS("GImage.Release";$Image)
];
$Result)
```

Save JPEG image to container as script:

```
Set Variable [ $Image ; Value: MBS("GImage.NewFromContainer"; MyTable::BMPContainer) ]
Set Variable [ $r ; Value: MBS("GImage.SetQuality";$Image; 90) ]
Set Field [ MyTable::JPEGContainer ; MBS("GImage.WriteToJPEGContainer"; $Image) ]
Set Variable [ $r ; Value: MBS("GImage.Release";$Image) ]
```

**See also**

- 87.239 GImage.SetColorFuzz



87.338. <i>GMIMAGE.WRITETOJPEGCONTAINER</i>	4837
• 87.248 <i>GImage.SetDensity</i>	4720
• 87.310 <i>GImage.Solarize</i>	4798
• 87.316 <i>GImage.Swirl</i>	4805
• 87.318 <i>GImage.Threshold</i>	4807
• 87.329 <i>GImage.Trim</i>	4821
• 87.334 <i>GImage.WriteToBMPContainer</i>	4828
• 87.337 <i>GImage.WriteToGIFContainer</i>	4834
• 87.339 <i>GImage.WriteToPDFContainer</i>	4838
• 87.340 <i>GImage.WriteToPNGContainer</i>	4840

### **Example Databases**

- [GraphicsMagick/Correct Image Orientation](#)
- [GraphicsMagick/Reduce Image](#)
- [GraphicsMagick/Rotate Orientation](#)
- [GraphicsMagick/Trim Picture](#)

### **87.338.1 Blog Entries**

- [Correct Image Orientation in FileMaker](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)

### **87.338.2 FileMaker Magazin**

- Ausgabe 5/2018, Seite 26
- Ausgabe 5/2011, Seite 33

Created 18th August 2014, last changed 21st December 2018.

## 87.339 GImage.WriteToPDFContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToPDFContainer"; ImageRef { ; Filename } )

### Parameters

#### ImageRef

The image reference number.

1

#### Filename

Optional

The file name to use for the container. Default is "image.pdf"

"test.pdf"

**Result** Returns OK or error.

### Description

For preview a JPEG version is included as well as a file name and the image size.

Please make sure the DPI value is set via GImage.SetDensity function as an incorrect value can crop the PDF page.

See also GImage.WriteToFile, GImage.WriteToJPEGContainer, GImage.WriteToBMPContainer and GImage.WriteToGIFContainer.

If you need more options for PDF file, please use our DynaPDF functions.

### Examples

Load image and Save to container as PDF:

```
Let ( [
    $Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
    $Result = MBS("GImage.WriteToPDFContainer"; $Image; "image.pdf");

    $Error = MBS("GImage.Release";$Image)
];
$Result)
```

### See also

- 87.191 GImage.New

<i>87.339. GMIMAGE.WRITETOPDFCONTAINER</i>	4839
• 87.193 GImage.NewFromContainer	4646
• 87.214 GImage.Release	4674
• 87.334 GImage.WriteToBMPContainer	4828
• 87.335 GImage.WriteToContainer	4829
• 87.336 GImage.WriteToFile	4831
• 87.337 GImage.WriteToGIFContainer	4834
• 87.338 GImage.WriteToJPEGContainer	4836
• 87.340 GImage.WriteToPNGContainer	4840
• 87.341 GImage.WriteToTiffContainer	4843

### **87.339.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr4](#)

Created 24th August 2017, last changed 21st December 2018.

**87.340 GImage.WriteToPNGContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToPNGContainer"; ImageRef { ; Filename } )

**Parameters****ImageRef**

The image reference number.

1

**Filename**

Optional

The file name to use for the container. Default is "image.png"

"ball.png"

**Result** Returns a container value.

**Description**

For preview a JPEG version is included as well as a file name "image.png" and the image size.

See also GImage.WriteToFile, GImage.WriteToJPEGContainer, GImage.WriteToBMPContainer and GImage.WriteToGIFContainer.

Some images have bad ICC profile, so saving them will crash (version 3.4 or lower) or return error (3.5 and newer). In this case, please use MBS("GImage.SetICCPProfile"; ImageRef; "") to remove the profile.

**Examples**

Get a container value from the picture in PNG format.

```
MBS( "GImage.WriteToPNGContainer"; $MyImageRef; "logo.png" )
```

Make a barcode and store it as PNG in a container:

```
Set Variable [ $image; Value:MBS( "Barcode.Generate"; "UPCA"; "72527270270" ) ]
If [ MBS("Iserror") = 0 ]
Set Field [ MyTable::BarCodeContainer; MBS( "GImage.WriteToPNGContainer"; $image; "barcode.png" ) ]
Set Variable [ $r; Value:MBS("GImage.Release"; $image) ]
Else
Set Field [ MyTable::BarCodeContainer; "" ]
End If
```

Create red square and save to container:

```
Set Variable [ $img; Value:MBS( "GImage.New"; "16x16"; "red" ) ]
Set Field [ test::test; MBS( "GImage.WriteToPNGContainer"; $img; "test.png" ) ]
Set Variable [ $r; Value:MBS( "GImage.Release"; $img ) ]
```

87.340. *GMIMAGE.WRITETOPNGCONTAINER* 4841

### See also

- 87.296 *GImage.SetType* 4780
- 87.305 *GImage.Shave* 4792
- 87.318 *GImage.Threshold* 4807
- 87.328 *GImage.Transparent* 4819
- 87.329 *GImage.Trim* 4821
- 87.334 *GImage.WriteToBMPContainer* 4828
- 87.335 *GImage.WriteToContainer* 4829
- 87.339 *GImage.WriteToPDFContainer* 4838
- 127.6 *IsError* 6374
- 172.7 *Twain.CurrentImage* 8122

### Example Databases

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [GraphicsMagick/Colors](#)
- [GraphicsMagick/Drawing](#)
- [GraphicsMagick/GraphicsMagick Path Drawing](#)
- [GraphicsMagick/Image Cropping](#)
- [GraphicsMagick/Invert](#)
- [GraphicsMagick/Picture Text Encoding](#)
- [GraphicsMagick/SVG to PNG](#)
- [GraphicsMagick/Trim Picture Border](#)

### 87.340.1 Blog Entries

- [Convert a SVG image to PNG with alpha channel](#)
- [Create Barcodes on Server from FileMaker Go](#)
- [Neue Funktionen des MBS FileMaker Plugin 9.4](#)

- [Gradients in GraphicsMagick](#)
- [Circle crop images in FileMaker with MBS Plugin](#)
- [QR Codes for Invoices in Switzerland](#)
- [Face detection via CoreImage in FileMaker](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)

### **87.340.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2018, Seite 26](#)
- [Ausgabe 5/2011, Seite 33](#)

Created 18th August 2014, last changed 21st December 2018.

**87.341 GImage.WriteToTiffContainer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.WriteToTiffContainer"; ImageRef { ; Filename } )

**Parameters****ImageRef**

The image reference number.

1

**Filename**

Optional

The file name to use for the container. Default is "image.tif"  
"ball.tif"

**Result** Returns a container value.

**Description**

For preview a JPEG version is included as well as a file name "image.tif" and the image size.

See also GImage.WriteToFile, GImage.WriteToJPEGContainer, GImage.WriteToPNGContainer, GImage.WriteToBMPCContainer and GImage.WriteToGIFContainer.

**Examples**

Get a container value from the picture in Tiff format.

```
MBS( "GImage.WriteToTIFFContainer"; $MyImageRef; "logo.tif" )
```

Convert image to 1 bit TIFF:

```
# Load from container
```

```
$Image = MBS("GImage.NewFromContainer"; GraphicsMagick::image);
```

```
# make black and white with threshold
```

```
$Result = MBS("GImage.Threshold";$Image; 127);
```

```
# mark as monochrome image
```

```
$Result = MBS("GImage.SetMonochrome";$Image; 1);
```

```
# set type to 1 for black/white
```

```
$Result = MBS("GImage.SetType";$Image; 1);
```

```
# set to use TIFF for compression
```

```
$Result = MBS("GImage.SetMagick";$Image; "TIFF");
```

```
# set to use CCITT 4 Fax compression
```

```
$Result = MBS("GImage.SetCompressType";$Image; 4);
```

```
# and write to a file
$Result = MBS("GImage.WriteToTiffContainer"; $Image; "test.tif");

# cleanup
$error = MBS("GImage.Release";$Image)
```

### See also

- [87.191 GImage.New](#) 4642
- [87.214 GImage.Release](#) 4674
- [87.244 GImage.SetCompressType](#) 4715
- [87.269 GImage.SetMonochrome](#) 4746
- [87.318 GImage.Threshold](#) 4807
- [87.334 GImage.WriteToBMPContainer](#) 4828
- [87.335 GImage.WriteToContainer](#) 4829
- [87.337 GImage.WriteToGIFContainer](#) 4834
- [87.338 GImage.WriteToJPEGContainer](#) 4836
- [87.339 GImage.WriteToPDFContainer](#) 4838

### Example Databases

- [GraphicsMagick/Split Multi Tiff](#)

#### 87.341.1 Blog Entries

- [\[ ANN \] MBS FileMaker Plugin 4.4 for OS X/Windows - More than 2800 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.4pr6](#)

Created 16th October 2014, last changed 21st December 2018.



## 87.342 GImage.XResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.XResolution"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the x resolution of the image.

### Description

See also density functions.

### See also

- 87.343 GImage.YResolution

4846

### 87.342.1 FileMaker Magazin

- Ausgabe 5/2011, Seite 32

Created 18th August 2014, last changed 18th August 2014.

## 87.343 GImage.YResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GImage.YResolution"; ImageRef )

### Parameters

#### ImageRef

The image reference number.

1

**Result** Returns the y resolution of the image.

### Description

See also density functions.

### See also

- 87.342 GImage.XResolution

4845

Created 18th August 2014, last changed 18th August 2014.

**87.344 GMImage.Zoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
87 GraphicsMagick	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "GMImage.Zoom"; ImageRef; Geometry )

**Parameters****ImageRef**

The image reference number.

1

**Geometry**

The rectangle. A geometry is specified as a width and height "100x200". With an optional offset "100x200+10+20". For percent values, add a percent on the end, for % values add a % : "100x200% !" "200x300"

**Result** Returns "OK" on success.

**Description****See also**

- 87.36 GMImage.Chop 4447
- 87.47 GMImage.Copy 4463
- 87.49 GMImage.Crop 4467
- 87.76 GMImage.Flop 4509
- 87.219 GMImage.Roll 4683
- 87.223 GMImage.Rows 4688
- 87.329 GMImage.Trim 4821

Created 18th August 2014, last changed 18th August 2014.



# Chapter 88

## Hash

Calculate hash value of text.

### 88.1 Hash.CRC32

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	8.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "Hash.CRC32"; InputType; InputData { ; InputEncoding; StartValue } )
```

#### Parameters

##### InputType

The type of input. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

##### InputData

The actual input data. Text, container or file path.

"Hello World"

##### InputEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

##### StartValue

Optional

The start value for the CRC. Default is zero.

0

**Result** Returns OK or error.

#### Description

Same algorithm as used for zip functions.

**Examples**

CRC32 of Hello:

```
MBS("Hash.CRC32"; "Text"; "Hello"; "UTF-8"; 0)
```

**88.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 11st July 2018, last changed 11st July 2018.

## 88.2 Hash.Digest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.Digest"; Algorithm; InputType; InputData; InputEncoding; OutputType { ; OutputInfo } )

### Parameters

#### Algorithm

Which algorithm to use. Can be MD4, MD5, SHA, SHA1, MDC2, RIPEMD160, SHA224, SHA256, SHA384 or SHA512.

"SHA512"

#### InputType

The type of input. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### InputData

The actual input data. Text, container or file path.

"Hello World"

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.

"Hex"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.

""

**Result** Returns error or hash.

### Description

Input can be one of different types:

- Text, you pass "text", your text and the text encoding. If no or invalid encoding name is passed, the native one is used. The encoding can be one of the following strings: ansi, windows, mac, latin1, utf8, dos or native.
- PDF, you pass the container with the PDF file inside.
- Image, you pass the container with an image file (JPEG, GIF, TIFF, PNG, PICT).
- Data, you pass container and plugin looks for the file data inside.

- Hex, you pass a hex encoded text.
- Base64, you pass a base64 encoded text.
- Path, you pass the file path to a file to read.
- Container, you pass a container which is packed with all its content.

Now for output we can return the digest in various ways:

- Text, we return the hash as text in the encoding. This is not recommended for hash values. `OutputInfo` parameter is text encoding.
- Base64, the hash is returned as base64 encoded text.
- Hex, the hash is returned as hex encoded text.
- File, the hash is returned as a container value with a file inside containing the hash. `OutputInfo` parameter is the filename to be stored in the container value.
- Path, the hash is written to a file. In the `OutputInfo` parameter you provide a native file path.
- JPEG, a container with a JPEG image.
- GIF, a container with a GIF image.
- TIFF, a container with a TIFF image.
- PNG, a container with a PNG image.

Possible digest engines:

DSA-SHA, DSA, MD5, MDC2, RIPEMD160, SHA, SHA1, SHA224, SHA256, SHA384 or SHA512.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Calculate MD5 from text:

```
MBS( "Hash.Digest"; "MD5"; "Text"; "Hello World"; "UTF-8"; "Hex"; "" )
```

Calculate SHA512 from image in container and encode it as base64:

```
MBS( "Hash.Digest"; "SHA512"; "Image"; MyTable::MyContainer; ""; "Base64"; "" )
```

Hash of PDF in container:

```
MBS( "Hash.Digest"; "SHA512"; "PDF"; MyTable::MyContainer; ""; "Hex"; "" )
```



Hash a file with MD5:

```
MBS( "Hash.Digest"; "MD5"; "Path"; "/Users/cs/Desktop/test.fmp12"; "" ; "Hex"; "" )
```

Stream file to AWS:

```
# Build a path to file (local) and in AWS
Set Variable [ $Filename ; Value: "test.pdf" ]
Set Variable [ $Path ; Value: "/" & $BucketName & "/PDF/" & $Filename ]
Set Variable [ $localPath ; Value: "/Users/cs/Desktop/license.pdf" ]
# calculate hash for file to upload
Set Variable [ $HashedPayload ; Value: Lower(MBS( "Hash.Digest"; "sha256"; "path"; $localPath; "" ; "hex"
)) ]
# upload
Set Variable [ $curl ; Value: MBS("CURL.New") ]
# file content is streamed
Set Variable [ $result ; Value: MBS("CURL.OpenInputFile"; $curl; $localPath) ]
# setup AWS
Set Variable [ $result ; Value: MBS("CURL.SetupAWS"; $curl; $AWSAccessKeyId; $AWSSecretAccessKey;
$Region; $Service; $Path; $Domain; $Verb; $HashedPayload; $headers) ]
Set Field [ CURL Test::Result ; MBS("CURL.Perform"; $curl) ]
Set Field [ CURL Test::debug ; MBS("CURL.GetDebugAsText"; $curl) ]
Set Variable [ $result ; Value: MBS("CURL.Release"; $curl) ]
```

### See also

- 62.43 [CURL.GetDebugAsText](#) 1866
- 62.140 [CURL.New](#) 1985
- 62.142 [CURL.OpenInputFile](#) 1989
- 62.143 [CURL.Perform](#) 1992
- 62.149 [CURL.Release](#) 2011
- 62.389 [CURL.SetupAWS](#) 2361
- 74.1 [Encryption.Cipher](#) 3499
- 88.3 [Hash.DigestFile](#) 4855
- 88.9 [Hash.SHA1](#) 4866
- 124.2 [Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [Encryption and Hash/AES with PHP/AES with PHP](#)

- [Encryption and Hash/Hash Digest](#)
- [Third Party/FileMaker Snippet Storage](#)

### 88.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr3](#)
- [AES in FileMaker and PHP](#)
- [New universal Hash and Encrypt functions for MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.1pr2](#)

Created 18th August 2014, last changed 19th April 2020.

## 88.3 Hash.DigestFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.DigestFile"; Algorithm; FilePath; OutputType { ; OutputInfo } )

### Parameters

#### Algorithm

Which algorithm to use. Can be MD4, MD5, SHA, SHA1, MDC2, RIPEMD160, SHA224, SHA256, SHA384 or SHA512.

"SHA512"

#### FilePath

The native file path to use.

"C:\test.dat"

#### OutputType

The output type. Can be Base64, Hex, Text, File, Path.

"Hex"

#### OutputInfo

Optional

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.

""

**Result** Returns OK or error.

### Description

This function is optimized to process files on disk in chunks, so it works well for several GB of file sizes.

For output we can return the digest in various ways:

- Base64, the hash is returned as base64 encoded text.
- Hex, the hash is returned as hex encoded text.

Possible digest engines:

DSA-SHA, DSA, MD5, MDC2, RIPEMD160, SHA, SHA1, SHA224, SHA256, SHA384 or SHA512.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Create MD5 of file:

```
MBS("Hash.DigestFile"; "MD5"; "/Users/cs/Movies/test.mov"; "hex")
```

**See also**

- 88.2 Hash.Digest 4851
- 124.2 Path.FileMakerPathToNativePath 6247

**88.3.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr3](#)

Created 12nd April 2019, last changed 12nd April 2019.

## 88.4 Hash.MD5

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.MD5"; text { ; Flags } )

### Parameters

#### text

The text to process.

"Hello World"

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded.

Pass 2 if input data is Hex encoded and plugin should decode it first.

0

**Result** Returns MD5 hash.

### Description

Text is converted to UTF-8 to make sure the text encoding doesn't change the hash value.

Hashes are used to store a fingerprint of some data. When hashes are not equal, the data is probably also not equal.

This function is good to make hashes for passwords. You don't save the password in your database, but only the hash. On login, you calculate the hash for the password entered by the user and compare the hash with the stored one. This way the database only contains hashes. And it's unlikely someone finds the password given the hash, except for easy cases like "hello" where google will tell you the text for the hash.

To make hashes more secure, use a prefix/suffix like the user id or simply your application name. This way even hello as a password will be quite impossible to recover from the hash.

SHA-512 is stronger than MD5.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Calculate hash of password:

```
MBS( "Hash.MD5"; $password )
```

Testing flags:

```
Set Variable [ $hash1; Value:MBS( "Hash.MD5"; "Hello" ) ]
```

```
Set Variable [ $hash2; Value:MBS( "Hash.MD5"; "48656C6C6F"; 2 ) ]
```

```
Show Custom Dialog [ "Two calculations for same hash..."; $hash1 & $hash2 ]
```

FileMaker 16 vs. Plugin:

```
# MBS Plugin:  
MBS( "Hash.MD5"; "Hello World")  
# Same via FileMaker 16 native:  
HexEncode( CryptDigest ( "Hello World"; "MD5" ))
```

#### See also

- [88.5 Hash.MD5.HMAC](#) 4859
- [167.59 Text.ReplaceNewline](#) 7985

#### Example Databases

- [Encryption and Hash/Hashes](#)

#### 88.4.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr4](#)

Created 18th August 2014, last changed 4th June 2017.

## 88.5 Hash.MD5.HMAC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.MD5.HMAC"; key; data { ; Flags } )

### Parameters

#### key

The key text to use.

"Hello"

#### data

The data text to use.

"World"

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded. Pass 2 if key is Hex encoded and plugin should decode it first. Pass 4 if data is hex encoded and plugin should decode it first.

0

**Result** Returns the hash string.

### Description

Keyed-Hash Message Authentication Code is a way to add salt to a hash for more security.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Hash empty string

```
MBS( "Hash.MD5.HMAC"; ""; "" )
```

Example result: 74E6F7298A9C2D168935F58C001BAD88

Hash a test string

```
MBS( "Hash.MD5.HMAC"; "key"; "The quick brown fox jumps over the lazy dog")
```

Example result: 80070713463E7749B90C2DC24911E275

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
```

```
MBS( "Hash.MD5.HMAC"; "Key"; "Data")
```

```
# Same via FileMaker 16 native:  
HexEncode( CryptAuthCode ( "Data" ; "MD5" ; "Key" ))
```

**See also**

- [88.4 Hash.MD5](#) 4857
- [167.59 Text.ReplaceNewline](#) 7985

**88.5.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)

Created 18th August 2014, last changed 4th June 2017.



**88.6 Hash.PBKDF2.HMAC**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.PBKDF2.HMAC"; salt; password; iterations; desiredHashLength; hashAlgorithm { ; Flags } )

**Parameters****salt**

The key text to use.

"Hello"

**password**

The data text to use.

"World"

**iterations**

Number of loops that the hash algorithm does.

100

**desiredHashLength**

Number of bytes that you want the resulting hash to be. 16 or 32 bytes are commonly used.

32

**hashAlgorithm**

The hash algorithm. Can be MD5, SHA1, SHA256 or SHA512.

"MD5"

**Flags**

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded. Pass 2 if salt is Hex encoded and plugin should decode it first. Pass 4 if password is hex encoded and plugin should decode it first.

0

**Result** Returns the hash or error.

**Description**

Same as Crypto.PBKDF2 in Xojo (Real Studio):

<http://docs.realsoftware.com/index.php/Crypto.PBKDF2>

**Examples**

Calculate password hash:

MBS( "Hash.PBKDF2.HMAC"; "Hello"; "World"; 100; 32; "SHA512")

Example result: 2CFDC277C8B84693B85E18D5A0176249EF29B74DFDF2EE6826636F5ACBF70D0

### 88.6.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS FileMaker Plugin 3.3 for OS X/Windows - More than 1600 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 3.3pr1](#)

### 88.6.2 FileMaker Magazin

- [Ausgabe 4/2013, Seite 37](#)

Created 18th August 2014, last changed 11st December 2016.

## 88.7 Hash.RandomHexString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.RandomHexString"; Length )

### Parameters

#### Length

The length of the text to return in characters. Result string will be double that size as it is hex.  
32

**Result** Returns text.

### Description

You can use these strings for hash seeds.

### Examples

Creates 8 byte string:

MBS( "Hash.RandomHexString"; 8 )

### See also

- [88.8 Hash.RandomString](#) 4864
- [88.9 Hash.SHA1](#) 4866

### 88.7.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 88.8 Hash.RandomString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.RandomString"; Length { ; Characters } )

### Parameters

#### Length

The length of the text to return in characters.

32

#### Characters

Optional

Optional, a list of characters to use instead of default set.

"1234"

**Result** Returns text.

### Description

User Characters: a to z, A to Z and 0 to 9.

You can use this strings for hash seeds or as password suggestions.

### Examples

Creates 8 byte string:

```
MBS( "Hash.RandomString"; 8 )
```

Create random text with only digits:

```
MBS("Hash.RandomString"; 32; "1234567890")
```

Create random hex number:

```
MBS("Hash.RandomString"; 32; "1234567890ABCDEF")
```

Create random password using digits and punctuation:

```
MBS("Hash.RandomString"; 10; "1234567890ABCDEFGHIJKLMNOPQRSTUVWXYZabcdefghijklmnopqrstuvwxyz~!@# $% ^& *-_+=.")
```

### See also

- 88.7 Hash.RandomHexString

4863

### Example Databases

- [CURL/WebServices/Twitter OAuth](#)

### 88.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)
- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 14th January 2015.

## 88.9 Hash.SHA1

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "Hash.SHA1"; text { ; Flags } )
```

### Parameters

#### text

The text to process.

"Hello World"

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded.

Pass 2 if input data is Hex encoded and plugin should decode it first.

0

**Result** Returns SHA-256 hash.

### Description

Text is converted to UTF-8 to make sure the text encoding doesn't change the hash value.

Hashes are used to store a fingerprint of some data. When hashes are not equal, the data is probably also not equal.

This function is good to make hashes for passwords. You don't save the password in your database, but only the hash. On login, you calculate the hash for the password entered by the user and compare the hash with the stored one. This way the database only contains hashes. And it's unlikely someone finds the password given the hash, except for easy cases like "hello" where google will tell you the text for the hash.

To make hashes more secure, use a prefix/suffix like the user id or simply your application name. This way even hello as a password will be quite impossible to recover from the hash.

SHA-1 is stronger than MD5 and weaker than SHA-512.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Calculate hash of password:

```
MBS( "Hash.SHA1"; $password )
```

Calculate empty hash:

```
MBS("Hash.SHA1"; "")
```

Example result: DA39A3EE5E6B4B0D3255BFEF95601890AFD80709

Calculate empty hash as Base64:

```
MBS("Hash.SHA1"; ""); 1)
```

Example result: "2jmj7l5rSw0yVb/vlWAYkK/YBwk="

Calculate for two similar texts:

```
MBS("Hash.SHA1"; "Franz jagt im komplett verwahrlosten Taxi quer durch Bayern")
```

Example result: 68AC906495480A3404BEEE4874ED853A037A7A8F

Encode Password like in PHP:

```
# original in PHP:
#
# $nonce_date_pwd = pack("A*",$nonce) . pack("A*",$CREATIONDATE) . pack("H*", sha1($password));
# $PASSWORDDIGEST = base64_encode( pack('H*', sha1($nonce_date_pwd)));
#
# in FileMaker:
#
# you can use Hash.RandomHexString to make your Nonce.
#
Set Variable [ $NonceHexEncoded ; Wert: MBS("Text.EncodeToHex"; Password Digest::Nonce) ]
Set Variable [ $CreationDateHexEncoded ; Wert: MBS("Text.EncodeToHex"; Password Digest::CreationDate) ]
Set Variable [ $PasswordHashHexEncoded ; Wert: MBS( "Hash.SHA1"; Password Digest::Password; 0 ) ]
Set Variable [ $Input ; Wert: $NonceHexEncoded & $CreationDateHexEncoded & $PasswordHashHexEncoded ]
# build hash by decoding from Hex, doing SHA1 and encode back to Base64
Set Variable [ $PasswordDigest ; Wert: MBS( "Hash.Digest"; "SHA1"; "hex"; $input; "" ; "Base64"; "" ) ]
Set Field [ Password Digest::PasswordDigest ; $PasswordDigest ]
```

Calculate for two similar texts:

```
MBS("Hash.SHA1"; "Frank jagt im komplett verwahrlosten Taxi quer durch Bayern")
```

Example result: D8E8ECE39C437E515AA8997C1A1E94F1ED2A0E62

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
MBS( "Hash.SHA1"; "Hello World")
# Same via FileMaker 16 native:
HexEncode( CryptDigest ( "Hello World"; "SHA1" ))
```

### See also

- 88.2 Hash.Digest

- 88.7 Hash.RandomHexString 4863
- 88.10 Hash.SHA1.HMAC 4869
- 88.13 Hash.SHA512 4876
- 167.32 Text.EncodeToHex 7947
- 167.59 Text.ReplaceNewline 7985

### 88.9.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 4th June 2017.



## 88.10 Hash.SHA1.HMAC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "Hash.SHA1.HMAC"; key; data { ; Flags } )
```

### Parameters

#### key

The key text to use.

```
"Hello"
```

#### data

The data text to use.

```
"World"
```

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded. Pass 2 if key is Hex encoded and plugin should decode it first. Pass 4 if data is hex encoded and plugin should decode it first.

```
0
```

**Result** Returns the hash string.

### Description

Keyed-Hash Message Authentication Code is a way to add salt to a hash for more security.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Hash empty string

```
MBS( "Hash.SHA1.HMAC"; ""; "" )
```

Example result: FBDB1D1B18AA6C08324B7D64B71FB76370690E1D

Hash a test string

```
MBS( "Hash.SHA1.HMAC"; "key"; "The quick brown fox jumps over the lazy dog")
```

Example result: DE7C9B85B8B78AA6BC8A7A36F70A90701C9DB4D9

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
```

```
MBS( "Hash.SHA1.HMAC"; "Key"; "Data")
```

```
# Same via FileMaker 16 native:  
HexEncode( CryptAuthCode ( "Data" ; "SHA1" ; "Key" ))
```

**See also**

- [88.9 Hash.SHA1](#) 4866
- [88.12 Hash.SHA256.HMAC](#) 4873
- [88.14 Hash.SHA512.HMAC](#) 4878
- [167.59 Text.ReplaceNewline](#) 7985

**Example Databases**

- [CURL/WebServices/Twitter OAuth](#)
- [Encryption and Hash/HMAC](#)

**88.10.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 4th June 2017.

## 88.11 Hash.SHA256

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.SHA256"; text { ; Flags } )

### Parameters

#### text

The text to process.

"Hello World"

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded.

Pass 2 if input data is Hex encoded and plugin should decode it first.

0

**Result** Returns SHA-256 hash.

### Description

Text is converted to UTF-8 to make sure the text encoding doesn't change the hash value.

Hashes are used to store a fingerprint of some data. When hashes are not equal, the data is probably also not equal.

This function is good to make hashes for passwords. You don't save the password in your database, but only the hash. On login, you calculate the hash for the password entered by the user and compare the hash with the stored one. This way the database only contains hashes. And it's unlikely someone finds the password given the hash, except for easy cases like "hello" where google will tell you the text for the hash.

To make hashes more secure, use a prefix/suffix like the user id or simply your application name. This way even hello as a password will be quite impossible to recover from the hash.

SHA-256 is stronger than SHA-1.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Calculate hash of password:

```
MBS( "Hash.SHA256"; $password )
```

Calculate empty text hash:

```
MBS("Hash.SHA256"; "")
```

Example result: E3B0C44298FC1C149AFBF4C8996FB92427AE41E4649B934CA495991B7852B855

Calculate hash:

```
MBS("Hash.SHA256"; "The quick brown fox jumps over the lazy dog")
```

Example result: D7A8FBB307D7809469CA9ABCB0082E4F8D5651E46D3CDB762D02D0BF37C9E592

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
```

```
MBS( "Hash.SHA256"; "Hello World")
```

```
# Same via FileMaker 16 native:
```

```
HexEncode( CryptDigest ( "Hello World"; "SHA256" ))
```

### See also

- 88.12 Hash.SHA256.HMAC 4873
- 88.13 Hash.SHA512 4876
- 167.29 Text.EncodeToBase64URL 7942
- 167.59 Text.ReplaceNewline 7985

#### 88.11.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 4th June 2017.

## 88.12 Hash.SHA256.HMAC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.SHA256.HMAC"; key; data { ; Flags } )

### Parameters

#### key

The key text to use.

"Hello"

#### data

The data text to use.

"World"

### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded. Pass 2 if key is Hex encoded and plugin should decode it first. Pass 4 if data is hex encoded and plugin should decode it first.

0

**Result** Returns the hash string.

### Description

Keyed-Hash Message Authentication Code is a way to add salt to a hash for more security.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

Can be used to sign requests for Amazon MWS.

### Examples

Hash empty string

MBS( "Hash.SHA256.HMAC"; ""; "" )

Example result: B613679A0814D9EC772F95D778C35FC5FF1697C493715653C6C712144292C5AD

Hash a test string

MBS( "Hash.SHA256.HMAC"; "key"; "The quick brown fox jumps over the lazy dog")

Example result: F7BC83F430538424B13298E6AA6FB143EF4D59A14946175997479DBC2D1A3CD8

Hash with flags:

```
MBS( "Hash.SHA256.HMAC"; "6B6579"; "54686520717569636B2062726F776E20666F78206A756D7073206F766572207468652+4)
```

Example result: F7BC83F430538424B13298E6AA6FB143EF4D59A14946175997479DBC2D1A3CD8

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
MBS( "Hash.SHA256.HMAC"; "Key"; "Data")
# Same via FileMaker 16 native:
HexEncode( CryptAuthCode ( "Data" ; "SHA256" ; "Key" ))
```

Calculate Amazon AWS Signature for canonical query:

```
Set Variable [ $Verb ; Value: "POST" ]
Set Variable [ $Domain ; Value: "mws.amazonservices.com" ]
Set Variable [ $Path ; Value: "/Orders/2013-09-01" ]
Set Variable [ $QueryString ; Value: "AWSAccessKeyId=AKIAJVZ5JFVD2SERTQIA& Action=GetOrder& AmazonOrderId.Id.1=112-4707920-3733828& SellerId=A1DGCWQ1HE6UN1& SignatureMethod=HmacSHA256& SignatureVersion=2& Timestamp=2018-01-24T22%3A34%3A24Z& Version=2013-09-01" ]
Set Variable [ $SecretKey ; Value: "1234567890" ]
Set Variable [ $Signature ; Value: MBS( "Hash.SHA256.HMAC"; $SecretKey; $Verb & Char(10) & $Domain & Char(10) & $Path & Char(10) & $QueryString; 1 ) ]
Show Custom Dialog [ "AWS Signature" ; $signature ]
```

Example result: "hTX0IGOH+lWyaqZBf513TcB6Mk3U/hidyQvJASsn7aE="

Calculate a JSON Web Token (JWT) in FileMaker:

```
// Header: { \alg\": \"HS256\", \typ\": \"JWT\" }
// Payload: { \"iss\": \"scotch.io\", \"exp\": 1300819380, \"name\": \"Chris Sevilleja\", \"admin\": true }

// expected result: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJsb2dnZWVJbGZlIjoiYWRtaW4iLCJpYXQiOiE0MjI3NzkraSYs8EXBxLN_oWnFSRgCzcmJmMjLiuuy5CSpyHI
```

```
Let ( [
secret = "secretkey";
header = " { \alg\": \"HS256\", \typ\": \"JWT\" } ";
payload = " { \loggedInAs\": \"admin\", \iat\": 1422779638 } ";
encodedString = MBS( "Text.EncodeToBase64URL"; header; "UTF-8") & " " & MBS( "Text.EncodeToBase64URL"; payload; "UTF-8");
// calculate hash
hash = MBS( "Hash.SHA256.HMAC"; secret; encodedString; 1 );
// transcode from Base64 to Base64 URL:
hash = MBS( "Text.EncodeToBase64URL"; MBS( "Text.DecodeFromBase64"; hash; "Windows" ); "Windows" );
// and built final result:
result = MBS( "Text.EncodeToBase64URL"; header; "UTF-8") & " " & MBS( "Text.EncodeToBase64URL"; payload; "UTF-8") & " " & hash
```

88.12. *HASH.SHA256.HMAC* 4875  
] ; result )

**See also**

- 88.10 Hash.SHA1.HMAC 4869
- 88.11 Hash.SHA256 4871
- 88.14 Hash.SHA512.HMAC 4878
- 167.13 Text.DecodeFromBase64 7923
- 167.28 Text.EncodeToBase64 7941
- 167.29 Text.EncodeToBase64URL 7942
- 167.59 Text.ReplaceNewline 7985

**88.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)

Created 18th August 2014, last changed 1st February 2020.

## 88.13 Hash.SHA512

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	2.7	Yes	Yes	Yes	Yes	Yes

```
MBS( "Hash.SHA512"; text { ; Flags } )
```

### Parameters

#### text

The text to process.

```
"Hello World"
```

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded.

Pass 2 if input data is Hex encoded and plugin should decode it first.

```
0
```

**Result** Returns SHA-512 hash.

### Description

Text is converted to UTF-8 to make sure the text encoding doesn't change the hash value.

Hashes are used to store a fingerprint of some data. When hashes are not equal, the data is probably also not equal.

This function is good to make hashes for passwords. You don't save the password in your database, but only the hash. On login, you calculate the hash for the password entered by the user and compare the hash with the stored one. This way the database only contains hashes. And it's unlikely someone finds the password given the hash, except for easy cases like "hello" where google will tell you the text for the hash.

To make hashes more secure, use a prefix/suffix like the user id or simply your application name. This way even hello as a password will be quite impossible to recover from the hash.

SHA-512 is stronger than MD5.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Calculate hash of password:

```
MBS( "Hash.SHA512"; $password )
```

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
```

```
MBS( "Hash.SHA512"; "Hello World")
```

```
# Same via FileMaker 16 native:
```

```
HexEncode( CryptDigest ( "Hello World"; "SHA512" ) )
```



**See also**

- 152.14 ECKey.Verify 7190
- 88.9 Hash.SHA1 4866
- 88.11 Hash.SHA256 4871
- 88.14 Hash.SHA512.HMAC 4878
- 167.59 Text.ReplaceNewline 7985

**Example Databases**

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Hashes](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)
- [Encryption and Hash/Solution Registration/Solution Registration](#)

**88.13.1 Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr4](#)

**88.13.2 FileMaker Magazin**

- Ausgabe 6/2015, Seite 30
- Ausgabe 6/2015, Seite 29

Created 18th August 2014, last changed 4th June 2017.

## 88.14 Hash.SHA512.HMAC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
88 Hash	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "Hash.SHA512.HMAC"; key; data { ; Flags } )

### Parameters

#### key

The key text to use.

"Hello"

#### data

The data text to use.

"World"

#### Flags

Optional

Various flags you can combine by addition. Pass 1 for getting result Base64 encoded instead of Hex encoded. Pass 2 if key is Hex encoded and plugin should decode it first. Pass 4 if data is hex encoded and plugin should decode it first.

0

**Result** Returns the hash string.

### Description

Keyed-Hash Message Authentication Code is a way to add salt to a hash for more security.

Please be aware that text can result in different hashes if it contains line endings. You may want to make sure that line endings are right with the Text.ReplaceNewline function before you compare hashes to results in other development tools. FileMaker uses Mac line endings by default and most examples for Javascript use Unix line endings.

### Examples

Hash empty string

```
MBS( "Hash.SHA512.HMAC"; ""; "" )
```

Example result: B936CEE86C9F87AA5D3C6F2E84CB5A4239A5FE50480A6EC66B70AB5B1F4AC6730C6C515421B327EC1D69402E

Hash a test string

```
MBS( "Hash.SHA512.HMAC"; "key"; "The quick brown fox jumps over the lazy dog")
```

Example result: B42AF09057BAC1E2D41708E48A902E09B5FF7F12AB428A4FE86653C73DD248FB82F948A549F7B791A5B41915EE

FileMaker 16 vs. Plugin:

```
# MBS Plugin:
```

```
MBS( "Hash.SHA512.HMAC"; "Key"; "Data")
```

88.14. *HASH.SHA512.HMAC* 4879

# Same via FileMaker 16 native:  
HexEncode( CryptAuthCode ( "Data" ; "SHA512" ; "Key" ))

#### See also

- 88.10 Hash.SHA1.HMAC 4869
- 88.12 Hash.SHA256.HMAC 4873
- 88.13 Hash.SHA512 4876
- 167.59 Text.ReplaceNewline 7985

#### 88.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)

Created 18th August 2014, last changed 4th June 2017.



# Chapter 89

## HealthKit

Functions for health data on iOS.

### 89.1 HealthKit.AuthorizationStatusForType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.AuthorizationStatusForType"; Type )

#### Parameters

##### Type

The type to check.

"BiologicalSex"

**Result** Returns value or error.

#### Description

Returns the application's authorization status for the given object type.

Value is NotDetermined, SharingDenied or SharingAuthorized.

Use HealthKit.RequestAuthorizationToShareTypes to request authentication.

Please enable HealthKit for the app entitlements for Xcode, add HealthKit framework and set NSHealthShareUsageDescription descriptor for info.plist.

#### Examples

Check status:

```
Set Variable [ $r ; Value: MBS( "HealthKit.AuthorizationStatusForType"; "BiologicalSex" ) ]  
Show Custom Dialog [ "Status" ; $r ]
```

**See also**

- 89.7 HealthKit.RequestAuthorizationToShareTypes

4888

Created 25th April 2018, last changed 9th August 2018.

## 89.2 HealthKit.BiologicalSex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.BiologicalSex" )

**Result** Returns sex value or error.

### Description

Before calling this function, the application should request authorization to access objects with the BiologicalSex type.

Returns error message, NotSet, Female, Male or Other.

### Examples

Show sex:

```
Show Custom Dialog [ "Biological Sex" ; MBS( "HealthKit.BiologicalSex" ) ]
```

Created 25th April 2018, last changed 25th April 2018.

## 89.3 HealthKit.BloodType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.BloodType" )

**Result** Returns value or error.

### Description

Returns an object encapsulating the user's blood type.

Before calling this method, the application should request authorization to access objects with the BloodType type.

Value can be NotSet, APositive, ANegative, BPositive, BNegative, ABPositive, ABNegative, OPositive or ONegative.

### Examples

Show blood type:

```
Show Custom Dialog [ "Blood Type" ; MBS( "HealthKit.BloodType" ) ]
```

Created 25th April 2018, last changed 25th April 2018.



## 89.4 HealthKit.DateOfBirth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.DateOfBirth" )

**Result** Returns date or error.

### Description

Returns the user's date of birth in the Gregorian calendar.

Before calling this method, the application should request authorization to access objects with the DateOfBirth type.

### Examples

Show date of birth as date and components:

```
Show Custom Dialog [ "Date of Birth" ; MBS( "HealthKit.DateOfBirth" ) & §& MBS( "HealthKit.DateOfBirthComponents" ) ]
```

### See also

- 89.5 HealthKit.DateOfBirthComponents

4886

Created 25th April 2018, last changed 25th April 2018.

## 89.5 HealthKit.DateOfBirthComponents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.DateOfBirthComponents" )

**Result** Returns date components or error.

### Description

For iOS 10.0 or newer.

Returns the user's date of birth in the Gregorian calendar.

Before calling this method, the application should request authorization to access objects with the DateOfBirth type.

### Examples

Show date of birth as date and components:

```
Show Custom Dialog [ "Date of Birth" ; MBS( "HealthKit.DateOfBirth" ) & §& MBS( "HealthKit.DateOfBirthComponents" ) ]
```

### See also

- 89.4 HealthKit.DateOfBirth

4885

Created 25th April 2018, last changed 25th April 2018.

## 89.6 HealthKit.FitzpatrickSkinType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.FitzpatrickSkinType" )

**Result** Returns value or error.

### Description

Returns an object encapsulating the user's Fitzpatrick skin type.

Before calling this method, the application should request authorization to access objects with the FitzpatrickSkinType type.

This represents the skin type of an individual based on the Fitzpatrick scale.

The Fitzpatrick scale is a numerical classification for skin color based on the skin's response to sun exposure in terms of the degree of burning and tanning.

I Pale white skin that always burns easily in the sun and never tans.

II White skin that burns easily and tans minimally.

III White to light brown skin that burns moderately and tans uniformly.

IV Beige-olive, lightly tanned skin that burns minimally and tans moderately.

V Brown skin that rarely burns and tans profusely.

VI Dark brown to black skin that never burns and tans profusely.

### Examples

Show skin type:

Show Custom Dialog [ "Skin Type" ; MBS( "HealthKit.FitzpatrickSkinType" ) ]

Created 25th April 2018, last changed 25th April 2018.

## 89.7 HealthKit.RequestAuthorizationToShareTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.RequestAuthorizationToShareTypes"; ShareList; ReadList { ; FileName; ScriptName } )

### Parameters

#### ShareList

The list of sample types to share. Can be empty if you just read.  
 """

#### ReadList

The list of object types to read.  
 "BiologicalSex\$BloodType"

#### FileName

Optional  
 The file name of the script to call.  
 Get(FileName)

#### ScriptName

Optional  
 The name of the script to trigger.  
 "AuthorizationCompleted"

**Result** Returns OK or error.

### Description

Prompts the user to authorize the application for reading and saving objects of the given types. Before attempting to execute queries or save objects, the application should first request authorization from the user to read and share every type of object for which the application may require access. The request is performed asynchronously and its completion will be executed on an arbitrary background queue after the user has responded. If the user has already chosen whether to grant the application access to all of the types provided, then the completion will be called without prompting the user.

We call optionally your script to pass in the result. You get a list of values. First entry is Success or Cancel. Second value is the error message.

The success parameter of the completion indicates whether prompting the user, if necessary, completed successfully and was not cancelled by the user. It does NOT indicate whether the application was granted authorization.

To customize the messages displayed on the authorization sheet, set the following keys in your app's Info.plist file. Set the NSHealthShareUsageDescription key to customize the message for reading data.

Set the NSHealthUpdateUsageDescription key to customize the message for writing data.

Supported quantity types:

- Body Measurements: BodyFatPercentage, BodyMass, BodyMassIndex, Height, LeanBodyMass, WaistCircumference.
- Fitness: StepCount, DistanceWalkingRunning, DistanceCycling, DistanceWheelchair, BasalEnergyBurned, ActiveEnergyBurned, FlightsClimbed, NikeFuel, AppleExerciseTime, PushCount, DistanceSwimming, SwimmingStrokeCount, VO2Max.
- Vitals: HeartRate, BodyTemperature, BasalBodyTemperature, BloodPressureSystolic, BloodPressureDiastolic, RespiratoryRate.
- Results: OxygenSaturation, PeripheralPerfusionIndex, BloodGlucose, NumberOfTimesFallen, ElectrodermalActivity, InhalerUsage, InsulinDelivery, BloodAlcoholContent, ForcedVitalCapacity, ForcedExpiratoryVolume1, PeakExpiratoryFlowRate.

Nutrition: DietaryFatTotal, DietaryFatPolyunsaturated, DietaryFatMonounsaturated, DietaryFatSaturated, DietaryCholesterol, DietarySodium, DietaryCarbohydrates, DietaryFiber, DietarySugar, DietaryEnergyConsumed, DietaryProtein, DietaryVitaminA, DietaryVitaminB6, DietaryVitaminB12, DietaryVitaminC, DietaryVitaminD, DietaryVitaminE, DietaryVitaminK, DietaryCalcium, DietaryIron, DietaryThiamin, DietaryRiboflavin, DietaryNiacin, DietaryFolate, DietaryBiotin, DietaryPantothenicAcid, DietaryPhosphorus, DietaryIodine, DietaryMagnesium, DietaryZinc, DietarySelenium, DietaryCopper, DietaryManganese, DietaryChromium, DietaryMolybdenum, DietaryChloride, DietaryPotassium, DietaryCaffeine, DietaryWater.

- UVExposure

Sample Types include Quantity types plus:

- Workout
- SleepAnalysis, AppleStandHour, CervicalMucusQuality, OvulationTestResult, MenstrualFlow, Inter-menstrualBleeding, SexualActivity and MindfulSession.
- BloodPressure and CDA.

Object Types include all above plus:

- activitySummary
- BiologicalSex
- BloodType
- DateOfBirth
- FitzpatrickSkinType

- WheelchairUse

Please enable HealthKit for the app entitlements for Xcode, add HealthKit framework and set NSHealthShareUsageDescription descriptor for info.plist.

**Examples**

Request authorization:

```
Set Variable [ $r ; Value: MBS( "HealthKit.RequestAuthorizationToShareTypes"; "" ; "BiologicalSex$Blood-  
Type$WheelchairUse$DateOfBirth$FitzpatrickSkinType$StepCount" ; Get(FileName); "AuthorizeTrigger"  
) ]  
If [ $r "OK" ]  
Show Custom Dialog [ "Error" ; $r ]  
End If
```

**See also**

- 89.1 HealthKit.AuthorizationStatusForType

4881

Created 25th April 2018, last changed 13th January 2020.

## 89.8 HealthKit.SampleQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

```
MBS( "HealthKit.SampleQuery"; QuantityType; Unit; StartDate; EndDate { ; SortKey; ascending; limit }
)
```

### Parameters

#### QuantityType

The quantity type to lookup.

"StepCount"

#### Unit

The unit to use. Can be SI unit or for example count for counters. See Apple documentation for details.

"count"

#### StartDate

The start date for the search.

Date ( 1 ; 1 ; 2018 )

#### EndDate

The end date for the search.

Date ( 2 ; 1 ; 2018 )

#### SortKey

Optional

How to sort. Can be StartDate or EndDate.

"StartDate"

#### ascending

Optional

Whether to prefer ascending instead of descending. Pass 1 for ascending or 0 for descending.

1

#### limit

Optional

The limit for search. Default 0 for no limit.

0

**Result** Returns values as JSON or error.

### Description

Before calling this method, the application should request authorization to access objects with the desired quantity type.

Supported quantity types:

Body Measurements:

BodyFatPercentage, BodyMass, BodyMassIndex, Height, LeanBodyMass, WaistCircumference.

Fitness:

StepCount, DistanceWalkingRunning, DistanceCycling, DistanceWheelchair, BasalEnergyBurned, ActiveEnergyBurned, FlightsClimbed, NikeFuel, AppleExerciseTime, PushCount, DistanceSwimming, SwimmingStrokeCount, VO2Max.

Vitals:

HeartRate, BodyTemperature, BasalBodyTemperature, BloodPressureSystolic, BloodPressureDiastolic, RespiratoryRate.

Results:

OxygenSaturation, PeripheralPerfusionIndex, BloodGlucose, NumberOfTimesFallen, ElectrodermalActivity, InhalerUsage, InsulinDelivery, BloodAlcoholContent, ForcedVitalCapacity, ForcedExpiratoryVolume1, PeakExpiratoryFlowRate.

Nutrition:

DietaryFatTotal, DietaryFatPolyunsaturated, DietaryFatMonounsaturated, DietaryFatSaturated, DietaryCholesterol, DietarySodium, DietaryCarbohydrates, DietaryFiber, DietarySugar, DietaryEnergyConsumed, DietaryProtein, DietaryVitaminA, DietaryVitaminB6, DietaryVitaminB12, DietaryVitaminC, DietaryVitaminD, DietaryVitaminE, DietaryVitaminK, DietaryCalcium, DietaryIron, DietaryThiamin, DietaryRiboflavin, DietaryNiacin, DietaryFolate, DietaryBiotin, DietaryPantothenicAcid, DietaryPhosphorus, DietaryIodine, DietaryMagnesium, DietaryZinc, DietarySelenium, DietaryCopper, DietaryManganese, DietaryChromium, DietaryMolybdenum, DietaryChloride, DietaryPotassium, DietaryCaffeine, DietaryWater.

UVExposure

### Examples

Query step count:

```
Set Field [ Placeholder::Result ; MBS( "HealthKit.SampleQuery"; "StepCount"; "count"; Date ( 1 ; 1 ; 2018 ); Date ( 1 ; 1 ; 2019 ) ) ]
```

## 89.8.1 Blog Entries

- [HealthKit for FileMaker on iOS](#)

Created 25th April 2018, last changed 26th April 2018.



## 89.9 HealthKit.WheelchairUse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.WheelchairUse" )

**Result** Returns value or error.

### Description

Returns an object encapsulating the user's wheelchair use.

Before calling this method, the application should request authorization to access objects with the WheelchairUse type.

Value is NotSet, No or Yes.

### Examples

Show wheelchair usage:

```
Show Custom Dialog [ "Wheelchair used" ; MBS( "HealthKit.WheelchairUse" ) ]
```

Created 25th April 2018, last changed 25th April 2018.

## 89.10 HealthKit.isHealthDataAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
89 HealthKit	8.2	No	No	No	No	Yes

MBS( "HealthKit.isHealthDataAvailable" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if HealthKit is supported on the device.

HealthKit is not supported on all iOS devices. Call isHealthDataAvailable before attempting to use other parts of the framework.

Please ask for a plugin with HealthKit included. We often ship without this feature as you can only use it in apps which opt-in for HealthKit.

### Examples

Check status:

```
Show Custom Dialog [ "Health available" ; Let ( [ r = Let ( [ r = MBS( "HealthKit.isHealthDataAvailable" ); text = Case ( r = 1 ; "yes"; r = 0 ; "no" ; r ) ] ; text) ]
```

Created 25th April 2018, last changed 30th March 2019.

# Chapter 90

## HotKey

Hotkeys to execute scripts.

### 90.1 HotKey.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.GetEnabled"; HotKeyRef )

#### Parameters

##### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns 1, 0 or error.

#### Description

The plugin does not trigger script if hotkey is temporary disabled.

#### See also

- [90.15 HotKey.Register](#) 4909
- [90.16 HotKey.SetEnabled](#) 4913

#### 90.1.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 29th October 2015, last changed 29th October 2015.

## 90.2 HotKey.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	6.1	Yes	Yes	No	No	No

MBS( "HotKey.GetEvaluate"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns OK or error.

### Description

#### See also

- [90.15 HotKey.Register](#) 4909
- [90.17 HotKey.SetEvaluate](#) 4914

### 90.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 90.3 HotKey.GetIgnoreOnModal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.GetIgnoreOnModal"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

**Result** Returns OK or error.

### Description

If set to 1, Hotkey scripts are not triggered in case a modal window is frontmost.

### See also

- [90.15 HotKey.Register](#) 4909
- [90.18 HotKey.SetIgnoreOnModal](#) 4917

### 90.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 29th October 2015, last changed 29th October 2015.

## 90.4 HotKey.GetKeyCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.2	Yes	Yes	No	No	No

MBS( "HotKey.GetKeyCode"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns key or error.

### Description

#### See also

- 90.5 HotKey.GetKeyUp 4899
- 90.15 HotKey.Register 4909

Created 29th June 2015, last changed 29th June 2015.

## 90.5 HotKey.GetKeyUp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	7.1	Yes	Yes	No	No	No

MBS( "HotKey.GetKeyUp"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns 0, 1 or error.

### Description

#### See also

- [90.4 HotKey.GetKeyCode](#) 4898
- [90.15 HotKey.Register](#) 4909
- [90.19 HotKey.SetKeyUp](#) 4918

### 90.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 10th February 2017, last changed 10th February 2017.

## 90.6 HotKey.GetLocal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.GetLocal"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns 0, 1 or error.

### Description

#### See also

- 90.15 HotKey.Register 4909
- 90.20 HotKey.SetLocal 4919

### 90.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.



## 90.7 HotKey.GetModifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.2	Yes	Yes	No	No	No

MBS( "HotKey.GetModifiers"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns modifiers or error.

### Description

#### See also

- 90.15 HotKey.Register

4909

Created 29th June 2015, last changed 29th June 2015.

## 90.8 HotKey.GetName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.GetName"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns text or error.

### Description

#### See also

- [90.13 HotKey.GetTag](#) 4907
- [90.15 HotKey.Register](#) 4909
- [90.21 HotKey.SetName](#) 4920

### 90.8.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.

## 90.9 HotKey.GetPermanent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	10.2	Yes	No	No	No	No

MBS( "HotKey.GetPermanent"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns 1, 0 or error.

### Description

#### See also

- 90.15 HotKey.Register 4909
- 90.22 HotKey.SetPermanent 4921

### 90.9.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 16th March 2020, last changed 16th March 2020.

## 90.10 HotKey.GetScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.0	Yes	Yes	No	No	No

MBS( "HotKey.GetScriptFileName"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns file name or error.

### Description

#### See also

- 90.11 HotKey.GetScriptName 4905
- 90.15 HotKey.Register 4909
- 114.11 Menu.GetScriptFileName 5971
- 114.64 MenuItem.GetScriptFileName 6031

Created 4th February 2015, last changed 6th February 2015.

## 90.11 HotKey.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.0	Yes	Yes	No	No	No

MBS( "HotKey.GetScriptName"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns script name or error.

### Description

#### See also

- 90.10 HotKey.GetScriptFileName 4904
- 90.15 HotKey.Register 4909

Created 4th February 2015, last changed 6th February 2015.

## 90.12 HotKey.GetScriptWorkspaceOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	10.2	Yes	No	No	No	No

MBS( "HotKey.GetScriptWorkspaceOnly"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns 1, 0 or error.

### Description

#### See also

- [90.15 HotKey.Register](#) 4909
- [90.24 HotKey.SetScriptWorkspaceOnly](#) 4924

### 90.12.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 16th March 2020, last changed 16th March 2020.

## 90.13 HotKey.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.GetTag"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns text or error.

### Description

#### See also

- [90.8 HotKey.GetName](#) 4902
- [90.15 HotKey.Register](#) 4909
- [90.25 HotKey.SetTag](#) 4925

### 90.13.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.

## 90.14 HotKey.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.2	Yes	Yes	No	No	No

MBS( "HotKey.List" )

**Result** Returns list or error.

### Description

Returns list with IDs for currently registered hotkeys.

This helps debugging, especially finding scripts which do not release their objects properly.

Created 29th June 2015, last changed 21st September 2015.



## 90.15 HotKey.Register

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.0	Yes	Yes	No	No	No

MBS( "HotKey.Register"; Code; Modifiers { ; Exclusive; FileName; ScriptName; Local; Name; Tag } )

### Parameters

#### Code

The virtual key code of the key to watch. Can be number or name of key.

"F5"

#### Modifiers

The keyboard modifiers to look for. Can be number of text. Text can include command, shift, alpha, option and control. Added in 6.2 for Windows: RightShift, RightOption and RightControl.

"control"

#### Exclusive

Optional

Pass 1 to register exclusive or 0 for non exclusive.

0

#### FileName

Optional

The database file name where the script is located.

"test.fmp12"

#### ScriptName

Optional

The script name.

"MyScript"

#### Local

Optional

Pass 1 to have hotkey only run script if FileMaker is frontmost. Else pass 0 (default) to have a global hotkey.

0

#### Name

Optional

The name for the hotkey. e.g. you can use this property to later decide in a script what to do.

"Test Hotkey"

#### Tag

Optional

The tag for the hotkey. e.g. you can use this property to later decide in a script what to do.

**Result** Returns reference or error.

#### Description

Only one such combination can exist for the current application, i.e. multiple entities in the same application

cannot register for the same hot key combination. The same hot key can, however, be registered by multiple applications. This means that multiple applications can potentially be notified when a particular hot key is requested.

You can request exclusive registration for your process by passing 1 for exclusive parameter. Please use `HotKey.SetScript` to assign a script for the hotkey or use parameters here.

Added Windows support with version 5.2.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Register Control-F5:

```
Set Field [ HotKeys::HotKey ID; MBS("Hotkey.Register"; "F5"; "control") ]
Set Variable [ $r; Value:MBS("HotKey.SetScript"; HotKeys::HotKey ID; Get(FileName); "HotkeyAction") ]
```

Register key 37 (L on US keyboard) with modifiers:

```
Set Field [ HotKeys::HotKey ID; MBS("Hotkey.Register"; 37; "shift-control-command-option") ]
Set Variable [ $r; Value:MBS("HotKey.SetScript"; HotKeys::HotKey ID; Get(FileName); "HotkeyAction") ]
```

Register Control-F5 for showing/hiding data viewer:

```
Set Variable [ $hotkey; Value:MBS("HotKey.Register"; "F5"; "control") ]
Set Variable [ $r; Value:MBS( "HotKey.SetEvaluate"; $hotkey; "MBS(\ "MenuBar.RunMenuCommand\ ";
49297)" ) ]
// Mac & Windows
```

Register Control-F5 to write text file on desktop with content of data viewer:

```
MBS( "HotKey.SetEvaluate";
MBS("HotKey.Register"; "F5"; "control");
"MBS( \ "Text.WriteTextFile\ ";
MBS( \ "FM.DataViewerContent\ " );
MBS( \ "Path.AddPathComponent\ ";
MBS( \ "Folders.UserDesktop\ " );
\ "Data Viewer \ " & substitute(substitute(Get(CurrentTimestamp); \":\"; \"-"); \"/\"; \"-") & \".txt\"
);
\ "UTF-8\ "
)"
)
// Mac only.
```

Register Control-F6 to write current script a text file to desktop:

```

MBS( "HotKey.SetEvaluate";
MBS("HotKey.Register"; "F6"; "control");
"MBS( \"Text.WriteTextFile\";
MBS( \"ScriptWorkspace.ScriptText\" );
MBS( \"Path.AddPathComponent\";
MBS( \"Folders.UserDesktop\" );
\"Script \" & substitute(substitute(MBS( \"ScriptWorkspace.CurrentTab\" ); \":\"; \"-\"); \"/\"; \"-\")
& \".txt\" );
\"UTF-8\"
)\"
)
// Mac only

```

Register hotkey Control-F7 for Windows to insert XML snippet:

```

MBS( "HotKey.SetEvaluate"; MBS("HotKey.Register"; "F7"; "control");
"Let ( [
xml = \"<fmxmlsnippet type=\\\"FMObjectList\\\"><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"><Text>loop counting up from 1 to $count</Text></Step><Step enable=\\\"True\\\"
id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA [ \\\"/* add count
here */\\\" ] ] ></Calculation></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calcula-
tion></Repetition><Name>$count</Name></Step><Step enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set
Variable\\\"><Value><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Value><Repetition><Calcula-
tion><! [ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$index</Name></Step><Step
enable=\\\"True\\\" id=\\\"68\\\" name=\\\"If\\\"><Calculation><! [ CDATA [ $index $count ] ]
></Calculation></Step><Step enable=\\\"True\\\" id=\\\"71\\\" name=\\\"Loop\\\"></Step><Step
enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"><Text>your script steps here</Text></Step><Step
enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"></Step><Step enable=\\\"True\\\"
id=\\\"89\\\" name=\\\"# (comment)\\\"><Text>next</Text></Step><Step enable=\\\"True\\\"
id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA [ $index + 1 ] ] ></Calcula-
tion></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$in-
dex</Name></Step><Step enable=\\\"True\\\" id=\\\"72\\\" name=\\\"Exit Loop If\\\"><Calcula-
tion><! [ CDATA [ $index >$count ] ] ></Calculation></Step><Step enable=\\\"True\\\" id=\\\"73\\\"
name=\\\"End Loop\\\"></Step><Step enable=\\\"True\\\" id=\\\"70\\\" name=\\\"End If\\\"></Step></fmxml-
snippet>\";
r = MBS( \"Clipboard.SetFileMakerData\"; \"ScriptStep\"; xml );
r = MBS( \"RemoteControl.PressControlKey\"; 1 );
r = MBS( \"RemoteControl.PressKey\"; \"v\" );
r = MBS( \"RemoteControl.PressControlKey\"; 0 )
]; 1 ); 0 )
// for Windows

```

### See also

- 80.13 FM.DataViewerContent 3953
- 82.8 Folders.UserDesktop 4235

- 90.20 HotKey.SetLocal 4919
- 90.22 HotKey.SetPermanent 4921
- 90.25 HotKey.SetTag 4925
- 90.26 HotKey.Unregister 4926
- 115.5 Menubar.RunMenuCommand 6099
- 124.1 Path.AddPathComponent 6243
- 140.12 RemoteControl.PressKey 6819
- 167.68 Text.WriteTextFile 7999

### Example Databases

- [Window/Popover CardWindow](#)

### 90.15.1 Blog Entries

- [Insert snippet for FileMaker on Windows](#)
- [Define hot keys for functions in the FileMaker development](#)

Created 4th February 2015, last changed 20th November 2019.

## 90.16 HotKey.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.SetEnabled"; HotKeyRef; Value )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

#### Value

The new state. 1 to enable, 0 to disable.

1

**Result** Returns OK or error.

### Description

The plugin does not trigger script if hotkey is temporary disabled.

### Examples

Set state:

MBS( "HotKey.SetEnabled"; "35001"; 0 )

### See also

- [90.1 HotKey.GetEnabled](#) 4895
- [90.15 HotKey.Register](#) 4909

### 90.16.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 29th October 2015, last changed 29th October 2015.

## 90.17 HotKey.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	6.1	Yes	Yes	No	No	No

MBS( "HotKey.SetEvaluate"; HotKeyRef; Expression )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the hotkey reference, so you can pass it to other functions if needed.

### Examples

Sets expression to run when hotkey is pressed:

```
Variable setzen [ $result ; Wert: MBS( "HotKey.SetEvaluate"; $curl; "Let ( $$Cancelled = 1 ; 1 )" ) ]
```

Set to write to a log file when a key is pressed:

```
MBS( "HotKey.SetEvaluate"; $hotkey; "MBS(\ "Text.AppendTextFile\"; Get(CurrentHostTimeStamp) & \": Key F5 pressed$\"; \"/Users/cs/Desktop/hotkey.txt\"; \ "native\ ")")
```

Register Control-F5 for showing/hiding data viewer:

```
Set Variable [ $hotkey; Value:MBS("HotKey.Register"; "F5"; "control") ]
Set Variable [ $r; Value:MBS( "HotKey.SetEvaluate"; $hotkey; "MBS(\ "MenuBar.RunMenuCommand\"; 49297)" ) ]
```

Register Control-F5 to write text file on desktop with content of data viewer:

```
MBS( "HotKey.SetEvaluate";
MBS("HotKey.Register"; "F5"; "control");
"MBS( \ "Text.WriteTextFile\";
MBS( \ "FM.DataViewerContent\ " );
MBS( \ "Path.AddPathComponent\";
MBS( \ "Folders.UserDesktop\ " );
\ "Data Viewer \ " & substitute(substitute(Get(CurrentTimestamp); \":\"; \ "-\"); \"/\"; \ "-\") & \ ".txt\ "
```

```
);
\"UTF-8\"
)\"
)
```

Register Control-F6 to write current script a text file to desktop:

```
MBS( \"HotKey.SetEvaluate\";
MBS(\"HotKey.Register\"; \"F6\"; \"control\");
\"MBS( \"Text.WriteTextFile\";
MBS( \"ScriptWorkspace.ScriptText\" );
MBS( \"Path.AddPathComponent\";
MBS( \"Folders.UserDesktop\" );
\"Script \" & substitute(substitute(MBS( \"ScriptWorkspace.CurrentTab\" ); \":\"; \"-\"); \"/\"; \"-\")
& \".txt\" );
\"UTF-8\"
)\"
)
```

#### See also

- 80.13 FM.DataViewerContent 3953
- 82.8 Folders.UserDesktop 4235
- 90.2 HotKey.GetEvaluate 4896
- 90.15 HotKey.Register 4909
- 115.5 Menubar.RunMenuCommand 6099
- 124.1 Path.AddPathComponent 6243
- 145.3 ScriptWorkspace.CurrentTab 6965
- 145.11 ScriptWorkspace.ScriptText 6973
- 167.2 Text.AppendTextFile 7897
- 167.68 Text.WriteTextFile 7999

#### 90.17.1 Blog Entries

- [Formatting and error checking expressions in FileMaker](#)
- [Insert snippet for FileMaker on Windows](#)
- [Define hot keys for functions in the FileMaker development](#)
- [MBS FileMaker Plugin, version 6.1pr5](#)

- Evaluate vs. Script Trigger

Created 4th March 2016, last changed 15th November 2019.



## 90.18 HotKey.SetIgnoreOnModal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.SetIgnoreOnModal"; HotKeyRef; Value )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Value

The new state. 1 to enable, 0 to disable.

1

**Result** Returns OK or error.

### Description

If set to 1, Hotkey scripts are not triggered in case a modal window is frontmost.

### Examples

Set state:

MBS( "HotKey.SetIgnoreOnModal"; "35001"; 1 )

### See also

- [90.3 HotKey.GetIgnoreOnModal](#) 4897
- [90.15 HotKey.Register](#) 4909

### 90.18.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 29th October 2015, last changed 29th October 2015.

## 90.19 HotKey.SetKeyUp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	7.1	Yes	Yes	No	No	No

MBS( "HotKey.SetKeyUp"; HotKeyRef; Value )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Value

Pass 1 to receive key down and up events. Pass 0 to only get one event for key down.

1

**Result** Returns OK or error.

### Description

The script parameter will have two values. First is the hotkey ID and second KeyDown or KeyUp as text.

#### See also

- 90.5 HotKey.GetKeyUp 4899
- 90.15 HotKey.Register 4909

### 90.19.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 10th February 2017, last changed 10th February 2017.

## 90.20 HotKey.SetLocal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.SetLocal"; HotKeyRef; Local )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Local

Set to 1 to only run hotkey if FileMaker is frontmost application.

0

**Result** Returns OK or error.

### Description

### Examples

Create hotkey and set local only:

```
Set Variable [ $HotKeyID; Value:MBS("Hotkey.Register"; "F5"; "shift control") ]
Set Variable [ $r; Value:MBS("HotKey.SetScript"; $HotKeyID; Get(FileName); "HotkeyAction") ]
Set Variable [ $r; Value:MBS("HotKey.SetLocal"; $HotKeyID; 1) ]
```

### See also

- [90.6 HotKey.GetLocal](#) 4900
- [90.15 HotKey.Register](#) 4909
- [90.23 HotKey.SetScript](#) 4922

### 90.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.

## 90.21 HotKey.SetName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.SetName"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

**Result** Returns OK or error.

### Description

This is just your own name which you can query. The plugin does not use this information.

### Examples

Register new hotkey with name:

```
Set Variable [ $HotKeyID; Value:MBS("Hotkey.Register"; "F5"; "shift control") ]
Set Variable [ $r; Value:MBS("HotKey.SetScript"; $HotKeyID; Get(FileName); "HotkeyAction") ]
Set Variable [ $r; Value:MBS("HotKey.SetName"; $HotKeyID; "Search People") ]
```

### See also

- 90.8 HotKey.GetName 4902
- 90.15 HotKey.Register 4909
- 90.23 HotKey.SetScript 4922
- 90.25 HotKey.SetTag 4925

### 90.21.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.

## 90.22 HotKey.SetPermanent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	10.2	Yes	No	No	No	No

MBS( "HotKey.SetPermanent"; HotKeyRef; Value )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

#### Value

The new setting. Pass 1 to store in preferences or 0 to not store.  
1

**Result** Returns OK or error.

### Description

Currently only implemented for MacOS.

### Examples

Make hotkey permanent:

MBS( "HotKey.SetPermanent"; \$HotKeyRef; 1 )

### See also

- [90.9 HotKey.GetPermanent](#) 4903
- [90.15 HotKey.Register](#) 4909

### 90.22.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 16th March 2020, last changed 19th April 2020.

## 90.23 HotKey.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.0	Yes	Yes	No	No	No

MBS( "HotKey.SetScript"; HotKeyRef; Filename; ScriptName )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Register Control-F5:

```
Set Field [ HotKeys::HotKey ID; MBS("Hotkey.Register"; "F5"; "control") ]
```

```
Set Variable [ $r; Value:MBS("HotKey.SetScript"; HotKeys::HotKey ID; Get(FileName); "HotkeyAction") ]
```

### See also

- [90.15 HotKey.Register](#) 4909
- [90.20 HotKey.SetLocal](#) 4919
- [90.21 HotKey.SetName](#) 4920
- [90.24 HotKey.SetScriptWorkspaceOnly](#) 4924
- [90.25 HotKey.SetTag](#) 4925

### Example Databases

- [HotKeys](#)
- [Window/Popover CardWindow](#)

Created 4th February 2015, last changed 27th January 2016.

## 90.24 HotKey.SetScriptWorkspaceOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	10.2	Yes	No	No	No	No

MBS( "HotKey.SetScriptWorkspaceOnly"; HotKeyRef; Value )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

#### Value

The new setting. Pass 1 to limit to script workspace or 0 to allow it everywhere.

1

**Result** Returns OK or error.

### Description

Currently only implemented for MacOS.

### Examples

Make hotkey to run in script workspace only:

```
MBS( "HotKey.SetScriptWorkspaceOnly"; $HotKeyRef; 1 )
```

### See also

- [90.12 HotKey.GetScriptWorkspaceOnly](#) 4906
- [90.15 HotKey.Register](#) 4909
- [90.23 HotKey.SetScript](#) 4922

### 90.24.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 16th March 2020, last changed 19th April 2020.



## 90.25 HotKey.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.4	Yes	Yes	No	No	No

MBS( "HotKey.SetTag"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.

\$hotkey

**Result** Returns OK or error.

### Description

This is just your own value which you can query. The plugin does not use this information.

### Examples

Register new hotkey with tag:

```
Set Variable [ $HotKeyID; Value:MBS("Hotkey.Register"; "F5"; "shift control") ]
Set Variable [ $r; Value:MBS("HotKey.SetScript"; $HotKeyID; Get(FileName); "HotkeyAction") ]
Set Variable [ $r; Value:MBS("HotKey.SetTag"; $HotKeyID; "Search People") ]
```

### See also

- 90.13 HotKey.GetTag 4907
- 90.15 HotKey.Register 4909
- 90.21 HotKey.SetName 4920
- 90.23 HotKey.SetScript 4922

### 90.25.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 21st October 2015, last changed 21st October 2015.

## 90.26 HotKey.Unregister

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
90 HotKey	5.0	Yes	Yes	No	No	No

MBS( "HotKey.Unregister"; HotKeyRef )

### Parameters

#### HotKeyRef

The reference value for the hotkey as returned by HotKey.Register function.  
\$hotkey

**Result** Returns OK or error.

### Description

### Examples

Unregister a hotkey:

MBS("Hotkey.Unregister"; HotKeys::HotKey ID)

### See also

- 90.15 HotKey.Register

4909

### Example Databases

- [Window/Popover CardWindow](#)

Created 4th February 2015, last changed 4th February 2015.

# Chapter 91

## IKPictureTaker

A panel on Mac OS X to load images.

### 91.1 IKPictureTaker.ClearNotification

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.ClearNotification" )

**Result** Returns OK on success.

**Description**

**See also**

- 91.24 IKPictureTaker.SetNotification 4950

Created 18th August 2014, last changed 18th August 2014.

## 91.2 IKPictureTaker.GetAllowsEditing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetAllowsEditing" )

**Result** Returns OK or error.

**Description**

**See also**

- 91.3 IKPictureTaker.GetAllowsFileChoosing 4929
- 91.18 IKPictureTaker.SetAllowsEditing 4944

Created 18th August 2014, last changed 18th August 2014.

## 91.3 IKPictureTaker.GetAllowsFileChoosing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetAllowsFileChoosing" )

**Result** Returns value or error.

### Description

### See also

- 91.2 IKPictureTaker.GetAllowsEditing 4928
- 91.4 IKPictureTaker.GetAllowsVideoCapture 4930
- 91.19 IKPictureTaker.SetAllowsFileChoosing 4945

Created 18th August 2014, last changed 18th August 2014.

## 91.4 IKPictureTaker.GetAllowsVideoCapture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetAllowsVideoCapture" )

**Result** Returns value or error.

**Description**

**See also**

- 91.3 IKPictureTaker.GetAllowsFileChoosing 4929
- 91.20 IKPictureTaker.SetAllowsVideoCapture 4946

Created 18th August 2014, last changed 18th August 2014.

## 91.5 IKPictureTaker.GetInformationalText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetInformationalText" )

**Result** Returns text or error.

**Description**

**See also**

- 91.21 IKPictureTaker.SetInformationalText

4947

**Example Databases**

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.6 IKPictureTaker.GetInputImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetInputImage" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

### See also

- 91.8 IKPictureTaker.GetOutputImage 4934
- 91.22 IKPictureTaker.SetInputImage 4948

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.



## 91.7 IKPictureTaker.GetMirroring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetMirroring" )

**Result** Returns value or error.

### Description

Returns 1 if video mirroring is enabled, 0 otherwise.

### See also

- 91.23 IKPictureTaker.SetMirroring

4949

Created 18th August 2014, last changed 18th August 2014.

## 91.8 IKPictureTaker.GetOutputImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetOutputImage" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

### See also

- 91.6 IKPictureTaker.GetInputImage 4932
- 91.10 IKPictureTaker.GetOutputImageMaxWidth 4936
- 91.22 IKPictureTaker.SetInputImage 4948
- 91.25 IKPictureTaker.SetOutputImageMaxSize 4951

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.9 IKPictureTaker.GetOutputImageMaxHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetOutputImageMaxHeight" )

**Result** Returns value or error.

### Description

### See also

- 91.10 IKPictureTaker.GetOutputImageMaxWidth 4936
- 91.25 IKPictureTaker.SetOutputImageMaxSize 4951

Created 18th August 2014, last changed 18th August 2014.

## 91.10 IKPictureTaker.GetOutputImageMaxWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetOutputImageMaxWidth" )

**Result** Returns value or error.

### Description

### See also

- 91.8 IKPictureTaker.GetOutputImage 4934
- 91.9 IKPictureTaker.GetOutputImageMaxHeight 4935
- 91.25 IKPictureTaker.SetOutputImageMaxSize 4951

Created 18th August 2014, last changed 18th August 2014.

## 91.11 IKPictureTaker.GetRemainOpenAfterValidate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetRemainOpenAfterValidate" )

**Result** Returns value or error.

**Description**

**See also**

- 91.26 IKPictureTaker.SetRemainOpenAfterValidate

4952

Created 18th August 2014, last changed 18th August 2014.

## 91.12 IKPictureTaker.GetShowAddressBookPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetShowAddressBookPicture" )

**Result** Returns value or error.

### Description

### See also

- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.27 IKPictureTaker.SetShowAddressBookPicture 4953

Created 18th August 2014, last changed 18th August 2014.

## 91.13 IKPictureTaker.GetShowEffects

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetShowEffects" )

**Result** Returns value or error.

**Description**

**See also**

- 91.28 IKPictureTaker.SetShowEffects

4954

Created 18th August 2014, last changed 28th November 2019.

## 91.14 IKPictureTaker.GetShowEmptyPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetShowEmptyPicture" { ; ImageType; Filename } )

### Parameters

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

### See also

- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.29 IKPictureTaker.SetShowEmptyPicture 4955
- 91.30 IKPictureTaker.SetShowRecentPicture 4956

Created 18th August 2014, last changed 18th August 2014.



## 91.15 IKPictureTaker.GetShowRecentPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetShowRecentPicture" )

**Result** Returns value or error.

### Description

#### See also

- 91.12 IKPictureTaker.GetShowAddressBookPicture 4938
- 91.14 IKPictureTaker.GetShowEmptyPicture 4940
- 91.16 IKPictureTaker.GetUpdateRecentPicture 4942
- 91.29 IKPictureTaker.SetShowEmptyPicture 4955
- 91.30 IKPictureTaker.SetShowRecentPicture 4956
- 91.31 IKPictureTaker.SetUpdateRecentPicture 4957

Created 18th August 2014, last changed 18th August 2014.

## 91.16 IKPictureTaker.GetUpdateRecentPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.GetUpdateRecentPicture" )

**Result** Returns value or error.

### Description

### See also

- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.30 IKPictureTaker.SetShowRecentPicture 4956
- 91.31 IKPictureTaker.SetUpdateRecentPicture 4957

Created 18th August 2014, last changed 18th August 2014.

## 91.17 IKPictureTaker.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.Run" )

**Result** Returns OK on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 91.18 IKPictureTaker.SetAllowsEditing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetAllowsEditing"; Value )

### Parameters

#### Value

The new setting. Pass 0 to disable or 1 to enable.

1

**Result** Returns OK or error.

### Description

#### See also

- [91.2 IKPictureTaker.GetAllowsEditing](#) 4928
- [91.19 IKPictureTaker.SetAllowsFileChoosing](#) 4945

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.19 IKPictureTaker.SetAllowsFileChoosing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetAllowsFileChoosing"; Value )

### Parameters

#### Value

The new setting. Pass 0 to disable and 1 to enable.

1

**Result** Returns OK or error.

### Description

#### See also

- [91.3 IKPictureTaker.GetAllowsFileChoosing](#) 4929
- [91.18 IKPictureTaker.SetAllowsEditing](#) 4944
- [91.20 IKPictureTaker.SetAllowsVideoCapture](#) 4946

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.20 IKPictureTaker.SetAllowsVideoCapture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetAllowsVideoCapture"; Value )

### Parameters

#### Value

The new setting. Pass 0 to disable and 1 to enable.

1

**Result** Returns OK or error.

### Description

#### See also

- [91.4 IKPictureTaker.GetAllowsVideoCapture](#) 4930
- [91.19 IKPictureTaker.SetAllowsFileChoosing](#) 4945

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.21 IKPictureTaker.SetInformationalText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetInformationalText"; text )

### Parameters

#### text

The new informational text.

"Logo Picture"

**Result** Returns OK or error.

### Description

Default text is "Drag Image Here".

### See also

- 91.5 IKPictureTaker.GetInformationalText

4931

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.22 IKPictureTaker.SetInputImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetInputImage"; Image )

### Parameters

#### Image

The new container value with an input image.

\$image

**Result** Returns OK or error.

### Description

#### See also

- [91.6 IKPictureTaker.GetInputImage](#) 4932
- [91.8 IKPictureTaker.GetOutputImage](#) 4934

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.



## 91.23 IKPictureTaker.SetMirroring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetMirroring"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### See also

- 91.7 IKPictureTaker.GetMirroring

4933

Created 18th August 2014, last changed 18th August 2014.

## 91.24 IKPictureTaker.SetNotification

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetNotification"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.  
"test.fp7"

#### ScriptName

The name of the script to run.  
"MyScript"

**Result** Returns OK on success.

### Description

This script is called whenever the buttons in the panel are called.  
Parameter to this script is "0" for cancel and "1" for OK.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Installs notification script:

```
MBS( "IKPictureTaker.SetNotification"; Get(FileName); "GotImage" )
```

### See also

- 91.1 IKPictureTaker.ClearNotification

4927

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 27th January 2016.

## 91.25 IKPictureTaker.SetOutputImageMaxSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetOutputImageMaxSize"; Width; Height )

### Parameters

#### Width

The maximum image width.

500

#### Height

The maximum image height.

500

**Result** Returns OK or error.

### Description

#### See also

- 91.8 IKPictureTaker.GetOutputImage 4934
- 91.9 IKPictureTaker.GetOutputImageMaxHeight 4935
- 91.10 IKPictureTaker.GetOutputImageMaxWidth 4936

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.26 IKPictureTaker.SetRemainOpenAfterValidate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetRemainOpenAfterValidate"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

This allows the application to programmatically dismiss the panel.

### See also

- 91.11 IKPictureTaker.GetRemainOpenAfterValidate 4937

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.

## 91.27 IKPictureTaker.SetShowAddressBookPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetShowAddressBookPicture"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Deprecated by Apple.

#### See also

- 91.12 IKPictureTaker.GetShowAddressBookPicture 4938
- 91.30 IKPictureTaker.SetShowRecentPicture 4956

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 14th October 2017.

## 91.28 IKPictureTaker.SetShowEffects

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetShowEffects"; Value )

### Parameters

#### Value

The new setting. Pass 0 to disable or 1 to enable.

1

**Result** Returns OK or error.

### Description

#### See also

- [91.13 IKPictureTaker.GetShowEffects](#) 4939

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 28th November 2019.

## 91.29 IKPictureTaker.SetShowEmptyPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetShowEmptyPicture"; Image )

### Parameters

#### Image

The new container value with an input image.

\$image

**Result** Returns OK or error.

### Description

#### See also

- 91.14 IKPictureTaker.GetShowEmptyPicture 4940
- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.30 IKPictureTaker.SetShowRecentPicture 4956

Created 18th August 2014, last changed 18th August 2014.

## 91.30 IKPictureTaker.SetShowRecentPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetShowRecentPicture"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 disable.

1

**Result** Returns OK or error.

### Description

#### See also

- 91.14 IKPictureTaker.GetShowEmptyPicture 4940
- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.16 IKPictureTaker.GetUpdateRecentPicture 4942
- 91.27 IKPictureTaker.SetShowAddressBookPicture 4953
- 91.29 IKPictureTaker.SetShowEmptyPicture 4955
- 91.31 IKPictureTaker.SetUpdateRecentPicture 4957

### Example Databases

- [Mac only/IKPictureTaker](#)

Created 18th August 2014, last changed 18th August 2014.



## 91.31 IKPictureTaker.SetUpdateRecentPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
91 IKPictureTaker	3.5	Yes	No	No	No	No

MBS( "IKPictureTaker.SetUpdateRecentPicture"; Value )

### Parameters

#### Value

The new setting. Pass 0 to disable or 1 to enable.

1

**Result** Returns OK or error.

### Description

#### See also

- 91.15 IKPictureTaker.GetShowRecentPicture 4941
- 91.16 IKPictureTaker.GetUpdateRecentPicture 4942
- 91.30 IKPictureTaker.SetShowRecentPicture 4956

Created 18th August 2014, last changed 18th August 2014.



# Chapter 92

## IKSlideShow

Run slideshow on Mac OS X.

### 92.1 IKSlideShow.Add

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.Add"; container )

#### Parameters

##### container

The container with the image or the file.

**Result** Returns the number of slides added or an error message.

#### Description

The container can contain an image (GIF, PNG, BMP, JPEG) or an image file (TIFF, BMP, PNG, JPEG) and other formats supported by Mac OS X) or a PDF file.

For PDF files each page is made one slide.

This is the general function. It may often be better to use the functions IKSlideShow.AddImage, IKSlideShow.AddPath, IKSlideShow.AddPDF or IKSlideShow.AddURL.

Sets mode to images.

#### See also

- 92.2 IKSlideShow.AddImage 4961
- 92.4 IKSlideShow.AddPath 4963
- 92.3 IKSlideShow.AddPDF 4962
- 92.5 IKSlideShow.AddURL 4964

- 92.17 IKSlideShow.ItemAtIndex 4976
- 92.18 IKSlideShow.Run 4978

### Example Databases

- [Mac only/Slideshow Example](#)

Created 18th August 2014, last changed 18th August 2014.

## 92.2 IKSlideShow.AddImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.AddImage"; Image )

### Parameters

#### Image

The image as container.

\$img

**Result** Returns the number of slides added or an error message.

### Description

The container can contain an image (GIF, PNG, BMP, JPEG) or an image file (TIFF, BMP, PNG, JPEG and other formats supported by Mac OS X).

Sets mode to images.

### See also

- [92.1 IKSlideShow.Add](#) 4959
- [92.4 IKSlideShow.AddPath](#) 4963
- [92.3 IKSlideShow.AddPDF](#) 4962
- [92.5 IKSlideShow.AddURL](#) 4964

### 92.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 92.3 IKSlideShow.AddPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.AddPDF"; PDF )

### Parameters

#### PDF

The PDF.

\$pdf

**Result** Returns the number of slides added or an error message.

### Description

Each page is made one slide.

You can pass a container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

Sets mode to PDF.

### See also

- 92.1 IKSlideShow.Add 4959
- 92.2 IKSlideShow.AddImage 4961
- 92.4 IKSlideShow.AddPath 4963
- 92.5 IKSlideShow.AddURL 4964
- 125.28 PDFKit.Open 6306

### 92.3.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 92.4 IKSlideShow.AddPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.AddPath"; Path )

### Parameters

#### Path

The native file path to the image file.

"/Users/test/Images/test.jpg"

**Result** Returns the number of slides added or an error message.

### Description

The file can contain an image (GIF, PNG, BMP, JPEG) or an image file (TIFF, BMP, PNG, JPEG and other formats supported by Mac OS X)

Sets mode to images.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 92.1 IKSlideShow.Add 4959
- 92.2 IKSlideShow.AddImage 4961
- 92.3 IKSlideShow.AddPDF 4962
- 92.5 IKSlideShow.AddURL 4964
- 124.2 Path.FileMakerPathToNativePath 6247

### 92.4.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 5th September 2014.

## 92.5 IKSlideShow.AddURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.AddURL"; URL )

### Parameters

#### URL

The file url to the image.

"https://www.mbsplugins.de/images/realworld-disney.jpg"

**Result** Returns the number of slides added or an error message.

### Description

The URL can be http/https and some other formats Apple's frameworks know about.

Sets mode to images.

### See also

- 92.1 IKSlideShow.Add 4959
- 92.2 IKSlideShow.AddImage 4961
- 92.4 IKSlideShow.AddPath 4963
- 92.3 IKSlideShow.AddPDF 4962
- 92.17 IKSlideShow.ItemAtIndex 4976

### 92.5.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 18th August 2014.



## 92.6 IKSlideShow.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.Clear" { ; Index } )

### Parameters

#### Index

Optional

The index of the item to remove. From 0 to IKSlideShow.Count-1.

If parameter is not provided, we clear all items.

0

**Result** Returns OK or error.

### Description

#### See also

- [92.7 IKSlideShow.Count](#)

4966

### Example Databases

- [Mac only/Slideshow Example](#)

### 92.6.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 18th August 2014, last changed 3th August 2016.

## 92.7 IKSlideShow.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.Count" )

**Result** Returns number or error.

### Description

### See also

- [92.6 IKSlideShow.Clear](#) 4965
- [92.17 IKSlideShow.ItemAtIndex](#) 4976
- [92.18 IKSlideShow.Run](#) 4978

### 92.7.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 3th August 2016, last changed 3th August 2016.

## 92.8 IKSlideShow.GetAudioFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.GetAudioFile" )

**Result** Returns path or error.

**Description**

**See also**

- 92.19 IKSlideShow.SetAudioFile

4979

### 92.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 5th August 2016.

## 92.9 IKSlideShow.GetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.GetMode" )

**Result** Returns current mode.

### Description

A slideshow is in one of three modes. If used with the wrong mode, you are in trouble and the framework can crash.

### See also

- [92.13 IKSlideShow.GetScreen](#) 4972
- [92.20 IKSlideShow.SetMode](#) 4980

### 92.9.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 18th August 2014.

**92.10 IKSlideShow.GetPDFDisplayBox**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.GetPDFDisplayBox" )

**Result** The current PDF display box.

**Description**

possible values:

kPDFDisplayBoxMediaBox = 0

kPDFDisplayBoxCropBox = 1

kPDFDisplayBoxBleedBox = 2

kPDFDisplayBoxTrimBox = 3

kPDFDisplayBoxArtBox = 4

**See also**

- 92.11 IKSlideShow.GetPDFDisplayMode 4970
- 92.12 IKSlideShow.GetPDFDisplaysAsBook 4971
- 92.21 IKSlideShow.SetPDFDisplayBox 4981
- 92.22 IKSlideShow.SetPDFDisplayMode 4982
- 92.23 IKSlideShow.SetPDFDisplaysAsBook 4983

Created 18th August 2014, last changed 18th August 2014.

## 92.11 IKSlideShow.GetPDFDisplayMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.GetPDFDisplayMode" )

**Result** The current PDF display mode.

### Description

Display modes:

kPDFDisplaySinglePage = 0

kPDFDisplaySinglePageContinuous = 1

kPDFDisplayTwoUp = 2

kPDFDisplayTwoUpContinuous = 3

### See also

- 92.10 IKSlideShow.GetPDFDisplayBox 4969
- 92.12 IKSlideShow.GetPDFDisplaysAsBook 4971
- 92.21 IKSlideShow.SetPDFDisplayBox 4981
- 92.22 IKSlideShow.SetPDFDisplayMode 4982
- 92.23 IKSlideShow.SetPDFDisplaysAsBook 4983

Created 18th August 2014, last changed 18th August 2014.

**92.12 IKSlideShow.GetPDFDisplaysAsBook**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.GetPDFDisplaysAsBook" )

**Result** Returns the current value as boolean.

**Description****See also**

- 92.10 IKSlideShow.GetPDFDisplayBox 4969
- 92.11 IKSlideShow.GetPDFDisplayMode 4970
- 92.21 IKSlideShow.SetPDFDisplayBox 4981
- 92.22 IKSlideShow.SetPDFDisplayMode 4982
- 92.23 IKSlideShow.SetPDFDisplaysAsBook 4983

Created 18th August 2014, last changed 18th August 2014.

## 92.13 IKSlideShow.GetScreen

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.GetScreen" )

**Result** Returns number or error.

### Description

-1 is default while 0 to Screen.Count-1 is an index to a screen.

### See also

- [92.9 IKSlideShow.GetMode](#) 4968
- [92.24 IKSlideShow.SetScreen](#) 4984
- [144.1 Screen.Count](#) 6951

### 92.13.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 5th August 2016.



## 92.14 IKSlideShow.GetStartIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.8	Yes	No	No	No	No

MBS( "IKSlideShow.GetStartIndex" )

**Result** Returns the index of the first slide.

### Description

The index is 0 based. -1 is the default start index.

### See also

- 92.15 IKSlideShow.GetStartPaused 4974
- 92.17 IKSlideShow.ItemAtIndex 4976
- 92.25 IKSlideShow.SetStartIndex 4985
- 92.26 IKSlideShow.SetStartPaused 4986

Created 18th August 2014, last changed 18th August 2014.

## 92.15 IKSlideShow.GetStartPaused

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.GetStartPaused" )

**Result** Returns the current value for the start pause setting.

### Description

Default value is false.

### See also

- 92.14 IKSlideShow.GetStartIndex 4973
- 92.25 IKSlideShow.SetStartIndex 4985
- 92.26 IKSlideShow.SetStartPaused 4986

Created 18th August 2014, last changed 18th August 2014.

## 92.16 IKSlideShow.GetWrapAround

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.GetWrapAround" )

**Result** a boolean value whether the slide show wraps around.

### Description

### See also

- [92.27 IKSlideShow.SetWrapAround](#)

4987

### Example Databases

- [Mac only/Slideshow Example](#)

Created 18th August 2014, last changed 18th August 2014.

## 92.17 IKSlideShow.ItemAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.ItemAtIndex"; Index { ; Filename; Type } )

### Parameters

#### Index

From 0 to IKSlideShow.Count-1.

0

#### Filename

Optional

For PDF or image files returned an optional file name.

"test.jpg"

#### Type

Optional

For images the type you like to get. Can be JPEG, TIFF, PNG, GIF, BMP or PDF.

"JPEG"

**Result** Returns value or error.

### Description

### Examples

Add an item and query it back:

```
Set Variable [ $r; Value:MBS( "IKSlideShow.AddURL"; "http://www.mbsplugins.de/images/xdc2016.jpg"
) ]
Show Custom Dialog [ "Count"; MBS( "IKSlideShow.Count" ) ]
Show Custom Dialog [ "First item"; MBS( "IKSlideShow.ItemAtIndex"; 0 ) ]
```

### See also

- 92.1 IKSlideShow.Add 4959
- 92.5 IKSlideShow.AddURL 4964
- 92.7 IKSlideShow.Count 4966
- 92.14 IKSlideShow.GetStartIndex 4973
- 92.25 IKSlideShow.SetStartIndex 4985

### 92.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 3th August 2016, last changed 3th August 2016.

## 92.18 IKSlideShow.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.Run" )

**Result** Returns "OK" on success.

### Description

### See also

- [92.1 IKSlideShow.Add](#) 4959
- [92.7 IKSlideShow.Count](#) 4966

### Example Databases

- [Mac only/Slideshow Example](#)

Created 18th August 2014, last changed 18th August 2014.

## 92.19 IKSlideShow.SetAudioFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.SetAudioFile"; Path )

### Parameters

#### Path

The native file path to the audio file.

"/Users/cs/Desktop/test.m4a"

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

#### See also

- 92.8 IKSlideShow.GetAudioFile 4967
- 124.2 Path.FileMakerPathToNativePath 6247

### 92.19.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 5th August 2016.

## 92.20 IKSlideShow.SetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	3.1	Yes	No	No	No	No

MBS( "IKSlideShow.SetMode"; Mode )

### Parameters

#### Mode

Can be images, PDF or mixed.

**Result** Returns OK on success.

### Description

A slideshow is in one of three modes. Our Add methods set the mode automatically, so you may need to use this method to set the mode you want after adding items.

### Examples

Set mode to PDF:

```
MBS( "IKSlideShow.SetMode"; "pdf" )
```

Set mode to Mixed:

```
MBS( "IKSlideShow.SetMode"; "Mixed" )
```

### See also

- [92.9 IKSlideShow.GetMode](#) 4968
- [92.24 IKSlideShow.SetScreen](#) 4984

### 92.20.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)
- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 1st August 2016.



## 92.21 IKSlideShow.SetPDFDisplayBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.SetPDFDisplayBox"; display box )

### Parameters

#### display box

The new display box value.

**Result** The current display box value or an error message.

### Description

possible values:

kPDFDisplayBoxMediaBox = 0

kPDFDisplayBoxCropBox = 1

kPDFDisplayBoxBleedBox = 2

kPDFDisplayBoxTrimBox = 3

kPDFDisplayBoxArtBox = 4

### See also

- 92.10 IKSlideShow.GetPDFDisplayBox 4969
- 92.11 IKSlideShow.GetPDFDisplayMode 4970
- 92.12 IKSlideShow.GetPDFDisplaysAsBook 4971
- 92.22 IKSlideShow.SetPDFDisplayMode 4982
- 92.23 IKSlideShow.SetPDFDisplaysAsBook 4983

Created 18th August 2014, last changed 18th August 2014.

## 92.22 IKSlideShow.SetPDFDisplayMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.SetPDFDisplayMode" )

**Result** display mode The new display mode value.

### Description

Display modes:

kPDFDisplaySinglePage = 0

kPDFDisplaySinglePageContinuous = 1

kPDFDisplayTwoUp = 2

kPDFDisplayTwoUpContinuous = 3

### See also

- 92.10 IKSlideShow.GetPDFDisplayBox 4969
- 92.11 IKSlideShow.GetPDFDisplayMode 4970
- 92.12 IKSlideShow.GetPDFDisplaysAsBook 4971
- 92.21 IKSlideShow.SetPDFDisplayBox 4981
- 92.23 IKSlideShow.SetPDFDisplaysAsBook 4983

Created 18th August 2014, last changed 18th August 2014.

**92.23 IKSlideShow.SetPDFDisplaysAsBook**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.SetPDFDisplaysAsBook"; value )

**Parameters****value**

The new setting value

1

**Result** Returns "OK" on success.

**Description****See also**

- 92.10 IKSlideShow.GetPDFDisplayBox 4969
- 92.11 IKSlideShow.GetPDFDisplayMode 4970
- 92.12 IKSlideShow.GetPDFDisplaysAsBook 4971
- 92.21 IKSlideShow.SetPDFDisplayBox 4981
- 92.22 IKSlideShow.SetPDFDisplayMode 4982

Created 18th August 2014, last changed 18th August 2014.

## 92.24 IKSlideShow.SetScreen

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	6.4	Yes	No	No	No	No

MBS( "IKSlideShow.SetScreen"; Index )

### Parameters

#### Index

Pass index of screen. -1 is default screen, while 0 to Screen.Count-1 is an index to a screen.

0

**Result** Returns OK or error.

### Description

#### See also

- [92.13 IKSlideShow.GetScreen](#) 4972
- [92.20 IKSlideShow.SetMode](#) 4980
- [144.1 Screen.Count](#) 6951

### 92.24.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 5th August 2016, last changed 5th August 2016.

**92.25 IKSlideShow.SetStartIndex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.8	Yes	No	No	No	No

MBS( "IKSlideShow.SetStartIndex"; Value )

**Parameters****Value**

The new start index.

0

**Result** Returns "OK" on success.

**Description**

Use -1 to use the default start index.

**See also**

- 92.14 IKSlideShow.GetStartIndex 4973
- 92.15 IKSlideShow.GetStartPaused 4974
- 92.17 IKSlideShow.ItemAtIndex 4976
- 92.26 IKSlideShow.SetStartPaused 4986

Created 18th August 2014, last changed 18th August 2014.

## 92.26 IKSlideShow.SetStartPaused

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.SetStartPaused"; value )

### Parameters

#### value

The new value.

0

### Description

### Examples

Sets start paused off:

MBS( "IKSlideShow.SetStartPaused"; 0 )

### See also

- 92.14 IKSlideShow.GetStartIndex 4973
- 92.15 IKSlideShow.GetStartPaused 4974
- 92.25 IKSlideShow.SetStartIndex 4985

Created 18th August 2014, last changed 18th August 2014.

## 92.27 IKSlideShow.SetWrapAround

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
92 IKSlideShow	1.6	Yes	No	No	No	No

MBS( "IKSlideShow.SetWrapAround"; value )

### Parameters

#### value

The new wrap around value.

1

**Result** Returns "OK" on success.

### Description

Default is true

### See also

- 92.16 IKSlideShow.GetWrapAround

4975

### Example Databases

- [Mac only/Slideshow Example](#)

Created 18th August 2014, last changed 18th August 2014.





# Chapter 93

## ImageCapture

Scan images from flatbed scanners on Mac.

Using the ImageKit framework from Apple to talk to flatbed or document feeder scanner. See WIA functions for Windows or older TWAIN functions.

### 93.1 IKDeviceBrowserPanel.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.Close" )

**Result** Returns OK or error.

#### Description

#### Examples

Close window:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.Close" ) ]
```

#### See also

- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.29 IKDeviceBrowserPanel.Show 5019

- 93.30 IKDeviceBrowserPanel.Visible

Created 7th November 2016, last changed 7th November 2016.

## 93.2 IKDeviceBrowserPanel.GetCancelButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetCancelButtonLabel" )

**Result** Returns text.

### Description

### See also

- 93.10 IKDeviceBrowserPanel.GetSelectButtonLabel 4999
- 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel 5006
- 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel 5014

Created 7th November 2016, last changed 7th November 2016.

### 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetDisplaysLocalCameras" )

**Result** Returns 1, 0 or error.

#### Description

#### See also

- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010

Created 7th November 2016, last changed 7th November 2016.

## 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetDisplaysLocalScanners" )

**Result** Returns 1, 0 or error.

### Description

### See also

- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010

Created 7th November 2016, last changed 7th November 2016.

## 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetDisplaysNetworkCameras" )

**Result** Returns 1, 0 or error.

### Description

### See also

- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992
- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010

Created 7th November 2016, last changed 7th November 2016.

**93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetDisplaysNetworkScanners" )

**Result** Returns 1, 0 or error.

**Description****See also**

- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992
- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010

Created 7th November 2016, last changed 7th November 2016.

## 93.7 IKDeviceBrowserPanel.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetHeight" )

**Result** Returns height value.

### Description

See also IKDeviceBrowserPanel.SetWidth, IKDeviceBrowserPanel.GetWidth and IKDeviceBrowserPanel.SetHeight.

### See also

- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.30 IKDeviceBrowserPanel.Visible 5021

Created 7th November 2016, last changed 7th November 2016.



## 93.8 IKDeviceBrowserPanel.GetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetMode" )

**Result** Returns OK or error.

### Description

Value is Table, Outline or Icon.

### See also

- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

Created 7th November 2016, last changed 7th November 2016.

## 93.9 IKDeviceBrowserPanel.GetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetPrompt" )

**Result** Returns text.

### Description

### See also

- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017

Created 7th November 2016, last changed 7th November 2016.

## 93.10 IKDeviceBrowserPanel.GetSelectButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetSelectButtonLabel" )

**Result** Returns text.

### Description

### See also

- 93.2 IKDeviceBrowserPanel.GetCancelButtonLabel 4991
- 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel 5006
- 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel 5014

Created 7th November 2016, last changed 7th November 2016.

## 93.11 IKDeviceBrowserPanel.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetWidth" )

**Result** Returns width.

### Description

See also `IKDeviceBrowserPanel.SetWidth`, `IKDeviceBrowserPanel.SetHeight` and `IKDeviceBrowserPanel.GetHeight`.

### See also

- 93.7 `IKDeviceBrowserPanel.GetHeight` 4996
- 93.8 `IKDeviceBrowserPanel.GetMode` 4997
- 93.14 `IKDeviceBrowserPanel.Reset` 5003
- 93.22 `IKDeviceBrowserPanel.SetHeight` 5011
- 93.23 `IKDeviceBrowserPanel.SetMode` 5012
- 93.24 `IKDeviceBrowserPanel.SetPrompt` 5013
- 93.26 `IKDeviceBrowserPanel.SetTrigger` 5015
- 93.27 `IKDeviceBrowserPanel.SetWidth` 5017
- 93.28 `IKDeviceBrowserPanel.SetWindowTitle` 5018
- 93.30 `IKDeviceBrowserPanel.Visible` 5021

Created 7th November 2016, last changed 7th November 2016.

## 93.12 IKDeviceBrowserPanel.GetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.GetWindowTitle" )

**Result** Returns text.

### Description

### See also

- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.28 IKDeviceBrowserPanel.SetWindowTitle 5018

Created 7th November 2016, last changed 7th November 2016.

## 93.13 IKDeviceBrowserPanel.Hide

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.Hide" )

**Result** Returns OK or error.

### Description

### Examples

Hide window:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.Hide" ) ]
```

### See also

- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

Created 7th November 2016, last changed 7th November 2016.

**93.14 IKDeviceBrowserPanel.Reset**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.Reset" )

**Result** Returns OK or error.

**Description****See also**

- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

**Example Databases**

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.15 IKDeviceBrowserPanel.SelectedDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SelectedDeviceID" )

**Result** Returns text or error.

**Description**

**See also**

- 93.16 IKDeviceBrowserPanel.SelectedDeviceName

5005

Created 7th November 2016, last changed 7th November 2016.



## 93.16 IKDeviceBrowserPanel.SelectedDeviceName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SelectedDeviceName" )

**Result** Returns text or error.

### Description

### Examples

Query selected device in triggered script:

```
Set Variable [ $Param; Value:Get(ScriptParameter) ]
If [ $Param = "Select" ]
Set Variable [ $name; Value:MBS("IKDeviceBrowserPanel.SelectedDeviceName") ]
Set Field [ ImageCapture Dialogs::ScannerName; $name ]
End If
```

### See also

- 93.15 IKDeviceBrowserPanel.SelectedDeviceID 5004
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.17 IKDeviceBrowserPanel.SetCancelButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetCancelButtonLabel"; text )

### Parameters

#### text

The new text.

"Cancel"

**Result** Returns OK or error.

### Description

### Examples

Set cancel button:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetCancelButtonLabel"; "Abbrechen" ) ]
```

### See also

- [93.2 IKDeviceBrowserPanel.GetCancelButtonLabel](#) 4991
- [93.10 IKDeviceBrowserPanel.GetSelectButtonLabel](#) 4999
- [93.25 IKDeviceBrowserPanel.SetSelectButtonLabel](#) 5014
- [93.29 IKDeviceBrowserPanel.Show](#) 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetDisplaysLocalCameras"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### Examples

Enable local cameras:

Set Variable [ \$r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysLocalCameras"; 1 ) ]

### See also

- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992
- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010
- 93.29 IKDeviceBrowserPanel.Show 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetDisplaysLocalScanners"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### Examples

Enable local scanners:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysLocalScanners"; 1 ) ]
```

### See also

- [93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras](#) 4992
- [93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners](#) 4993
- [93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras](#) 4994
- [93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners](#) 4995
- [93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras](#) 5007
- [93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras](#) 5009
- [93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners](#) 5010
- [93.29 IKDeviceBrowserPanel.Show](#) 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkCameras"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

### Examples

Enable network cameras:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkCameras"; 1 ) ]
```

### See also

- [93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras](#) 4992
- [93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners](#) 4993
- [93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras](#) 4994
- [93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners](#) 4995
- [93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras](#) 5007
- [93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners](#) 5008
- [93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners](#) 5010
- [93.29 IKDeviceBrowserPanel.Show](#) 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkScanners"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### Examples

Enable network scanners:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkScanners"; 1 ) ]
```

### See also

- 93.3 IKDeviceBrowserPanel.GetDisplaysLocalCameras 4992
- 93.4 IKDeviceBrowserPanel.GetDisplaysLocalScanners 4993
- 93.5 IKDeviceBrowserPanel.GetDisplaysNetworkCameras 4994
- 93.6 IKDeviceBrowserPanel.GetDisplaysNetworkScanners 4995
- 93.18 IKDeviceBrowserPanel.SetDisplaysLocalCameras 5007
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.29 IKDeviceBrowserPanel.Show 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.22 IKDeviceBrowserPanel.SetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetHeight"; Height )

### Parameters

#### Height

The desired height of the window.

400

**Result** Returns OK or error.

### Description

See also IKDeviceBrowserPanel.SetWidth, IKDeviceBrowserPanel.GetWidth and IKDeviceBrowserPanel.GetHeight.

### See also

- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.30 IKDeviceBrowserPanel.Visible 5021

Created 7th November 2016, last changed 7th November 2016.

## 93.23 IKDeviceBrowserPanel.SetMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetMode"; Mode )

### Parameters

#### Mode

The new mode. Can be Icon, Outline or Table.

"Icon"

**Result** Returns OK or error.

### Description

### Examples

Set mode to table:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetMode"; "table" ) ]
```

### See also

- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.



## 93.24 IKDeviceBrowserPanel.SetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetPrompt"; text )

### Parameters

#### text

The new text.

"Please select an item:"

**Result** Returns OK or error.

### Description

This text is shown on the top of the dialog over the listbox.

### Examples

Set prompt:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetPrompt"; "Please choose scanner:" ) ]
```

### See also

- [93.7 IKDeviceBrowserPanel.GetHeight](#) 4996
- [93.8 IKDeviceBrowserPanel.GetMode](#) 4997
- [93.9 IKDeviceBrowserPanel.GetPrompt](#) 4998
- [93.11 IKDeviceBrowserPanel.GetWidth](#) 5000
- [93.14 IKDeviceBrowserPanel.Reset](#) 5003
- [93.22 IKDeviceBrowserPanel.SetHeight](#) 5011
- [93.23 IKDeviceBrowserPanel.SetMode](#) 5012
- [93.26 IKDeviceBrowserPanel.SetTrigger](#) 5015
- [93.27 IKDeviceBrowserPanel.SetWidth](#) 5017
- [93.29 IKDeviceBrowserPanel.Show](#) 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.25 IKDeviceBrowserPanel.SetSelectButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetSelectButtonLabel"; text )

### Parameters

#### text

The new text.

"Select"

**Result** Returns OK or error.

### Description

### Examples

Localize select button:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetSelectButtonLabel"; "Auswählen" ) ]
```

### See also

- [93.2 IKDeviceBrowserPanel.GetCancelButtonLabel](#) 4991
- [93.10 IKDeviceBrowserPanel.GetSelectButtonLabel](#) 4999
- [93.17 IKDeviceBrowserPanel.SetCancelButtonLabel](#) 5006
- [93.29 IKDeviceBrowserPanel.Show](#) 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.26 IKDeviceBrowserPanel.SetTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

Script parameter will be Cancel, Select or Close depending what the user clicked.

### Examples

Store selected scanner in triggered script:

```
Set Variable [ $Param; Value:Get(ScriptParameter) ]
If [ $Param = "Select" ]
Set Variable [ $name; Value:MBS("IKDeviceBrowserPanel.SelectedDeviceName") ]
Set Field [ ImageCapture Dialogs::ScannerName; $name ]
End If
```

Set trigger script:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetTrigger"; Get(FileName); "Scanner Selection Trigger" ) ]
```

### See also

- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.9 IKDeviceBrowserPanel.GetPrompt 4998
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.16 IKDeviceBrowserPanel.SelectedDeviceName 5005
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012

- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

**93.27 IKDeviceBrowserPanel.SetWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetWidth"; Width )

**Parameters****Width**

The new desired width.

600

**Result** Returns OK or error.

**Description**

See also IKDeviceBrowserPanel.SetHeight, IKDeviceBrowserPanel.GetWidth and IKDeviceBrowserPanel.GetHeight.

**See also**

- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.28 IKDeviceBrowserPanel.SetWindowTitle 5018
- 93.29 IKDeviceBrowserPanel.Show 5019
- 93.30 IKDeviceBrowserPanel.Visible 5021

Created 7th November 2016, last changed 7th November 2016.

## 93.28 IKDeviceBrowserPanel.SetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.SetWindowTitle"; text )

### Parameters

#### text

The new text.  
"Your Choice"

**Result** Returns OK or error.

### Description

### Examples

Set window title:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetWindowTitle"; "Scanner Choice" ) ]
```

### See also

- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.12 IKDeviceBrowserPanel.GetWindowTitle 5001
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.29 IKDeviceBrowserPanel.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.Show" )

**Result** Returns OK or Cancel.

### Description

This is not a dialog, so please have the script end with this command as the window will stay open while other script steps run.

Before calling this function, make sure you called ImageCapture.Initialize once.

### Examples

Show the device browser window:

```
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.Reset" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetCancelButtonLabel"; "Cancel" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetSelectButtonLabel"; "Select" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetWindowTitle"; "Scanner Choice" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysLocalScanners"; 1 ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysLocalCameras"; 1 ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkCameras"; 1 ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetDisplaysNetworkScanners"; 1 ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetMode"; "table" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetPrompt"; "Please choose scanner:" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.SetTrigger"; Get(FileName); "Select Scanner Dialog Trigger" ) ]
Set Variable [ $r; Value:MBS( "IKDeviceBrowserPanel.Show" ) ]
```

### See also

- 93.1 IKDeviceBrowserPanel.Close 4989
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.19 IKDeviceBrowserPanel.SetDisplaysLocalScanners 5008
- 93.20 IKDeviceBrowserPanel.SetDisplaysNetworkCameras 5009
- 93.21 IKDeviceBrowserPanel.SetDisplaysNetworkScanners 5010
- 93.24 IKDeviceBrowserPanel.SetPrompt 5013
- 93.27 IKDeviceBrowserPanel.SetWidth 5017

- 93.28 IKDeviceBrowserPanel.SetWindowTitle 5018
- 93.76 ImageCapture.Initialize 5075

**Example Databases**

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.



**93.30 IKDeviceBrowserPanel.Visible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKDeviceBrowserPanel.Visible" )

**Result** Returns 0, 1 or error.

**Description**

Returns 1 if visible or 0 if hidden.

**See also**

- 93.7 IKDeviceBrowserPanel.GetHeight 4996
- 93.8 IKDeviceBrowserPanel.GetMode 4997
- 93.11 IKDeviceBrowserPanel.GetWidth 5000
- 93.13 IKDeviceBrowserPanel.Hide 5002
- 93.14 IKDeviceBrowserPanel.Reset 5003
- 93.22 IKDeviceBrowserPanel.SetHeight 5011
- 93.23 IKDeviceBrowserPanel.SetMode 5012
- 93.26 IKDeviceBrowserPanel.SetTrigger 5015
- 93.27 IKDeviceBrowserPanel.SetWidth 5017
- 93.29 IKDeviceBrowserPanel.Show 5019

Created 7th November 2016, last changed 7th November 2016.

## 93.31 IKScannerDevicePanel.ClearImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.ClearImage" )

**Result** Returns OK or error.

### Description

### See also

- 93.32 IKScannerDevicePanel.Close 5023
- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050

Created 7th November 2016, last changed 7th November 2016.

**93.32 IKScannerDevicePanel.Close**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.Close" )

**Result** Returns OK or error.

**Description****Examples**

Close window:

Set Variable [ \$r; Value:MBS( "IKScannerDevicePanel.Close" ) ]

**See also**

- 93.31 IKScannerDevicePanel.ClearImage 5022
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.44 IKScannerDevicePanel.Hide 5035
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.

## 93.33 IKScannerDevicePanel.GetCombine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetCombine" )

**Result** Returns OK or error.

### Description

### See also

- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.62 IKScannerDevicePanel.Visible 5056

Created 11st December 2016, last changed 19th December 2016.

## 93.34 IKScannerDevicePanel.GetDocumentName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetDocumentName" )

**Result** Returns text or error.

### Description

### See also

- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.50 IKScannerDevicePanel.SetDocumentName 5042

Created 7th November 2016, last changed 7th November 2016.

## 93.35 IKScannerDevicePanel.GetDownloadsDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetDownloadsDirectory" )

**Result** Returns path or error.

**Description**

**See also**

- 93.51 IKScannerDevicePanel.SetDownloadsDirectory 5043

Created 7th November 2016, last changed 7th November 2016.

**93.36 IKScannerDevicePanel.GetHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetHeight" )

**Result** Returns height value.

**Description**

See also IKScannerDevicePanel.SetWidth, IKScannerDevicePanel.GetWidth and IKScannerDevicePanel.SetHeight.

**See also**

- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.45 IKScannerDevicePanel.ImageCount 5036
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.

**93.37 IKScannerDevicePanel.GetMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetMode" )

**Result** Returns text or error.

**Description**

Can be Simple or Advanced.

**See also**

- 93.32 IKScannerDevicePanel.Close 5023
- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.



## 93.38 IKScannerDevicePanel.GetOverviewControlLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetOverviewControlLabel" )

**Result** Returns text or error.

### Description

Returns empty text if you never set it.

### See also

- [93.39 IKScannerDevicePanel.GetScanControlLabel](#) 5030
- [93.54 IKScannerDevicePanel.SetOverviewControlLabel](#) 5046
- [93.55 IKScannerDevicePanel.SetScanControlLabel](#) 5047

### 93.38.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 19th November 2016, last changed 19th November 2016.

## 93.39 IKScannerDevicePanel.GetScanControlLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetScanControlLabel" )

**Result** Returns text or error.

### Description

Returns empty text if you never set it.

### See also

- [93.38 IKScannerDevicePanel.GetOverviewControlLabel](#) 5029
- [93.40 IKScannerDevicePanel.GetScannerDeviceID](#) 5031
- [93.54 IKScannerDevicePanel.SetOverviewControlLabel](#) 5046
- [93.55 IKScannerDevicePanel.SetScanControlLabel](#) 5047
- [93.56 IKScannerDevicePanel.SetScannerDeviceID](#) 5048

### 93.39.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 19th November 2016, last changed 19th November 2016.

## 93.40 IKScannerDevicePanel.GetScannerDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetScannerDeviceID" )

**Result** Returns text or error.

### Description

#### See also

- 93.39 IKScannerDevicePanel.GetScanControlLabel 5030
- 93.41 IKScannerDevicePanel.GetScannerDeviceName 5032
- 93.55 IKScannerDevicePanel.SetScanControlLabel 5047
- 93.56 IKScannerDevicePanel.SetScannerDeviceID 5048
- 93.57 IKScannerDevicePanel.SetScannerDeviceName 5049

Created 7th November 2016, last changed 7th November 2016.

## 93.41 IKScannerDevicePanel.GetScannerDeviceName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetScannerDeviceName" )

**Result** Returns text or error.

### Description

### See also

- 93.40 IKScannerDevicePanel.GetScannerDeviceID 5031
- 93.56 IKScannerDevicePanel.SetScannerDeviceID 5048
- 93.57 IKScannerDevicePanel.SetScannerDeviceName 5049

Created 7th November 2016, last changed 7th November 2016.

**93.42 IKScannerDevicePanel.GetWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetWidth" )

**Result** Returns width.

**Description**

See also IKScannerDevicePanel.SetWidth, IKScannerDevicePanel.SetHeight and IKScannerDevicePanel.GetHeight.

**See also**

- 93.36 IKScannerDevicePanel.GetHeight 5027
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.

## 93.43 IKScannerDevicePanel.GetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.GetWindowTitle" )

**Result** Returns text.

### Description

### See also

- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053

Created 7th November 2016, last changed 7th November 2016.

**93.44 IKScannerDevicePanel.Hide**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.Hide" )

**Result** Returns OK or error.

**Description****Examples**

Hide window:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.Hide" ) ]
```

**See also**

- 93.32 IKScannerDevicePanel.Close 5023
- 93.36 IKScannerDevicePanel.GetHeight 5027
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.

## 93.45 IKScannerDevicePanel.ImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.ImageCount" )

**Result** Returns number or error.

### Description

Either you use the trigger and process each image there or you can call later `IKScannerDevicePanel.ImageCount` and `IKScannerDevicePanel.NextImage` to get the images.

### See also

- 93.33 `IKScannerDevicePanel.GetCombine` 5024
- 93.36 `IKScannerDevicePanel.GetHeight` 5027
- 93.46 `IKScannerDevicePanel.NextImage` 5037
- 93.49 `IKScannerDevicePanel.SetCombine` 5041
- 93.52 `IKScannerDevicePanel.SetHeight` 5044
- 93.58 `IKScannerDevicePanel.SetTrigger` 5050

Created 7th November 2016, last changed 7th November 2016.



## 93.46 IKScannerDevicePanel.NextImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.NextImage" )

**Result** Returns path or error.

### Description

Either you use the trigger and process each image there or you can call later `IKScannerDevicePanel.ImageCount` and `IKScannerDevicePanel.NextImage` to get the images.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

### See also

- 93.36 `IKScannerDevicePanel.GetHeight` 5027
- 93.37 `IKScannerDevicePanel.GetMode` 5028
- 93.42 `IKScannerDevicePanel.GetWidth` 5033
- 93.45 `IKScannerDevicePanel.ImageCount` 5036
- 93.49 `IKScannerDevicePanel.SetCombine` 5041
- 93.52 `IKScannerDevicePanel.SetHeight` 5044
- 93.53 `IKScannerDevicePanel.SetMode` 5045
- 93.58 `IKScannerDevicePanel.SetTrigger` 5050
- 93.59 `IKScannerDevicePanel.SetWidth` 5052
- 93.62 `IKScannerDevicePanel.Visible` 5056

Created 7th November 2016, last changed 7th November 2016.

## 93.47 IKScannerDevicePanel.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.Reset" )

**Result** Returns OK or error.

### Description

### See also

- [93.32 IKScannerDevicePanel.Close](#) 5023
- [93.36 IKScannerDevicePanel.GetHeight](#) 5027
- [93.37 IKScannerDevicePanel.GetMode](#) 5028
- [93.42 IKScannerDevicePanel.GetWidth](#) 5033
- [93.44 IKScannerDevicePanel.Hide](#) 5035
- [93.52 IKScannerDevicePanel.SetHeight](#) 5044
- [93.53 IKScannerDevicePanel.SetMode](#) 5045
- [93.59 IKScannerDevicePanel.SetWidth](#) 5052
- [93.61 IKScannerDevicePanel.Show](#) 5054
- [93.62 IKScannerDevicePanel.Visible](#) 5056

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.48 IKScannerDevicePanel.SetCloseTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.1	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetCloseTrigger"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

#### Parameter

Optional

The optional script parameter.

**Result** Returns OK or error.

### Description

This script will be called whenever the panel closes.

Either by code or by user clicking close button.

If the normal trigger run and you delayed work on the files, you can process them now.

### Examples

Set close trigger script:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetCloseTrigger"; Get(FileName); "Scanner Dialog Close Trigger" ) ]
```

Clear close trigger script:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetCloseTrigger"; ""; "" ) ]
```

### See also

- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053

### 93.48.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr5](#)

Created 24th February 2018, last changed 26th February 2018.

**93.49 IKScannerDevicePanel.SetCombine**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetCombine"; Flag )

**Parameters****Flag**

The new setting. 1 to combine. 0 to not combine.

1

**Result** Returns OK or error.

**Description**

This is a checkbox in the advanced options and defines whether for PDF output all pages are merged into one file.

**See also**

- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 93.50 IKScannerDevicePanel.SetDocumentName 5042
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.62 IKScannerDevicePanel.Visible 5056

Created 11st December 2016, last changed 19th December 2016.

## 93.50 IKScannerDevicePanel.SetDocumentName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetDocumentName"; Name )

### Parameters

#### Name

The file name to use. File extensions and numbers may be added.  
"Scan"

**Result** Returns OK or error.

### Description

Please set before the panel opens.

In 8.2 or newer, you can set it while panel is open, too.

### Examples

Set the file name:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetDocumentName"; "Scan" ) ]
```

### See also

- [93.34 IKScannerDevicePanel.GetDocumentName](#) 5025
- [93.49 IKScannerDevicePanel.SetCombine](#) 5041
- [93.61 IKScannerDevicePanel.Show](#) 5054

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

### 93.50.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 7th November 2016, last changed 15th May 2018.

## 93.51 IKScannerDevicePanel.SetDownloadsDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetDownloadsDirectory"; Path )

### Parameters

#### Path

The native path to the folder to store images.

**Result** Returns OK or error.

### Description

Please make sure you can write to this folder.  
We recommend a temporary folder.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Scan to desktop folder:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetDownloadsDirectory"; MBS("Folders.UserDesktop") ) ]
```

### See also

- [82.8 Folders.UserDesktop](#) 4235
- [93.35 IKScannerDevicePanel.GetDownloadsDirectory](#) 5026
- [93.61 IKScannerDevicePanel.Show](#) 5054
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.52 IKScannerDevicePanel.SetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetHeight"; Height )

### Parameters

#### Height

The desired height of the window.

400

**Result** Returns OK or error.

### Description

See also IKScannerDevicePanel.SetWidth, IKScannerDevicePanel.GetWidth and IKScannerDevicePanel.GetHeight.

### See also

- 93.36 IKScannerDevicePanel.GetHeight 5027
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.45 IKScannerDevicePanel.ImageCount 5036
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.



**93.53 IKScannerDevicePanel.SetMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetMode"; Mode )

**Parameters****Mode**

The new mode.

"Advanced"

**Result** Returns OK or error.

**Description**

Can be Simple or Advanced.

**See also**

- 93.32 IKScannerDevicePanel.Close 5023
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.

## 93.54 IKScannerDevicePanel.SetOverviewControlLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetOverviewControlLabel"; Label )

### Parameters

#### Label

The new label text.

"Übersicht"

**Result** Returns OK or error.

### Description

If empty or never set, we use the default, which is localized.

### See also

- [93.38 IKScannerDevicePanel.GetOverviewControlLabel](#) 5029
- [93.39 IKScannerDevicePanel.GetScanControlLabel](#) 5030
- [93.55 IKScannerDevicePanel.SetScanControlLabel](#) 5047

### 93.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 19th November 2016, last changed 19th November 2016.

## 93.55 IKScannerDevicePanel.SetScanControlLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetScanControlLabel"; Label )

### Parameters

#### Label

The new label text.

"Scannen"

**Result** Returns OK or error.

### Description

If empty or never set, we use the default, which is localized.

#### See also

- 93.38 IKScannerDevicePanel.GetOverviewControlLabel 5029
- 93.39 IKScannerDevicePanel.GetScanControlLabel 5030
- 93.40 IKScannerDevicePanel.GetScannerDeviceID 5031
- 93.54 IKScannerDevicePanel.SetOverviewControlLabel 5046
- 93.56 IKScannerDevicePanel.SetScannerDeviceID 5048

### 93.55.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

Created 19th November 2016, last changed 19th November 2016.

## 93.56 IKScannerDevicePanel.SetScannerDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetScannerDeviceID"; ID )

### Parameters

#### ID

Pass identifier for the scanner you want to use.  
"61B0A8E1-61B0-A8E1-61B0-A8E161B0A8E1"

**Result** Returns OK or error.

### Description

#### Examples

Select scanner by ID:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetScannerDeviceID"; "61B0A8E1-61B0-A8E1-61B0-A8E161B0A8E1" ) ]
```

Select scanner by name:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetScannerDeviceName"; "Brother DCP-8085DN" ) ]
```

### See also

- 93.39 IKScannerDevicePanel.GetScanControlLabel 5030
- 93.40 IKScannerDevicePanel.GetScannerDeviceID 5031
- 93.41 IKScannerDevicePanel.GetScannerDeviceName 5032
- 93.55 IKScannerDevicePanel.SetScanControlLabel 5047
- 93.57 IKScannerDevicePanel.SetScannerDeviceName 5049

Created 7th November 2016, last changed 7th November 2016.

## 93.57 IKScannerDevicePanel.SetScannerDeviceName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetScannerDeviceName"; Name )

### Parameters

#### Name

The name of the scanner to use.

"Brother DCP-8085DN"

**Result** Returns OK or error.

### Description

#### Examples

Select scanner by name:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetScannerDeviceName"; "Brother DCP-8085DN" ) ]
```

Select scanner by ID:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetScannerDeviceID"; "61B0A8E1-61B0-A8E1-61B0-A8E161B0A8E1" ) ]
```

### See also

- [93.40 IKScannerDevicePanel.GetScannerDeviceID](#) 5031
- [93.41 IKScannerDevicePanel.GetScannerDeviceName](#) 5032
- [93.56 IKScannerDevicePanel.SetScannerDeviceID](#) 5048
- [93.61 IKScannerDevicePanel.Show](#) 5054

### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.58 IKScannerDevicePanel.SetTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

You get a call for each picture as user may import several.

The parameter to your script is the native file path to the image file.

If scan is to PDF and we use document feeder, be aware that you may get a trigger with same file path again if a new page is added.

Either you use the trigger and process each image there or you can call later IKScannerDevicePanel.ImageCount and IKScannerDevicePanel.NextImage to get the images.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Set trigger script:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetTrigger"; Get(FileName); "Scanner Dialog Trigger" ) ]
```

Import image in triggered script:

```
Set Variable [ $Path; Value:Get(ScriptParameter) ]
Set Variable [ $Image; Value:MBS("Container.ReadFile"; $path) ]
If [ MBS("ISError") = 0 ]
New Record/Request
Set Field [ ImageCapture Dialogs::Image; $Image ]
Commit Records/Requests [ No dialog ]
End If
```

Clear trigger script:

93.58. *IKSCANNERDEVICEPANEL.SETTRIGGER* 5051  
Set Variable [ \$r; Value:MBS( "IKScannerDevicePanel.SetTrigger"; ""; "" ) ]

#### See also

- 56.28 Container.ReadFile 1681
- 93.36 IKScannerDevicePanel.GetHeight 5027
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.45 IKScannerDevicePanel.ImageCount 5036
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

#### Example Databases

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 22nd December 2019.

## 93.59 IKScannerDevicePanel.SetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetWidth"; Width )

### Parameters

#### Width

The new desired width.

600

**Result** Returns OK or error.

### Description

See also IKScannerDevicePanel.SetHeight, IKScannerDevicePanel.GetWidth and IKScannerDevicePanel.GetHeight.

### See also

- 93.36 IKScannerDevicePanel.GetHeight 5027
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.61 IKScannerDevicePanel.Show 5054
- 93.62 IKScannerDevicePanel.Visible 5056

Created 7th November 2016, last changed 7th November 2016.



**93.60 IKScannerDevicePanel.SetWindowTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.SetWindowTitle"; text )

**Parameters****text**

The new text.  
"Your Choice"

**Result** Returns OK or error.

**Description****Examples**

Set window title:

Set Variable [ \$r; Value:MBS( "IKScannerDevicePanel.SetWindowTitle"; "Scanner" ) ]

**See also**

- 93.33 IKScannerDevicePanel.GetCombine 5024
- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.43 IKScannerDevicePanel.GetWindowTitle 5034
- 93.48 IKScannerDevicePanel.SetCloseTrigger 5039
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054

**Example Databases**

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

## 93.61 IKScannerDevicePanel.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.Show" )

**Result** Returns OK or error.

### Description

This is not a dialog, so please have the script end with this command as the window will stay open while other script steps run.

Before calling this function, make sure you called ImageCapture.Initialize once, best in your start script.

### Examples

Show scan window:

```
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.Reset" ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetWindowTitle"; "Scanner" ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetDocumentName"; "Scan" ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetDownloadsDirectory"; MBS("Folders.UserDesktop") ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetScannerDeviceName"; ImageCapture Dialogs::ScannerName ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.SetTrigger"; Get(FileName); "Scanner Dialog Trigger" ) ]
Set Variable [ $r; Value:MBS( "IKScannerDevicePanel.Show" ) ]
```

### See also

- 82.8 Folders.UserDesktop 4235
- 93.32 IKScannerDevicePanel.Close 5023
- 93.37 IKScannerDevicePanel.GetMode 5028
- 93.44 IKScannerDevicePanel.Hide 5035
- 93.50 IKScannerDevicePanel.SetDocumentName 5042
- 93.51 IKScannerDevicePanel.SetDownloadsDirectory 5043
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.60 IKScannerDevicePanel.SetWindowTitle 5053
- 93.62 IKScannerDevicePanel.Visible 5056
- 93.76 ImageCapture.Initialize 5075

**Example Databases**

- [Mac only/ImageCapture/ImageCapture Dialogs](#)

Created 7th November 2016, last changed 7th November 2016.

**93.62 IKScannerDevicePanel.Visible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.5	Yes	No	No	No	No

MBS( "IKScannerDevicePanel.Visible" )

**Result** Returns 0, 1 or error.

**Description**

Returns 1 if visible or 0 if hidden.

**See also**

- 93.42 IKScannerDevicePanel.GetWidth 5033
- 93.44 IKScannerDevicePanel.Hide 5035
- 93.46 IKScannerDevicePanel.NextImage 5037
- 93.47 IKScannerDevicePanel.Reset 5038
- 93.49 IKScannerDevicePanel.SetCombine 5041
- 93.52 IKScannerDevicePanel.SetHeight 5044
- 93.53 IKScannerDevicePanel.SetMode 5045
- 93.58 IKScannerDevicePanel.SetTrigger 5050
- 93.59 IKScannerDevicePanel.SetWidth 5052
- 93.61 IKScannerDevicePanel.Show 5054

Created 7th November 2016, last changed 7th November 2016.

## 93.63 ImageCapture.CameraInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.CameraInfo"; Selector )

### Parameters

#### Selector

Which value to query.

"name"

**Result** Returns OK or error.

### Description

Selector	Description
tetheredCaptureEnabled	This property is set to 1 when tethered capture is enabled on the device. Use ImageCapture.RequestEnableTethering and ImageCapture.RequestDisableTethering to enable or disable tethered capture on the device.
batteryLevelAvailable	Indicates if the device has reported battery charge level.
batteryLevel	Indicates the battery charge level. Its value ranges from 0 to 100.
contentCatalogPercentCompleted	Indicates the percentage of content cataloging completed on the device. Its value ranges from 0 to 100.
timeOffset	Indicates the time offset, in seconds, between the camera's clock and the computer's clock. This value is positive if the camera's clock is ahead of the computer's clock. This property should be ignored if the camera's capabilities property does not contain ICCameraDeviceCanSyncClock.
isAccessRestrictedAppleDevice	Set to 1 if the device is made by Apple and is pass-coded locked and connected to an untrusted host.
mountPoint	Filesystem mount point for a device with transportType of ICTransportType-MassStorage. This will be "" for all other devices.

### See also

- [93.66 ImageCapture.DeviceInfo](#) 5061
- [93.83 ImageCapture.RequestDisableTethering](#) 5083
- [93.84 ImageCapture.RequestEnableTethering](#) 5084

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.63.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

- [Import images from cameras on MacOS with FileMaker](#)

Created 4th June 2018, last changed 4th June 2018.

## 93.64 ImageCapture.CloseDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.CloseDevice" { ; Wait } )

### Parameters

#### Wait

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

### Description

Added 20 seconds timeout for version 8.5.

### Examples

Closes device:

Set Variable [ \$r; Value:MBS("ImageCapture.CloseDevice") ]

### See also

- [93.79 ImageCapture.OpenDevice](#)

5078

### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

### 93.64.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)
- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 11st September 2016, last changed 14th November 2018.

## 93.65 ImageCapture.Contents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.Contents" )

**Result** Returns JSON or error.

### Description

The structure of the elements in this JSON array will reflect the folder structure of the storage reported by the camera. Each item in this array will correspond to a storage on the camera.

The plugin provides all details as a big JSON block for your analyzes.

### See also

- [93.70 ImageCapture.Features](#)

5067

### 93.65.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.



## 93.66 ImageCapture.DeviceInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.DeviceInfo"; Device; Selector { ; ImageType; Filename } )

### Parameters

#### Device

The device ID. Can be zero based index in device list. Or UUID, Name or persistent ID string.  
0

#### Selector

Which value to query.  
"name"

#### ImageType

Optional  
The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.  
"JPEG"

#### Filename

Optional  
The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

Result Returns OK or error.

### Description

Selector	Description	Example
availableFunctionListType	The available function list types for the device. This can include FileList, DocumentFolder, NetworkImageSource or PhotoImageSource.	"FunctionListAvailable"
name	Name of the device as reported by the device module or by the device transport when a device module is not in control of the device. This name may change if the device module overrides the default name of the device reported by the device's transport, or if the name of the filesystem volume mounted by the device is changed by the user.	"Device DCP-9082DN"
type	The type of the device. Can be 0 or 1.	"Scanner"
iconPath	Filesystem path of the device module that is associated with this device.	"10"
moduleVersion	The module version of the device module associated with this device.	1
remote	Indicates whether the device is a remote device published by Image Capture device sharing facility. Can be 1 or 0.	0
shared	Indicates whether the device is shared using the Image Capture device sharing facility. Can be 1 or 0.	0
serialNumberWiFiInterface	Indicates whether the device can be configured for use on a WiFi network.	"USB"
transportType	The transport type used by the device. Can be USB, Bluetooth, TCP/IP, MacOsShare.	"12345"
serialNumber	The serial number of the device. This will be NULL if the device does not provide a serial number.	"Test Scanner"
hardwareDescription	A non-technical hardware description string for the device.	"01BAAE1-641BA-AE13-612BD-AE13E8BAE1"
persistentIDString	A string representation of the persistent ID of the device.	"01BAAE1-641BA-AE13-612BD-AE13E8BAE1"
UUIDString	A non-technical location description string for the device.	"01BAAE1-641BA-AE13-612BD-AE13E8BAE1"
isOpenSystem	Indicates whether the device has an open system. Can be 1 or 0.	0
moduleLocationID	Filesystem location ID of the device module as reported by the device.	
locationID	The USB location ID of a USB device in the IOKit registry. This will be 0 for non-USB devices.	
productID	The USB product ID of a USB device in the IOKit registry. This will be 0 for non-USB devices.	
vendorID	The USB vendor ID of a USB device in the IOKit registry. This will be 0 for non-USB devices.	
productId	The iokitVendorID of a FireWire device in the IOKit registry. This will be 0 for non-FireWire devices.	
serialNumber	A string object with name of the ICH3Controller* value defined above.	
serialNumberPath	Filesystem path of an application that is to be automatically launched when this device is added.	
capabilities	The capabilities of the device as reported by the device module.	

Added with plugin version 7.0: `bonjourServiceName`, `bonjourServiceType`, `iconPath`, `ipAddress` and `productKind`.

### Examples

Query remote status for first device:

```
MBS("ImageCapture.DeviceInfo"; 0; "remote")
```

Query shared status for first device:

```
MBS("ImageCapture.DeviceInfo"; 0; "shared")
```

Query serial number for first device:

```
MBS("ImageCapture.DeviceInfo"; 0; "serialNumberString")
```

Query location description for a device:

```
MBS("ImageCapture.DeviceInfo"; "61B0A8E1-61B0-A8E1-61B0-A8E161B0A8E1"; "locationDescription")
```

Query capabilities for a device:

```
MBS("ImageCapture.DeviceInfo"; "61B0A8E1-61B0-A8E1-61B0-A8E161B0A8E1"; "capabilities")
```

### See also

- [93.63 ImageCapture.CameraInfo](#) 5057
- [93.67 ImageCapture.Devices](#) 5063
- [93.68 ImageCapture.DevicesJSON](#) 5065
- [93.79 ImageCapture.OpenDevice](#) 5078
- [93.81 ImageCapture.PreferredDevice](#) 5081

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)
- [Mac only/ImageCapture/ImageCapture](#)

Created 11st September 2016, last changed 6th June 2018.

## 93.67 ImageCapture.Devices

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.Devices" { ; Filter } )

### Parameters

#### Filter

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

You can filter devices by passing criteria here. The filter string can contain camera, scanner, local, remote, Bonjour, bluetooth or shared to only show those devices.

"Camera, local"

**Result** Returns UUIDs or error.

### Description

Returns a list of UUIDs for devices.

Please pass the UUIDs to the ImageCapture.DeviceInfo function to query details.

Before calling this function, make sure you called ImageCapture.Initialize once, best in your start script.

Version 10.0 or later filters duplicates away.

### Examples

List devices:

```
Set Variable [ $Devices; Value:MBS("ImageCapture.Devices") ]
# loop over entries
Set Variable [ $Count; Value:ValueCount($Devices) ]
If [ $Count >0 ]
Set Variable [ $Index; Value:1 ]
Loop
# Check Device
Set Variable [ $ID; Value:GetValue($Devices; $index) ]
New Record/Request
Set Field [ Devices::Name; MBS("ImageCapture.DeviceInfo"; $ID; "name") ]
Set Field [ Devices::ID; $ID ]
Set Field [ Devices::Remote; Let ( [ r = MBS("ImageCapture.DeviceInfo"; $ID; "remote") ] ; If(r = 1; "yes"; "no") ) ]
Set Field [ Devices::Shared; Let ( [ r = MBS("ImageCapture.DeviceInfo"; $ID; "shared") ] ; If(r = 1; "yes"; "no") ) ]
Set Field [ Devices::transportType; MBS("ImageCapture.DeviceInfo"; $ID; "transportType") ]
Set Field [ Devices::serialNumberString; MBS("ImageCapture.DeviceInfo"; $ID; "serialNumberString") ]
Set Field [ Devices::locationDescription; MBS("ImageCapture.DeviceInfo"; $ID; "locationDescription") ]
Set Field [ Devices::persistentIDString; MBS("ImageCapture.DeviceInfo"; $ID; "persistentIDString") ]
```

```
Set Field [ Devices::icon; MBS("ImageCapture.DeviceInfo"; $ID; "icon") ]
Set Field [ Devices::capabilities; MBS("ImageCapture.DeviceInfo"; $ID; "capabilities") ]
Commit Records/Requests [ No dialog ]
# next
Set Variable [ $Index; Value:$index + 1 ]
Exit Loop If [ $index >$Count ]
End Loop
End If
```

**See also**

- [93.66 ImageCapture.DeviceInfo](#) 5061
- [93.68 ImageCapture.DevicesJSON](#) 5065
- [93.70 ImageCapture.Features](#) 5067
- [93.76 ImageCapture.Initialize](#) 5075
- [93.79 ImageCapture.OpenDevice](#) 5078

**Example Databases**

- [Mac only/ImageCapture/Camera Import](#)
- [Mac only/ImageCapture/ImageCapture](#)

**93.67.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 11st September 2016, last changed 10th January 2020.

## 93.68 ImageCapture.DevicesJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.DevicesJSON" { ; Filter } )

### Parameters

#### Filter

Optional

You can filter devices by passing criteria here. The filter string can contain camera, scanner, local, remote, bonjour, bluetooth or shared to only show those devices.

"Camera, local"

**Result** Returns JSON or error.

### Description

The JSON includes names & IDs of the devices.

Please pass the index or UUIDs to the ImageCapture.DeviceInfo function to query details.

Keys include UUIDString, Name, persistentIDString, serialNumberString, locationDescription, index, remote and shared.

### Examples

Check devices:

MBS( "ImageCapture.DevicesJSON" )

### See also

- [93.66 ImageCapture.DeviceInfo](#) 5061
- [93.67 ImageCapture.Devices](#) 5063

### 93.68.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr4](#)
- [MBS FileMaker Plugin, version 8.3pr5](#)

Created 26th June 2018, last changed 26th June 2018.

## 93.69 ImageCapture.Download

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.Download"; FileName { ; Folder; DeleteAfterDownload } )

### Parameters

#### FileName

The file name of the media file to download.

"IMG1234.JPG"

#### Folder

Optional

Path of destination folder. If empty, we use temporary folder.

"/Users/cs/Download"

#### DeleteAfterDownload

Optional

Pass 1 to delete file on device after successful download.

0

**Result** Returns file path or error.

### Description

On success returns native file path of downloaded file.

You can import file e.g. with Files.ReadFile.

You can use ImageCapture.MediaFileNames to learn list of file names.

### See also

- [79.45 Files.ReadFile](#) 3898
- [93.77 ImageCapture.MediaFileNames](#) 5076

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.69.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Import images from cameras on MacOS with FileMaker](#)

Created 4th June 2018, last changed 1st August 2019.

## 93.70 ImageCapture.Features

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.Features" )

**Result** Returns list or error.

### Description

### See also

- [93.65 ImageCapture.Contents](#) 5060
- [93.67 ImageCapture.Devices](#) 5063
- [93.72 ImageCapture.GetFeatures](#) 5069
- [93.78 ImageCapture.MediaFiles](#) 5077

### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

Created 11st September 2016, last changed 11st September 2016.

## 93.71 ImageCapture.GetFeatureValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.GetFeatureValue"; FeatureName; Selector )

### Parameters

#### FeatureName

The name of the feature.

\$name

#### Selector

What value to query.

"value"

**Result** Returns value or error.

### Description

Selector	Description	Value
type	The type of feature. Can be Enumeration, Range, Boolean or Template.	„Boolean“
internalName	The internal name of this feature.	
humanReadableName	The human readable name of this feature.	
tooltip	Tooltip text describing the feature.	
value	The value of this feature. (boolean values)	
currentValue	The current value. Attempting to set the current value to a value that is not coincident with a step will result in a value corresponding to the nearest step being assigned to the current value.	
defaultValue	The default value. Attempting to set the default value to a value that is not coincident with a step will result in a value corresponding to the nearest step being assigned to the default value.	
minValue	The minimum value.	0
maxValue	The maximum value.	100
stepSize	The step size.	5
menuItemLabels	The human readable menu item labels to be used in a menu to allow the user to select the current value from an array of possible values. (enumeration)	
menuItemLabelsFootips	Tooltip text associated with the menu items. (enumeration)	
values	An array of possible values. All items in this array must be of same type. (enumeration)	

### See also

- [93.72 ImageCapture.GetFeatures](#) 5069
- [93.90 ImageCapture.SetFeatureValue](#) 5093

Created 11st September 2016, last changed 4th June 2018.



## 93.72 ImageCapture.GetFeatures

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.GetFeatures" )

**Result** Returns JSON or error.

### Description

#### See also

- [93.70 ImageCapture.Features](#) 5067
- [93.71 ImageCapture.GetFeatureValue](#) 5068
- [93.73 ImageCapture.GetParameter](#) 5070
- [93.74 ImageCapture.GetParameters](#) 5073
- [93.90 ImageCapture.SetFeatureValue](#) 5093

### 93.72.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 17th June 2018, last changed 17th June 2018.

# 93.73 ImageCapture.GetParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.GetParameter"; Selector )

## Parameters

### Selector

Which value to query.

"name"

Result Returns OK or error.

## Description

<code>acceptThreshold@BlackAndWhiteScanning</code>	<b>Description</b> Indicates if this functional unit accepts threshold value to be used when performing a scan in black & white.	<b>Example</b> "Flatbed@DocumentFeeder"
<code>availableFunctionalUnitType</code>	The bit depth to use when performing the final scan. This can include Flatbed, DocumentFeeder, NegativeTransparency or PositiveTransparency.	0
<code>bitDepth</code>	The bit depth to use when performing the final scan. This will always be one of the supported bit depths.	8
<code>canUseAutoCropScan</code>	Indicates if this functional unit can perform an overview scan, but all functional units can perform an overview scan. For example, a document feeder or a sheet feeder unit cannot perform an overview scan.	127
<code>defaultThreshold@BlackAndWhiteScanning</code>	Default threshold value used when performing a scan in black & white. This value is from 0 to 255.	1
<code>documentHeight</code>	The document height.	1
<code>documentLoaded</code>	Indicates whether the feeder has documents to scan. This value will change when the document is loaded or removed from the feeder, if the scanner module has the capability to detect this state.	"Scan"
<code>documentName</code>	The document name.	"41"
<code>documentSize</code>	Document size of the current document type expressed in current measurement unit.	"JPEG"
<code>documentType</code>	Current document type.	"/Users/ny/Desktop"
<code>documentURI</code>	The document URI. Can be JPEG, JPEG2000, TIFF or PNG.	1
<code>documentWidth</code>	The document width.	"Inches"
<code>downloadDirectory</code>	The download directory.	
<code>duplexScanningEnabled</code>	Indicates whether duplex scanning is enabled.	
<code>evenPageOrientation</code>	Default orientation of the even pages of the scanned document.	
<code>maxMemory@ScanSize</code>	The total maximum (hard- and soft-) memory required when performing a memory-based transfer.	
<code>measurementUnit</code>	Current measurement unit. Can be Inches, Centimeters, Picas, Points, Twips or Pixels.	
<code>scanXResolution</code>	Optical resolution along the X axis.	
<code>scanYResolution</code>	Optical resolution along the Y axis.	
<code>oddPageOrientation</code>	Default orientation of the odd pages of the scanned document.	
<code>overviewImage</code>	Overview scan image. This property will be empty for functional units that do not support overview scans.	
<code>overviewResolution</code>	Overview image resolution. Value returned to this will be contained by resolution allowed by the device.	
<code>overviewScannedProgress</code>	Indicates if an overview scan is in progress.	1
<code>physicalHeight</code>	Physical height of the scan area in current measurement unit.	
<code>physicalSize</code>	Physical size of the scan area in current measurement unit.	
<code>physicalWidth</code>	Physical width of the scan area in current measurement unit.	
<code>preferredDataTypes</code>	The preferred data type. Can be BW, Gray, RGB, Palette, CMY, CMYK, YUV, YUVK or CMYKZ.	
<code>preferredResolution</code>	Preferred scan resolution in DPI.	"100"
<code>preferredScaleFactor</code>	Preferred scale factor in percentage.	100
<code>rotation</code>	Indicates whether the document feeder made pages from back to front.	100
<code>scanAreaFactor</code>	Current scan resolution. This will always be one of the supported resolution values.	100
<code>scanAreaOrientation</code>	Current scan factor. This will always be one of the supported scale factor values.	100
<code>scanAreaWidth</code>	The area to scan. This property along with scanAreaOrientation describe the area to be scanned.	1
<code>scanAreaXResolution</code>	Default orientation of the scan area. This property along with scanArea describe the area to be scanned. 1 for Normal, 2 Flipped horizontally, 3 Rotated 180°, 4 Flipped vertically, 5 Rotated 90° CCW and flipped vertically, 6 Rotated 90° CCW, 7 Rotated 90° CW and flipped vertically, 8 Rotated 90° CW.	1
<code>scanAreaYResolution</code>	Default orientation of the scan area. This property along with scanArea describe the area to be scanned. 1 for Normal, 2 Flipped horizontally, 3 Rotated 180°, 4 Flipped vertically, 5 Rotated 90° CCW and flipped vertically, 6 Rotated 90° CCW, 7 Rotated 90° CW and flipped vertically, 8 Rotated 90° CW.	0.5
<code>scanProgress@PercentDone</code>	Indicates percentage of scan completed.	2
<code>scanProgress@PercentDone</code>	Indicates the current state of the functional unit. 1 for Ready, Add 2 for Scan In Progress, Add 4 for Overview Scan in Progress	"180"
<code>scanProgress@PercentDone</code>	Indicates the current state of the functional unit. 1 for Ready, Add 2 for Scan In Progress, Add 4 for Overview Scan in Progress	"100000000"
<code>supportedBitDepths</code>	Supported bit depths. Can include 1, 8 or 16.	"100"
<code>supportedDocumentTypes</code>	Supported document types.	"100"
<code>supportedMeasurementUnits</code>	Supported measurement units. Can be Inches, Centimeters, Picas, Points, Twips or Pixels.	"100"
<code>supportedResolutions</code>	Supported scan resolution in DPI.	127
<code>supportedScaleFactors</code>	Supported scale factors in percentage.	127
<code>supportedScanning</code>	Indicates whether duplex scanning is supported.	"100"
<code>threshold@BlackAndWhiteScanning</code>	Threshold value to be used when performing a scan in black & white. This value should be from 0 to 255.	1
<code>transferMode</code>	The transfer mode for scanned document. Can be File or Memory, but Plugins only supports File.	1
<code>useThreshold@BlackAndWhiteScanning</code>	Indicates if this functional unit use threshold value to be used when performing a scan in black & white.	1

## Examples

Query available functional unit types:

MBS("ImageCapture.GetParameter"; "availableFunctionalUnitTypes")

Example result: Flatbed

DocumentFeeder

Query supported resolutions:

Set Variable [ \$supportedResolutions; Value:MBS("ImageCapture.GetParameter"; "supportedResolutions") ]

Example result: 100

150

200

300

400

600

Query supported document types:

MBS("ImageCapture.GetParameter"; "supportedDocumentTypes")

Example result: A4

B5

USLetter

USLegal

A5

USExecutive

Query supported bit depths:

MBS("ImageCapture.GetParameter"; "supportedBitDepths")

Example result: 1

8

Set scan area to physical size:

Set Variable [ \$physicalWidth; Value:MBS("ImageCapture.GetParameter"; "physicalWidth") ]

Set Variable [ \$physicalHeight; Value:MBS("ImageCapture.GetParameter"; "physicalHeight") ]

Set Variable [ \$r; Value:MBS("ImageCapture.SetParameter"; "scanArea"; 0; 0; \$physicalWidth; \$physical-Height) ]

Query folder path for image files:

MBS( "ImageCapture.GetParameter"; "downloadsDirectory" )

Example result: "/Users/cs/Pictures"

#### See also

- [93.72 ImageCapture.GetFeatures](#) 5069
- [93.74 ImageCapture.GetParameters](#) 5073
- [93.86 ImageCapture.RequestScan](#) 5086
- [93.87 ImageCapture.RequestSelectFunctionalUnit](#) 5089
- [93.91 ImageCapture.SetParameter](#) 5094

#### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

#### 93.73.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [Scanning Options](#)

- [ImageCapture functions for Mac OS X](#)

Created 11st September 2016, last changed 13th December 2019.

## 93.74 ImageCapture.GetParameters

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.GetParameters" )

**Result** Returns JSON or error.

### Description

#### See also

- [93.72 ImageCapture.GetFeatures](#) 5069
- [93.73 ImageCapture.GetParameter](#) 5070
- [93.91 ImageCapture.SetParameter](#) 5094

### 93.74.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 17th June 2018, last changed 17th June 2018.

## 93.75 ImageCapture.ImagePaths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.ImagePaths" )

**Result** Returns list or error.

### Description

After you scanned, you can use this function to query list of image file paths.

File paths are returned as native file paths.

Please use Container.ReadFile to read file and Files.Delete to delete them if needed.

### Examples

Query images and import them:

```
Set Variable [ $Paths; Value:MBS("ImageCapture.ImagePaths") ]
Set Variable [ $Count; Value:ValueCount ( $Paths ) ]
Set Variable [ $Index; Value:1 ]
Loop
Set Variable [ $Path; Value:GetValue($Paths; $index) ]
New Record/Request
Set Field [ Images::Image; MBS("Container.ReadFile"; $path) ]
Set Variable [ $r; Value:MBS( "Files.Delete"; $Path ) ]
Commit Records/Requests [ No dialog ]
Set Variable [ $Index; Value:$index + 1 ]
Exit Loop If [ $index >$count ]
End Loop
```

### See also

- 56.28 Container.ReadFile 1681
- 79.14 Files.Delete 3846
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094

### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

### 93.75.1 Blog Entries

- [ImageCapture functions for Mac OS X](#)

Created 11st September 2016, last changed 11st September 2016.

## 93.76 ImageCapture.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.Initialize" )

**Result** Returns OK or error.

### Description

The plugin will now browse for devices and wait till at least till all local devices have been found. Network devices may be discovered a second later. So call this in your start script or first time user goes to scanning. Device count may change over time as devices are discovered or go away.

### Examples

Initialize:

```
Set Variable [ $r; Value:MBS("ImageCapture.Initialize") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Initialize"; $r ]
Exit Script [ ]
End If
```

### See also

- [93.29 IKDeviceBrowserPanel.Show](#) 5019
- [93.61 IKScannerDevicePanel.Show](#) 5054
- [93.67 ImageCapture.Devices](#) 5063
- [127.6 IsError](#) 6374

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)
- [Mac only/ImageCapture/ImageCapture Dialogs](#)
- [Mac only/ImageCapture/ImageCapture](#)

Created 11st September 2016, last changed 7th November 2016.

## 93.77 ImageCapture.MediaFileNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.MediaFileNames" )

**Result** Returns list or error.

### Description

All media filenames on the device as one big list.

### See also

- [93.69 ImageCapture.Download](#) 5066
- [93.78 ImageCapture.MediaFiles](#) 5077

### 93.77.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.



## 93.78 ImageCapture.MediaFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.MediaFiles" )

**Result** Returns JSON or error.

### Description

These files are returned as a single JSON array without regard to the folder hierarchy used to store these files on the camera.

The plugin provides all details as a big JSON block for your analyzes.

### See also

- [93.70 ImageCapture.Features](#) 5067
- [93.77 ImageCapture.MediaFileNames](#) 5076

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.78.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Import images from cameras on MacOS with FileMaker](#)

Created 4th June 2018, last changed 4th June 2018.

## 93.79 ImageCapture.OpenDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.OpenDevice"; Device { ; Wait } )

### Parameters

#### Device

The device ID. Can be zero based index in device list. Or UUID, Name or persitent ID string.

0

#### Wait

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

### Description

A client MUST open a session on a device in order to use the device.

If needed closes current device to open new device.

Added 20 seconds timeout for version 8.1.

With ImageCapture.DeviceInfo you can query hasOpenSession later to verify you have a session open.

### Examples

Open device:

```
Set Variable [ $r; Value:MBS("ImageCapture.OpenDevice"; Images::Device) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to open"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ ]
End If
```

### See also

- 93.64 ImageCapture.CloseDevice 5059
- 93.66 ImageCapture.DeviceInfo 5061
- 93.67 ImageCapture.Devices 5063
- 93.86 ImageCapture.RequestScan 5086
- 93.87 ImageCapture.RequestSelectFunctionalUnit 5089
- 127.6 IsError 6374

93.79. *IMAGECAPTURE.OPENDEVICE*

5079

- 167.57 `Text.RemovePrefix`

7982

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)
- [Mac only/ImageCapture/ImageCapture](#)

### 93.79.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr6](#)
- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr4](#)

Created 11st September 2016, last changed 4th February 2020.

## 93.80 ImageCapture.PDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	9.1	Yes	No	No	No	No

MBS( "ImageCapture.PDF" { ; FileName } )

### Parameters

#### FileName

Optional

The filename to use.

"scan.pdf"

**Result** Returns PDF container value or error.

### Description

We get the file path list and create a new PDF document, add all the images and than return the PDF. You can store it in a container field or export to a file (with Container.WriteFile).

### Examples

Get a PDF into a field:

```
Set Variable [ $pdf; MBS("ImageCapture.PDF") ]
If [ MBS("IsError") = ]
Set Field [ MyTable::MyPDF; $pdf ]
End If
```

### See also

- [56.35 Container.WriteFile](#) 1694
- [127.6 IsError](#) 6374

### 93.80.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)

Created 11st February 2019, last changed 19th September 2019.

## 93.81 ImageCapture.PreferredDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.PreferredDevice" )

**Result** Returns UUID or error.

### Description

You can pass the UUID to other functions to select device or query information.

### Examples

Show name of preferred device:

```
Set Variable [ $PreferredDevice; Value:MBS( "ImageCapture.PreferredDevice" ) ]
Set Variable [ $Name; Value:MBS( "ImageCapture.DeviceInfo"; $PreferredDevice; "name" ) ]
Show Custom Dialog [ "Preferred Device"; $name ]
```

### See also

- [93.66 ImageCapture.DeviceInfo](#)

5061

### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

Created 11st September 2016, last changed 11st September 2016.

## 93.82 ImageCapture.RequestDeleteFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.RequestDeleteFiles"; FileNames { ; Wait } )

### Parameters

#### FileNames

The list of filenames.

#### Wait

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

### Description

#### 93.82.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Import images from cameras on MacOS with FileMaker](#)

Created 4th June 2018, last changed 20th June 2018.

**93.83 ImageCapture.RequestDisableTethering**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.RequestDisableTethering" )

**Result** Returns OK or error.

**Description**

Send this message to disable tethered capture on the camera device if the camera has the ICCameraDevice-CanTakePicture capability and if your process has already sent a requestEnableTethering with ImageCapture.RequestEnableTethering function to it.

**See also**

- 93.63 ImageCapture.CameraInfo 5057
- 93.84 ImageCapture.RequestEnableTethering 5084

**93.83.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.

## 93.84 ImageCapture.RequestEnableTethering

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.RequestEnableTethering" )

**Result** Returns OK or error.

### Description

Send this message to enable tethered capture on the camera device if the camera has the ICCameraDevice-CanTakePicture capability.

### See also

- [93.63 ImageCapture.CameraInfo](#) 5057
- [93.83 ImageCapture.RequestDisableTethering](#) 5083
- [93.89 ImageCapture.RequestTakePicture](#) 5092

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.84.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.



## 93.85 ImageCapture.RequestOverviewScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.RequestOverviewScan" { ; Wait } )

### Parameters

#### Wait

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

### Description

If a progress dialog from our plugin is visible, the plugin will keep it updated with progress.

MBS Plugin 8.5 and newer observes progress and returns timeout error if scanner didn't do anything for 60 seconds.

### 93.85.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 11st September 2016, last changed 19th November 2018.

## 93.86 ImageCapture.RequestScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

```
MBS( "ImageCapture.RequestScan" { ; Wait } )
```

### Parameters

#### Wait

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

### Description

If a progress dialog from our plugin is visible, the plugin will keep it updated with progress.

Please use ImageCapture.SetParameter to configure scanner before requesting the scan, e.g. for duplex.

MBS Plugin 8.5 and newer observes progress and returns timeout error if scanner didn't do anything for 60 seconds.

Please call ImageCapture.OpenDevice to open device before requesting a scan.

### Examples

Scan images:

```
# set parameters
Set Variable [ $physicalWidth; Value:MBS("ImageCapture.GetParameter"; "physicalWidth") ]
Set Variable [ $physicalHeight; Value:MBS("ImageCapture.GetParameter"; "physicalHeight") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "scanArea"; 0; 0; $physicalWidth; $physical-
Height) ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentType"; "USLetter") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentName"; "Scan") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "resolution"; 300) ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "pixelDataType"; "RGB") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentUTI"; "jpeg") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "downloadsDirectory"; "temp") ]
Set Variable [ $p; Value:MBS( "ProgressDialog.Reset") ]
Set Variable [ $p; Value:MBS( "ProgressDialog.SetTitle"; "Scanning" ) ]
Set Variable [ $p; Value:MBS( "ProgressDialog.SetBottomText"; "" ) ]
Set Variable [ $p; Value:MBS( "ProgressDialog.SetTopText"; "Scan from Flatbet scanner." ) ]
Set Variable [ $p; Value:MBS( "ProgressDialog.SetButtonCaption"; "Cancel" ) ]
Set Variable [ $p; Value:MBS( "ProgressDialog.SetProgress"; -1 ) ]
```

```

Set Variable [ $p; Value:MBS( "ProgressDialog.Show" ) ]
Set Variable [ $r; Value:MBS("ImageCapture.requestScan" ) ]
Set Variable [ $p; Value:MBS( "ProgressDialog.Hide" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed start scan"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ ]
End If
Set Variable [ $Paths; Value:MBS("ImageCapture.ImagePaths" ) ]
Set Variable [ $Count; Value:ValueCount ( $Paths ) ]
Set Variable [ $Index; Value:1 ]
Loop
Set Variable [ $Path; Value:GetValue($Paths; $index) ]
New Record/Request
Set Field [ Images::Image; MBS("Container.ReadFile"; $path) ]
Set Variable [ $r; Value:MBS( "Files.Delete"; $Path ) ]
Commit Records/Requests [ No dialog ]
Set Variable [ $Index; Value:$index + 1 ]
Exit Loop If [ $index >$count ]
End Loop

```

Run scan with duplex:

```

# set parameters
Set Variable [ $physicalWidth ; Value: MBS("ImageCapture.GetParameter"; "physicalWidth" ) ]
Set Variable [ $physicalHeight ; Value: MBS("ImageCapture.GetParameter"; "physicalHeight" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentType"; "A4" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentName"; "Scan" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "resolution"; 300) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "pixelDataType"; "RGB" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentUTI"; "jpeg" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "downloadsDirectory"; "temp" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "duplexScanningEnabled"; 1) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "scanArea"; 0; 0; $physicalWidth; $physicalHeight) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Reset" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetTitle"; "Scanning" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetBottomText"; "" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetTopText"; "Scan from Flatbet scanner." ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetButtonCaption"; "Cancel" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetProgress"; -1 ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Show" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.requestScan" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Hide" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed start scan" ; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ Text Result: ]
End If

```

```

#
# read images
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $Paths ; Value: MBS("ImageCapture.ImagePaths") ]
If [ Length ( $Paths ) >0 ]
Set Variable [ $Count ; Value: ValueCount ( $Paths ) ]
If [ $Count >0 ]
Set Variable [ $Index ; Value: 1 ]
Loop
Set Variable [ $Path ; Value: GetValue($Paths; $index) ]
New Record/Request
Set Field [ Images::Image ; MBS("Container.ReadFile"; $path) ]
Set Variable [ $r ; Value: MBS( "Files.Delete"; $Path ) ]
Commit Records/Requests [ With dialog: Off ]
Set Variable [ $Index ; Value: $index + 1 ]
Exit Loop If [ $index >$count ]
End Loop
End If
End If

```

**See also**

- 93.93 ImageCapture.cancelScan 5099
- 93.75 ImageCapture.ImagePaths 5074
- 93.79 ImageCapture.OpenDevice 5078
- 93.88 ImageCapture.RequestSyncClock 5091
- 93.91 ImageCapture.SetParameter 5094
- 133.14 ProgressDialog.Hide 6618
- 133.16 ProgressDialog.SetBottomText 6621
- 133.17 ProgressDialog.SetButtonCaption 6623
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645

**93.86.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr3](#)
- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)
- [ImageCapture functions for Mac OS X](#)

**93.87 ImageCapture.RequestSelectFunctionalUnit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.RequestSelectFunctionalUnit"; Unit { ; Wait } )

**Parameters****Unit**

The functional unit to request. Can be Flatbed, PositiveTransparency, NegativeTransparency or DocumentFeeder.

"Flatbed"

**Wait**

Optional

Pass 1 to wait till complete. Or pass 0 to return immediately. Default is 1 to wait.

0

**Result** Returns OK or error.

**Description****Examples**

Request flatbed unit:

```
Set Variable [ $r; Value:MBS("ImageCapture.requestSelectFunctionalUnit"; "Flatbed") ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to get flatbed?"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ ]
End If
```

Request document feeder:

```
MBS("ImageCapture.requestSelectFunctionalUnit"; "DocumentFeeder")
```

Open device and request document feeder:

```
Set Variable [ $r ; Value: MBS("ImageCapture.OpenDevice"; Images::Device) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to open" ; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ Text Result: ]
End If
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $r ; Value: MBS("ImageCapture.GetParameter"; "availableFunctionalUnitTypes") ]
If [ Length ( $r ) >0 ]
# if we have more than one, pick one
Set Variable [ $r ; Value: MBS("ImageCapture.requestSelectFunctionalUnit"; "DocumentFeeder") ]
If [ MBS("iserror") ]
```

```
Show Custom Dialog [ "Failed to get flatbed?" ; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ Text Result: ]
End If
End If
```

**See also**

- [93.73 ImageCapture.GetParameter](#) 5070
- [93.79 ImageCapture.OpenDevice](#) 5078
- [127.6 IsError](#) 6374
- [167.57 Text.RemovePrefix](#) 7982

**93.87.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr8](#)
- [MBS FileMaker Plugin, version 8.3pr3](#)
- [Scanning Options](#)

Created 11st September 2016, last changed 19th November 2018.

## 93.88 ImageCapture.RequestSyncClock

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.RequestSyncClock" )

**Result** Returns OK or error.

### Description

Synchronize camera's clock with the computer's clock. You should send this request only if the camera has the ICCameraDeviceCanSyncClock capability.

### See also

- 93.86 ImageCapture.RequestScan

5086

### 93.88.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.

## 93.89 ImageCapture.RequestTakePicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.RequestTakePicture" )

**Result** Returns OK or error.

### Description

Works only if the camera capabilities include ICCameraDeviceCanTakePicture.  
You MUST call ImageCapture.RequestEnableTethering before requesting take picture.

You may need to add a script pause after this to let the camera do the work.

### See also

- [93.84 ImageCapture.RequestEnableTethering](#) 5084

### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.89.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Import images from cameras on MacOS with FileMaker](#)

Created 4th June 2018, last changed 1st August 2019.



**93.90 ImageCapture.SetFeatureValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.SetFeatureValue"; FeatureName; Selector; Value )

**Parameters****FeatureName**

The name of the feature.

\$name

**Selector**

What value to set. Can be "value" for boolean values or "currentValue" for range or enumeration values.  
"value"

**Value**

The new value.

**Result** Returns OK or error.

**Description****See also**

- 93.72 ImageCapture.GetFeatures 5069
- 93.71 ImageCapture.GetFeatureValue 5068

Created 11st September 2016, last changed 4th June 2018.

## 93.91 ImageCapture.SetParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.SetParameter"; Selector; Value )

### Parameters

#### Selector

The value to set.  
"documentName"

#### Value

The value to set.

Result Returns OK or error.

### Description

Selector	Description	Example
bitDepth	The bit depth to use when performing the final scan. This will always be one of the supported bit depths.	8
documentName	The document name.	."Scan"
documentType	Current document type.	."A4"
documentUTI	The document UTI. Can be set using JPEG, JPES2000, PDF, TIFF or PNG.	."JPEG"
downloadDirectory	The download directory. If you pass "temp", we use the user's temp folder.	."/Users/ev/Desktop"
maxMemoryUsageSize	The total maximum hard size requested when performing a memory based transfer.	."1000000000"
measurementUnit	Current measurement unit. Can be inches, Centimeters, Picas, Points, Pixels or Points.	."Inches"
overviewResolution	Overview image resolution. Value assigned to this will be constrained by resolution allowed by the device.	300
resolution	Current main resolution. This will always be one of the supported resolution values.	127
thresholdOfBlackAndWhiteScanning	Threshold value to be used when performing a scan in black & white. This value should be from 0 to 255.	."100"
transferMode	The transfer mode for scanned document. Can be File or Stream, but Plugins only supports File.	1
useThresholdOfBlackAndWhiteScanning	Indicator if this function will use threshold value to be used when performing a scan in black & white.	1
width	Current scan width. This will always be one of the supported scan format names.	."100"
widthType	The pixel data type. Can be BW, Gray, RGB, Palette, CMY, CMYK, YUV, YUVK or CMYKZ.	."RGB"
widthOrientation	Default orientation of the scan area. This property along with scanArea describes the area to be scanned. 1 for Normal, 2 Flipped horizontally, 3 Rotated 180°, 4 Flipped vertically, 5 Rotated 90° CCW and Flipped vertically, 6 Rotated 90° CCW, 7 Rotated 90° CW and Flipped vertically, 8 Rotated 90° CW.	1
widthOrientation	Default orientation of the scan area. This property along with scanArea describes the area to be scanned. 1 for Normal, 2 Flipped horizontally, 3 Rotated 180°, 4 Flipped vertically, 5 Rotated 90° CCW and Flipped vertically, 6 Rotated 90° CCW, 7 Rotated 90° CW and Flipped vertically, 8 Rotated 90° CW.	1
scanArea	Four parameters with X, Y, Width and Height to define scan.	1

For scan area, please pass x, y, width and height as separate parameters.

Default folder for files is temporary folder.

List of valid document types: Default, A4, B5, USLetter, USLegal, A5, ISOB4, ISOB6, USLedger, USExecutive, A3, ISOB3, A6, C4, C5, C6, 4A0, 2A0, A0, A1, A2, A7, A8, A9, 10, ISOB0, ISOB1, ISOB2, ISOB5, ISOB7, ISOB8, ISOB9, ISOB10, JISB0, JISB1, JISB2, JISB3, JISB4, JISB6, JISB7, JISB8, JISB9, JISB10, C0, C1, C2, C3, C7, C8, C9, C10, USStatement, BusinessCard, E, 3R, 4R, 5R, 6R, 8R, S8R, 10R, S10R, 11R, 12R, S12R, 110, APSH, APSC, APSP, 135, MF, LF.

### Examples

Set scan area to physical size:

```
Set Variable [ $physicalWidth; Value:MBS("ImageCapture.GetParameter"; "physicalWidth") ]
Set Variable [ $physicalHeight; Value:MBS("ImageCapture.GetParameter"; "physicalHeight") ]
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "scanArea"; 0; 0; $physicalWidth; $physical-Height) ]
```

Set to US Letter format:

```
MBS("ImageCapture.SetParameter"; "documentType"; "USLetter")
```

Set document name:

```
MBS("ImageCapture.SetParameter"; "documentName"; "Scan")
```

Set resolution to 300 dpi:

```
MBS("ImageCapture.SetParameter"; "resolution"; 300)
```

Set to scan 8 bit RGB picture:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]  
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "pixelDataType"; "RGB") ]
```

Set JPEG image type:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentUTI"; "jpeg") ]
```

Use temporary folder for temp files:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "downloadsDirectory"; "temp") ]
```

Set scan area:

```
MBS( "ImageCapture.SetParameter"; "scanArea"; $x; $y; $w; $h )
```

Enable duplex:

```
MBS("ImageCapture.SetParameter"; "duplexScanningEnabled"; 1)
```

Set to A4 format:

```
MBS("ImageCapture.SetParameter"; "documentType"; "A4")
```

Switch to color or gray:

```
If [ $gray ]  
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]  
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "pixelDataType"; "Gray") ]  
Else  
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]  
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "pixelDataType"; "RGB") ]  
End If
```

Run scan with duplex:

```
# set parameters  
Set Variable [ $physicalWidth ; Value: MBS("ImageCapture.GetParameter"; "physicalWidth") ]  
Set Variable [ $physicalHeight ; Value: MBS("ImageCapture.GetParameter"; "physicalHeight") ]
```

```

Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentType"; "A4") ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentName"; "Scan") ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "resolution"; 300) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "bitDepth"; 8) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "pixelDataType"; "RGB") ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "documentUTI"; "jpeg") ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "downloadsDirectory"; "temp") ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "duplexScanningEnabled"; 1) ]
Set Variable [ $r ; Value: MBS("ImageCapture.SetParameter"; "scanArea"; 0; 0; $physicalWidth; $physicalHeight) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Reset") ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetTitle"; "Scanning" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetBottomText"; "" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetTopText"; "Scan from Flatbet scanner." ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetButtonCaption"; "Cancel" ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.SetProgress"; -1 ) ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Show" ) ]
Set Variable [ $r ; Value: MBS("ImageCapture.requestScan") ]
Set Variable [ $p ; Value: MBS("ProgressDialog.Hide" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed start scan" ; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ Text Result: ]
End If
#
# read images
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $Paths ; Value: MBS("ImageCapture.ImagePaths") ]
If [ Length ( $Paths ) >0 ]
Set Variable [ $Count ; Value: ValueCount ( $Paths ) ]
If [ $Count >0 ]
Set Variable [ $Index ; Value: 1 ]
Loop
Set Variable [ $Path ; Value: GetValue($Paths; $index) ]
New Record/Request
Set Field [ Images::Image ; MBS("Container.ReadFile"; $path) ]
Set Variable [ $r ; Value: MBS( "Files.Delete"; $Path ) ]
Commit Records/Requests [ With dialog: Off ]
Set Variable [ $Index ; Value: $index + 1 ]
Exit Loop If [ $index >$count ]
End Loop
End If
End If

```

Set PNG image type:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentUTI"; "png") ]
```

### 93.91. IMAGECAPTURE.SETPARAMETER

5097

Set to scan black and white picture:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "bitDepth"; 1) ]
```

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "pixelDataType"; "BW") ]
```

Set PDF image type:

```
Set Variable [ $r; Value:MBS("ImageCapture.SetParameter"; "documentUTI"; "pdf") ]
```

#### See also

- [93.74 ImageCapture.GetParameters](#) 5073
- [93.86 ImageCapture.RequestScan](#) 5086
- [133.14 ProgressDialog.Hide](#) 6618
- [133.16 ProgressDialog.SetBottomText](#) 6621
- [133.17 ProgressDialog.SetButtonCaption](#) 6623
- [133.25 ProgressDialog.SetProgress](#) 6635
- [133.27 ProgressDialog.SetTitle](#) 6639
- [133.30 ProgressDialog.SetTopText](#) 6645
- [133.31 ProgressDialog.Show](#) 6647
- [167.57 Text.RemovePrefix](#) 7982

#### Example Databases

- [Mac only/ImageCapture/ImageCapture](#)

#### 93.91.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [Scanning Options](#)
- [MBS FileMaker Plugin, version 6.5pr7](#)
- [ImageCapture functions for Mac OS X](#)

Created 11st September 2016, last changed 11st September 2019.

## 93.92 ImageCapture.Thumbnail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	8.3	Yes	No	No	No	No

MBS( "ImageCapture.Thumbnail"; FileName { ; ImageType; Filename } )

### Parameters

#### FileName

The file name of the media file to download.

"IMG1234.JPG"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

#### Example Databases

- [Mac only/ImageCapture/Camera Import](#)

### 93.92.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 4th June 2018, last changed 4th June 2018.

## 93.93 ImageCapture.cancelScan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
93 ImageCapture	6.4	Yes	No	No	No	No

MBS( "ImageCapture.cancelScan" )

**Result** Returns OK or error.

### Description

### Examples

Cancel scan:

Set Variable [ \$r; Value:MBS("ImageCapture.cancelScan") ]

### See also

- 93.86 ImageCapture.RequestScan

5086

Created 11st September 2016, last changed 12nd September 2016.





# Chapter 94

## ImagePicker

A panel for iOS to select or take picture.

You can take a new picture via camera, record video or pick an existing picture.

### 94.1 ContinuityCamera.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Clear" )

**Result** Returns OK or error.

**Description**

**See also**

- 94.2 ContinuityCamera.Import 5102
- 94.4 ContinuityCamera.Result 5105

Created 3th April 2019, last changed 6th January 2020.

## 94.2 ContinuityCamera.Import

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Import"; Type )

### Parameters

#### Type

Pass 0 for Photo (default) or 1 for document.

0

**Result** Returns OK or error.

### Description

#### Examples

Import photo:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.Import";0) ]
```

Import document:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.Import"; 1) ]
```

### See also

- [94.1 ContinuityCamera.Clear](#) 5101
- [94.4 ContinuityCamera.Result](#) 5105

### Example Databases

- [Mac only/ContinuityCamera](#)

#### 94.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

#### 94.2.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 36

Created 3th April 2019, last changed 6th January 2020.

## 94.3 ContinuityCamera.PopupMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.PopupMenu"; mode { ; x; y; window; item; objectName } )

### Parameters

#### mode

The mode to use. Can be "mouse", "screen" or "window". Default is mouse for leaving away the parameter or passing empty text. Version 8.3 adds mode "content" to make it relative to the content part of the window, below toolbars.

"mouse"

#### x

Optional

The relative x coordinates for the position relative to the mouse, screen or window.

0

#### y

Optional

The relative y coordinates for the position relative to the mouse, screen or window.

0

#### window

Optional

The window reference for the showing menu relative to a window.

\$window

#### item

Optional

The menu item to be positioned at the specified location in the view.

\$item

#### objectName

Optional

The object name for mode=object.

"web"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if item was selected or 0 if not.

### Example Databases

- [Mac only/ContinuityCamera](#)

### 94.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr3](#)

### 94.3.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 37

Created 7th April 2019, last changed 6th January 2020.

## 94.4 ContinuityCamera.Result

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.Result" { ; FileName } )

### Parameters

#### FileName

Optional

File name to use.

"test.jpg"

**Result** Returns container value or error.

### Description

The result may be PNG, PDF, JPEG or TIFF document.

Usually documents come as PDF and images as JPEG.

### Examples

Write result to container field:

Set Field [ ContinuityCamera::Image ; MBS("ContinuityCamera.Result") ]

### See also

- [94.1 ContinuityCamera.Clear](#) 5101
- [94.2 ContinuityCamera.Import](#) 5102

### Example Databases

- [Mac only/ContinuityCamera](#)

#### 94.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

#### 94.4.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 37
- Ausgabe 6/2019, Seite 36

Created 3th April 2019, last changed 6th January 2020.

## 94.5 ContinuityCamera.SetScriptTrigger

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94	ImagePicker 57 ContinuityCamera	9.2	Yes	No	No	No	No

MBS( "ContinuityCamera.SetScriptTrigger"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

When some picture or document is available, we call the script.

Parameter to the script is currently the document type, e.g. JPEG, TIFF or PDF.

### Examples

Set trigger:

```
Set Variable [ $r ; Value: MBS("ContinuityCamera.SetScriptTrigger"; Get(Filename); "ContinuityCamera-Trigger") ]
```

### Example Databases

- [Mac only/ContinuityCamera](#)

### 94.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)
- [Continuity Camera for FileMaker](#)

### 94.5.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 36](#)

Created 31st March 2019, last changed 6th January 2020.

**94.6 UIImagePickerController.AvailableCaptureModesForCameraDevice**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController.AvailableCaptureModesForCameraDevice"; CameraDevice )

**Parameters****CameraDevice**

The new setting. Can be front or rear.  
"front"

**Result** Returns list or error.

**Description**

List contains Photo if photo is available and video if video is available.  
Created 17th June 2017, last changed 18th June 2017.

## 94.7 UIImagePickerController.AvailableMediaTypesForSourceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController.AvailableMediaTypesForSourceType"; sourceType )

### Parameters

#### sourceType

The source to use to pick an image. Can be PhotoLibrary, Camera or SavedPhotosAlbum. "Camera"

**Result** Returns list or error.

### Description

Some iOS devices support video recording. Use this method, along with the UIImagePickerController.isSourceTypeAvailable function, to determine if video recording is available on a device. The availability of video recording is indicated by the presence of the kUTTypeMovie (public.movie) media type for the camera source type.

### See also

- 94.25 UIImagePickerController.IsSourceTypeAvailable 5126

Created 17th June 2017, last changed 18th June 2017.



## 94.8 ImagePicker.ClearMedia

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.ClearMedia" )

**Result** Returns OK or error.

### Description

This is optional and can be called when you are done with current video or image, so plugin can release memory.

### See also

- 94.9 ImagePicker.ClearOverlay 5110
- 94.21 ImagePicker.HasMedia 5122

Created 17th June 2017, last changed 18th June 2017.

## 94.9 ImagePicker.ClearOverlay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	8.3	No	No	No	No	Yes

MBS( "ImagePicker.ClearOverlay" )

**Result** Returns OK or error.

**Description**

**See also**

- [94.8 ImagePicker.ClearMedia](#)

5109

### 94.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Overlay image for Image Picker](#)

Created 25th May 2018, last changed 25th May 2018.

## 94.10 ImagePicker.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.Dismiss" )

**Result** Returns OK or error.

### Description

Something you can call in a script to cancel the message creation.

### Examples

Close picker:

```
Set Variable [ $r ; Value: MBS( "ImagePicker.Dismiss" ) ]
```

### See also

- 94.38 ImagePicker.Present

5142

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.10.1 Blog Entries

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 20th June 2017.

## 94.11 ImagePicker.GetAllowsEditing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetAllowsEditing" )

**Result** Returns value or error.

### Description

A Boolean value indicating whether the user is allowed to edit a selected still image or movie. This property is set to 0 by default.

### See also

- 94.39 ImagePicker.SetAllowsEditing

5144

Created 17th June 2017, last changed 18th June 2017.

## 94.12 ImagePicker.GetCameraCaptureMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetCameraCaptureMode" )

**Result** Returns value or error.

### Description

The capture mode used by the camera.

### See also

- 94.14 ImagePicker.GetCameraFlashMode 5115
- 94.40 ImagePicker.SetCameraCaptureMode 5145
- 94.42 ImagePicker.SetCameraFlashMode 5147

Created 17th June 2017, last changed 18th June 2017.

## 94.13 ImagePicker.GetCameraDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetCameraDevice" )

**Result** Returns OK or error.

### Description

The camera used by the image picker controller.

Default is Rear.

### See also

- 94.14 ImagePicker.GetCameraFlashMode 5115
- 94.41 ImagePicker.SetCameraDevice 5146

Created 17th June 2017, last changed 18th June 2017.

**94.14 ImagePicker.GetCameraFlashMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetCameraFlashMode" )

**Result** Returns value or error.

**Description**

The flash mode used by the active camera.

The value of this property specifies the behavior of the still-image flash when the value of the cameraCaptureMode property is photo, and specifies the behavior of the video torch when cameraCaptureMode is video.

**See also**

- 94.12 ImagePicker.GetCameraCaptureMode 5113
- 94.13 ImagePicker.GetCameraDevice 5114
- 94.40 ImagePicker.SetCameraCaptureMode 5145
- 94.42 ImagePicker.SetCameraFlashMode 5147

Created 17th June 2017, last changed 18th June 2017.

## 94.15 ImagePicker.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetEvaluate" )

**Result** Returns expression or error.

**Description**

**See also**

- 94.16 ImagePicker.GetFileName 5117
- 94.43 ImagePicker.SetEvaluate 5148

Created 17th June 2017, last changed 18th June 2017.



## 94.16 ImagePicker.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetFileName" )

**Result** Returns text or error.

### Description

### See also

- 94.15 ImagePicker.GetEvaluate 5116
- 94.17 ImagePicker.GetScriptName 5118

Created 17th June 2017, last changed 18th June 2017.

## 94.17 ImagePicker.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetScriptName" )

**Result** Returns text or error.

**Description**

**See also**

- 94.16 ImagePicker.GetFileName 5117
- 94.45 ImagePicker.SetScript 5150

Created 17th June 2017, last changed 18th June 2017.

**94.18 ImagePicker.GetShowsCameraControls**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetShowsCameraControls" )

**Result** Returns value or error.

**Description**

Indicates whether the image picker displays the default camera controls.

The default value of this property is 1, which specifies that the default camera controls are visible in the picker. Set it to 0 to hide the default controls if you want to instead provide a custom overlay view using the cameraOverlayView property.

If you set this property to 0 and provide your own custom controls, you can take multiple pictures before dismissing the image picker interface. However, if you set this property to 1, your delegate must dismiss the image picker interface after the user takes one picture or cancels the operation.

You can access this property only when the source type of the image picker is set to Camera. Attempting to access this property for other source types results in an error. Depending on the value you assign to the mediaTypes property, the default controls display the still camera or movie camera interface, or a selection control that lets the user choose the picker interface.

**See also**

- 94.46 ImagePicker.SetShowsCameraControls

5151

Created 17th June 2017, last changed 18th June 2017.

## 94.19 UIImagePickerController.SourceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController" )

**Result** Returns value or error.

### Description

The type of picker interface to be displayed by the controller.

Prior to running the picker interface, set this value to the desired source type. The source type you set must be available and an error will be returned if it is not. If you change this property while the picker is visible, the picker interface changes to match the new value in this property.

The default value is PhotoLibrary.

### See also

- 94.47 UIImagePickerController.SetSourceType

5152

Created 17th June 2017, last changed 18th June 2017.

**94.20 ImagePicker.GetVideoMaximumDuration**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.GetVideoMaximumDuration" )

**Result** Returns value or error.

**Description**

The maximum duration, in seconds, for a video recording.

The default value for this property is 10 minutes (600 seconds). When a user taps the Share button to send a movie to MMS, MobileMe, YouTube, or another destination, an appropriate duration limit and an appropriate video quality are enforced.

This property is available only if the `mediaTypes` property's value array includes the `kUTTypeMovie` (public.movie) media type.

**See also**

- 94.48 `ImagePicker.SetVideoMaximumDuration`

5153

Created 17th June 2017, last changed 18th June 2017.

## 94.21 ImagePicker.HasMedia

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.HasMedia" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if there was an image or video selected, else 0.

### See also

- [94.8 ImagePicker.ClearMedia](#) 5109
- [94.31 ImagePicker.MediaOriginalImage](#) 5133

### Example Databases

- [iOS/iOS ImagePicker](#)

#### 94.21.1 Blog Entries

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

**94.22 ImagePicker.IsCameraDeviceAvailable**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.IsCameraDeviceAvailable"; CameraDevice )

**Parameters****CameraDevice**

The new setting. Can be front or rear.  
"front"

**Result** Returns 1, 0 or error.

**Description**

Returns a Boolean value that indicates whether a given camera is available.

**See also**

- 94.25 ImagePicker.IsSourceTypeAvailable

5126

Created 17th June 2017, last changed 18th June 2017.

## 94.23 ImagePicker.IsFlashAvailableForCameraDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.IsFlashAvailableForCameraDevice"; CameraDevice )

### Parameters

#### CameraDevice

Which camera to check. Can be front or rear.

"front"

**Result** Returns 1, 0 or error.

### Description

Indicates whether a given camera has flash illumination capability.

Returns 1 if flash is available or 0 if not.

Created 17th June 2017, last changed 18th June 2017.



## 94.24 ImagePicker.IsPresented

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.IsPresented" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if not.

### See also

- 94.38 ImagePicker.Present

5142

Created 17th June 2017, last changed 18th June 2017.

## 94.25 UIImagePickerController.IsSourceTypeAvailable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController.IsSourceTypeAvailable"; sourceType )

### Parameters

#### sourceType

The source to use to pick an image. Can be PhotoLibrary, Camera or SavedPhotosAlbum. "Camera"

**Result** Returns OK or error.

### Description

Returns a Boolean value indicating whether the device supports picking media using the specified source type.

1 if the device supports the specified source type; 0 if the specified source type is not available.

Because a media source may not be present or may be unavailable, devices may not always support all source types. For example, if you attempt to pick an image from the user's library and the library is empty, this method returns 0. Similarly, if the camera is already in use, this method returns 0.

Before attempting to use an UIImagePickerController object to pick an image, you must call this method to ensure that the desired source type is available.

### Examples

Check for source type being available:

```
Set Variable [ $SourceType ; Value: Get( ScriptParameter ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.IsSourceTypeAvailable"; $sourceType ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't pick picture." ; "The source " & $sourceType & " is not available." ]
Exit Script [ Text Result: "failed" ]
End If
```

### See also

- 94.7 UIImagePickerController.AvailableMediaTypesForSourceType 5108
- 94.22 UIImagePickerController.IsCameraDeviceAvailable 5123

### Example Databases

- [iOS/iOS UIImagePickerController](#)

### 94.25.1 Blog Entries

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

94.25. *IMAGEPICKER.ISSOURCETYPEAVAILABLE*

5127

Created 17th June 2017, last changed 20th June 2017.

## 94.26 ImagePicker.MediaCropRect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaCropRect" )

**Result** Returns list or error.

### Description

If defined, gives a list with x, y, width and height values.

### See also

- 94.29 ImagePicker.MediaIsVideo 5131
- 94.34 ImagePicker.MediaType 5137
- 94.35 ImagePicker.MediaTypes 5138

Created 17th June 2017, last changed 18th June 2017.

## 94.27 UIImagePickerController.MediaEditedImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController" { ; ImageType; FileName; WithEXIF } )

### Parameters

#### ImageType

Optional

The image type to return. Can be png or jpeg.

"jpeg"

#### FileName

Optional

The file name to include in container value.

"test.jpg"

#### WithEXIF

Optional

Pass 1 to include metadata in image. Default is 0 for no metadata.

0

**Result** Returns OK or error.

### Description

If no image is available, we return empty result.

### See also

- [94.28 UIImagePickerController.MediaIsImage](#) 5130
- [94.31 UIImagePickerController.MediaOriginalImage](#) 5133

### Example Databases

- [iOS/iOS UIImagePickerController](#)

### 94.27.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr7](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 14th May 2019.

## 94.28 ImagePicker.MediaIsImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaIsImage" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if media is image.

### See also

- 94.27 ImagePicker.MediaEditedImage 5129
- 94.29 ImagePicker.MediaIsVideo 5131
- 94.30 ImagePicker.MediaMetadata 5132
- 94.32 ImagePicker.MediaPath 5135
- 94.34 ImagePicker.MediaType 5137

Created 17th June 2017, last changed 18th June 2017.

**94.29 ImagePicker.MediaIsVideo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaIsVideo" )

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if media is video.

**See also**

- 94.26 ImagePicker.MediaCropRect 5128
- 94.28 ImagePicker.MediaIsImage 5130
- 94.30 ImagePicker.MediaMetadata 5132
- 94.34 ImagePicker.MediaType 5137
- 94.35 ImagePicker.MediaTypes 5138

Created 17th June 2017, last changed 18th June 2017.

## 94.30 ImagePicker.MediaMetadata

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	10.2	No	No	No	No	Yes

MBS( "ImagePicker.MediaMetadata" )

**Result** Returns JSON or error.

### Description

### Examples

Query metadata:

Set Variable [ \$json; Value: MBS( "ImagePicker.MediaMetadata" ) ]

### See also

- 94.28 ImagePicker.MediaIsImage 5130
- 94.29 ImagePicker.MediaIsVideo 5131
- 94.32 ImagePicker.MediaPath 5135

### 94.30.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr8](#)

Created 7th May 2020, last changed 7th May 2020.



## 94.31 UIImagePickerController.MediaOriginalImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController" { ; ImageType; FileName; WithEXIF } )

### Parameters

#### ImageType

Optional

The image type to return. Can be png or jpeg.

"jpeg"

#### FileName

Optional

The file name to include in container value.

"test.jpg"

#### WithEXIF

Optional

Pass 1 to include metadata in image. Default is 0 for no metadata.

0

**Result** Returns OK or error.

### Description

If no image is available, we return empty result.

### Examples

Store image:

```

If [ MBS( "UIImagePickerController" ) ]
New Record/Request
Set Variable [ $Image ; Value: MBS( "UIImagePickerController"; "PNG" ) ]
If [ IsEmpty ( $image ) ]
Set Variable [ $Image ; Value: MBS( "UIImagePickerController"; "PNG" ) ]
End If
Set Field [ UIImagePickerController::Picture ; $image ]
Commit Records/Requests [ With dialog: Off ]
End If

```

### See also

- 94.21 UIImagePickerController.HasMedia 5122
- 94.27 UIImagePickerController.MediaEditedImage 5129

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.31.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr7](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 14th May 2019.

## 94.32 ImagePicker.MediaPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaPath" )

**Result** Returns text or error.

### Description

If video or image is stored somewhere else on disk, you can get the native file path here.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 94.28 ImagePicker.MediaIsImage 5130
- 94.30 ImagePicker.MediaMetadata 5132
- 94.34 ImagePicker.MediaType 5137
- 94.35 ImagePicker.MediaTypes 5138
- 94.36 ImagePicker.MediaURL 5139
- 124.2 Path.FileMakerPathToNativePath 6247

Created 18th June 2017, last changed 18th June 2017.

## 94.33 ImagePicker.MediaReferenceURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaReferenceURL" )

**Result** Returns text or error.

### Description

If video or image is stored somewhere else on disk, you can get the URL here.

This may be reference to other application.

Created 17th June 2017, last changed 18th June 2017.

## 94.34 ImagePicker.MediaType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaType" )

**Result** Returns text or error.

### Description

### See also

- 94.26 ImagePicker.MediaCropRect 5128
- 94.28 ImagePicker.MediaIsImage 5130
- 94.29 ImagePicker.MediaIsVideo 5131
- 94.32 ImagePicker.MediaPath 5135
- 94.35 ImagePicker.MediaTypes 5138
- 94.36 ImagePicker.MediaURL 5139

Created 17th June 2017, last changed 18th June 2017.

## 94.35 ImagePicker.MediaTypees

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaTypees" )

**Result** Returns list or error.

### Description

A list indicating the media types to be accessed by the media picker controller.

### See also

- 94.26 ImagePicker.MediaCropRect 5128
- 94.29 ImagePicker.MediaIsVideo 5131
- 94.32 ImagePicker.MediaPath 5135
- 94.34 ImagePicker.MediaType 5137
- 94.36 ImagePicker.MediaURL 5139

Created 17th June 2017, last changed 18th June 2017.

## 94.36 ImagePicker.MediaURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.MediaURL" )

**Result** Returns text or error.

### Description

If video or image is stored somewhere else on disk, you can get the URL here.

### See also

- 94.32 ImagePicker.MediaPath 5135
- 94.34 ImagePicker.MediaType 5137
- 94.35 ImagePicker.MediaTypes 5138

Created 17th June 2017, last changed 18th June 2017.

## 94.37 ImagePicker.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.New" )

**Result** Returns OK or error.

### Description

### Examples

Show picker for camera:

```
Set Variable [ $r ; Value: MBS( "ImagePicker.New" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetScript"; Get(FileName); "GotImage" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetSourceType"; "Camera" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetAllowsEditing"; 1 ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetCameraCaptureMode"; "Photo" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetCameraDevice"; "Front" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetCameraFlashMode"; "Auto" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetShowsCameraControls"; 1 ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.Present" ) ]
```

### See also

- [94.38 ImagePicker.Present](#) 5142
- [94.39 ImagePicker.SetAllowsEditing](#) 5144
- [94.40 ImagePicker.SetCameraCaptureMode](#) 5145
- [94.41 ImagePicker.SetCameraDevice](#) 5146
- [94.42 ImagePicker.SetCameraFlashMode](#) 5147
- [94.44 ImagePicker.SetOverlayImage](#) 5149
- [94.45 ImagePicker.SetScript](#) 5150
- [94.46 ImagePicker.SetShowsCameraControls](#) 5151
- [94.47 ImagePicker.SetSourceType](#) 5152

### Example Databases

- [iOS/iOS ImagePicker](#)



### 94.37.1 **Blog Entries**

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 20th June 2017.

## 94.38 UIImagePickerController.Present

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController.Present" )

**Result** Returns OK or error.

### Description

This will show the user interface and start the process.

Your script may call this in a script and then wait for the script trigger.

You may decide whether you close it by calling UIImagePickerController.Dismiss yourself or you leave it open to take more than one picture.

### Examples

Show picker, wait three seconds, take a picture and close automatically:

```
Set Variable [ $r ; Value: MBS( "UIImagePickerController.Present" ) ]
#
Pause/Resume Script [ Duration (seconds): 1 ]
#
Pause/Resume Script [ Duration (seconds): 1 ]
#
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.TakePicture" ) ]
#
Pause/Resume Script [ Duration (seconds): .25 ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.Dismiss" ) ]
```

Show picker and wait for script trigger:

```
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetScript"; Get(FileName); "GotImage" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.Present" ) ]
```

Set various options and show picker:

```
Set Variable [ $r ; Value: MBS( "UIImagePickerController.New" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetScript"; Get(FileName); "MBS GotImage" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetSourceType"; "Camera" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetAllowsEditing"; 0 ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetCameraCaptureMode"; "Photo" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetCameraDevice"; "Front" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetCameraFlashMode"; "Off" ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.SetShowsCameraControls"; 0 ) ]
Set Variable [ $r ; Value: MBS( "UIImagePickerController.Present" ) ]
```

**See also**

- 94.10 `ImagePicker.Dismiss` 5111
- 94.37 `ImagePicker.New` 5140
- 94.39 `ImagePicker.SetAllowsEditing` 5144
- 94.41 `ImagePicker.SetCameraDevice` 5146
- 94.42 `ImagePicker.SetCameraFlashMode` 5147
- 94.44 `ImagePicker.SetOverlayImage` 5149
- 94.45 `ImagePicker.SetScript` 5150
- 94.46 `ImagePicker.SetShowsCameraControls` 5151
- 94.47 `ImagePicker.SetSourceType` 5152
- 94.51 `ImagePicker.TakePicture` 5156

**Example Databases**

- [iOS/iOS ImagePicker](#)

**94.38.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr2](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 8th May 2020.

## 94.39 ImagePicker.SetAllowsEditing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetAllowsEditing"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

0

**Result** Returns OK or error.

### Description

A Boolean value indicating whether the user is allowed to edit a selected still image or movie.

This property is set to 0 by default.

### See also

- [94.11 ImagePicker.GetAllowsEditing](#) 5112
- [94.37 ImagePicker.New](#) 5140
- [94.38 ImagePicker.Present](#) 5142

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.39.1 Blog Entries

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.40 ImagePicker.SetCameraCaptureMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetCameraCaptureMode"; Mode )

### Parameters

#### Mode

The mode. Can be Photo or Video.

"Photo"

**Result** Returns OK or error.

### Description

The capture mode used by the camera.

### See also

- [94.12 ImagePicker.GetCameraCaptureMode](#) 5113
- [94.14 ImagePicker.GetCameraFlashMode](#) 5115
- [94.37 ImagePicker.New](#) 5140
- [94.38 ImagePicker.Present](#) 5142
- [94.42 ImagePicker.SetCameraFlashMode](#) 5147
- [94.44 ImagePicker.SetOverlayImage](#) 5149

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.40.1 Blog Entries

- [Overlay image for Image Picker](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.41 ImagePicker.SetCameraDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetCameraDevice"; CameraDevice )

### Parameters

#### CameraDevice

The new setting. Can be front or rear.  
"front"

**Result** Returns OK or error.

### Description

The camera used by the image picker controller.  
Default is Rear.

### See also

- [94.13 ImagePicker.GetCameraDevice](#) 5114
- [94.37 ImagePicker.New](#) 5140
- [94.38 ImagePicker.Present](#) 5142
- [94.42 ImagePicker.SetCameraFlashMode](#) 5147
- [94.49 ImagePicker.StartVideoCapture](#) 5154

### Example Databases

- [iOS/iOS ImagePicker](#)

#### 94.41.1 Blog Entries

- [Overlay image for Image Picker](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.42 ImagePicker.SetCameraFlashMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetCameraFlashMode"; Value )

### Parameters

#### Value

The new setting. Can be On, Off and Auto.  
"Auto"

**Result** Returns OK or error.

### Description

The flash mode used by the active camera.

The value of this property specifies the behavior of the still-image flash when the value of the cameraCaptureMode property is photo, and specifies the behavior of the video torch when cameraCaptureMode is video.

#### See also

- [94.12 ImagePicker.GetCameraCaptureMode](#) 5113
- [94.14 ImagePicker.GetCameraFlashMode](#) 5115
- [94.37 ImagePicker.New](#) 5140
- [94.38 ImagePicker.Present](#) 5142
- [94.40 ImagePicker.SetCameraCaptureMode](#) 5145
- [94.41 ImagePicker.SetCameraDevice](#) 5146

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.42.1 Blog Entries

- [Overlay image for Image Picker](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.43 ImagePicker.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

### Description

Parameter may be "Cancel" if user canceled the dialog or "Image" if something was picked.

### See also

- 94.15 ImagePicker.GetEvaluate

5116

Created 17th June 2017, last changed 4th April 2018.



## 94.44 ImagePicker.SetOverlayImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	8.3	No	No	No	No	Yes

MBS( "ImagePicker.SetOverlayImage"; Image )

### Parameters

#### Image

The new overlay image. Proportional stretched to screen size. But you can use different images for different devices for best results.

**Result** Returns OK or error.

### Description

This can be used to show additional framing rectangle or instructions to the user.

The overlay is scaled and cropped to the screen maintaining the aspect ratio, so you best use a square picture to work in landscape and portrait.

### Examples

Show image picker with overlay:

```
Set Variable [ $r ; Value: MBS( "ImagePicker.New" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetCameraCaptureMode"; "Photo" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetShowsCameraControls"; 1 ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetSourceType"; "Camera" ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.SetOverlayImage"; Placeholder::Container ) ]
Set Variable [ $r ; Value: MBS( "ImagePicker.Present" ) ]
```

### See also

- [94.37 ImagePicker.New](#) 5140
- [94.38 ImagePicker.Present](#) 5142
- [94.40 ImagePicker.SetCameraCaptureMode](#) 5145
- [94.46 ImagePicker.SetShowsCameraControls](#) 5151
- [94.47 ImagePicker.SetSourceType](#) 5152

### 94.44.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr8](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Overlay image for Image Picker](#)

Created 25th May 2018, last changed 7th May 2020.

## 94.45 ImagePicker.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetScript"; FileName; ScriptName )

### Parameters

#### FileName

The file name for the script to trigger.

"test.fmp12"

#### ScriptName

The script name of the script to launch.

"EmailComposerFinished"

**Result** Returns OK or error.

### Description

Parameter may be "Cancel" if user canceled the dialog or "Image" if something was picked.

### See also

- 94.17 ImagePicker.GetScriptName 5118
- 94.37 ImagePicker.New 5140
- 94.38 ImagePicker.Present 5142

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.45.1 Blog Entries

- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.46 ImagePicker.SetShowsCameraControls

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetShowsCameraControls"; Value )

### Parameters

#### Value

The new setting. Pass 1 to show camera controls or 0 to hide.

1

**Result** Returns OK or error.

### Description

Indicates whether the image picker displays the default camera controls.

The default value of this property is 1, which specifies that the default camera controls are visible in the picker. Set it to 0 to hide the default controls if you want to instead provide a custom overlay view using the cameraOverlayView property.

If you set this property to 0 and provide your own custom controls, you can take multiple pictures before dismissing the image picker interface. However, if you set this property to 1, your delegate must dismiss the image picker interface after the user takes one picture or cancels the operation.

You can access this property only when the source type of the image picker is set to Camera. Attempting to access this property for other source types results in an error. Depending on the value you assign to the mediaTypes property, the default controls display the still camera or movie camera interface, or a selection control that lets the user choose the picker interface.

#### See also

- 94.18 ImagePicker.GetShowsCameraControls 5119
- 94.37 ImagePicker.New 5140
- 94.38 ImagePicker.Present 5142
- 94.44 ImagePicker.SetOverlayImage 5149

### Example Databases

- [iOS/iOS ImagePicker](#)

### 94.46.1 Blog Entries

- [Overlay image for Image Picker](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

## 94.47 UIImagePickerController.SetSourceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController"; sourceType )

### Parameters

#### sourceType

The source to use to pick an image. Can be PhotoLibrary, Camera or SavedPhotosAlbum. "Camera"

**Result** Returns OK or error.

### Description

The type of picker interface to be displayed by the controller.

Prior to running the picker interface, set this value to the desired source type. The source type you set must be available and an error will be returned if it is not. If you change this property while the picker is visible, the picker interface changes to match the new value in this property.

The default value is PhotoLibrary.

### See also

- [94.19 UIImagePickerController.GetSourceType](#) 5120
- [94.37 UIImagePickerController.New](#) 5140
- [94.38 UIImagePickerController.Present](#) 5142
- [94.44 UIImagePickerController.SetOverlayImage](#) 5149

### Example Databases

- [iOS/iOS UIImagePickerController](#)

#### 94.47.1 Blog Entries

- [Overlay image for Image Picker](#)
- [Image Picker for FileMaker iOS SDK apps with MBS Plugin](#)

Created 17th June 2017, last changed 18th June 2017.

**94.48 ImagePicker.SetVideoMaximumDuration**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.SetVideoMaximumDuration"; Value )

**Parameters****Value**

The new maximum length in seconds.

300

**Result** Returns OK or error.

**Description**

The maximum duration, in seconds, for a video recording.

The default value for this property is 10 minutes (600 seconds). When a user taps the Share button to send a movie to MMS, MobileMe, YouTube, or another destination, an appropriate duration limit and an appropriate video quality are enforced.

This property is available only if the `mediaTypes` property's value array includes the `kUTTypeMovie` (`public.movie`) media type.

**See also**

- 94.20 `ImagePicker.GetVideoMaximumDuration`

5121

Created 17th June 2017, last changed 18th June 2017.

## 94.49 UIImagePickerController.StartVideoCapture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 UIImagePickerController	7.3	No	No	No	No	Yes

MBS( "UIImagePickerController" )

**Result** Returns OK or error.

### Description

Select the camera via UIImagePickerController.SetCameraDevice function.

Returns OK on success or "Failed" on failure. This method may return a value of "Failed" for various reasons, among them the following:

- Movie capture is already in progress
- The device does not support movie capture
- The device is out of disk space

Use this function in conjunction to initiate the programmatic capture of a movie. You can take more than one movie without leaving the interface, but to do so requires you to hide the default image picker controls. Calling this method while a movie is being captured has no effect. You must call the UIImagePickerController.stopVideoCapture function, and then wait until the associated script trigger is run, before you can capture another movie.

Calling this method when the source type of the image picker is set to a value other than Camera results in an error.

### See also

- 94.41 UIImagePickerController.SetCameraDevice 5146
- 94.50 UIImagePickerController.StopVideoCapture 5155

Created 17th June 2017, last changed 18th June 2017.

## 94.50 ImagePicker.StopVideoCapture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.StopVideoCapture" )

**Result** Returns OK or error.

### Description

After you call this method to stop video capture, the system calls the script trigger.

### See also

- 94.49 ImagePicker.StartVideoCapture

5154

Created 17th June 2017, last changed 18th June 2017.

## 94.51 ImagePicker.TakePicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.TakePicture" )

**Result** Returns OK or error.

### Description

Use this method in conjunction to initiate the programmatic capture of a still image. This supports taking more than one picture without leaving the interface, but requires that you hide the default image picker controls.

Calling this method while an image is being captured has no effect. You must wait until the script trigger is run before you can capture another picture.

Calling this method when the source type of the image picker is set to a value other than Camera results in an error.

### See also

- 94.38 ImagePicker.Present

5142

Created 17th June 2017, last changed 18th June 2017.



**94.52 ImagePicker.VideoIsCompatibleWithSavedPhotosAlbum**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.VideoIsCompatibleWithSavedPhotosAlbum"; FilePath )

**Parameters****FilePath**

The file path to the video file.

**Result** Returns 1, 0 or error.

**Description**

Is a specific video eligible to be saved to the saved photos album?

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

**See also**

- 124.2 `Path.FileMakerPathToNativePath`

6247

Created 17th June 2017, last changed 18th June 2017.

## 94.53 ImagePicker.WriteImageToSavedPhotosAlbum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.WriteImageToSavedPhotosAlbum"; Image { ; FileName; ScriptName; Parameter } )

### Parameters

#### Image

The image container to add to photo roll.

#### FileName

Optional

The file name for the script.

Get(FileName)

#### ScriptName

Optional

The script name for the trigger.

#### Parameter

Optional

The script parameter to use.

**Result** Returns OK or error.

### Description

The work is done in background and we can optionally trigger a script when done.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Add image to saved photos:

```
If [ IsEmpty ( ImagePicker::Picture ) ]
```

```
Show Custom Dialog [ "No image?" ]
```

```
Else
```

```
Set Variable [ $path ; Value: MBS( "ImagePicker.WriteImageToSavedPhotosAlbum"; ImagePicker::Picture;
```

```
Get(FileName); "AddedToCameraRoll" ) ]
```

```
End If
```

### See also

- 94.54 ImagePicker.WriteVideoToSavedPhotosAlbum 5160
- 124.2 Path.FileMakerPathToNativePath 6247

### Example Databases

- [iOS/iOS UIImagePickerController](#)

Created 17th June 2017, last changed 20th June 2017.

## 94.54 ImagePicker.WriteVideoToSavedPhotosAlbum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
94 ImagePicker	7.3	No	No	No	No	Yes

MBS( "ImagePicker.WriteVideoToSavedPhotosAlbum"; FilePath { ; FileName; ScriptName; Parameter } )

### Parameters

#### FilePath

The file path to the video file.

#### FileName

Optional

The file name for the script.

Get(FileName)

#### ScriptName

Optional

The script name for the trigger.

#### Parameter

Optional

The script parameter to use.

**Result** Returns OK or error.

### Description

The work is done in background and we can optionally trigger a script when done.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 94.53 ImagePicker.WriteImageToSavedPhotosAlbum 5158
- 124.2 Path.FileMakerPathToNativePath 6247

Created 17th June 2017, last changed 18th June 2017.

# Chapter 95

## ImageView

A control to show images with animation on a layout on macOS and iOS.

You can use this instead of a webviewer to show GIF animations.

### 95.1 ImageView.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.Clear"; ImageView )

#### Parameters

##### ImageView

The image view reference number.

\$\$ImageView

**Result** Returns OK or error.

#### Description

#### See also

- 95.12 ImageView.Release

5174

Created 14th September 2017, last changed 14th September 2017.

## 95.2 ImageView.CreateWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.CreateWithControl"; WindowRef; ControlName { ; DX; DY } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns image view reference number or error.

### Description

Use ImageView.Release later to destroy the image view.

If you use a register (tab controls) on the window, be aware that the image view actually is in front of the register (tab controls). So you need to check in the script which register page is current and should show what image view. Or by a trigger you turn the visibility on and off.

Image view reference numbers are starting at 74000 and counting up for each new image view.

If you create a control on a new window, you may do window update command in your script first to have FileMaker actually build the window with controls and display it. A short script pause or using FM.RunScriptLater with 0.1 delay can help having all controls draw themselves. Then you can use this command to put our control on top. We use GetControl() to query left, top, width and height and this gives empty value if control is not yet here.

Creation fails to pick the right window in case the window is selected by name and the window name is not

unique. In that case better work with window reference numbers or just pass 0 for current front window.

### Examples

Create image view with control as placeholder:

```
# Query size of image
Set Variable [ $Image ; Value: MBS( "GMImage.NewFromContainer"; ImageView::ImageContainer ) ]
Set Variable [ $w ; Value: MBS( "GMImage.GetWidth"; $Image ) ]
Set Variable [ $h ; Value: MBS( "GMImage.GetHeight"; $Image ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image ) ]

# We play half size for retina screen resolution
Set Variable [ $h ; Value: Round($h/2;0) ]
Set Variable [ $w ; Value: Round($w/2;0) ]

# We play half size for retina screen resolution
Set Variable [ $$ImageView ; Value: MBS("ImageView.CreateWithControl"; 0; "PlaceHolder") ]
Set Variable [ $r ; Value: MBS("ImageView.SetImage"; $$ImageView; ImageView::ImageContainer) ]
```

### See also

- 70.6 DragDrop.CreateWithControl 2529
- 87.169 GMImage.GetWidth 4612
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674
- 95.3 ImageView.CreateWithSize 5164
- 95.4 ImageView.CreateWithWindow 5166
- 95.16 ImageView.SetImage 5178
- 168.5 TextView.CreateWithControl 8010
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Mac and iOS/ImageView](#)

Created 14th September 2017, last changed 28th April 2020.

## 95.3 ImageView.CreateWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.CreateWithSize"; WindowRef; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### x

The left coordinate in the window.

0

#### y

The top coordinate in the window.

0

#### w

The width of the image view in the window.

100

#### h

The height of the image view in the window.

100

**Result** Returns image view reference number or error.

### Description

Use ImageView.Release later to destroy the image view.

If you use a register (tab controls) on the window, be aware that the image view actually is in front of the register (tab controls). So you need to check in the script which register page is current and should show what image view. Or by a trigger you turn the visibility on and off.

Image view reference numbers are starting at 74000 and counting up for each new image view.

### Examples

Create image view with size:

```
# Query size of image
Set Variable [ $Image ; Value: MBS( "GMImage.NewFromContainer"; ImageView::ImageContainer ) ]
Set Variable [ $w ; Value: MBS( "GMImage.GetWidth"; $Image ) ]
Set Variable [ $h ; Value: MBS( "GMImage.GetHeight"; $Image ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $Image ) ]
```



```
# We play half size for retina screen resolution  
Set Variable [ $h ; Value: Round($h/2;0) ]  
Set Variable [ $w ; Value: Round($w/2;0) ]
```

```
# We play half size for retina screen resolution  
Set Variable [ $$ImageView ; Value: MBS("ImageView.CreateWithSize"; 0; 100; 100; $w; $h) ]  
Set Variable [ $r ; Value: MBS("ImageView.SetImage"; $$ImageView; ImageView::ImageContainer) ]
```

### See also

- 87.123 *GUIImage.GetHeight* 4563
- 87.169 *GUIImage.GetWidth* 4612
- 87.214 *GUIImage.Release* 4674
- 95.2 *ImageView.CreateWithControl* 5162
- 95.4 *ImageView.CreateWithWindow* 5166
- 95.12 *ImageView.Release* 5174
- 95.16 *ImageView.SetImage* 5178
- 168.6 *TextView.CreateWithSize* 8012
- 185.15 *Window.FindByIndex* 8686
- 185.16 *Window.FindByTitle* 8688

### Example Databases

- [Mac and iOS/ImageView](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

Created 14th September 2017, last changed 21st December 2018.

## 95.4 ImageView.CreateWithWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.CreateWithWindow"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns image view reference number or error.

### Description

Use ImageView.Release later to destroy the image view.

If you use a register (tab controls) on the window, be aware that the image view actually is in front of the register (tab controls). So you need to check in the script which register page is current and should show what image view. Or by a trigger you turn the visibility on and off.

Image view reference numbers are starting at 74000 and counting up for each new image view.

### See also

- 70.8 DragDrop.CreateWithWindow 2534
- 95.2 ImageView.CreateWithControl 5162
- 95.3 ImageView.CreateWithSize 5164
- 95.12 ImageView.Release 5174
- 168.7 TextView.CreateWithWindow 8013
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

Created 14th September 2017, last changed 14th September 2017.

## 95.5 **ImageView.GetHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetHeight"; ImageView )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

**Result** Returns height or error.

### Description

#### See also

- 95.6 [ImageView.GetLeft](#) 5168
- 95.11 [ImageView.GetWidth](#) 5173
- 108.18 [MapView.GetHeight](#) 5748
- 168.12 [TextView.GetHeight](#) 8018

Created 14th September 2017, last changed 14th September 2017.

## 95.6 ImageView.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetLeft"; ImageView )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

**Result** Returns x coordinate or error.

### Description

#### See also

- 95.5 ImageView.GetHeight 5167
- 95.7 ImageView.GetTag 5169
- 95.9 ImageView.GetTop 5171
- 95.11 ImageView.GetWidth 5173
- 108.19 MapView.GetLeft 5749

Created 14th September 2017, last changed 14th September 2017.

## 95.7 **ImageView.GetTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetTag"; ImageView )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

**Result** Returns the stored tag value or an error.

### Description

#### See also

- 95.6 [ImageView.GetLeft](#) 5168
- 95.9 [ImageView.GetTop](#) 5171
- 95.16 [ImageView.SetImage](#) 5178
- 95.17 [ImageView.SetTag](#) 5179
- 108.40 [MapView.GetTag](#) 5771

Created 14th September 2017, last changed 14th September 2017.

## 95.8 ImageView.GetToolTip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	No

MBS( "ImageView.GetToolTip"; ImageView )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

**Result** Returns text or error.

### Description

The tooltip is visible on Mac when mouse stays over control. There are no tooltips for iOS.

### See also

- 95.9 ImageView.GetTop 5171
- 95.18 ImageView.SetToolTip 5180
- 108.41 MapView.GetToolTip 5772
- 108.88 MapView.SetToolTip 5824

Created 14th September 2017, last changed 14th September 2017.

## 95.9 **ImageView.GetTop**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetTop"; ImageView )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

**Result** Returns y coordinate or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 95.6 [ImageView.GetLeft](#) 5168
- 95.7 [ImageView.GetTag](#) 5169
- 95.8 [ImageView.GetToolTip](#) 5170
- 95.17 [ImageView.SetTag](#) 5179
- 108.42 [MapView.GetTop](#) 5773

Created 14th September 2017, last changed 14th September 2017.

## 95.10 `ImageView.GetVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetVisible"; ImageView )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### See also

- 95.19 `ImageView.SetVisible` 5181
- 108.43 `MapView.GetVisible` 5774
- 108.89 `MapView.SetVisible` 5825
- 168.22 `TextView.GetVisible` 8028

Created 14th September 2017, last changed 14th September 2017.



## 95.11 **ImageView.GetWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.GetWidth"; ImageView )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

**Result** Returns width or error.

### Description

#### See also

- 95.5 [ImageView.GetHeight](#) 5167
- 95.6 [ImageView.GetLeft](#) 5168
- 108.45 [MapView.GetWidth](#) 5776
- 168.23 [TextView.GetWidth](#) 8029

Created 14th September 2017, last changed 14th September 2017.

## 95.12 ImageView.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.Release"; ImageView )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

**Result** Returns OK on success.

### Description

### Examples

Close image view:

```
If [ Length ( $$ImageView ) >0 ]
Set Variable [ $r ; Value: MBS("ImageView.Release"; $$ImageView) ]
Set Variable [ $$ImageView ; Value: "" ]
End If
```

### See also

- 95.1 ImageView.Clear 5161
- 95.2 ImageView.CreateWithControl 5162
- 95.3 ImageView.CreateWithSize 5164
- 95.4 ImageView.CreateWithWindow 5166
- 95.13 ImageView.ReleaseAll 5175
- 95.14 ImageView.SetFrame 5176
- 95.16 ImageView.SetImage 5178
- 108.53 MapView.Release 5785

### Example Databases

- [Mac and iOS/ImageView](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

Created 14th September 2017, last changed 14th September 2017.

## 95.13 **ImageView.ReleaseAll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.ReleaseAll" )

**Result** Returns number of views released.

### **Description**

#### **See also**

- 95.12 [ImageView.Release](#) 5174
- 108.54 [MapView.ReleaseAll](#) 5786
- 168.28 [TextView.ReleaseAll](#) 8034

### **Example Databases**

- [Mac and iOS/ImageView](#)

Created 14th September 2017, last changed 14th September 2017.

## 95.14 `UIImageView.SetFrame`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 UIImageView	7.4	Yes	No	No	No	Yes

MBS( "UIImageView.SetFrame"; UIImageView; X; Y; Width; Height { ; swap } )

### Parameters

#### UIImageView

The image view reference number.

\$\$UIImageView

#### X

The x coordinate.

#### Y

The y coordinate.

#### Width

The width of the control.

#### Height

The height of the control.

#### swap

Optional

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns OK or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 95.12 `UIImageView.Release` 5174
- 95.16 `UIImageView.SetImage` 5178
- 95.17 `UIImageView.SetTag` 5179
- 108.68 `MapView.SetFrame` 5802
- 168.32 `TextView.SetFrame` 8039

Created 14th September 2017, last changed 14th September 2017.

## 95.15 **ImageView.SetFrameWithControl**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	9.0	Yes	No	No	No	Yes

MBS( "ImageView.SetFrameWithControl"; ImageView; ControlName { ; DX; DY } )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

#### **ControlName**

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### **DX**

Optional

A delta to move drop area more to left or right.

0

#### **DY**

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the drop area back to the new position.

Also useful to switch between different locations on the layout.

### See also

- 41.34 [AVPlayer.SetFrameWithControl](#) 1110
- 70.44 [DragDrop.SetFrameWithControl](#) 2584
- 95.2 [ImageView.CreateWithControl](#) 5162
- 108.69 [MapView.SetFrameWithControl](#) 5803
- 168.33 [TextView.SetFrameWithControl](#) 8040

### 95.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr9](#)

Created 16th January 2019, last changed 16th January 2019.

## 95.16 ImageView.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.SetImage"; ImageView; image )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

#### image

the image to use. For best results, pass a container value with a PNG image. For animation, pass a GIF image.

**Result** Returns OK or error.

### Description

We treat GIF images special and animate them.

### Examples

Sets image:

```
Set Variable [ $r ; Value: MBS("ImageView.SetImage"; $$ImageView; ImageView::ImageContainer) ]
```

### See also

- [95.2 ImageView.CreateWithControl](#) 5162
- [95.3 ImageView.CreateWithSize](#) 5164
- [95.7 ImageView.GetTag](#) 5169
- [95.12 ImageView.Release](#) 5174
- [95.14 ImageView.SetFrame](#) 5176
- [95.17 ImageView.SetTag](#) 5179

### Example Databases

- [Mac and iOS/ImageView](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)

Created 14th September 2017, last changed 14th September 2017.

## 95.17 **ImageView.SetTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.SetTag"; ImageView; tag )

### Parameters

#### **ImageView**

The image view reference number.

\$\$ImageView

#### **tag**

A string you want to associate with the image view.

**Result** Returns OK or error message.

### Description

Use the tag to store whatever value you want to associate with the image view. You can later query it using `ImageView.GetTag`.

### See also

- 95.7 `ImageView.GetTag` 5169
- 95.9 `ImageView.GetTop` 5171
- 95.14 `ImageView.SetFrame` 5176
- 95.16 `ImageView.SetImage` 5178
- 108.87 `MapView.SetTag` 5823

Created 14th September 2017, last changed 14th September 2017.

## 95.18 `ImageView.SetToolTip`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	No

MBS( "ImageView.SetToolTip"; ImageView; Tooltip )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

#### Tooltip

The new help text.

"Hello"

**Result** Returns OK or error.

### Description

The tooltip is visible on Mac when mouse stays over control. There are no tooltips for iOS.

### See also

- 95.8 `ImageView.GetToolTip` 5170
- 108.41 `MapView.GetToolTip` 5772
- 108.88 `MapView.SetToolTip` 5824

Created 14th September 2017, last changed 14th September 2017.



## 95.19 **ImageView.SetVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
95 ImageView	7.4	Yes	No	No	No	Yes

MBS( "ImageView.SetVisible"; ImageView; Visible )

### Parameters

#### ImageView

The image view reference number.

\$\$ImageView

#### Visible

The new visible state.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### See also

- 95.10 [ImageView.GetVisible](#) 5172
- 108.43 [MapView.GetVisible](#) 5774
- 108.89 [MapView.SetVisible](#) 5825
- 168.42 [TextView.SetVisible](#) 8049

### Example Databases

- [Mac and iOS/ImageView](#)

Created 14th September 2017, last changed 14th September 2017.



# Chapter 96

## iOSApp

App wide setting for iOS applications.

### 96.1 iOSApp.GetDidBecomeActiveEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.GetDidBecomeActiveEvaluate" )

**Result** Returns expression or error.

#### Description

#### See also

- 96.7 iOSApp.GetWillResignActiveEvaluate 5189
- 96.8 iOSApp.SetDidBecomeActiveEvaluate 5190
- 96.9 iOSApp.SetDidBecomeActiveScript 5191
- 96.19 iOSApp.SetWillResignActiveEvaluate 5202

#### 96.1.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 15th May 2018.

## 96.2 iOSApp.GetDidEnterBackgroundEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.GetDidEnterBackgroundEvaluate" )

**Result** Returns expression or error.

### Description

### See also

- 96.6 iOSApp.GetWillEnterForegroundEvaluate 5188
- 96.10 iOSApp.SetDidEnterBackgroundEvaluate 5193
- 96.11 iOSApp.SetDidEnterBackgroundScript 5194
- 96.17 iOSApp.SetWillEnterForegroundEvaluate 5200

Created 23th September 2017, last changed 23th September 2017.

## 96.3 iOSApp.GetDidReceiveMemoryWarningEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.GetDidReceiveMemoryWarningEvaluate" )

**Result** Returns expression or error.

### Description

### See also

- 96.12 iOSApp.SetDidReceiveMemoryWarningEvaluate 5195
- 96.13 iOSApp.SetDidReceiveMemoryWarningScript 5196

Created 23th September 2017, last changed 23th September 2017.

## 96.4 iOSApp.GetIdleTimerDisabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	10.1	No	No	No	No	Yes

MBS( "iOSApp.GetIdleTimerDisabled" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- [96.14 iOSApp.SetIdleTimerDisabled](#)

5197

### 96.4.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 17th January 2020, last changed 17th January 2020.

## 96.5 iOSApp.GetSignificantTimeChangeEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.GetSignificantTimeChangeEvaluate" )

**Result** Returns expression or error.

### Description

### See also

- 96.15 iOSApp.SetSignificantTimeChangeEvaluate 5198
- 96.16 iOSApp.SetSignificantTimeChangeScript 5199

Created 23th September 2017, last changed 23th September 2017.

## 96.6 iOSApp.GetWillEnterForegroundEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.GetWillEnterForegroundEvaluate" )

**Result** Returns OK or error.

### Description

### See also

- 96.2 iOSApp.GetDidEnterBackgroundEvaluate 5184
- 96.10 iOSApp.SetDidEnterBackgroundEvaluate 5193
- 96.17 iOSApp.SetWillEnterForegroundEvaluate 5200
- 96.18 iOSApp.SetWillEnterForegroundScript 5201

Created 23th September 2017, last changed 23th September 2017.



## 96.7 iOSApp.GetWillResignActiveEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.GetWillResignActiveEvaluate" )

**Result** Returns expression or error.

### Description

#### See also

- 96.1 iOSApp.GetDidBecomeActiveEvaluate 5183
- 96.8 iOSApp.SetDidBecomeActiveEvaluate 5190
- 96.19 iOSApp.SetWillResignActiveEvaluate 5202
- 96.20 iOSApp.SetWillResignActiveScript 5203

### 96.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 15th May 2018.

## 96.8 iOSApp.SetDidBecomeActiveEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.SetDidBecomeActiveEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

An app is active when it is receiving events. An active app can be said to have focus. It gains focus after being launched, loses focus when an overlay window pops up or when the device is locked, and gains focus when the device is unlocked.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### See also

- 96.1 iOSApp.GetDidBecomeActiveEvaluate 5183
- 96.7 iOSApp.GetWillResignActiveEvaluate 5189
- 96.9 iOSApp.SetDidBecomeActiveScript 5191
- 96.19 iOSApp.SetWillResignActiveEvaluate 5202

### 96.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 16th March 2020.

## 96.9 iOSApp.SetDidBecomeActiveScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.SetDidBecomeActiveScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

An app is active when it is receiving events. An active app can be said to have focus. It gains focus after being launched, loses focus when an overlay window pops up or when the device is locked, and gains focus when the device is unlocked.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetDidBecomeActiveScript"; Get(Filename); "Trigger"; "DidBecomeActiveScript" ) ]
```

### See also

- 96.1 iOSApp.GetDidBecomeActiveEvaluate 5183
- 96.8 iOSApp.SetDidBecomeActiveEvaluate 5190
- 96.20 iOSApp.SetWillResignActiveScript 5203

### 96.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)



## 96.10 iOSApp.SetDidEnterBackgroundEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetDidEnterBackgroundEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

#### Description

Posted when the app enters the background.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

#### See also

- 96.2 iOSApp.GetDidEnterBackgroundEvaluate 5184
- 96.6 iOSApp.GetWillEnterForegroundEvaluate 5188
- 96.11 iOSApp.SetDidEnterBackgroundScript 5194
- 96.17 iOSApp.SetWillEnterForegroundEvaluate 5200

Created 23th September 2017, last changed 16th March 2020.

## 96.11 iOSApp.SetDidEnterBackgroundScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetDidEnterBackgroundScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

Posted when the app enters the background.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetDidEnterBackgroundScript"; Get(FileName); "Trigger"; "DidEnterBackgroundScript" ) ]
```

### See also

- 96.2 iOSApp.GetDidEnterBackgroundEvaluate 5184
- 96.10 iOSApp.SetDidEnterBackgroundEvaluate 5193
- 96.18 iOSApp.SetWillEnterForegroundScript 5201

Created 23th September 2017, last changed 16th March 2020.

## 96.12 iOSApp.SetDidReceiveMemoryWarningEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetDidReceiveMemoryWarningEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

Posted when the app receives a warning from the operating system about low memory availability.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### See also

- 96.3 iOSApp.GetDidReceiveMemoryWarningEvaluate 5185
- 96.13 iOSApp.SetDidReceiveMemoryWarningScript 5196

Created 23th September 2017, last changed 16th March 2020.

## 96.13 iOSApp.SetDidReceiveMemoryWarningScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetDidReceiveMemoryWarningScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

Posted when the app receives a warning from the operating system about low memory availability.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Set trigger:

```
MBS( "iOSApp.SetDidReceiveMemoryWarningScript"; Get(Filename); "MemoryTrigger")
```

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetDidReceiveMemoryWarningScript"; Get(FileName); "Trigger"; "DidReceiveMemoryWarningScript" ) ]
```

### See also

- 96.3 iOSApp.GetDidReceiveMemoryWarningEvaluate 5185
- 96.12 iOSApp.SetDidReceiveMemoryWarningEvaluate 5195

Created 23th September 2017, last changed 16th March 2020.



## 96.14 iOSApp.SetIdleTimerDisabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	10.1	No	No	No	No	Yes

MBS( "iOSApp.SetIdleTimerDisabled"; Value )

### Parameters

#### Value

The new value. Pass 1 to disable idle sleep or pass 0 to enable.

1

**Result** Returns OK or error.

### Description

The default value of this property is 0. When most apps have no touches as user input for a short period, the system puts the device into a "sleep" state where the screen dims. This is done for the purposes of conserving power. However, apps that don't have user input except for the accelerometer—games, for instance—can, by setting this property to 1, disable the "idle timer" to avert system sleep.

#### See also

- [96.4 iOSApp.GetIdleTimerDisabled](#)

5186

### 96.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 17th January 2020, last changed 17th January 2020.

## 96.15 iOSApp.SetSignificantTimeChangeEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetSignificantTimeChangeEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

Posted when there is a significant change in time, for example, change to a new day (midnight), carrier time update, and change to or from daylight savings time.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### See also

- 96.5 iOSApp.GetSignificantTimeChangeEvaluate 5187
- 96.16 iOSApp.SetSignificantTimeChangeScript 5199

Created 23th September 2017, last changed 16th March 2020.

## 96.16 iOSApp.SetSignificantTimeChangeScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetSignificantTimeChangeScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

Posted when there is a significant change in time, for example, change to a new day (midnight), carrier time update, and change to or from daylight savings time.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetSignificantTimeChangeScript"; Get(Filename); "Trigger"; "SignificantTimeChangeScript" ) ]
```

### See also

- 96.5 iOSApp.GetSignificantTimeChangeEvaluate 5187
- 96.15 iOSApp.SetSignificantTimeChangeEvaluate 5198

Created 23th September 2017, last changed 16th March 2020.

## 96.17 iOSApp.SetWillEnterForegroundEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetWillEnterForegroundEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

Posted shortly before an app leaves the background state on its way to becoming the active app.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Show msgbox when app comes to foreground:

```
Set Variable [ $m ; Value: MBS( "iOSApp.SetWillEnterForegroundEvaluate"; "MBS(\msgbox\"; \Hello\)" )
]
```

### See also

- 96.2 iOSApp.GetDidEnterBackgroundEvaluate 5184
- 96.6 iOSApp.GetWillEnterForegroundEvaluate 5188
- 96.10 iOSApp.SetDidEnterBackgroundEvaluate 5193
- 96.18 iOSApp.SetWillEnterForegroundScript 5201

Created 23th September 2017, last changed 16th March 2020.

## 96.18 iOSApp.SetWillEnterForegroundScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	7.4	No	No	No	No	Yes

MBS( "iOSApp.SetWillEnterForegroundScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

Posted shortly before an app leaves the background state on its way to becoming the active app.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetWillEnterForegroundScript"; Get(Filename); "Trigger"; "WillEnterForegroundScript" ) ]
```

### See also

- 96.6 iOSApp.GetWillEnterForegroundEvaluate 5188
- 96.11 iOSApp.SetDidEnterBackgroundScript 5194
- 96.17 iOSApp.SetWillEnterForegroundEvaluate 5200

Created 23th September 2017, last changed 16th March 2020.

## 96.19 iOSApp.SetWillResignActiveEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.SetWillResignActiveEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

An app is active when it is receiving events. An active app can be said to have focus. It gains focus after being launched, loses focus when an overlay window pops up or when the device is locked, and gains focus when the device is unlocked.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### See also

- 96.1 iOSApp.GetDidBecomeActiveEvaluate 5183
- 96.7 iOSApp.GetWillResignActiveEvaluate 5189
- 96.8 iOSApp.SetDidBecomeActiveEvaluate 5190
- 96.20 iOSApp.SetWillResignActiveScript 5203

### 96.19.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 16th March 2020.

## 96.20 iOSApp.SetWillResignActiveScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
96 iOSApp	8.2	No	No	No	No	Yes

MBS( "iOSApp.SetWillResignActiveScript"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

The script parameter.

**Result** Returns OK or error.

### Description

An app is active when it is receiving events. An active app can be said to have focus. It gains focus after being launched, loses focus when an overlay window pops up or when the device is locked, and gains focus when the device is unlocked.

Version 10.2 and newer stores this in preferences, so it is restored if app when app starts again after being killed in background.

### Examples

Install trigger:

```
Set Variable [ $r ; Value: MBS( "iOSApp.SetWillResignActiveScript"; Get(Filename); "Trigger"; "WillResignActiveScript" ) ]
```

### See also

- 96.7 iOSApp.GetWillResignActiveEvaluate 5189
- 96.9 iOSApp.SetDidBecomeActiveScript 5191
- 96.19 iOSApp.SetWillResignActiveEvaluate 5202

### 96.20.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr8](#)





# Chapter 97

## iOSDevice

iOS commands to query device details.

### 97.1 iOSDevice.BatteryLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.BatteryLevel" )

**Result** Returns value or error.

#### Description

Battery level ranges from 0.0 (fully discharged) to 1.0 (100% charged). Before accessing this property, ensure that battery monitoring is enabled.

If battery monitoring is not enabled, battery state is Unknown and the value of this property is -1.0.

#### Examples

Show battery level:

Show Custom Dialog [ "Battery Level" ; MBS( "iOSDevice.BatteryLevel" ) ]

#### See also

- 97.2 iOSDevice.BatteryState

5206

Created 18th March 2017, last changed 25th November 2017.

## 97.2 iOSDevice.BatteryState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.BatteryState" )

**Result** Returns value or error.

### Description

Value is Unknown, Unplugged, Charging or Full.

### See also

- 97.1 iOSDevice.BatteryLevel

5205

Created 18th March 2017, last changed 18th March 2017.

## 97.3 iOSDevice.IdentifierForVendor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.IdentifierForVendor" )

**Result** Returns UUID or error.

### Description

The value of this property is the same for apps that come from the same vendor running on the same device. A different value is returned for apps on the same device that come from different vendors, and for apps on different devices regardless of vendor.

### Examples

Show identifier:

Show Custom Dialog [ "Identifier" ; MBS( "iOSDevice.IdentifierForVendor" ) ]

Created 18th March 2017, last changed 25th November 2017.

## 97.4 iOSDevice.IsBatteryMonitoringEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.IsBatteryMonitoringEnabled" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- 97.11 iOSDevice.SetBatteryMonitoringEnabled

5215

Created 18th March 2017, last changed 18th March 2017.

## 97.5 iOSDevice.LocalizedModel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.LocalizedModel" )

**Result** Returns text or error.

### Description

The value of this property is a string that contains a localized version of the string returned from iOSDevice.Model.

### See also

- 97.6 iOSDevice.Model

5210

Created 18th March 2017, last changed 18th March 2017.

## 97.6 iOSDevice.Model

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.Model" )

**Result** Returns text or error.

### Description

Possible examples of model strings are "iPhone" and "iPod touch".

### Examples

Show model:

```
Show Custom Dialog [ "Model" ; MBS( "iOSDevice.Model" ) ]
```

### See also

- 97.5 iOSDevice.LocalizedModel 5209
- 97.7 iOSDevice.Name 5211

Created 18th March 2017, last changed 25th November 2017.

## 97.7 iOSDevice.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.Name" )

**Result** Returns text or error.

### Description

The value of this property is an arbitrary alphanumeric string that is associated with the device as an identifier. For example, you can find the name of an iOS device in the General >About settings.

### Examples

Show name:

Show Custom Dialog [ "Name" ; MBS( "iOSDevice.Name" ) ]

### See also

- 97.6 iOSDevice.Model

5210

Created 18th March 2017, last changed 25th November 2017.

## 97.8 iOSDevice.Orientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.Orientation" )

**Result** Returns value or error.

### Description

The value of the property is a constant that indicates the current orientation of the device. This value represents the physical orientation of the device and may be different from the current orientation of your application's user interface.

Value can be Portrait, PortraitUpsideDown, LandscapeLeft, LandscapeRight, FaceUp, FaceDown or Unknown.

Created 18th March 2017, last changed 18th March 2017.



## 97.9 iOSDevice.OrientationIsLandscape

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.OrientationIsLandscape" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 97.10 iOSDevice.OrientationIsPortrait

5214

Created 18th March 2017, last changed 18th March 2017.

## 97.10 iOSDevice.OrientationIsPortrait

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.OrientationIsPortrait" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 97.9 iOSDevice.OrientationIsLandscape

5213

Created 18th March 2017, last changed 18th March 2017.

## 97.11 iOSDevice.SetBatteryMonitoringEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.SetBatteryMonitoringEnabled"; State )

### Parameters

#### State

The new state of monitoring. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Enable battery monitoring if your app needs to be notified of changes to the battery state, or if you want to check the battery charge level.

The default value of this property is 0, which:

- Disables the posting of battery-related notifications
- Disables the ability to read battery charge level and battery state

### Examples

Enable battery monitoring:

MBS( "iOSDevice.SetBatteryMonitoringEnabled"; 1 )

### See also

- 97.4 iOSDevice.IsBatteryMonitoringEnabled

5208

Created 18th March 2017, last changed 25th November 2017.

## 97.12 iOSDevice.SystemName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.SystemName" )

**Result** Returns text or error.

### Description

### Examples

Show system name:

Show Custom Dialog [ "Name" ; MBS( "iOSDevice.SystemName" ) ]

Created 18th March 2017, last changed 25th November 2017.

## 97.13 iOSDevice.SystemVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.SystemVersion" )

**Result** Returns text or error.

### Description

An example of the system version is @"1.2".

### Examples

Show system version:

Show Custom Dialog [ "Version" ; MBS( "iOSDevice.SystemVersion" ) ]

### See also

- 127.62 Version

6446

Created 18th March 2017, last changed 25th November 2017.

## 97.14 iOSDevice.UserInterfaceIdiom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
97 iOSDevice	7.2	No	No	No	No	Yes

MBS( "iOSDevice.UserInterfaceIdiom" )

**Result** Returns value or error.

### Description

For universal applications, you can use this property to tailor the behavior of your application for a specific type of device. For example, iPhone and iPad devices have different screen sizes, so you might want to create different views and controls based on the type of the current device.

Value is Phone, Pad, TV or CarPlay. FileMaker does not support all of those.

Created 18th March 2017, last changed 18th March 2017.

# Chapter 98

## iOSKeyboard

iOS Keyboard state and evaluation when it changes.

### 98.1 iOSKeyboard.GetDidHideEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.GetDidHideEvaluate" )

**Result** Returns expression or error.

#### Description

#### See also

- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.2 iOSKeyboard.GetDidShowEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.GetDidShowEvaluate" )

**Result** Returns expression or error.

### Description

#### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.



**98.3 iOSKeyboard.GetWillHideEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.GetWillHideEvaluate" )

**Result** Returns expression or error.

**Description****See also**

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.4 iOSKeyboard.GetWillShowEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.GetWillShowEvaluate" )

**Result** Returns expression or error.

### Description

#### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.5 iOSKeyboard.SetDidHideEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.SetDidHideEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

The plugin can evaluate this expression to set variables, call plugin functions to trigger other things.

### Examples

Set variable when keyboard hides:

```
MBS("iOSKeyboard.SetDidHideEvaluate"; "Let( [ $$keyboardVisible=0 ] ;0)")
```

### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.6 iOSKeyboard.SetDidShowEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.SetDidShowEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

The plugin can evaluate this expression to set variables, call plugin functions to trigger other things.

### Examples

Set variable when keyboard shows:

```
MBS("iOSKeyboard.SetDidShowEvaluate"; "Let( [ $$keyboardVisible=1 ] ;0)")
```

### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.7 iOSKeyboard.SetWillHideEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.SetWillHideEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

The plugin can evaluate this expression to set variables, call plugin functions to trigger other things.

#### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.8 iOSKeyboard.SetWillShowEvaluate 5226

Created 19th September 2017, last changed 19th September 2017.

## 98.8 iOSKeyboard.SetWillShowEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.SetWillShowEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

The plugin can evaluate this expression to set variables, call plugin functions to trigger other things.

#### See also

- 98.1 iOSKeyboard.GetDidHideEvaluate 5219
- 98.2 iOSKeyboard.GetDidShowEvaluate 5220
- 98.3 iOSKeyboard.GetWillHideEvaluate 5221
- 98.4 iOSKeyboard.GetWillShowEvaluate 5222
- 98.5 iOSKeyboard.SetDidHideEvaluate 5223
- 98.6 iOSKeyboard.SetDidShowEvaluate 5224
- 98.7 iOSKeyboard.SetWillHideEvaluate 5225

Created 19th September 2017, last changed 19th September 2017.

## 98.9 iOSKeyboard.State

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
98 iOSKeyboard	7.4	No	No	No	No	Yes

MBS( "iOSKeyboard.State" )

**Result** Returns number or error.

### Description

State is 0 for hidden, 1 for showing animation, 2 for showing, 3 for hiding animation.  
Created 19th September 2017, last changed 19th September 2017.





# Chapter 99

## Java

Execute code in java classes.

You can initialize Java VM with a list of jar files. Than create objects, call methods, set and query fields.

### 99.1 Java.CallObjectMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.CallObjectMethod"; JObject; MethodName; Signature { ; Params } )

#### Parameters

##### JObject

The java object reference number.

\$j

##### MethodName

The name of the method.

"test"

##### Signature

The java signature of the method. This describes the parameter types. Please use "javap -s test.class" with file path to class file to show the signatures for a class.

" [] "

##### Params

Optional

The parameters to pass. Pass one parameter in FileMaker for each parameter to pass.

**Result** Returns OK or error.

##### Description

Parameters and return type is detected by plugin automatically from signature.  
Please call later `Java.Release` to release an object if this function returns one.

Java is only available if you call `Java.Initialize` before to load the java runtime.  
Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Init a class and a call a method:

```
Set Variable [ $j; Value:MBS( "Java.NewClassObject"; "test"; "<init>"; "()V" ) ]
Set Variable [ $r; Value:MBS( "Java.CallObjectMethod"; $j; "getValue"; "(I)" ) ]
Show Custom Dialog [ "value"; $r ]
Set Variable [ $r; Value:MBS( "Java.Release"; $j ) ]
```

Call method passing parameter and another to query:

```
Set Variable [ $j; Value:MBS( "Java.NewClassObject"; "test"; "<init>"; "()V" ) ]
Set Variable [ $r; Value:MBS( "Java.CallObjectMethod"; $j; "setValue"; "(IV"; 1234 ) ]
Set Variable [ $r; Value:MBS( "Java.CallObjectMethod"; $j; "getValue"; "(I)" ) ]
Show Custom Dialog [ "value"; $r ]
Set Variable [ $r; Value:MBS( "Java.Release"; $j ) ]
```

Call a void method

```
// public void DoSomething()
Set Variable [ $r; Value:MBS( "Java.CallObjectMethod"; $j; "DoSomething"; "()V" ) ]
```

### See also

- [99.2 Java.CallStaticMethod](#) 5231
- [99.6 Java.Initialize](#) 5238
- [99.8 Java.NewClassObject](#) 5242
- [99.10 Java.Release](#) 5245

### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 22nd November 2018.

## 99.2 Java.CallStaticMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.CallStaticMethod"; ClassName; MethodName; Signature { ; Params } )

### Parameters

#### ClassName

The name of the java class.  
"com.mbs.test"

#### MethodName

The name of the method.  
"test"

#### Signature

The java signature of the method. This describes the parameter types. Please use "javap -s test.class" with file path to class file to show the signatures for a class.  
" [] "

#### Params

Optional

The parameters to pass. Pass one parameter in FileMaker for each parameter to pass.

**Result** Returns result or error.

### Description

Parameters and return type is detected by plugin automatically from signature.  
Please call later Java.Release to release an object if this function returns one.

Java is only available if you call Java.Initialize before to load the java runtime.

Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Call Function GetString:

```
MBS( "Java.CallStaticMethod"; "test"; "GetString"; "()Ljava/lang/String;" )
```

Call function returning an integer:

```
// public static int method_int(int a, double b, char c, long d, short e)
Set Variable [ $r; Value:MBS( "Java.CallStaticMethod"; "tests"; "method_int"; "(IDCJS)I"; 10000; 2000; 300; 40; 5 ) ]
```

```
If [ MBS("IsError") or ($r 12345) ]  
Show Custom Dialog [ "Java Error"; $r ]  
Exit Script [ Result: "Static int method failed" ]  
End If
```

Call function returning a double value:

```
// public static double method_double(int a, double b, char c, long d, short e)  
Set Variable [ $r; Value:MBS( "Java.CallStaticMethod"; "tests"; "method_double"; "(IDCJS)D"; 10000;  
2000; 300; 40; 5 ) ]  
If [ MBS("IsError") or ($r 12345) ]  
Show Custom Dialog [ "Java Error"; $r ]  
Exit Script [ Result: "Static double method failed" ]  
End If
```

### See also

- 127.6 IsError 6374
- 99.1 Java.CallObjectMethod 5229
- 99.6 Java.Initialize 5238
- 99.10 Java.Release 5245

### Example Databases

- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 22nd November 2018.

## 99.3 Java.GetContainerFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.GetContainerFileName" )

**Result** Returns text or error.

### Description

### See also

- 99.12 Java.SetContainerFileName

5247

Created 13th October 2016, last changed 13th October 2016.

## 99.4 Java.GetObjectField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.GetObjectField"; JObject; FieldName; Signature )

### Parameters

#### JObject

The java object reference number.

\$j

#### FieldName

The name of the field.

"test"

#### Signature

The java signature of the field. This describes the data type of the field.

"I"

**Result** Returns OK or error.

### Description

Data type is automatically detected by plugin from signature.

If you read an object value, please call Java.Release later for it.

Java is only available if you call Java.Initialize before to load the java runtime.

Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Test object field:

```
Set Variable [ $j; Value:MBS( "Java.NewClassObject"; "test"; "<init>"; "()" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "value"; "I"; 2345 ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "value"; "I" ) ]
```

```
Show Custom Dialog [ "value"; $r ]
```

```
Set Variable [ $r; Value:MBS( "Java.Release"; $j ) ]
```

Queries various fields:

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_boolean"; "Z" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_byte"; "B" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_byteArray"; " [ B" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_char"; "C" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_charArray"; " [ C" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_double"; "D" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_float"; "F" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_int"; "I" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_long"; "J" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_short"; "S" ) ]  
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "property_string"; "Ljava/lang/String;" ) ]
```

#### See also

- 99.6 Java.Initialize 5238
- 99.8 Java.NewClassObject 5242
- 99.10 Java.Release 5245
- 99.13 Java.SetObjectField 5248

#### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 17th August 2018.

## 99.5 Java.GetStaticField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.GetStaticField"; ClassName; FieldName; Signature )

### Parameters

#### ClassName

The name of the java class.  
"com.mbs.test"

#### FieldName

The name of the field.  
"test"

#### Signature

The java signature of the field. This describes the data type of the field.  
"I"

**Result** Returns value or error.

### Description

This is like a global variable as there is only one value for all objects of the class.  
Data type is automatically detected by plugin from signature.  
If you read an object value, please call Java.Release later for it.

Java is only available if you call Java.Initialize before to load the java runtime.

Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Test static field:

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "test"; "n"; "I"; 3456 ) ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "test"; "n"; "I" ) ]
Show Custom Dialog [ "value"; $r ]
```

Query various static fields:

```
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_boolean"; "Z" ) ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_byte"; "B" ) ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_byteArray"; " [ B" ) ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_char"; "C" ) ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_charArray"; " [ C" ) ]
```



```
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_double"; "D") ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_float"; "F") ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_int"; "I") ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_long"; "J") ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_short"; "S") ]
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "tests"; "static_property_string"; "Ljava/lang/String;")
]
```

#### See also

- [99.6 Java.Initialize](#) 5238
- [99.10 Java.Release](#) 5245
- [99.14 Java.SetStaticField](#) 5250

#### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 17th August 2018.

## 99.6 Java.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.Initialize" { ; LibPath; ClassPathList; Option } )

### Parameters

#### LibPath

Optional

Path to java library (e.g. jvm.dll) If empty, the plugin uses the Java framework on Mac and looks into registry on Windows to find newest Java installation.

e.g. on Windows: "C:\Program Files\Java\jre1.8.0\_101\bin\server\jvm.dll"  
""

#### ClassPathList

Optional

The list of native paths to the jar files to load. Please pass here all jar files you want to use.

"/Users/cs/Desktop/test.jar"

#### Option

Optional

Pass a parameter for each additional option to pass to Java VM initialization.

**Result** Returns OK or error.

### Description

You can either pass path to jvm library file or let the plugin look for it. To access classes, you need to pass paths to the jar and class files you want to use.

Returns error if already a JavaVM is initialized.

Please be aware that you can only have one VM running at a given time, so you can't use Java in other plugin and our plugin together.

This should work fine for any Java version starting with 1.4 or newer. Tested with 1.7 and 1.8.

May not initialize probably if other plugin initialized Java before.

Returns "Using existing Java VM." in case an existing Java VM initialized by other plugin is used. In that case we can't pass your class paths or other options!

On Windows, we look into Local Machine\SOFTWARE\JavaSoft\Java Runtime Environment in registry to find the newest entry and the path to the jvm.dll file. Please note that on Windows you can install 32-bit and 64-bit version of Java and you need the matching bit number to FileMaker application.

If you get error 126 on Windows, maybe MSVCR100.DLL is missing. So install Visual Studio 2010 runtime libraries. You can download them from Microsoft website. Do not download them from other websites

spreading malware!

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Initialize java:

```
Set Variable [ $r ; Value: MBS("Java.Initialize") ]
If [ MBS("Java.Initialized") ]
Show Custom anzeigen [ "Java" ; "Java initialized." ]
Else
Show Custom anzeigen [ "Java" ; "Java failed to initialize" & $r ]
End If
```

Initialize on Linux:

```
Set Variable [ $r ; Value: MBS("Java.Initialize"; "/home/cs/jrel.6.0_05/lib/x64/client/libjvm.so"; "/java/test.jar$/java/drive" ) ]
```

Init with three class path entries:

```
MBS("Java.Initialize"; Java Test::Path to Java Library; Java Test::ClassPath1 & $r & Java Test::ClassPath2 & $r & Java Test::ClassPath3)
```

### See also

- 99.1 `Java.CallObjectMethod` 5229
- 99.2 `Java.CallStaticMethod` 5231
- 99.5 `Java.GetStaticField` 5236
- 99.8 `Java.NewClassObject` 5242
- 99.13 `Java.SetObjectField` 5248
- 99.14 `Java.SetStaticField` 5250
- 123.9 `OCR.Initialize` 6227
- 124.2 `Path.FileMakerPathToNativePath` 6247
- 134.2 `Proj.Initialize` 6659
- 166.21 `TAPI.Initialize` 7876

### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

### 99.6.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr8](#)
- [MBS FileMaker Plugin, version 9.4pr2](#)
- [MBS FileMaker Plugin, version 6.5pr4](#)

Created 2nd October 2016, last changed 13th January 2020.

## 99.7 Java.Initialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.Initialized" )

**Result** Returns 1, 0 or error.

### Description

### Examples

Check if Java is initialized:

```
MBS("Java.Initialized")
```

Initialize java:

```
Set Variable [ $r ; Value: MBS("Java.Initialize") ]
If [ MBS("Java.Initialized") ]
Show Custom anzeigen [ "Java" ; "Java initialized." ]
Else
Show Custom anzeigen [ "Java" ; "Java failed to initialize" & $r ]
End If
```

### See also

- [99.6 Java.Initialize](#)

5238

### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 2nd October 2016.

## 99.8 Java.NewClassObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.NewClassObject"; ClassName; ConstructorName; Signature { ; Params } )

### Parameters

#### ClassName

The name of the java class.

"com.mbs.test"

#### ConstructorName

The name of the constructor.

"test"

#### Signature

The java signature of the method. This describes the parameter types.

"()"

#### Params

Optional

The parameters to pass. Pass one parameter in FileMaker for each parameter to pass.

**Result** Returns object reference or error.

### Description

Parameters and return type is detected by plugin automatically from signature.

Please call later Java.Release to release the object.

Java is only available if you call Java.Initialize before to load the java runtime.

### Examples

Create a new test object with default constructor:

```
MBS( "Java.NewClassObject"; "test"; "<init>"; "()V")
```

### See also

- 99.1 Java.CallObjectMethod 5229
- 99.4 Java.GetObjectField 5234
- 99.6 Java.Initialize 5238
- 99.9 Java.ObjectClassName 5244
- 99.10 Java.Release 5245
- 99.13 Java.SetObjectField 5248

### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

#### 99.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 2nd October 2016, last changed 13th October 2016.

## 99.9 Java.ObjectClassName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.ObjectClassName"; JObject )

### Parameters

#### JObject

The java object reference number.

\$j

**Result** Returns text or error.

### Description

#### Examples

Query object name:

```
MBS( "Java.ObjectClassName"; $j )
```

Create object and query class name:

```
Set Variable [ $j; Value:MBS( "Java.NewClassObject"; "test"; "<init>"; "()" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.ObjectClassName"; $j ) ]
```

```
Show Custom Dialog [ "value"; $r ]
```

```
Set Variable [ $r; Value:MBS( "Java.Release"; $j ) ]
```

### See also

- 99.8 Java.NewClassObject 5242
- 99.10 Java.Release 5245

Created 2nd October 2016, last changed 2nd October 2016.



## 99.10 Java.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.Release"; JObject )

### Parameters

#### JObject

The java object reference number.

\$j

**Result** Returns OK or error.

### Description

Please call that for all java objects to release memory.

### Examples

Release object in \$j:

Set Variable [ \$r; Value:MBS( "Java.Release"; \$j) ]

### See also

- 99.1 Java.CallObjectMethod 5229
- 99.2 Java.CallStaticMethod 5231
- 99.4 Java.GetObjectField 5234
- 99.5 Java.GetStaticField 5236
- 99.8 Java.NewClassObject 5242
- 99.9 Java.ObjectClassName 5244
- 99.11 Java.ReleaseAll 5246
- 99.13 Java.SetObjectField 5248
- 102.67 JSON.Release 5409

### Example Databases

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 2nd October 2016.

## 99.11 Java.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.ReleaseAll" )

**Result** Returns OK or error.

### Description

This is called for you in Java.Close.

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 62.150 CURL.ReleaseAll 2013
- 99.10 Java.Release 5245
- 102.68 JSON.ReleaseAll 5411
- 114.24 Menu.ReleaseAll 5988
- 166.29 TAPI.ReleaseAll 7884
- 194.31 XML.ReleaseAll 9455

Created 2nd October 2016, last changed 9th January 2020.

## 99.12 Java.SetContainerFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.SetContainerFileName"; FileName )

### Parameters

#### FileName

The file name to use for container.

"test.jpg"

**Result** Returns OK or error.

### Description

When a function call to Java returns a ByteArray, we pack it into a container using this file name. The file name than determents for FileMaker the type of file.

### Examples

Set file name:

MBS( "Java.SetContainerFileName"; "Logo.jpg" )

### See also

- [99.3 Java.GetContainerFileName](#)

5233

### Example Databases

- [Java/Java Tests/Java Tests](#)

Created 13th October 2016, last changed 6th September 2019.

## 99.13 Java.SetObjectField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.SetObjectField"; JObject; fieldName; Signature; Value )

### Parameters

#### JObject

The java object reference number.

\$j

#### fieldName

The name of the field.

"test"

#### Signature

The java signature of the field. This describes the data type of the field.

"I"

#### Value

The value to use for the field.

123

**Result** Returns OK or error.

### Description

Data type is automatically detected by plugin from signature.

Java is only available if you call Java.Initialize before to load the java runtime.

Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

### Examples

Test object field:

```
Set Variable [ $j; Value:MBS( "Java.NewClassObject"; "test"; "<init>"; "()"V" ) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "value"; "I"; 2345) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetObjectField"; $j; "value"; "I" ) ]
```

```
Show Custom Dialog [ "value"; $r ]
```

```
Set Variable [ $r; Value:MBS( "Java.Release"; $j) ]
```

Sets various fields:

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_boolean"; "Z"; 1) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_byte"; "B"; 123) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_byteArray"; " [ B"; Java Test::TestContainer) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_char"; "C"; 123) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_charArray"; " [ C"; "123") ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_double"; "D"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_float"; "F"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_int"; "I"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_long"; "J"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_short"; "S"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetObjectField"; $j; "property_string"; "Ljava/lang/String;"; "123") ]
```

**See also**

- 99.4 Java.GetObjectField 5234
- 99.6 Java.Initialize 5238
- 99.8 Java.NewClassObject 5242
- 99.10 Java.Release 5245

**Example Databases**

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 18th October 2016.

## 99.14 Java.SetStaticField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
99 Java	6.5	Yes	Yes	Yes	Yes	No

MBS( "Java.SetStaticField"; ClassName; FieldName; Signature; Value )

### Parameters

#### ClassName

The name of the java class.

"com.mbs.test"

#### FieldName

The name of the field.

"test"

#### Signature

The java signature of the field. This describes the data type of the field.

"I"

#### Value

The value to use for the field.

123

**Result** Returns OK or error.

### Description

This is like a global variable as there is only one value for all objects of the class.

Data type is automatically detected by plugin from signature.

Java is only available if you call Java.Initialize before to load the java runtime.

Supported data types include: void, int, long, boolean, string, double, float, char, byte, object, byte array (for container), char array (using FileMaker text).

### Examples

Test static field:

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "test"; "n"; "I"; 3456) ]
```

```
Set Variable [ $r; Value:MBS( "Java.GetStaticField"; "test"; "n"; "I") ]
```

```
Show Custom Dialog [ "value"; $r ]
```

Set various static fields:

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_boolean"; "Z"; 1) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_byte"; "B"; 123) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_byteArray"; " [ B"; Java  
Test::TestContainer) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_char"; "C"; 123) ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_charArray"; " [ C"; "123") ]
```

```
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_double"; "D"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_float"; "F"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_int"; "I"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_long"; "J"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_short"; "S"; 123) ]
Set Variable [ $r; Value:MBS( "Java.SetStaticField"; "tests"; "static_property_string"; "Ljava/lang/String;";
"123") ]
```

**See also**

- [99.5 Java.GetStaticField](#) 5236
- [99.6 Java.Initialize](#) 5238

**Example Databases**

- [Java/Java Example/Java Example](#)
- [Java/Java Tests/Java Tests](#)

Created 2nd October 2016, last changed 18th October 2016.





# Chapter 100

# JavaScript

Run Javascript without Webviewer cross-platform, even on server.

## 100.1 JS.AddFileMakerEvaluateFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.AddFileMakerEvaluateFunction"; JSRef; Name )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the function.

"test"

**Result** Returns OK or error.

### Description

The function will take string parameter and evaluate the result in FileMaker. Result is returned as text to JavaScript.

For increased security we prefer all FileMaker developers define their own function name, so if you get some foreign JavaScript, it can't know the function name and mess with FileMaker.

### Examples

Evaluate something with FileMaker in JavaScript:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.AddFileMakerEvaluateFunction"; $js; "FMEval" ) ]
Show Custom Dialog [ "Result" ; MBS( "JS.Evaluate"; $JS; " \ "got AccountName: \ " + FMEval(\ "Get(Ac-
countName)\")" ) ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

**See also**

- 100.2 JS.AddFileMakerRunScriptFunction 5255
- 100.6 JS.Evaluate 5262
- 100.8 JS.Free 5268
- 100.11 JS.New 5273

**Example Databases**

- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 12nd December 2019.

## 100.2 JS.AddFileMakerRunScriptFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.AddFileMakerRunScriptFunction"; JSRef; Name )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the function.

"test"

**Result** Returns OK or error.

### Description

Scripts are queued and run later when JavaScript finished.

The function in JavaScript returns the error code from FileMaker, which is zero for success.

For increased security we prefer all FileMaker developers define their own function name, so if you get some foreign JavaScript, it can't know the function name and mess with FileMaker. Be aware that this function may launch any script in the solution, even those not shown in the menu.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Run a script from JavaScript:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "JS.AddFileMakerRunScriptFunction"; $js; "FMRun" ) ]
```

```
Show Custom Dialog [ "Result" ; MBS( "JS.Evaluate"; $JS; " \start script: \ + FMRun(\ "JavaScript.fmp12\ ", \ "testRun\ ", \ "Hello World\ ") " ) ]
```

```
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

### See also

- 100.1 JS.AddFileMakerEvaluateFunction 5253
- 100.6 JS.Evaluate 5262
- 100.8 JS.Free 5268
- 100.11 JS.New 5273

**Example Databases**

- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 8th December 2019.

## 100.3 JS.AddFileMakerSQLFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.AddFileMakerSQLFunction"; JSRef; Name )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the function.

"test"

**Result** Returns OK or error.

### Description

The function will take string parameter with file name and SQL and evaluate the result in FileMaker. Result is returned as text to JavaScript. You can pass additional parameters for filling parameters in SQL.

For increased security we prefer all FileMaker developers define their own function name, so if you get some foreign JavaScript, it can't know the function name and mess with FileMaker. Be aware that users may run commands like DELETE to delete all records of a table!

### Examples

Run SQL from JavaScript:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "JS.AddFileMakerSQLFunction"; $js; "FMSQL" ) ]
```

```
Show Custom Dialog [ "Result" ; MBS( "JS.Evaluate"; $JS; " \"got SQL result: \" + FMSQL( \"JavaScript.fmp12\", \"SELECT COUNT(*) FROM JavaScript\" ) ) ]
```

```
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

### See also

- 100.6 JS.Evaluate 5262
- 100.8 JS.Free 5268
- 100.11 JS.New 5273

### Example Databases

- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 8th December 2019.

## 100.4 JS.AddFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.AddFunction"; JSRef; Name; JavaScript )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the function.

"test"

#### JavaScript

The JavaScript code.

"function (x,y) { return x+y; } "

**Result** Returns OK or error.

### Description

Optional provide a file name to show in stack traces.

Function source code may contain a function name, but we use only the name parameter to register the function as global one.

### Examples

Define a function and call it:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.AddFunction"; $js; "adder"; "function (x,y) { return x+y; } " ) ]
Show Custom Dialog [ "Result" ; MBS( "JS.CallFunction"; $JS; "adder"; 3; 4 ) ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Initialize JavaScript environment with two functions:

```
If [ Length($$js) = 0 ]
Set Variable [ $$js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.AddFunction"; $$js; "makeCRCTable"; "function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n =0; n <256; n++) {
c = n;
for(var k =0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^ (c >>1)) : (c >>1));
}
crcTable [ n ] = c;
}
}
```

```
return crcTable;
} ” ]
Set Variable [ $r ; Value: MBS( "JS.AddFunction"; $$js; "crc32"; "function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++ ) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i) & 0xFF ) ;
}

return (crc ^(-1)) »>0;
} ” ]
End If
```

**See also**

- 100.5 JS.CallFunction 5260
- 100.8 JS.Free 5268
- 100.11 JS.New 5273

**Example Databases**

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 15th January 2020.

## 100.5 JS.CallFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.CallFunction"; JSRef; Name; Parameters )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the function.

"test"

#### Parameters

JSON to pass as parameter.

**Result** Returns JSON or error.

### Description

Parameters are passed to the function. Please pass as many parameters in FileMaker as needed.

If the function needs more parameter, undefined values are used to fill up.

If the function needs less parameters, additional ones are dropped.

Returns the result of the function converted to a JSON value.

### Examples

Define a function and call it:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.AddFunction"; $js; "adder"; "function (x,y) { return x+y; } " ) ]
Show Custom Dialog [ "Result" ; MBS( "JS.CallFunction"; $JS; "adder"; 3; 4 ) ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Concat strings:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.AddFunction"; $js; "Concat"; "function (x,y) { return x+\\" \"+y; } " ) ]
Show Custom Dialog [ "Result" ; MBS( "JS.CallFunction"; $JS; "Concat"; "\\"Hello\\""; "\\"World\\"") ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Call a function:

```
If [ Length($js) >0 ]
Set Variable [ $p ; Value: MBS( "JSON.CreateString"; test::Input ) ]
Set Field [ test::Output ; MBS( "JS.CallFunction"; $js; "crc32"; $p ) ]
End If
```



100.5. *JS.CALLFUNCTION*

5261

**See also**

- 100.4 JS.AddFunction 5258
- 100.8 JS.Free 5268
- 100.11 JS.New 5273
- 102.29 JSON.CreateString 5354

**Example Databases**

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 15th January 2020.

## 100.6 JS.Evaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.Evaluate"; JSRef; JavaScript )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### JavaScript

A JavaScript expression.

"1+2"

**Result** Returns JSON or error.

### Description

This may include definition of functions and objects and using them.

Result is converted to JSON and returned.

### Examples

Evaluate some expressions:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $js; "4+5" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "test"; "\"Hello World\"" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $js; "test + test;" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Defines and runs a function in JavaScript:

```
Let( [
f = "
function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n =0; n <256; n++) {
c = n;
for(var k =0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^ (c »>1)) : (c »>1));
}
crcTable [ n ] = c;
}
return crcTable;
```

```

}

function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i) & 0xFF ) ;
}

return (crc ^(-1)) »>0;
};

crc32(InputChange);";
j = MBS( "JS.New" );
r = MBS( "JS.SetGlobalPropertyValue"; j; "InputChange"; "Hello World" );
r = MBS( "JS.Evaluate"; j; f );
x = MBS( "JS.Free"; j )
];r)

```

Initialize JavaScript environment with two functions:

```

If [ Length($$js) = 0 ]
Set Variable [ $$js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $$js;
"function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n=0; n <256; n++) {
c = n;
for(var k=0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^c »>1)) : (c »>1));
}
crcTable [ n ] = c;
}
return crcTable;
}

function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i) & 0xFF ) ;
}

return (crc ^(-1)) »>0;
};"} ]

```

End If

List global properties:

```
MBS( "JS.Evaluate"; $$JS; "Object.keys(globalThis);" )
```

Query now in JavaScript:

```
MBS( "JS.Evaluate"; $$JS; "performance.now();" )
```

Measure time for a test function:

```
MBS("JS.Evaluate"; $js; "function testFunction() {
for (var i = 0; i <1e6; i++) { }
}")
```

```
var t1 = performance.now();
testFunction();
var t2 = performance.now();
```

```
('test took: ' + (t2 - t1) + ' milliseconds');
```

#### See also

- 80.19 FM.Evaluate 3963
- 100.1 JS.AddFileMakerEvaluateFunction 5253
- 100.2 JS.AddFileMakerRunScriptFunction 5255
- 100.3 JS.AddFileMakerSQLFunction 5257
- 100.7 JS.EvaluateToString 5266
- 100.8 JS.Free 5268
- 100.11 JS.New 5273
- 100.14 JS.SetGlobalProperty 5277
- 100.15 JS.SetGlobalPropertyValue 5279

#### Example Databases

- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [List/Sort Benchmark](#)

### 100.6.1 Blog Entries

- [Tips for our JavaScript functions](#)
- [CRC function in FileMaker using JavaScript](#)
- [Our JavaScript engine for FileMaker](#)

Created 7th December 2019, last changed 30th January 2020.

## 100.7 JS.EvaluateToString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.EvaluateToString"; JSRef; JavaScript )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### JavaScript

A JavaScript expression.

"1+2"

**Result** Returns text or error.

### Description

This may include definition of functions and objects and using them.

Result is converted to string and returned.

### Examples

Evaluate some text:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.EvaluateToString"; $js; "e = \"test\"; e + String.fromCharCode(33)" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Defines and runs a function in JavaScript:

```
Let( [
f = "
function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n =0; n <256; n++) {
c = n;
for(var k =0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^ (c »>1)) : (c »>1));
}
crcTable [ n ] = c;
}
return crcTable;
}
```

```

function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i)) & 0xFF ] ;
}

return (crc ^(-1)) »>0;
};

crc32(InputChange);";
j = MBS( "JS.New" );
r = MBS( "JS.SetGlobalPropertyValue"; j; "InputChange"; "Hello World" );
r = MBS( "JS.EvaluateToString"; j; f );
x = MBS( "JS.Free"; j )
];r)

```

**See also**

- [100.6 JS.Evaluate](#) 5262
- [100.8 JS.Free](#) 5268
- [100.11 JS.New](#) 5273
- [100.14 JS.SetGlobalProperty](#) 5277
- [100.15 JS.SetGlobalPropertyValue](#) 5279

**Example Databases**

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [JavaScript/RichTextToJSON](#)

**100.7.1 Blog Entries**

- [Our JavaScript engine for FileMaker](#)

Created 7th December 2019, last changed 9th January 2020.

## 100.8 JS.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.Free"; JSRef )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

**Result** Returns OK or error.

### Description

### Examples

Evaluate some expressions:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $js; "4+5" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "test"; "\"Hello World\"" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $js; "test + test;" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

Cleanup script:

```
If [ Length($$js) >0 ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $$js ) ]
Set Variable [ $$js ; Value: "" ]
End If
```

### See also

- 100.1 JS.AddFileMakerEvaluateFunction 5253
- 100.2 JS.AddFileMakerRunScriptFunction 5255
- 100.3 JS.AddFileMakerSQLFunction 5257
- 100.4 JS.AddFunction 5258
- 100.5 JS.CallFunction 5260
- 100.6 JS.Evaluate 5262
- 100.7 JS.EvaluateToString 5266



<i>100.8. JS.FREE</i>	5269
• 100.9 JS.GetGlobalProperty	5270
• 100.11 JS.New	5273
• 100.14 JS.SetGlobalProperty	5277

### **Example Databases**

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [JavaScript/RichTextToJSON](#)
- [List/Sort Benchmark](#)

### **100.8.1 Blog Entries**

- [New in the MBS FileMaker Plugin 10.1](#)
- [Our JavaScript engine for FileMaker](#)

Created 7th December 2019, last changed 15th January 2020.

## 100.9 JS.GetGlobalProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.GetGlobalProperty"; JSRef; Name )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the variable.

"test"

**Result** Returns JSON value or error.

### Description

Returns value as JSON encoded.

### Examples

Get and set some properties:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
# try number
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v1"; 123 ) ]
Set Variable [ $v1 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v1" ) ]
# try some JSON array
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v2"; " [ 1,2,3 ] " ) ]
Set Variable [ $v2 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v2" ) ]
# try some text
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v3"; "\"test\"" ) ]
Set Variable [ $v3 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v3" ) ]
# show results
Show Custom Dialog [ "Property" ; $v1 & §& $v2 & §& $v3 ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

### See also

- 100.8 JS.Free 5268
- 100.10 JS.GetGlobalPropertyValue 5272
- 100.11 JS.New 5273
- 100.14 JS.SetGlobalProperty 5277

### Example Databases

- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 7th December 2019.

## 100.10 JS.GetGlobalPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.GetGlobalPropertyValue"; JSRef; Name )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the variable.

"test"

**Result** Returns value or error.

### Description

Returns value as number, text or JSON encoded.

This is a simplified version of JS.GetGlobalProperty to avoid extra JSON encoding for simple values. Objects are still returned JSON encoded.

### Examples

Queries a number value:

```
MBS( "JS.GetGlobalPropertyValue"; $js; "Hello")
```

### See also

- [100.9 JS.GetGlobalProperty](#) 5270
- [100.15 JS.SetGlobalPropertyValue](#) 5279

### Example Databases

- [List/Sort Benchmark](#)

### 100.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr4](#)

Created 17th December 2019, last changed 26th December 2019.

## 100.11 JS.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.New" )

**Result** Returns JS reference number or error.

### Description

This object contains all the functions and properties you defined. Please release the object later with the JS.Free function.

Your own JavaScript engine is useful for:

- Running some snippet of JavaScript code without web viewer.
- Using various JavaScript libraries
- Providing a scripting language to your own solution.
- Doing JavaScript on server side.
- Working with JSON data
- Enjoy using regular expressions, unicode text functions, number parsing and formatting with no platform dependencies

### Examples

Evaluate a bit of JavaScript:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
Set Variable [ $r ; Value: MBS( "JS.Evaluate"; $js; "4+5" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

### See also

- 100.1 JS.AddFileMakerEvaluateFunction 5253
- 100.2 JS.AddFileMakerRunScriptFunction 5255
- 100.3 JS.AddFileMakerSQLFunction 5257
- 100.6 JS.Evaluate 5262
- 100.8 JS.Free 5268

- 100.9 JS.GetGlobalProperty 5270
- 100.12 JS.Now 5275
- 100.14 JS.SetGlobalProperty 5277
- 100.16 JS.StringCount 5281
- 100.19 JS.UTCDateToTime 5285

### Example Databases

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript libPhoneNumber](#)
- [JavaScript/JavaScript](#)
- [JavaScript/RichTextToJSON](#)
- [List/Sort Benchmark](#)

### 100.11.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.1](#)
- [Our JavaScript engine for FileMaker](#)

Created 7th December 2019, last changed 9th December 2019.

## 100.12 JS.Now

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.Now"; JSRef )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

**Result** Returns number or error.

### Description

This is seconds since 1st January 1970 multiplied by 1000 and may contain fraction with microseconds.

Get current time in POSIX milliseconds, as seen by the ECMAScript environment. The return value matches `Date.now()` with the reservation that sub-millisecond resolution may be available.

### Examples

Query current time:

MBS( "JS.Now"; \$\$JS )

Example result: 1579438706835.8249512

### See also

- [100.11 JS.New](#) 5273
- [100.17 JS.TimeToDateComponents](#) 5282
- [100.18 JS.TimeToUTCDate](#) 5284

### 100.12.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.1](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 19th January 2020, last changed 19th January 2020.

## 100.13 JS.ObjectCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.ObjectCount"; JSRef )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

**Result** Returns number or error.

### Description

A fresh JavaScript engine already has about 400 objects for the built-in functionality.

### Examples

Query memory statistics:

```
Set Variable [ $JS ; Value: MBS( "JS.New" ) ]
```

```
Show Custom Dialog [ "JavaScript memory statistics:" ; MBS( "JS.StringCount"; $JS ) & " strings" & $&
MBS( "JS.ObjectCount"; $JS ) & " objects" ]
```

### See also

- [100.11 JS.New](#) 5273
- [100.16 JS.StringCount](#) 5281

### 100.13.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 31st January 2020, last changed 19th April 2020.



## 100.14 JS.SetGlobalProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.SetGlobalProperty"; JSRef; Name; Value )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the variable.

"test"

#### Value

The JSON value.

" [ 1,2,3 ] "

**Result** Returns OK or error.

### Description

Please pass value as JSON value.

### Examples

Get and set some properties:

```
Set Variable [ $js ; Value: MBS( "JS.New" ) ]
# try number
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v1"; 123 ) ]
Set Variable [ $v1 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v1" ) ]
# try some JSON array
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v2"; " [ 1,2,3 ] " ) ]
Set Variable [ $v2 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v2" ) ]
# try some text
Set Variable [ $r ; Value: MBS( "JS.SetGlobalProperty"; $JS; "v3"; "\"test\"" ) ]
Set Variable [ $v3 ; Value: MBS( "JS.GetGlobalProperty"; $JS; "v3" ) ]
# show results
Show Custom Dialog [ "Property" ; $v1 & $& $v2 & $& $v3 ]
Set Variable [ $r ; Value: MBS( "JS.Free"; $JS ) ]
```

### See also

- 100.6 JS.Evaluate 5262
- 100.7 JS.EvaluateToString 5266
- 100.8 JS.Free 5268

- 100.9 JS.GetGlobalProperty 5270
- 100.11 JS.New 5273
- 100.15 JS.SetGlobalPropertyValue 5279

**Example Databases**

- [JavaScript/CoordinatDistance](#)
- [JavaScript/JavaScript](#)

Created 7th December 2019, last changed 8th December 2019.

## 100.15 JS.SetGlobalPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JS.SetGlobalPropertyValue"; JSRef; Name; Value )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Name

The name of the variable.

"test"

#### Value

The number or text value.

123

**Result** Returns OK or error.

### Description

Please pass value as number or text.

Container, date, time and timestamp are converted to text.

This is a simplified version of JS.SetGlobalProperty to avoid extra JSON encoding for simple values.

### Examples

Sets a variable with name:

MBS( "JS.SetGlobalPropertyValue"; \$js; "Hello"; 123,45 )

### See also

- [100.6 JS.Evaluate](#) 5262
- [100.7 JS.EvaluateToString](#) 5266
- [100.10 JS.GetGlobalPropertyValue](#) 5272
- [100.14 JS.SetGlobalProperty](#) 5277

### Example Databases

- [JavaScript/CoordinatDistance](#)
- [List/Sort Benchmark](#)

### 100.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr4](#)

Created 17th December 2019, last changed 26th December 2019.

## 100.16 JS.StringCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.StringCount"; JSRef )

### Parameters

#### JSRef

The JavaScript reference number.  
\$js

**Result** Returns number or error.

### Description

A fresh JavaScript engine already has about 1000 strings.

### Examples

Query memory statistics:

```
Set Variable [ $JS ; Value: MBS( "JS.New" ) ]
```

```
Show Custom Dialog [ "JavaScript memory statistics:" ; MBS( "JS.StringCount"; $JS ) & " strings" & $&
MBS( "JS.ObjectCount"; $JS ) & " objects" ]
```

### See also

- 100.11 JS.New 5273
- 100.13 JS.ObjectCount 5276

### 100.16.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr2](#)

Created 31st January 2020, last changed 19th April 2020.

## 100.17 JS.TimeToDateComponents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.TimeToDateComponents"; JSRef; Time )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Time

The time value.

1579438861538

**Result** Returns JSON or error.

### Description

Convert a time value to components (year, month, day, hour, minute, second) interpreted in UTC. If the time value is invalid, e.g. beyond the valid ECMAScript time range, an error is thrown.

### Examples

Query date components for now:

```
MBS( "JS.TimeToDateComponents"; $$JS; MBS( "JS.Now"; $$JS ) )
```

```
Example result: {
  "year": 2020,
  "month": 1,
  "day": 19,
  "hours": 12,
  "minutes": 59,
  "seconds": 13,
  "milliseconds": 806,
  "weekday": 0,
  "timezone": "UTC",
  "weekdayText": "Sunday"
}
```

### See also

- 100.12 JS.Now 5275
- 100.19 JS.UTCDateToTime 5285

### 100.17.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.1](#)

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 19th January 2020, last changed 19th January 2020.

## 100.18 JS.TimeToUTCDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.TimeToUTCDate"; JSRef; Time )

### Parameters

#### JSRef

The JavaScript reference number.

\$js

#### Time

The time value.

1579438861538

**Result** Returns timestamp or error.

### Description

### Examples

Query now as timestamp:

```
MBS( "JS.TimeToUTCDate"; $$JS; MBS( "JS.Now"; $$JS ) )
```

Example result: 19.01.2020 12:59:46

### See also

- [100.12 JS.Now](#)

5275

### 100.18.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.1](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 19th January 2020, last changed 19th January 2020.



**100.19 JS.UTCDateToTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
100 JavaScript	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "JS.UTCDateToTime"; JSRef; TS )

**Parameters****JSRef**

The JavaScript reference number.

\$js

**TS**

The timestamp to convert. Must be in UTC timezone.

**Result** Returns double or error.

**Description**

Convert components (year, month, day, hour, minute, seconds) in timestamp, interpreted in UTC, into a time value.

**Examples**

Tests time functions:

```
Let( [
c = MBS( "JS.New" );
r = MBS( "JS.UTCDateToTime"; c; Get(CurrentTimeStamp) );
d = MBS( "JS.TimeToDateComponents"; c; r )
]; r & $& d)
```

Example result: 1582121231000

```
{
"year": 2020,
"month": 2,
"day": 19,
"hours": 14,
"minutes": 7,
"seconds": 11,
"milliseconds": 0,
"weekday": 3,
"timezone": "UTC",
"weekdayText": "Wednesday"
}
```

**See also**

- 100.11 JS.New 5273
- 100.17 JS.TimeToDateComponents 5282

### 100.19.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.1](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 19th January 2020, last changed 19th January 2020.

# Chapter 101

## JavaScriptMac

Run Javascript without Webviewer on Mac/iOS, even on server.

Supported for iOS with MBS Plugin 7.5 or newer.

### 101.1 JavaScript.CheckScriptSyntax

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.CheckScriptSyntax"; JavaScriptContext; Script { ; URL; startingLineNumber } )

#### Parameters

##### JavaScriptContext

The reference number of the javascript context.

\$Context

##### Script

The script to evaluate.

##### URL

Optional

The source URL for this script. A URL for the script's source file. Used by debuggers and when reporting exceptions. This parameter is informative only: it does not change the behavior of the script.

##### startingLineNumber

Optional

An integer value specifying the script's starting line number in the file located at sourceURL. This is only used when reporting exceptions. The value is one-based, so the first line is line 1 and invalid values are clamped to 1.

1

**Result** Returns OK or error.

### Description

Returns OK on success or error message.

### Examples

Check syntax:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]  
Set Variable [ $r ; Value: MBS( "JavaScript.CheckScriptSyntax"; $js; "test+++++" ) ]  
Show Custom Dialog [ "Result" ; $r ]  
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

### See also

- 101.5 JavaScript.New 5294
- 101.10 JavaScript.Release 5301

Created 5th November 2015, last changed 9th January 2020.

## 101.2 JavaScript.EvaluateScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.EvaluateScript"; JavaScriptContext; Script { ; URL; startingLineNumber } )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### Script

The script to evaluate.

#### URL

Optional

The source URL for this script. A URL for the script's source file. Used by debuggers and when reporting exceptions. This parameter is informative only: it does not change the behavior of the script.

#### startingLineNumber

Optional

An integer value specifying the script's starting line number in the file located at sourceURL. This is only used when reporting exceptions. The value is one-based, so the first line is line 1 and invalid values are clamped to 1.

1

**Result** Returns text or error.

### Description

See also `WebView.RunJavaScript` or `WebView.Evaluate` for use with web viewer.

### Examples

Set variables and use them in the script:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.SetProperty"; $js; "FirstName"; "Joe" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.SetProperty"; $js; "LastName"; "Miller" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.EvaluateScript"; $js; "FirstName + ' ' + LastName;" ) ]
Show Custom Dialog [ "Result" ; $r ]
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

Evaluate in javascript the FileMaker get function:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.RegisterEvaluateFunction"; $js; "FMEvaluate" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.EvaluateScript"; $js; "FMEvaluate('Get(AccountName)') + '
from javascript'" ) ]
Show Custom Dialog [ "Result" ; $r ]
```

```
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

Defines and runs a function in JavaScript:

```
Let( [
f = "
function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n =0; n <256; n++) {
c = n;
for(var k =0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^ (c »>1)) : (c »>1));
}
crcTable [ n ] = c;
}
return crcTable;
}

function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++ ) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i)) & 0xFF ] ;
}

return (crc ^(-1)) »>0;
} ;

crc32(InputChange);";
j = MBS( "JavaScript.New" );
r = MBS( "JavaScript.SetProperty"; j; "InputChange"; "Hello World" );
r = MBS( "JavaScript.EvaluateScript"; j; f );
x = MBS( "JavaScript.Release"; j )
] ;r)
```

### See also

- 101.5 JavaScript.New 5294
- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.10 JavaScript.Release 5301
- 101.11 JavaScript.SetProperty 5302
- 183.44 WebView.Evaluate 8463

101.2. *JAVASCRIPT.EVALUATESCRIPT*

5291

- 183.111 WebView.RunJavaScript

8557

### **Example Databases**

- [JavaScript/RichTextToJSON](#)

Created 5th November 2015, last changed 9th January 2020.

## 101.3 JavaScript.GetProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.GetProperty"; JavaScriptContext; PropertyName )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### PropertyName

The name of the property.

"FirstName"

**Result** Returns text or error.

### Description

### Examples

Set and query property:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.SetProperty"; $js; "FirstName"; "Joe" ) ]
Show Custom Dialog [ "Result" ; MBS( "JavaScript.GetProperty"; $js; "FirstName" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

### See also

- 101.4 JavaScript.HasProperty 5293
- 101.5 JavaScript.New 5294
- 101.10 JavaScript.Release 5301
- 101.11 JavaScript.SetProperty 5302

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 5th November 2015, last changed 9th January 2020.



## 101.4 JavaScript.HasProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.HasProperty"; JavaScriptContext; PropertyName )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### PropertyName

The name of the property.

"FirstName"

**Result** Returns 0, 1 or error.

### Description

#### See also

- 101.3 JavaScript.GetProperty 5292
- 101.11 JavaScript.SetProperty 5302

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 5th November 2015, last changed 9th January 2020.

## 101.5 JavaScript.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.New" )

**Result** Returns reference number or error.

### Description

Reference numbers start at 47000.

Works in FileMaker 32-bit and 64-bit.

Supported for iOS with MBS Plugin 7.5.

Check JS Functions for JavaScript engine cross platform.

### See also

- 101.1 JavaScript.CheckScriptSyntax 5287
- 101.2 JavaScript.EvaluateScript 5289
- 101.3 JavaScript.GetProperty 5292
- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.11 JavaScript.SetProperty 5302

### Example Databases

- [JavaScript/RichTextToJSON](#)
- [Mac and iOS/JavaScript](#)

Created 5th November 2015, last changed 9th January 2020.

## 101.6 JavaScript.RegisterEvaluateFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.RegisterEvaluateFunction"; JavaScriptContext; FunctionName )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### FunctionName

The name for the new function.

"Evaluate"

**Result** Returns OK or error.

### Description

The javascript function takes one parameter which is expression to evaluate. Returns the text of the expression result.

Call later like this: FMEvaluate("Get(AccountName)")

### Examples

Register function:

```
MBS( "JavaScript.RegisterEvaluateFunction"; $$Context; "FMEvaluate" )
```

```
# later:
```

```
# FMEvaluate("Get(AccountName)")
```

Evaluate in javascript the FileMaker get function:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "JavaScript.RegisterEvaluateFunction"; $js; "FMEvaluate" ) ]
```

```
Set Variable [ $r ; Value: MBS( "JavaScript.EvaluateScript"; $js; "FMEvaluate('Get(AccountName)') + ' from javascript'" ) ]
```

```
Show Custom Dialog [ "Result" ; $r ]
```

```
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

### See also

- 101.2 JavaScript.EvaluateScript 5289
- 101.5 JavaScript.New 5294
- 101.7 JavaScript.RegisterFunction 5297
- 101.8 JavaScript.RegisterRunScriptFunction 5299

- 101.9 JavaScript.RegisterSQLQueryFunction 5300
- 101.10 JavaScript.Release 5301

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 7th November 2015, last changed 9th January 2020.

## 101.7 JavaScript.RegisterFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.RegisterFunction"; JavaScriptContext; FunctionName { ; ParameterNames; Body; SourceURL; startingLineNumber } )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### FunctionName

The name for the new function.

"test"

#### ParameterNames

Optional

The names for the parameters.

"Value\$Count"

#### Body

Optional

The body of the function.

"return value;"

#### SourceURL

Optional

A text containing a URL for the script's source file. This is only used when reporting exceptions. Pass empty text if you do not care to include source file information in exceptions.

#### startingLineNumber

Optional

An integer value specifying the script's starting line number in the file located at sourceURL. This is only used when reporting exceptions. The value is one-based, so the first line is line 1 and invalid values are clamped to 1.

1

**Result** Returns OK or error.

### Description

#### Examples

Register a function:

```
Set Variable [ $r; Value:MBS( "JavaScript.RegisterFunction"; $$Context; "Test"; "Value$Count"; "return Value * Count;" ) ]
```

### See also

- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.9 JavaScript.RegisterSQLQueryFunction 5300

**Example Databases**

- [Mac and iOS/JavaScript](#)

Created 7th November 2015, last changed 9th January 2020.

## 101.8 JavaScript.RegisterRunScriptFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.RegisterRunScriptFunction"; JavaScriptContext; FunctionName )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### FunctionName

The name for the new function.

"StartScript"

**Result** Returns OK or error.

### Description

The javascript function takes first parameter the filename, second parameter the script name. Optionally third parameter is passed as text to the script.

Call for example like this: FMRunScript('Javascript.fp7', 'test', 'Hello World')

### Examples

Register RunScript function:

```
Set Variable [ $r; Value:MBS( "JavaScript.RegisterRunScriptFunction"; $$Context; "FMRunScript" ) ]
```

```
# later:
```

```
# FMRunScript('Javascript.fp7', 'test', 'Hello World')
```

### See also

- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.9 JavaScript.RegisterSQLQueryFunction 5300

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 7th November 2015, last changed 9th January 2020.

## 101.9 JavaScript.RegisterSQLQueryFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.RegisterSQLQueryFunction"; JavaScriptContext; FunctionName )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### FunctionName

The name for the new function.

"SQLQuery"

**Result** Returns OK or error.

### Description

The javascript function has as parameter first the SQL expression. Second optional parameter is the file name to limit query to only this FileMaker database file. Third and fourth parameter are separators for column or row which can be text or number. Default is column = tab and row = return. Fifth and following parameters are passed as parameters to SQL.

Call like this:

```
FMQuery('select * from Hello')
```

or

```
FMQuery('select * from Hello where "Count"=?', 'JavaScript.fmp12', 9, 13, 2)
```

### Examples

Register query function:

```
MBS( "JavaScript.RegisterSQLQueryFunction"; $$Context; "FMQuery" )
```

### See also

- 101.6 JavaScript.RegisterEvaluateFunction 5295
- 101.7 JavaScript.RegisterFunction 5297
- 101.8 JavaScript.RegisterRunScriptFunction 5299

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 7th November 2015, last changed 9th January 2020.



## 101.10 JavaScript.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.Release"; JavaScriptContext )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.  
\$Context

**Result** Returns OK or error.

### Description

#### See also

- [101.1 JavaScript.CheckScriptSyntax](#) 5287
- [101.2 JavaScript.EvaluateScript](#) 5289
- [101.3 JavaScript.GetProperty](#) 5292
- [101.6 JavaScript.RegisterEvaluateFunction](#) 5295
- [101.11 JavaScript.SetProperty](#) 5302

### Example Databases

- [JavaScript/RichTextToJSON](#)
- [Mac and iOS/JavaScript](#)

Created 5th November 2015, last changed 9th January 2020.

## 101.11 JavaScript.SetProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
101 JavaScriptMac	5.4	Yes	No	Yes, macOS only	No	Yes

MBS( "JavaScript.SetProperty"; JavaScriptContext; PropertyName; Value )

### Parameters

#### JavaScriptContext

The reference number of the javascript context.

\$Context

#### PropertyName

The name of the property.

"FirstName"

#### Value

The new text value.

"Joe"

**Result** Returns OK or error.

### Description

### Examples

Set and query property:

```
Set Variable [ $js ; Value: MBS( "JavaScript.New" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.SetProperty"; $js; "FirstName"; "Joe" ) ]
Show Custom Dialog [ "Result" ; MBS( "JavaScript.GetProperty"; $js; "FirstName" ) ]
Set Variable [ $r ; Value: MBS( "JavaScript.Release"; $js ) ]
```

### See also

- 101.2 JavaScript.EvaluateScript 5289
- 101.3 JavaScript.GetProperty 5292
- 101.4 JavaScript.HasProperty 5293
- 101.5 JavaScript.New 5294
- 101.10 JavaScript.Release 5301

### Example Databases

- [Mac and iOS/JavaScript](#)

Created 5th November 2015, last changed 9th January 2020.

# Chapter 102

## JSON

Parse or build JSON texts.

### 102.1 Dictionary.ToJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ToJSON"; DictionaryRef )

#### Parameters

##### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

**Result** Returns OK or error.

#### Description

This is useful for passing data from dictionary to some javascript.

#### Examples

Test exporting dictionaries:

```
#  
#  
# Create new Dictionary  
#  
Set Variable [ $param; Value:MBS( "Dictionary.Create" ) ]  
#  
# Fill in values  
#
```

```

Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "text"; Pass Parameters with Dictionary::TextField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "number"; Pass Parameters with Dictionary::NumberField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "date"; Pass Parameters with Dictionary::DateField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "time"; Pass Parameters with Dictionary::TimeField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "timestamp"; Pass Parameters with Dictionary::TimeStampField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "container"; Pass Parameters with Dictionary::ContainerField ) ]
#
# Call save xml, json and text
#
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToXML"; $param; 1); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.xml"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToText"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.txt"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToJSON"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.json.txt"); "UTF8" ) ]
#
# free memory
#
Set Variable [ $r; Value:MBS("Dictionary.Release"; $param) ]

```

**See also**

- 66.1 Dictionary.AddSQL 2439
- 81.1 Dictionary.AddSQLRecord 4123
- 81.2 Dictionary.AddSQLRecords 4125
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 66.19 Dictionary.SetValueForKey 2465
- 66.22 Dictionary.ToText 2471
- 194.1 Dictionary.ToXML 9407
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243

### 102.1.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 25th February 2016, last changed 20th February 2018.

## 102.2 FM.SQL.JSONRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecord"; SQLref; Row; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### Row

The row you like to get.

1

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON record:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecord"; $sql; 0; "First$Last$Birthday$Photo"; 2) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Query record as JSON:

```
Let ( [
fields = MBS( "FM.QueryFieldsForTableName"; "Contacts" );
Records = MBS( "FM.SQL.Execute"; "" ; "SELECT \"\" & substitute(fields; $; \"\", \")\" & \"\" FROM \"Contacts\" WHERE \"First\" = ?"; "Joe");
```

## 102.2. *FM.SQL.JSONRECORD*

5307

```
json = MBS( "FM.SQL.JSONRecord"; Records; 0; fields);  
r = MBS( "FM.SQL.Release"; Records ) ]  
; json )
```

### See also

- 80.53 [FM.QueryFieldsForTableName](#) 4039
- 81.26 [FM.SQL.Execute](#) 4196
- 102.3 [FM.SQL.JSONRecords](#) 5308
- 81.34 [FM.SQL.Release](#) 4213
- 159.10 [SQL.Execute](#) 7425

### 102.2.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 4th March 2018, last changed 8th April 2019.

## 102.3 FM.SQL.JSONRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 102 JSON	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "FM.SQL.JSONRecords"; SQLref; FieldNames { ; Flags } )

### Parameters

#### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in SQL result.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON:

```
Set Variable [ $sql ; Value: MBS( "FM.SQL.Execute"; "" ; "SELECT \"First\", \"Last\", Birthday, \"Photo Container\" FROM Contacts" ) ]
```

```
Set Variable [ $json ; Value: MBS( "FM.SQL.JSONRecords"; $sql; "First$Last$Birthday$Photo"; 2 ) ]
```

```
Show Custom Dialog [ "JSON" ; $json ]
```

```
Set Variable [ $r ; Value: MBS( "FM.SQL.Release"; $sql ) ]
```

Make a JSON query in one Let statment:

```
Let (
```

```
[
```

```
$sdat = "10/1/2019 00:00";
```

```
$edat = "10/10/2019 00:00";
```

```
sku = "'PARbh50','PARgy50'";
```

```
sql1 = MBS("FM.SQL.Execute"; "" ; "Select docnum,linetotal,db from \"MyTable\" where ItemCode in (\" & sku & ") and DocDate between ? and ?"; $sdat; $edat);
```

```
json = MBS( "FM.SQL.JSONRecords"; sql1; "DocNum$LineTotal$DB"; 1);
```

```
r = MBS( "FM.SQL.Release"; sql1 )
```



```
]; json
)
```

Query related records as JSON:

```
# get related teams
Set Variable [ $r ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT \"UUID\", \"ID\", \"ID_De-
partment\", \"Team.Name\", \"MemberCount\" FROM \"Teams\" WHERE ID_Department=?"; Depart-
ment::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "SQL error" ; $r ]
Else
# fill as json in field
Set Field [ Department::JSON_Department ; MBS( "FM.SQL.JSONRecords"; $r; "UUID$ID$ID_Depart-
ment$Team.Name$MemberCount") ]
Set Variable [ $e ; Value: MBS( "FM.SQL.Release"; $r ) ]
End If
```

### See also

- 81.26 FM.SQL.Execute 4196
- 102.2 FM.SQL.JSONRecord 5306
- 81.34 FM.SQL.Release 4213
- 127.6 IsError 6374
- 159.10 SQL.Execute 7425

### 102.3.1 Blog Entries

- [Query FileMaker records as JSON](#)

### 102.3.2 FileMaker Magazin

- Ausgabe 3/2018, Seite 34

Created 4th March 2018, last changed 2nd April 2020.

## 102.4 JSON.AddArrayToArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddArrayToArray"; json; OtherJSONs )

### Parameters

#### json

A JSON text or reference.

[ "1","2" ]

#### OtherJSONs

A second JSON text or reference. Can be arrays to take their items or JSON values.

[ "3","4" ]

**Result** Returns OK or error.

### Description

May also add JSON items to an array.

### Examples

Adds arrays:

MBS("JSON.AddArrayToArray"; " [ 1,2 ] "; " [ 3,4 ] "; " [ 5 ] ")

### See also

- [102.7 JSON.AddItemToArray](#) 5315
- [102.12 JSON.AddStringToArray](#) 5326

### 102.4.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 2nd April 2020, last changed 2nd April 2020.

## 102.5 JSON.AddBooleanToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddBooleanToObject"; json; name; value )

### Parameters

#### json

A JSON text or reference.

[ false,true,false ]

#### name

The name of the key.

"Hello"

#### value

The boolean to be added. Pass 1 for true and 0 for false.

1

**Result** Returns JSON code or error.

### Description

Same as JSON.AddItemToArray, but calls JSON.CreateBoolean automatically for you.

With version 6, you can pass several parameters to add several entries to the array.

When adding to a JSON reference, the function returns that reference number.

### Examples

Add a boolean to object:

```
Set Variable [ $json; Value:MBS( "JSON.Parse"; " { \"Hello\": \"World\" } " ) ]
Set Variable [ $json; Value:MBS( "JSON.AddBooleanToObject"; $json; "test"; 1 ) ]
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json) ]
```

Add a value:

```
MBS( "JSON.AddBooleanToObject"; " { } "; "test"; 1 )
```

```
Example result: {
  "test": true
}
```

### See also

- 102.6 JSON.AddFalseToObject 5313
- 102.7 JSON.AddItemToArray 5315

- 102.11 JSON.AddNumberToObject 5324
- 102.19 JSON.CreateArrayRef 5338
- 102.20 JSON.CreateBool 5341
- 102.21 JSON.CreateBoolean 5342
- 102.28 JSON.CreateObjectRef 5351
- 102.35 JSON.DeleteItemFromObject 5360
- 102.66 JSON.Parse 5406
- 102.67 JSON.Release 5409

### 102.5.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 11st December 2016.

## 102.6 JSON.AddFalseToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddFalseToObject"; json; name )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

```
"length"
```

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object. When adding to a JSON reference, the function returns that reference number.

### Examples

Adds two entries with false to empty array:

```
MBS( "JSON.AddFalseToObject"; " { } "; "hello"; "world" )
```

```
Example result: {
"hello": false,
"world": false
}
```

Adds false to object:

```
MBS( "JSON.AddFalseToObject"; " { } "; "test" )
```

```
Example result: {
"test": false
}
```

### See also

- 102.5 JSON.AddBooleanToObject 5311
- 102.8 JSON.AddItemToObject 5317
- 102.9 JSON.AddNullToObject 5320
- 102.11 JSON.AddNumberToObject 5324
- 102.13 JSON.AddStringToObject 5328

- 102.14 JSON.AddTrueToObject

Created 18th August 2014, last changed 11st December 2016.

## 102.7 JSON.AddItemToArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddItemToArray"; json; json2 )

### Parameters

#### json

A JSON text or reference.

[ 1,2,3 ]

#### json2

A JSON text or reference.

4

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the array. When adding to a JSON reference, the function returns that reference number.

### Examples

Adds an item to array:

```
MBS( "JSON.AddItemToArray"; " [ 1,2,3 ] "; MBS("JSON.CreateNumber"; 4) )
```

Example result: [ 1, 2, 3, 4 ]

Add three items to empty array:

```
MBS( "JSON.AddItemToArray"; " [ ] "; "1"; "2"; "\"Heinz\"")
```

Example result: [ 1, 2, "Heinz" ]

Adds an item to the array:

```
MBS( "JSON.AddItemToArray"; " [ ] "; 67 )
```

Example result: [ 67 ]

### See also

- 102.4 JSON.AddArrayToArray 5310
- 102.5 JSON.AddBooleanToObject 5311
- 102.10 JSON.AddNumberToArray 5322
- 102.12 JSON.AddStringToArray 5326
- 102.19 JSON.CreateArrayRef 5338

- 102.26 JSON.CreateNumber 5347
- 102.28 JSON.CreateObjectRef 5351

### Example Databases

- [JSON/JSON Benchmark](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Proj/PROJ Library](#)

Created 18th August 2014, last changed 11st December 2016.



## 102.8 JSON.AddItemToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddItemToObject"; json; name; json2 )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

```
"length"
```

#### json2

The JSON text for the item.

```
50
```

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object.

When adding to a JSON reference, the function returns that reference number.

### Examples

Build nested objects:

```
Set Variable [ $j1; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j2; MBS( "JSON.AddStringToObject"; $j1; "name"; "" ) ]
Set Variable [ $j3; MBS( "JSON.AddStringToObject"; $j2; "record_type"; "MX" ) ]
Display Dialog [ "JSON"; $j3 ]
Set Variable [ $j4; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j5; MBS( "JSON.AddItemToObject"; $j4; "record"; $j3 ) ]
Display Dialog [ "JSON"; $j4 ]
```

Add two items to an object:

```
MBS( "JSON.AddItemToObject"; " { } "; "Values"; " [ 1,2 ] "; "Name"; " { \"FirstName\": \"Heinz\" } " )
```

```
Example result: {
  "Values": [ 1, 2 ],
  "Name": {
    "FirstName": "Heinz"
  }
}
```

Add big number:

```
MBS( "JSON.AddItemToObject"; " { } "; "test"; "12063660878882855000013426248015578834577" )
```

```
Example result: {
  "test": 12063660878882855000013426248015578834577
}
```

Create JSON with values in fields on current layout:

```
Let ( [
  // Create object as reference
  j = MBS( "JSON.CreateObjectRef" );
  // List fields in current layout
  fields = FieldNames ( get(FileName) ; get(LayoutName) );
  // how many?
  c = ValueCount ( fields );
  // make a loop to add field values
  r = While ( i = 1 ; i < c ; [ name = GetValue ( fields ; i ); r = MBS( "JSON.AddItemToObject"; j; name;
  MBS( "JSON.CreateValue"; GetField ( name ) ); i = i + 1 ] ; i );
  // format the result
  text = MBS( "JSON.Format"; j );
  // free json
  r = MBS( "JSON.Release"; j )
];
// return result as text
text )
```

```
Example result: {
  "First": "John",
  "Last": "Miller",
  "Group": "",
  "Company": "Some Ltd.",
  "ID": 12
}
```

### See also

- 62.390 `CURL.SetupOAuth` 2365
- 102.6 `JSON.AddFalseToObject` 5313
- 102.11 `JSON.AddNumberToObject` 5324
- 102.13 `JSON.AddStringToObject` 5328
- 102.14 `JSON.AddTrueToObject` 5331
- 102.19 `JSON.CreateArrayRef` 5338
- 102.27 `JSON.CreateObject` 5349
- 102.28 `JSON.CreateObjectRef` 5351

102.8. <i>JSON.ADDITEMTOOBJECT</i>	5319
• 102.40 JSON.Format	5368
• 102.67 JSON.Release	5409

### **Example Databases**

- [JSON/JSON Test](#)
- [Mac and iOS/MapKit/MapKit Snapshots](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

### **102.8.1 Blog Entries**

- [JSON with large integers](#)
- [Generate JSON with MBS Plugin](#)

Created 18th August 2014, last changed 22nd July 2019.

## 102.9 JSON.AddNullToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddNullToObject"; json; name )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

```
"length"
```

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object. When adding to a JSON reference, the function returns that reference number.

### Examples

Add two null entries:

```
MBS( "JSON.AddNullToObject"; " { } "; "hello"; "test")
```

```
Example result: {
  "hello": null,
  "test": null
}
```

Adds a NULL value:

```
MBS( "JSON.AddNullToObject"; " { } "; "test" )
```

```
Example result: {
  "test": null
}
```

### See also

- 102.6 JSON.AddFalseToObject 5313
- 102.8 JSON.AddItemToObject 5317
- 102.11 JSON.AddNumberToObject 5324
- 102.14 JSON.AddTrueToObject 5331
- 102.19 JSON.CreateArrayRef 5338

102.9. *JSON.ADDNULLTOOBJECT*

5321

- 102.28 JSON.CreateObjectRef

5351

Created 18th August 2014, last changed 11st December 2016.

## 102.10 JSON.AddNumberToArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.AddNumberToArray"; json; value )
```

### Parameters

#### json

A JSON text or reference.

[ 1,2,3 ]

#### value

The number to be added

5

**Result** Returns JSON code or error.

### Description

Same as JSON.AddItemToArray, but calls JSON.CreateNumber automatically for you.

With version 6, you can pass several parameters to add several entries to the array.

When adding to a JSON reference, the function returns that reference number.

### Examples

Adds an item to array:

```
MBS( "JSON.AddItemToArray"; " [ 1,2,3 ] "; 4)
```

Example result: [ 1, 2, 3, 4 ]

Add 4 numbers to an array:

```
MBS( "JSON.AddNumberToArray"; " [ ] "; 1; 2; 3; 4 )
```

Example result: [ 1, 2, 3, 4 ]

Add big number:

```
MBS( "JSON.AddNumberToArray"; " [ ] "; 12063660878882855000013426248015578834577 )
```

Example result: [ 12063660878882855000013426248015578834577 ]

Use While loop to create JSON array:

```
Let ( [
// Create array object
j = MBS( "JSON.CreateArrayRef" );
// make a loop to add numbers
r = While ( $i = 0 ; $i < 10 ; [ r = MBS( "JSON.AddNumberToArray"; j; $i ); $i = $i + 1 ] ; $i );
```

## 102.10. JSON.ADDNUMBERTOARRAY

5323

```
// format the result
text = MBS( "JSON.Format"; j );
// free json
r = MBS( "JSON.Release"; j )
];
// return result as text
text )
```

### See also

- [102.7 JSON.AddItemToArray](#) 5315
- [102.11 JSON.AddNumberToObject](#) 5324
- [102.12 JSON.AddStringToArray](#) 5326
- [102.18 JSON.CreateArray](#) 5337
- [102.19 JSON.CreateArrayRef](#) 5338
- [102.26 JSON.CreateNumber](#) 5347
- [102.40 JSON.Format](#) 5368
- [102.67 JSON.Release](#) 5409

### 102.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)
- [Fun with While function in FileMaker](#)
- [MBS FileMaker Plugin, version 8.2pr7](#)
- [JSON with large integers](#)
- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 26th August 2014, last changed 22nd July 2019.

## 102.11 JSON.AddNumberToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddNumberToObject"; json; name; value )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

```
"length"
```

#### value

The number value to add.

```
123.45
```

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object.

When adding to a JSON reference, the function returns that reference number.

### Examples

Adds two number entries to an object:

```
MBS( "JSON.AddNumberToObject"; " { } "; "hello"; 1; "test"; 5)
```

```
Example result: {
"hello": 1,
"test": 5
}
```

Adds number:

```
MBS( "JSON.AddNumberToObject"; " { } "; "test"; 123 )
```

```
Example result: {
"test": 123
}
```

Add big number:

```
MBS( "JSON.AddNumberToObject"; " { } "; "zahl"; 12063660878882855000013426248015578834577 )
```

```
Example result: {
"zahl": 12063660878882855000013426248015578834577
}
```



102.11. *JSON.ADDNUMBERTOOBJECT* 5325

**See also**

- 102.6 *JSON.AddFalseToObject* 5313
- 102.9 *JSON.AddNullToObject* 5320
- 102.10 *JSON.AddNumberToArray* 5322
- 102.13 *JSON.AddStringToObject* 5328
- 102.14 *JSON.AddTrueToObject* 5331
- 102.19 *JSON.CreateArrayRef* 5338
- 102.28 *JSON.CreateObjectRef* 5351
- 108.4 *MapView.AddPoint* 5727
- 108.95 *MapView.Snapshot* 5832
- 159.124 *SQL.SetParamsWithJSON* 7596

**Example Databases**

- [CURL/WebServices/CURL FMS Admin API v17](#)
- [Mac and iOS/MapKit/MapKit Snapshots](#)
- [SQL to other databases/SQLite fun](#)

**102.11.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr7](#)
- [JSON with large integers](#)

Created 18th August 2014, last changed 11st May 2018.

## 102.12 JSON.AddStringToArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddStringToArray"; json; value )

### Parameters

#### json

A JSON text or reference.

[ "1","2" ]

#### value

The new text.

"Hello"

**Result** Returns JSON code.

### Description

Same as JSON.AddItemToArray, but calls JSON.CreateString automatically for you.

With version 6, you can pass several parameters to add several entries to the array.

When adding to a JSON reference, the function returns that reference number.

### Examples

Adds a string to an array:

```
MBS( "JSON.AddStringToArray"; " [ \"1\", \"2\", \"3\" ] "; "4")
```

Example result: [ "1", "2", "3", "4" ]

Adds 4 strings to an array:

```
MBS( "JSON.AddStringToArray"; " [ ] "; "1"; "2"; "3"; "4" )
```

Example result: [ "1", "2", "3", "4" ]

### See also

- 102.4 JSON.AddArrayToArray 5310
- 102.7 JSON.AddItemToArray 5315
- 102.10 JSON.AddNumberToArray 5322
- 102.13 JSON.AddStringToObject 5328
- 102.19 JSON.CreateArrayRef 5338
- 102.29 JSON.CreateString 5354

### 102.12.1 **Blog Entries**

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 26th August 2014, last changed 11st December 2016.

## 102.13 JSON.AddStringToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddStringToObject"; json; name; value )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

```
"length"
```

#### value

The text value to add.

```
"Hello"
```

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object.

When adding to a JSON reference, the function returns that reference number.

### Examples

Create object, add content and pick value:

```
Let(
[
j = MBS( "JSON.CreateObject" );
j = MBS( "JSON.AddStringToObject"; j; "hello"; "world" );
r = MBS( "JSON.GetObjectItem"; j; "hello" )
];
r)
```

Example result: "world"

Build nested objects:

```
Set Variable [ $j1; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j2; MBS( "JSON.AddStringToObject"; $j1; "name"; "" ) ]
Set Variable [ $j3; MBS( "JSON.AddStringToObject"; $j2; "record_type"; "MX" ) ]
Display Dialog [ "JSON"; $j3 ]
Set Variable [ $j4; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j5; MBS( "JSON.AddItemToObject"; $j4; "record"; $j3 ) ]
Display Dialog [ "JSON"; $j4 ]
```

Add two entries in one call:

```
MBS( "JSON.AddStringToObject"; " { } "; "hello"; "world"; "test"; "entry")
```

```
Example result: {
"hello": "world",
"test": "entry"
}
```

Adds string to object:

```
MBS( "JSON.AddStringToObject"; " { } "; "test"; "Hello World" )
```

```
Example result: {
"test": "Hello World"
}
```

### See also

- 102.6 *JSON.AddFalseToObject* 5313
- 102.11 *JSON.AddNumberToObject* 5324
- 102.14 *JSON.AddTrueToObject* 5331
- 102.19 *JSON.CreateArrayRef* 5338
- 102.27 *JSON.CreateObject* 5349
- 102.28 *JSON.CreateObjectRef* 5351
- 102.47 *JSON.GetObjectItem* 5379
- 108.4 *MapView.AddPoint* 5727
- 108.95 *MapView.Snapshot* 5832
- 159.124 *SQL.SetParamsWithJSON* 7596

### Example Databases

- [CURL/WebServices/CURL FMS Admin API v17](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [Mac and iOS/MapKit/MapKit Snapshots](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [SQL to other databases/SQLite fun](#)

### 102.13.1 Blog Entries

- [Generate JSON with MBS Plugin](#)

Created 18th August 2014, last changed 11st December 2016.

## 102.14 JSON.AddTrueToObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.AddTrueToObject"; json; name )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the Object property.

"length"

**Result** Returns JSON code.

### Description

With version 6, you can pass several parameters to add several entries to the object. When adding to a JSON reference, the function returns that reference number.

### Examples

Adds two entries with true to empty array:

```
MBS( "JSON.AddTrueToObject"; " { } "; "hello"; "world"
```

```
Example result: {
  "hello": true,
  "world": true
}
```

Adds true to object:

```
MBS( "JSON.AddTrueToObject"; " { } "; "test" )
```

```
Example result: {
  "test": true
}
```

### See also

- 102.6 JSON.AddFalseToObject 5313
- 102.8 JSON.AddItemToObject 5317
- 102.9 JSON.AddNullToObject 5320
- 102.11 JSON.AddNumberToObject 5324
- 102.13 JSON.AddStringToObject 5328

- 102.28 JSON.CreateObjectRef

Created 18th August 2014, last changed 11st December 2016.



## 102.15 JSON.Clone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Clone"; JSON )

### Parameters

#### JSON

The JSON text or reference number.

" [ 1,2,3 ] "

**Result** Returns reference number or error.

### Description

A new reference number with a new json object or array behind and all content copied.

### 102.15.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 5th March 2016, last changed 5th March 2016.

## 102.16 JSON.Colorize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Colorize"; json )

### Parameters

#### json

A JSON text.

```
{ "key": "value" }
```

**Result** Returns formatted text or error.

### Description

This colorizes an existing JSON text to show to user.  
Keys get blue, text value purple, numbers and others orange and brackets black.

Text is returned only with colors. You can apply text font and font size with normal FileMaker functions.  
Processing time is linear to length, so should be faster than custom functions.

### Examples

Colorize a field:

```
Set Field [ Data::JSON ; MBS("JSON.Colorize"; Data::JSON) ]
```

### See also

- 37.2 Archive.Content 958
- 37.4 Archive.FileList 961
- 55.14 CNContact.JSON 1580
- 55.50 CNContactStore.NewContact 1626
- 62.114 CURL.GetResultAsEMailList 1949
- 62.373 CURL.SetOptionURL 2329
- 79.4 Files.AudioTags 3829
- 102.19 JSON.CreateArrayRef 5338
- 153.21 SmartCard.SplitValues 7230
- 167.1 Text.AddLineNumbers 7895

### Example Databases

- [Barcode/Barcode Generation JSON](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [CURL/FTP/CURL FTP Directory Listing](#)
- [Files/Audio File Tags](#)
- [JSON/JSON Colored](#)
- [Mac and iOS/Contacts/Contacts](#)
- [Network/Bonjour](#)
- [SmartCard/SmartCard ReadFile](#)
- [Text functions/Text Styles](#)

### **102.16.1 Blog Entries**

- [With JSON in excellent form](#)
- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [Colorize JSON or XML in FileMaker with line numbers](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [Colorize JSON in FileMaker](#)

Created 6th April 2018, last changed 8th April 2018.

## 102.17 JSON.Compact

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Compact"; json )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns JSON code.

### Description

#### Examples

Creates compact text of JSON with spaces:

MBS( "JSON.Compact"; " [ 1, 3, 4 ] " )

Example result: [ 1,3,4 ]

Compacts JSON and removes spaces:

MBS( "JSON.Compact"; " [ 1 , 2 , 3 ] " )

Example result: [ 1,2,3 ]

#### See also

- [102.19 JSON.CreateArrayRef](#)

5338

#### Example Databases

- [Text functions/Text Styles](#)

### 102.17.1 Blog Entries

- [With JSON in excellent form](#)
- [JSON with large integers](#)
- [Generate JSON with MBS Plugin](#)

Created 18th August 2014, last changed 11st December 2016.

**102.18 JSON.CreateArray**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateArray" )

**Result** Returns JSON code.

**Description****Examples**

Creates a new empty array:

```
$a = MBS("JSON.CreateArray")
```

Example result: []

**See also**

- 102.10 JSON.AddNumberToArray 5322
- 102.19 JSON.CreateArrayRef 5338
- 102.28 JSON.CreateObjectRef 5351
- 102.32 JSON.CreateTrue 5357

**Example Databases**

- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 11st December 2016.

## 102.19 JSON.CreateArrayRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.CreateArrayRef" )
```

**Result** Returns reference number or error.

### Description

Please use JSON.Release later to free the json object.

You can pass the reference number to all MBS JSON functions instead of JSON text.

### Examples

Test array reference functions:

```
# create array reference
$ref = MBS( "JSON.CreateArrayRef" )
# add some numbers
$r = MBS( "JSON.AddNumberToArray"; $ref; 1; 2; 3 )
# add some texts
$r = MBS( "JSON.AddStringToArray"; $ref; "Hello"; "World" )
# get JSON text for this array:
$text = MBS( "JSON.Compact"; $ref )
# free memory
$r = MBS( "JSON.Release"; $ref )
```

Use While loop to create JSON array:

```
Let ( [
// Create array object
j = MBS( "JSON.CreateArrayRef" );
// make a loop to add numbers
r = While ( $i = 0 ; $i <10 ; [ r = MBS( "JSON.AddNumberToArray"; j; $i ); $i = $i + 1 ] ; $i );
// format the result
text = MBS( "JSON.Format"; j );
// free json
r = MBS( "JSON.Release"; j )
];
// return result as text
text )
```

Example result: [ 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 ]

Create complex JSON:

```
Set Variable [ $a ; Value: MBS( "JSON.CreateArrayRef" ) ]
#
# first entry
```

```

Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "FieldType"; 11 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNullToObject"; $o; "FieldName" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddStringToObject"; $o; "Value"; "Julien" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddBooleanToObject"; $o; "EmptyMatch"; False ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToArray"; $a; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
# second entry
Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "FieldType"; 23 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNullToObject"; $o; "FieldName" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddStringToObject"; $o; "Value"; "Stadel" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddBooleanToObject"; $o; "EmptyMatch"; False ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToArray"; $a; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
# surrounding object
Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToObject"; $o; "Data"; $a ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "Id"; 123 ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $a ) ]
#
# put in final object
Set Variable [ $j ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToObject"; $j; "Address"; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
Set Field [ JSON::JSON ; MBS("JSON.Colorize"; MBS("JSON.Format"; $j)) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $j ) ]

```

**See also**

- 102.5 JSON.AddBooleanToObject 5311
- 102.7 JSON.AddItemToArray 5315
- 102.10 JSON.AddNumberToArray 5322
- 102.13 JSON.AddStringToObject 5328
- 102.16 JSON.Colorize 5334
- 102.18 JSON.CreateArray 5337
- 102.27 JSON.CreateObject 5349
- 102.28 JSON.CreateObjectRef 5351
- 102.40 JSON.Format 5368

- [102.67 JSON.Release](#)

### Example Databases

- [JSON/JSON Benchmark](#)

### 102.19.1 Blog Entries

- [Fun with While function in FileMaker](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 20th November 2019.



**102.20 JSON.CreateBool**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateBool"; value )

**Parameters****value**

The boolean value.

1

**Result** Returns JSON code.

**Description****Examples**

Creates true node:

MBS( "JSON.CreateBool"; 1 )

Example result: true

Creates false node:

MBS( "JSON.CreateBool"; 0 )

Example result: false

**See also**

- 102.5 JSON.AddBooleanToObject 5311
- 102.21 JSON.CreateBoolean 5342
- 102.25 JSON.CreateNull 5346
- 102.32 JSON.CreateTrue 5357

Created 18th August 2014, last changed 11st December 2016.

## 102.21 JSON.CreateBoolean

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateBoolean"; Value )

### Parameters

#### Value

The boolean value. Pass 1 for true and 0 for false.

1

**Result** Returns JSON or error.

### Description

As we pass JSON in JSON around, you can simply write "false" directly instead of calling one of this functions.

### Examples

Create a boolean with an expression:

```
Set Variable [ $json; Value:MBS( "JSON.CreateBoolean"; Length($text) >0 ) ]
```

Example result: true

### See also

- [102.5 JSON.AddBooleanToObject](#) 5311
- [102.20 JSON.CreateBool](#) 5341

### 102.21.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 11st December 2016.

**102.22 JSON.CreateDoubleArray**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateDoubleArray" { ; values } )

**Parameters****values**

Optional

Optional parameters for the array values. Pass one parameter per item to be added to the array.

1

**Result** Returns JSON code.

**Description**

This is for creating an array with floating point numbers.

For integer numbers, please use `JSON.CreateIntegerArray`.

**Examples**

Creates number array:

```
MBS( "JSON.CreateDoubleArray"; 1; 2; 3)
```

Example result: [ 1, 2, 3 ]

**See also**

- 102.24 `JSON.CreateIntegerArray` 5345
- 102.30 `JSON.CreateStringArray` 5355
- 102.34 `JSON.DeleteItemFromArray` 5359
- 102.41 `JSON.GetArrayItem` 5370
- 102.55 `JSON.GetType` 5392

Created 18th August 2014, last changed 7th June 2017.

## 102.23 JSON.CreateFalse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateFalse" )

**Result** Returns JSON code.

### Description

As we pass JSON in JSON around, you can simply write "false" directly instead of calling one of this functions.

### Examples

Creates false:

```
MBS( "JSON.CreateFalse"
```

Example result: false

### See also

- 102.25 JSON.CreateNull 5346
- 102.32 JSON.CreateTrue 5357
- 102.33 JSON.CreateValue 5358

Created 18th August 2014, last changed 11st December 2016.

## 102.24 JSON.CreateIntegerArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateIntegerArray" { ; values } )

### Parameters

#### values

Optional

Optional parameters for the array values. Pass one parameter per item to be added to the array.

1

**Result** Returns JSON code.

### Description

For floating point numbers, please use JSON.CreateDoubleArray.

### Examples

Creates number array:

```
MBS( "JSON.CreateIntegerArray"; 1; 2; 3)
```

Example result: [ 1, 2, 3 ]

Adds an item to the object with an integer array:

```
MBS( "JSON.AddItemToObject"; " { } "; "test"; MBS( "JSON.CreateIntegerArray"; 1; 2; 3 ) )
```

Example result: {

```
"test": [ 1, 2, 3 ]
```

```
}
```

### See also

- 102.8 JSON.AddItemToObject 5317
- 102.22 JSON.CreateDoubleArray 5343
- 102.30 JSON.CreateStringArray 5355

### 102.24.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 26th August 2014, last changed 11st December 2016.

## 102.25 JSON.CreateNull

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateNull" )

**Result** Returns JSON code which is "null" text.

### Description

As we pass JSON in JSON around, you can simply write "null" directly instead of calling one of this functions.

### Examples

Creates NULL node:

```
MBS("JSON.CreateNull")
```

Example result: null

### See also

- 102.20 JSON.CreateBool 5341
- 102.23 JSON.CreateFalse 5344
- 102.26 JSON.CreateNumber 5347
- 102.32 JSON.CreateTrue 5357
- 102.33 JSON.CreateValue 5358

Created 18th August 2014, last changed 11st December 2016.

## 102.26 JSON.CreateNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateNumber"; value )

### Parameters

#### value

The number value.

123.4

**Result** Returns JSON code.

### Description

Version 10.0 or newer preserve formatting if you pass a text with a number containing digits with optionally one dot and one minus.

### Examples

Creates a number:

```
MBS( "JSON.CreateNumber"; 123 )
```

Example result: 123

Create big number:

```
MBS( "JSON.CreateNumber"; 12063660878882855000013426248015578834577 )
```

Pass through vs. number parsing:

```
MBS( "JSON.CreateNumber"; "123.5" ) & §& MBS( "JSON.CreateNumber"; 123,5 )
// in German with comma as separator second one is parsed as double precision value.
```

Example result: 123.5

123.500000

### See also

- 102.7 JSON.AddItemToArray 5315
- 102.10 JSON.AddNumberToArray 5322
- 102.25 JSON.CreateNull 5346

### Example Databases

- [JavaScript/CoordinatDistance](#)

### 102.26.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)
- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 18th August 2014, last changed 27th November 2019.



## 102.27 JSON.CreateObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateObject" )

**Result** Returns JSON code.

### Description

### Examples

Creates empty object:

```
MBS( "JSON.CreateObject" )
```

Example result: { }

Build nested objects:

```
Set Variable [ $j1; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j2; MBS( "JSON.AddStringToObject"; $j1; "name"; "" ) ]
Set Variable [ $j3; MBS( "JSON.AddStringToObject"; $j2; "record_type"; "MX" ) ]
Display Dialog [ "JSON"; $j3 ]
Set Variable [ $j4; MBS( "JSON.CreateObject" ) ]
Set Variable [ $j5; MBS( "JSON.AddItemToObject"; $j4; "record"; $j3 ) ]
Display Dialog [ "JSON"; $j4 ]
```

### See also

- [102.8 JSON.AddItemToObject](#) 5317
- [102.13 JSON.AddStringToObject](#) 5328
- [102.19 JSON.CreateArrayRef](#) 5338
- [102.28 JSON.CreateObjectRef](#) 5351
- [102.47 JSON.GetObjectItem](#) 5379
- [108.95 MapView.Snapshot](#) 5832

### Example Databases

- [JSON/JSON Test](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

### 102.27.1 Blog Entries

- [Generate JSON with MBS Plugin](#)

Created 18th August 2014, last changed 11st December 2016.

## 102.28 JSON.CreateObjectRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateObjectRef" )

**Result** Returns reference number or error.

### Description

Please use JSON.Release later to free the json object.

You can pass the reference number to all MBS JSON functions instead of JSON text.

### Examples

Try object reference functions:

```
# create object reference
$ref = MBS( "JSON.CreateObjectRef" )
# add some texts
$r = MBS("JSON.AddStringToObject"; $ref; "FirstName"; "Joe"; "LastName"; "Miller")
# add some number
$r = MBS("JSON.AddNumberToObject"; $ref; "Age"; 50)
# add a true value:
$r = MBS( "JSON.AddTrueToObject"; $ref; "married" )
# get the text
$text = MBS( "JSON.Format"; $ref)
# free memory
$r = MBS( "JSON.release"; $ref)
```

Create JSON with values in fields on current layout:

```
Let ( [
// Create object as reference
j = MBS( "JSON.CreateObjectRef" );
// List fields in current layout
fields = FieldNames ( get(FileName) ; get(LayoutName) );
// how many?
c = ValueCount ( fields );
// make a loop to add field values
r = While ( i = 1 ; i < c ; [ name = GetValue ( fields ; i ); r = MBS( "JSON.AddItemToObject"; j; name;
MBS( "JSON.CreateValue"; GetField ( name ) ); i = i + 1 ] ; i );
// format the result
text = MBS( "JSON.Format"; j );
// free json
r = MBS( "JSON.Release"; j )
];
// return result as text
text )
```

```
Example result: {
  "First": "John",
  "Last": "Miller",
  "Group": "",
  "Company": "Some Ltd.",
  "ID": 12
}
```

Create complex JSON:

```
Set Variable [ $a ; Value: MBS( "JSON.CreateArrayRef" ) ]
#
# first entry
Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "FieldType"; 11 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNullToObject"; $o; "FieldName" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddStringToObject"; $o; "Value"; "Julien" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddBooleanToObject"; $o; "EmptyMatch"; False ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToArray"; $a; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
# second entry
Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "FieldType"; 23 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNullToObject"; $o; "FieldName" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddStringToObject"; $o; "Value"; "Stadel" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddBooleanToObject"; $o; "EmptyMatch"; False ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToArray"; $a; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
# surrounding object
Set Variable [ $o ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToObject"; $o; "Data"; $a ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $o; "Id"; 123 ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $a ) ]
#
# put in final object
Set Variable [ $j ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddItemToObject"; $j; "Address"; $o ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $o ) ]
#
Set Field [ JSON::JSON ; MBS("JSON.Colorize"; MBS("JSON.Format"; $j)) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $j ) ]
```

```
Example result: {
  "Address": {
    "Data": [
      {
```

```

"FieldType": 11,
"FieldName": null,
"Value": "Julien",
"EmptyMatch": false
},
{
"FieldType": 23,
"FieldName": null,
"Value": "Stadel",
"EmptyMatch": false
}
],
"Id": 123
}
}

```

**See also**

- [102.7 JSON.AddItemToArray](#) 5315
- [102.8 JSON.AddItemToObject](#) 5317
- [102.9 JSON.AddNullToObject](#) 5320
- [102.11 JSON.AddNumberToObject](#) 5324
- [102.14 JSON.AddTrueToObject](#) 5331
- [102.16 JSON.Colorize](#) 5334
- [102.19 JSON.CreateArrayRef](#) 5338
- [102.33 JSON.CreateValue](#) 5358
- [102.67 JSON.Release](#) 5409
- [108.95 MapView.Snapshot](#) 5832

**Example Databases**

- [Mac and iOS/MapKit/MapKit Snapshots](#)

**102.28.1 Blog Entries**

- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 20th November 2019.

## 102.29 JSON.CreateString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateString"; Text )

### Parameters

#### Text

The text to use.

"Hello World"

**Result** Returns JSON code.

### Description

The text is escaped.

### Examples

Creates new text node:

MBS( "JSON.CreateString"; "Hello World")

Example result: "Hello World"

### See also

- [62.143 CURL.Perform](#) 1992
- [62.273 CURL.SetOptionPost](#) 2194
- [100.5 JS.CallFunction](#) 5260
- [102.12 JSON.AddStringToArray](#) 5326
- [102.30 JSON.CreateStringArray](#) 5355
- [102.31 JSON.CreateStringArrayWithList](#) 5356

### Example Databases

- [JavaScript/JavaScript](#)
- [JSON/JSON Benchmark](#)
- [JSON/JSON Test](#)

#### 102.29.1 Blog Entries

- [Using CURL with Rosette web service](#)

Created 18th August 2014, last changed 11st December 2016.

**102.30 JSON.CreateStringArray**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateStringArray" { ; values } )

**Parameters****values**

Optional

Optional parameters for the array values. Pass one parameter per item to be added to the array.  
"Hello"

**Result** Returns JSON code.

**Description****Examples**

Creates string array:

MBS( "JSON.CreateStringArray"; "Hello"; "World")

Example result: [ "Hello", "World" ]

**See also**

- 102.22 [JSON.CreateDoubleArray](#) 5343
- 102.24 [JSON.CreateIntegerArray](#) 5345
- 102.29 [JSON.CreateString](#) 5354
- 102.31 [JSON.CreateStringArrayWithList](#) 5356

**Example Databases**

- [JSON/JSON Test](#)

Created 18th August 2014, last changed 11st December 2016.

## 102.31 JSON.CreateStringArrayWithList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateStringArrayWithList"; valueList )

### Parameters

#### valueList

List of values separated by return character.

"Hello\$World"

**Result** Returns JSON code or error.

### Description

### Examples

Create a list:

MBS( "JSON.CreateStringArrayWithList"; "Hello\$World\$Test" )

### See also

- [102.29 JSON.CreateString](#) 5354
- [102.30 JSON.CreateStringArray](#) 5355

### 102.31.1 Blog Entries

- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 18th August 2014.



**102.32 JSON.CreateTrue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateTrue" )

**Result** Returns JSON code.

**Description**

As we pass JSON in JSON around, you can simply write "true" directly instead of calling one of this functions.

**Examples**

Creates false:

MBS( "JSON.CreateTrue" )

Example result: true

**See also**

- 102.18 JSON.CreateArray 5337
- 102.20 JSON.CreateBool 5341
- 102.23 JSON.CreateFalse 5344
- 102.25 JSON.CreateNull 5346
- 102.33 JSON.CreateValue 5358

Created 18th August 2014, last changed 11st December 2016.

## 102.33 JSON.CreateValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.CreateValue"; Value )

### Parameters

#### Value

The value to pass. Can be number, date, time, timestamp or text.

"Hello"

**Result** Returns JSON or error.

### Description

Convenience function to either create text or number depending on FileMaker data type.

### Examples

Create with number:

MBS( "JSON.CreateValue"; 123 )

Example result: 123

Create with string:

MBS( "JSON.CreateValue"; "Hello" & §& "World" & char(9) & "test" )

Example result: "Hello\rWorld\ttest"

### See also

- 102.8 JSON.AddItemToObject 5317
- 102.23 JSON.CreateFalse 5344
- 102.25 JSON.CreateNull 5346
- 102.28 JSON.CreateObjectRef 5351
- 102.32 JSON.CreateTrue 5357

### 102.33.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 14th December 2018, last changed 14th December 2018.

**102.34 JSON.DeleteItemFromArray**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.DeleteItemFromArray"; json; index )

**Parameters****json**

A JSON text or reference.

[ 1,2,3 ]

**index**

The zero based index of the value.

1

**Result** Returns JSON code.

**Description**

Returns the JSON reference number if called with reference number. Otherwise returns new JSON text.

**Examples**

Create array with numbers and delete last entry:

```
Let(
[
j = MBS( "JSON.CreateDoubleArray"; 1; 2; 3);
r = MBS( "JSON.DeleteItemFromArray"; j; MBS( "JSON.GetArraySize"; j )-1 )
];
r)
```

**See also**

- 102.22 JSON.CreateDoubleArray 5343
- 102.35 JSON.DeleteItemFromObject 5360
- 102.44 JSON.GetArraySize 5376

Created 18th August 2014, last changed 15th November 2019.

## 102.35 JSON.DeleteItemFromObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.DeleteItemFromObject"; json; name )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### name

The name of the item.

```
"key"
```

**Result** Returns JSON code.

### Description

Returns the JSON reference number if called with reference number. Otherwise returns new JSON text.

### Examples

Add and delete item:

```
Set Variable [ $json; Value:MBS( "JSON.Parse"; " { \"Hello\": \"World\" } " ) ]
Set Variable [ $r; Value:MBS( "JSON.AddBooleanToObject"; $json; "test"; 1 ) ]
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
Set Variable [ $r; Value:MBS( "JSON.DeleteItemFromObject"; $json; "test" ) ]
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json) ]
```

### See also

- 102.5 JSON.AddBooleanToObject 5311
- 102.34 JSON.DeleteItemFromArray 5359
- 102.40 JSON.Format 5368
- 102.66 JSON.Parse 5406
- 102.67 JSON.Release 5409

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 18th August 2014, last changed 15th November 2019.

## 102.36 JSON.EqualContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.EqualContent"; json1; json2 )

### Parameters

#### json1

A JSON text or reference.

```
{ "key": "value" }
```

#### json2

A JSON text or reference.

```
{ "key": "value" }
```

**Result** Returns 1, 0 or error.

### Description

We compare recursively all nodes.

If structure and values are the same, we return 1, otherwise 0.

Objects do not need to have same order for entries.

While JSON.Equals checks the type, this function does check the content.

### Examples

Compare 123 with text to it as number:

```
MBS( "JSON.EqualContent"; "\"123\""; "123")
```

Example result: 1

### See also

- [102.37 JSON.Equals](#)

5362

### 102.36.1 Blog Entries

- [The new JSON.EqualContent function](#)
- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 10th January 2020, last changed 10th January 2020.

## 102.37 JSON.Equals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Equals"; json1; json2 )

### Parameters

#### json1

A JSON text or reference.

```
{ "key": "value" }
```

#### json2

A JSON text or reference.

```
{ "key": "value" }
```

**Result** Returns 1, 0 or error.

### Description

We compare recursively all nodes.

If structure and values are the same, we return 1, otherwise 0.

Objects do not need to have same order for entries.

### Examples

Compare two numbers:

```
MBS( "JSON.Equals"; 1; 1 )
```

Example result: 1

Comparing strings:

```
MBS( "JSON.Equals"; "\"Hello\""; "\"World\"" ) &
MBS( "JSON.Equals"; "\"Hello\""; "\"Hello\"" )
```

Example result: 01

Comparing booleans:

```
MBS( "JSON.Equals"; true; true ) &
MBS( "JSON.Equals"; false; false ) &
MBS( "JSON.Equals"; true; false ) &
MBS( "JSON.Equals"; false; true )
```

Example result: 1100

Compare objects:

```
MBS( "JSON.Equals"; " { \"key\": \"value\" } "; " { \"key\": \"value\" } ") & MBS( "JSON.Equals"; "
{ \"key\": \"value\" } "; " { \"key\": \"Value\" } ")
```

102.37. *JSON.EQUALS*

5363

Example result: 10

**See also**

- 102.36 *JSON.EqualContent*

5361

**102.37.1 Blog Entries**

- [The new \*JSON.EqualContent\* function](#)

Created 14th December 2018, last changed 20th February 2020.

## 102.38 JSON.FindValueInArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.FindValueInArray"; json; find { ; byContent } )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### find

A JSON text or reference to find.

```
{ "key": "value" }
```

#### byContent

Optional

Compare JSON by content, so number can be found via text. Default is 0, so type counts first.

1

**Result** Returns index or error.

### Description

Returns zero based index or -1 if not found.

Version 10.0 or newer finds optionally by content, so number can be found via text.

### Examples

Find value in an array of numbers:

```
MBS( "JSON.FindValueInArray"; " [ 5,6,7,1,4,3,7 ] "; 3)
```

Example result: 5

Find text:

```
MBS( "JSON.FindValueInArray"; " [ \"Hello\", \"World\", \"Test\" ] "; "\"World\"")
```

Example result: 1

Find objects:

```
MBS( "JSON.FindValueInArray"; " [ { \"Hello\":123 } , { \"World\":234 } , { \"Test\":345 } ] "; " { \"World\":234 } ")
```

Example result: 1

### See also



102.38. *JSON.FINDVALUEINARRAY*

5365

- 102.39 *JSON.FindValueInObjectArray*

5366

### **102.38.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr8](#)
- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 14th December 2018, last changed 10th January 2020.

## 102.39 JSON.FindValueInObjectArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.FindValueInObjectArray"; json; Label; find { ; byContent } )

### Parameters

#### json

A JSON text or reference.

" [ { \"key\": 1 } ] "

#### Label

The label for the value in the object to compare.

"key"

#### find

A JSON text or reference to find.

1

#### byContent

Optional

Compare JSON by content, so number can be found via text. Default is 0, so type counts first.

1

**Result** Returns index or error.

### Description

Returns zero based index or -1 if not found.

We look into each object in the array, check if it has a value for the given label and compare that to the one to find.

Version 10.0 or newer finds optionally by content, so number can be found via text.

### Examples

Find item:

MBS( "JSON.FindValueInObjectArray"; " [ { \"key\": 1 } ] "; "key"; 1 )

Example result: 0

### See also

- 102.38 JSON.FindValueInArray

5364

### 102.39.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr8](#)

- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 14th December 2018, last changed 10th January 2020.

## 102.40 JSON.Format

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Format"; json )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns JSON code.

### Description

### Examples

Format some object:

```
Set Variable [ $json; Value:MBS( "JSON.Format"; " { \"Hello\": \"World\" } " ) ]
Show Custom Dialog [ $json ]
```

Parse some JSON, display it formatted and release:

```
Set Variable [ $json; Value:MBS( "JSON.Parse"; " { \"Hello\": \"World\" } " ) ]
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json) ]
```

### See also

- 55.50 CNContactStore.NewContact 1626
- 55.57 CNContactStore.UnifiedMeContact 1635
- 79.4 Files.AudioTags 3829
- 102.5 JSON.AddBooleanToObject 5311
- 102.8 JSON.AddItemToObject 5317
- 102.28 JSON.CreateObjectRef 5351
- 102.35 JSON.DeleteItemFromObject 5360
- 102.67 JSON.Release 5409
- 108.95 MapView.Snapshot 5832
- 167.1 Text.AddLineNumbers 7895

## Example Databases

- [Barcode/Barcode Generation JSON](#)
- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [Files/Audio File Tags](#)
- [JSON/JSON Benchmark](#)
- [JSON/JSON Colored](#)
- [Mac and iOS/Contacts/Contacts](#)
- [Mac and iOS/MapKit/MapKit Snapshots](#)
- [Network/Bonjour](#)

### 102.40.1 Blog Entries

- [With JSON in excellent form](#)
- [MBS FileMaker Plugin, version 9.4pr1](#)
- [Fun with While function in FileMaker](#)
- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [Colorize JSON or XML in FileMaker with line numbers](#)
- [MBS Filemaker Plugin, version 4.4pr6](#)

Created 18th October 2014, last changed 10th February 2016.

## 102.41 JSON.GetArrayItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetArrayItem"; json; index { ; AsReference } )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

#### index

The index of the array element.

0

#### AsReference

Optional

Whether to return a reference number (1) instead of the JSON text (0). Default is 0 for JSON text.

0

**Result** Returns JSON code.

### Description

Index is zero based.

### Examples

Create array and pick second item:

```
Let(
[
j = MBS( "JSON.CreateDoubleArray"; 1; 2; 3);
r = MBS( "JSON.GetArrayItem"; j; 1 )
];
r)
```

### See also

- 102.22 JSON.CreateDoubleArray 5343
- 102.42 JSON.GetArrayItemsAsList 5372
- 102.43 JSON.GetArrayPathItems 5374
- 102.44 JSON.GetArraySize 5376

### Example Databases

- [CURL/Email/IMAP Email List](#)

- [CURL/Email/IMAP Email](#)
- [CURL/WebServices/WeatherBit.io test](#)
- [JSON/JSON Order Parsing](#)
- [JSON/JSON Test](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)
- [Mac only/ImageCapture/Camera Import](#)

### **102.41.1 Blog Entries**

- [Face detection via CoreImage in FileMaker](#)

Created 18th August 2014, last changed 3th February 2016.

## 102.42 JSON.GetArrayItemsAsList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.GetArrayItemsAsList"; json { ; ReturnValues } )
```

### Parameters

#### json

A JSON text or reference.

```
" [ 1,2,3 ] "
```

#### ReturnValues

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

Pass 1 to return values instead of keeping strings in quotes.

1

**Result** Returns list or error.

### Description

Intended for arrays containing text or numbers.

Broken in version 6.0. Please use 6.1. Version 6.5 and newer doesn't add an extra newline any more.

### Examples

Query a list from JSON array:

```
MBS( "JSON.GetArrayItemsAsList"; " [ 1,2,3 ] " )
```

Now a list of strings:

```
MBS( "JSON.GetArrayItemsAsList"; " [ \"Hello\", \"World\", \"Test\" ] " )
```

Now an array with objects:

```
MBS( "JSON.GetArrayItemsAsList"; " [ \"Hello\", \"World\", { \"Hello\": \"test\" } ] " )
```

### See also

- 102.41 JSON.GetArrayItem

5370

### 102.42.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)
- [MBS FileMaker Plugin, version 8.1pr1](#)



- MBS FileMaker Plugin, version 6.5pr8
- MBS FileMaker Plugin, version 6.1pr1
- MBS FileMaker Plugin, version 5.2pr2
- MBS Filemaker Plugin, version 4.2pr4

Created 18th August 2014, last changed 30th January 2018.

## 102.43 JSON.GetArrayPathItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	7.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.GetArrayPathItems"; json; Path { ; AsValue } )
```

### Parameters

#### json

A JSON text or reference.

```
" { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "
```

#### Path

The path through the json hierarchy as list. For object, pass name of item to choose. For array pass index. "people\$0\$last"

#### AsValue

Optional

Pass 1 to return as value, e.g. text or number. Pass 0 (or nothing) to return as JSON.

**Result** Returns OK or error.

### Description

The path describes the way through the hierarchy to find the JSON node to return.

Result can be JSON or the value.

### Examples

Query all test values in objects in array:

```
MBS("JSON.GetArrayPathItems"; JSON Test::JSON; "test")
```

Lookup items in array:

```
MBS( "JSON.GetArrayPathItems"; " [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } , { \"first\": \"Peter\", \"last\": \"Miller\", \"city\": \"New York\" } ] "; "first"; 0 )
```

Example result: "Christian"

"Peter"

Lookup item values in array:

```
MBS( "JSON.GetArrayPathItems"; " [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } , { \"first\": \"Peter\", \"last\": \"Miller\", \"city\": \"New York\" } ] "; "first"; 1 )
```

Example result: Christian

Peter

### See also

- 102.41 JSON.GetArrayItem

### 102.43.1 **Blog Entries**

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 27th January 2017, last changed 28th June 2017.

## 102.44 JSON.GetArraySize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetArraySize"; json )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns number of array entries.

### Description

### Examples

Checks number of array elements:

MBS( "JSON.GetArraySize"; " [ 1, 2, 3, 4 ] " )

### See also

- [102.34 JSON.DeleteItemFromArray](#) 5359
- [102.41 JSON.GetArrayItem](#) 5370
- [102.66 JSON.Parse](#) 5406

### Example Databases

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [JSON/JSON Benchmark](#)
- [JSON/JSON Order Parsing](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac only/ImageCapture/Camera Import](#)

### 102.44.1 Blog Entries

- [Sum up values in JSON with MBS FileMaker Plugin](#)
- [Face detection via CoreImage in FileMaker](#)

Created 18th August 2014, last changed 3th February 2016.

## 102.45 JSON.GetDoubleValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetDoubleValue"; json )

### Parameters

#### **json**

A JSON text or reference.

"3.4"

**Result** Returns the value.

### Description

### Examples

Queries double value:

MBS( "JSON.GetDoubleValue"; "3.4" )

### See also

- 102.56 JSON.GetValue

## 102.46 JSON.GetIntegerValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetIntegerValue"; json )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns the value.

### Description

### Examples

Queries integer value:

MBS( "JSON.GetIntegerValue"; "3" )

Created 18th August 2014, last changed 3th February 2016.

## 102.47 JSON.GetObjectItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.GetObjectItem"; json; name { ; AsReference } )
```

### Parameters

#### json

A JSON text or reference.

```
" [ 1,2,3 ] "
```

#### name

The name of the key to query.

```
"test"
```

#### AsReference

Optional

Whether to return a reference number (1) instead of the JSON text (0). Default is 0 for JSON text.

```
0
```

**Result** Returns JSON code.

### Description

You still need functions like JSON.GetStringValue to get back the decoded string.

### Examples

Create object, add content and pick value:

```
Let(
[
j = MBS( "JSON.CreateObject" );
j = MBS( "JSON.AddStringToObject"; j; "hello"; "world" );
r = MBS( "JSON.GetObjectItem"; j; "hello" )
];
r)
```

Pick a text from a JSON dictionary:

```
set $json to " { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } "
set $first to MBS("JSON.GetObjectItem"; $json; "first")
set $firstText to MBS("JSON.GetStringValue"; $first)
display dialog $firstText
```

Extract error details from JSON:

```
# JSON in field:
# {
# "error": {
```

```

# "message": "Your card's expiration year is invalid.",
# "type": "card_error",
# "param": "exp_year",
# "code": "invalid_expiry_year"
# }
# }
# get it in variable
Set Variable [ $json; Value:test::input ]
# pick error node
Set Variable [ $error; Value:MBS("JSON.GetObjectItem"; $json; "error") ]
If [ $error = "" ]
Show Custom Dialog [ "No error"; "No error node in the JSON." ]
Else
# get message node
Set Variable [ $message; Value:MBS("JSON.GetObjectItem"; $error; "message") ]
# decode text
Set Variable [ $messageText; Value:MBS("JSON.GetStringValue"; $message) ]
# get code node
Set Variable [ $code; Value:MBS("JSON.GetObjectItem"; $error; "code") ]
# decode text
Set Variable [ $codeText; Value:MBS("JSON.GetStringValue"; $code) ]
# show result
Show Custom Dialog [ "Got error"; "Message: " & $messageText & §& "Code: " & $codeText ]
End If

```

**See also**

- 102.13 JSON.AddStringToObject 5328
- 102.27 JSON.CreateObject 5349
- 102.48 JSON.GetObjectItemTree 5382
- 102.49 JSON.GetObjectItemTreeRef 5383
- 102.50 JSON.GetObjectName 5384
- 102.52 JSON.GetObjectSize 5386
- 102.54 JSON.GetStringValue 5390

**Example Databases**

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [CURL/WebServices/TinyURL](#)
- [CURL/WebServices/WeatherBit.io test](#)



- [JSON/JSON Order Parsing](#)
- [JSON/JSON Test](#)

Created 18th August 2014, last changed 3th February 2016.

## 102.48 JSON.GetObjectItemTree

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetObjectItemTree"; json; names )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

#### names

The names for keys to query. Pass several parameters to go down an object tree. For arrays you can pass index.

"test"

**Result** Returns JSON or error.

### Description

You still need functions like `JSON.GetStringValue` to get back the decoded string.

Works also for arrays where you pass in index.

### Examples

Query properties object and inside it the lastname object and there the value property:

```
MBS("JSON.GetObjectItemTree"; JSON Test::JSON; "properties"; "lastname"; "value")
```

Look into object tree, pick addresses, first address, than value and there the content of street:

```
MBS("JSON.GetStringValue"; MBS( "JSON.GetObjectItemTree"; test::JSON ; "addresses"; 0; "value"; "streetAddress" ))
```

### See also

- [102.47 JSON.GetObjectItem](#) 5379
- [102.49 JSON.GetObjectItemTreeRef](#) 5383
- [102.54 JSON.GetStringValue](#) 5390

### 102.48.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr7](#)
- [MBS Filemaker Plugin, version 3.2pr8](#)

Created 18th August 2014, last changed 3th February 2016.

**102.49 JSON.GetObjectItemTreeRef**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetObjectItemTreeRef"; json; names )

**Parameters****json**

A JSON text or reference.

" [ 1,2,3 ] "

**names**

The names for keys to query. Pass several parameters to go down an object tree. For arrays you can pass index.

"test"

**Result** Returns reference number or error.

**Description**

You still need functions like `JSON.GetStringValue` to get back the decoded string.

Works also for arrays where you pass in index.

Same as `JSON.GetObjectItemTree`, but returns reference number.

**See also**

- 102.47 `JSON.GetObjectItem` 5379
- 102.48 `JSON.GetObjectItemTree` 5382
- 102.54 `JSON.GetStringValue` 5390

Created 7th January 2016, last changed 3th February 2016.

## 102.50 JSON.GetObjectName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetObjectName"; json; index )

### Parameters

#### json

A JSON text or reference.

" { \"a\": \"b\", \"c\": \"d\" } "

#### index

The index of the item to get the name from. From 0 to JSON.GetObjectSize-1.

0

**Result** Returns name of item.

### Description

### Examples

Gets first object item's name:

MBS( "JSON.GetObjectName"; " { \"a\": \"b\", \"c\": \"d\" } "; 0 )

### See also

- 102.47 JSON.GetObjectItem 5379
- 102.51 JSON.GetObjectNameList 5385
- 102.52 JSON.GetObjectSize 5386

### 102.50.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 3th February 2016.

## 102.51 JSON.GetObjectNameList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.GetObjectNameList"; json )
```

### Parameters

#### json

A JSON text or reference.

```
" { \"a\": \"b\", \"c\": \"d\" } "
```

**Result** Returns name of items as list.

### Description

### Examples

Gets first object item's name:

```
MBS( "JSON.GetObjectNameList"; " { \"a\": \"b\", \"c\": \"d\" } " )
// return a and b as list.
```

### See also

- [102.50 JSON.GetObjectName](#)

5384

### 102.51.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 18th August 2014, last changed 3th February 2016.

## 102.52 JSON.GetObjectSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetObjectSize"; json )

### Parameters

#### json

A JSON text or reference.

" { \"a\": \"b\", \"c\": \"d\" } "

**Result** Returns number of object entries.

### Description

### Examples

Checks number of object elements:

MBS( "JSON.GetObjectSize"; " { \"a\": \"b\", \"c\": \"d\" } " )

Example result: 2

### See also

- 102.47 JSON.GetObjectItem 5379
- 102.50 JSON.GetObjectName 5384

### 102.52.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 11st December 2016.

## 102.53 JSON.GetPathItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetPathItem"; json; Path { ; Flags } )

### Parameters

#### json

A JSON text or reference.

```
" { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "
```

#### Path

The path through the json hierarchy as list. For object, pass name of item to choose. For array pass index. "people\$0\$last"

#### Flags

Optional

Pass 1 to return as value, e.g. text or number. Pass 0 (or nothing) to return as JSON.

Add 2 to return empty in case of error, e.g. value not existing. (new in 7.5)

**Result** Returns value or error.

### Description

The path describes the way through the hierarchy to find the JSON node to return.

Result can be JSON or the value.

If path ends with # in an array, we return number of elements.

### Examples

Query people ->first entry:

```
MBS( "JSON.GetPathItem"; " { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "; "people$0")
```

Query people ->first entry ->last name:

```
MBS( "JSON.GetPathItem"; " { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "; "people$0$last")
```

Query people:

```
MBS( "JSON.GetPathItem"; " { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "; "people")
```

Query IP via ipinfo.io:

Go to Layout [ "Table" ]

New Record/Request

```

# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://ipinfo.io") ]
# RUN now
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Table::DebugLog; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ Table::Result; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
If [ $result = "OK" ]
# Check HTTP error code
Set Variable [ $response; Value:MBS("CURL.GetResponseCode"; $curl) ]
If [ $response = 200 ]
# Query values from JSON
Set Variable [ $json; Value:MBS( "JSON.Parse"; Table::Result ) ]
Set Field [ Table::IP; MBS("JSON.GetPathItem"; $json; "ip"; 1) ]
Set Field [ Table::Hostname; MBS("JSON.GetPathItem"; $json; "hostname"; 1) ]
Set Field [ Table::City; MBS("JSON.GetPathItem"; $json; "city"; 1) ]
Set Field [ Table::Region; MBS("JSON.GetPathItem"; $json; "region"; 1) ]
Set Field [ Table::Country; MBS("JSON.GetPathItem"; $json; "country"; 1) ]
Set Field [ Table::Location; MBS("JSON.GetPathItem"; $json; "loc"; 1) ]
Set Field [ Table::Company or Provider; MBS("JSON.GetPathItem"; $json; "org"; 1) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json ) ]
End If
End If
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
Commit Records/Requests [ No dialog ]

```

Query number of entries in array:

```
MBS( "JSON.GetPathItem"; " { \"IDs\": [ 1,5,8,2,5 ] } "; "IDs$# ")
```

Example result: 5

#### See also

- 60.14 CoreML.PredictionFromFeatures 1764
- 62.43 CURL.GetDebugAsText 1866
- 62.111 CURL.GetResponseCode 1942
- 62.121 CURL.GetResultAsText 1963
- 62.140 CURL.New 1985
- 62.143 CURL.Perform 1992
- 62.149 CURL.Release 2011



102.53. <i>JSON.GETPATHITEM</i>	5389
• 62.373 <i>CURL.SetOptionURL</i>	2329
• 102.67 <i>JSON.Release</i>	5409
• 117.1 <i>MetaDataQuery.AttributesForFile</i>	6131

### Example Databases

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [CURL/WebServices/Google Maps API/Google Maps API](#)
- [CURL/WebServices/Query IP and Country](#)
- [CURL/WebServices/WeatherBit.io test](#)
- [JSON/JSON Benchmark](#)
- [Mac and iOS/Machine Learning/CoreML](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

### 102.53.1 Blog Entries

- [Sum up values in JSON with MBS FileMaker Plugin](#)
- [Query URL from downloaded file](#)
- [MBS FileMaker Plugin, version 8.1pr6](#)
- [MBS FileMaker Plugin, version 7.5pr5](#)
- [Face detection via CoreImage in FileMaker](#)
- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)

Created 3th February 2016, last changed 19th April 2020.

## 102.54 JSON.GetStringValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.GetStringValue"; json )
```

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns text.

### Description

### Examples

Get string value:

```
MBS( "JSON.GetStringValue"; "\"Hello\rjust a test\"" )
```

Example result: Hello

just a test

Extract error details from JSON:

```
# JSON in field:
# {
# "error": {
# "message": "Your card's expiration year is invalid.",
# "type": "card_error",
# "param": "exp_year",
# "code": "invalid_expiry_year"
# }
# }
# get it in variable
Set Variable [ $json; Value:test::input ]
# pick error node
Set Variable [ $error; Value:MBS("JSON.GetObjectItem"; $json; "error") ]
If [ $error = "" ]
Show Custom Dialog [ "No error"; "No error node in the JSON." ]
Else
# get message node
Set Variable [ $message; Value:MBS("JSON.GetObjectItem"; $error; "message") ]
# decode text
Set Variable [ $messageText; Value:MBS("JSON.GetStringValue"; $message) ]
# get code node
Set Variable [ $code; Value:MBS("JSON.GetObjectItem"; $error; "code") ]
# decode text
```

#### 102.54. *JSON.GETSTRINGVALUE*

5391

```
Set Variable [ $codeText; Value:MBS("JSON.GetStringValue"; $code) ]  
# show result  
Show Custom Dialog [ "Got error"; "Message: " & $messageText & $& "Code: " & $codeText ]  
End If
```

Decode string with unicode text:

```
MBS( "JSON.GetStringValue"; "\"Hello \u00e4\"" )
```

#### See also

- 102.47 *JSON.GetObjectItem* 5379
- 102.48 *JSON.GetObjectItemTree* 5382
- 102.49 *JSON.GetObjectItemTreeRef* 5383
- 102.56 *JSON.GetValue* 5393

#### Example Databases

- [CURL/WebServices/TinyURL](#)
- [JSON/JSON Order Parsing](#)
- [JSON/JSON Test](#)

Created 18th August 2014, last changed 17th February 2017.

## 102.55 JSON.GetType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	2.7	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetType"; json )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

**Result** Returns type: false, true, null, string, array, object or number.

### Description

### Examples

Creates array and queries type:

```
MBS("JSON.GetType"; MBS( "JSON.CreateDoubleArray"; 1; 2; 3))
```

Example result: array

Query type of value:

```
MBS( "JSON.GetType"; 123 )
```

Example result: number

Query type of value:

```
MBS( "JSON.GetType"; " [ ] " )
```

Example result: array

### See also

- 102.22 JSON.CreateDoubleArray

5343

Created 18th August 2014, last changed 11st December 2016.

## 102.56 JSON.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.GetValue"; json )

### Parameters

#### json

A JSON text or reference.

"1.3"

**Result** Returns value or error.

### Description

This is same as using JSON.GetDoubleValue or JSON.GetStringValue, but automatically detect type.

For boolean value return 0 or 1.

For object or array returns JSON text.

Numbers are returned as numbers.

### Examples

Returns 5 for a numeric value:

MBS( "JSON.GetValue"; "5" )

Example result: 5

Returns text:

MBS( "JSON.GetValue"; "\"Test JSON\"" )

Example result: Test JSON

Returns 1 for boolean:

MBS( "JSON.GetValue"; "true" )

Example result: 1

### See also

- 102.45 JSON.GetDoubleValue 5377
- 102.54 JSON.GetStringValue 5390
- 102.73 JSON.SortWithEvaluate 5417

### 102.56.1 Blog Entries

- [Sort with evaluate in FileMaker](#)

- [MBS FileMaker Plugin, version 9.3pr5](#)
- [MBS FileMaker Plugin, version 6.1pr2](#)

Created 3th February 2016, last changed 11st December 2016.

## 102.57 JSON.Import

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "JSON.Import"; JSON; InsertFileName { ; TableNamePrefix } )
```

### Parameters

#### JSON

The JSON data to import. Please pass text, not reference numbers.

#### InsertFileName

The file name of where the insert table is inside. Can be empty.

Get(FileName)

#### TableNamePrefix

Optional

The prefix to put in front of all tables.

"Import"

**Result** Returns number or error.

### Description

This function can import any JSON into FileMaker tables with all fields and attributes.

Returns number of records to be added. This function prefers the import and runs it later at idle time. In a script please call JSON.Import and then loop and do script pauses. Then use JSON.Import.Status to check regularly for updates. When you get back Finished as status, the script can continue with other work.

If you have a JSON file you need to import regularly into FileMaker and you have no XSLT to transform it for FileMaker, you can use this plugin function. On the first run, it creates for a sample JSON file the required tables and fields. Then you can define any layout or script to process values, e.g. copy into your tables. On further runs the plugin may add more fields (if newer JSON file has more fields) and import newer records.

All tables have three default fields. `_RecordUUID` is a unique identifier for the record. `_ParentRecordUUID` provides a link to the record one level higher in the JSON. This can be used to find child/parent records. The `_CreationTimeStamp` is the creation date, so you can distinguish different imports.

As a lot of records with a lot of data is imported and you may not need everything, you may want to put the imports in an extra FileMaker file. You decide if you clear tables before import or you want to keep history of all imports.

If the JSON has errors like a missing `<` in the JSON, you get an error. If you switch on IgnoreError parameter, the plugin reads everything until the error is reached which may give less records than possible.

This function works at idle time which is currently (FM 14) not supported on server.

Requires FileMaker 12 or newer.

On Server, please add a loop calling JSON.Import.Work to make progress.

See also XML.Import.SetBaseFields and XML.Import.SetExtraField.

### Examples

Imports test.json into FileMaker:

```
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.json"; "UTF-8") ]
Set Variable [ $r; Value:MBS("JSON.Import"; $text; ""; "") ]
Set Variable [ $text; Value:"" ]
If [ MBS("IsError") = 0 ]
Set Variable [ $total; Value:MBS("JSON.Import.Total") ]
Loop
Set Variable [ $todo; Value:MBS("JSON.Import.TODO") ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $s; Value:MBS("JSON.Import.Status") ]
Exit Loop If [ $s "Working" ]
End Loop
Show Custom Dialog [ "JSON Import"; $r & " " & $s ]
End If
```

Import script with progress bar for importing JSON with Windows ANSI encoding:

```
Go to Layout [ "JSON Import" (Import2Row) ]
Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetBottomText"; "") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetTopText"; "Importiere JSON") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetTitle"; "Import...") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetButtonCaption"; "Abbrechen") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetProgress"; -1) ]
Set Variable [ $r; Value:MBS("ProgressDialog.Show") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.JSON"; "Windows") ]
Set Variable [ $r; Value:MBS("JSON.Import"; $text; ""; "Import2") ]
Set Variable [ $text; Value:"" ]
If [ MBS("IsError") = 0 ]
Set Variable [ $total; Value:MBS("JSON.Import.Total") ]
Loop
Set Variable [ $todo; Value:MBS("JSON.Import.TODO") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetProgress"; ($total - $todo) * 100 / $total) ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetBottomText"; "Schritt " & ($total - $todo) & " von " & $total) ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $s; Value:MBS("JSON.Import.Status") ]
Exit Loop If [ $s "Working" ]
If [ MBS("ProgressDialog.GetCancel") = 1 ]
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]
```



## 102.57. JSON.IMPORT

5397

```
Set Variable [ $r; Value:MBS("JSON.Import.Cancel") ]  
Exit Script [ ]  
End If  
End Loop  
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]  
Show Custom Dialog [ "JSON Import"; $r & " " & $s ]  
End If  
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]
```

### See also

- 102.62 JSON.Import.TODO 5402
- 102.63 JSON.Import.Total 5403
- 133.4 ProgressDialog.GetCancel 6607
- 133.16 ProgressDialog.SetBottomText 6621
- 133.17 ProgressDialog.SetButtonCaption 6623
- 133.25 ProgressDialog.SetProgress 6635
- 133.31 ProgressDialog.Show 6647
- 167.49 Text.ReadTextFile 7971
- 194.13 XML.Import 9428
- 194.17 XML.Import.SetBaseFields 9435

### Example Databases

- [JSON/JSON Import](#)

#### 102.57.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

#### 102.57.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 5/2018, Seite 24

Created 26th October 2015, last changed 29th February 2020.

## 102.58 JSON.Import.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.Cancel" )

**Result** Returns OK.

**Description**

**See also**

- [102.57 JSON.Import](#) 5395
- [102.63 JSON.Import.Total](#) 5403
- [194.14 XML.Import.Cancel](#) 9432

**Example Databases**

- [JSON/JSON Import](#)

Created 26th October 2015, last changed 26th October 2015.

## 102.59 JSON.Import.ErrorCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.ErrorCount" )

**Result** Returns number or error.

### Description

Should be zero if we had no errors while importing.

### See also

- 102.60 JSON.Import.Errors 5400
- 194.15 XML.Import.ErrorCount 9433

### 102.59.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 18th June 2019, last changed 18th June 2019.

## 102.60 JSON.Import.Errors

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.Errors" )

**Result** Returns list or error.

### Description

We remove duplicates, so you may not see all errors.

### See also

- 102.59 JSON.Import.ErrorCount 5399
- 102.61 JSON.Import.Status 5401
- 102.64 JSON.Import.Work 5404
- 194.16 XML.Import.Errors 9434

### 102.60.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 18th June 2019, last changed 18th June 2019.

## 102.61 JSON.Import.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.Status" )

**Result** Returns status value.

### Description

Returns Working, Finished or Unknown depending of the state.

So before first import, it is unknown. Than with first import it switches to working. Now when it's ready, you get back Finished.

### See also

- [102.57 JSON.Import](#) 5395
- [102.60 JSON.Import.Errors](#) 5400
- [102.63 JSON.Import.Total](#) 5403
- [194.19 XML.Import.Status](#) 9437

### Example Databases

- [JSON/JSON Import](#)

Created 26th October 2015, last changed 26th October 2015.

## 102.62 JSON.Import.TODO

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.TODO" { ; Selector } )

### Parameters

#### Selector

Optional

Which value to return. By default we return number of records to create. You can pass here "Tables" to get number of tables, "Fields" to get number of fields or "Records" to get number of records.

**Result** Returns number.

### Description

#### See also

- [102.57 JSON.Import](#) 5395
- [102.63 JSON.Import.Total](#) 5403
- [102.64 JSON.Import.Work](#) 5404
- [194.20 XML.Import.TODO](#) 9438

### Example Databases

- [JSON/JSON Import](#)

#### 102.62.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 26th October 2015, last changed 10th November 2015.

**102.63 JSON.Import.Total**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.Total" )

**Result** Returns number.

**Description****See also**

- 102.57 JSON.Import 5395
- 102.58 JSON.Import.Cancel 5398
- 102.61 JSON.Import.Status 5401
- 102.62 JSON.Import.TODO 5402
- 102.64 JSON.Import.Work 5404
- 194.21 XML.Import.Total 9439

**Example Databases**

- [JSON/JSON Import](#)

Created 26th October 2015, last changed 26th October 2015.

## 102.64 JSON.Import.Work

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Import.Work" )

**Result** Returns OK or error.

### Description

Normally we do import on idle while a script pause. But on server this does not work. You can call this method in a loop to do the inserts for the import. But it will not create the tables and fields required for import.

### See also

- 102.57 JSON.Import 5395
- 102.60 JSON.Import.Errors 5400
- 102.62 JSON.Import.TODO 5402
- 102.63 JSON.Import.Total 5403
- 194.22 XML.Import.Work 9440

### 102.64.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 10th November 2015, last changed 10th November 2015.



## 102.65 JSON.IsValid

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.IsValid"; JSON )

### Parameters

#### JSON

The JSON text to parse.

" [ 1,2,3 ] "

**Result** Returns 1, 0 or error.

### Description

This parses the JSON text and returns 1 on success or 0 on failure.

### Examples

Checks validity:

MBS( "JSON.IsValid"; " [ 1,2,3 ] " )

Example result: 1

Checks with error:

MBS( "JSON.IsValid"; " [ 1,hello,3 ] " )

Example result: 0

### 102.65.1 Blog Entries

- [With JSON in excellent form](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 23th June 2016, last changed 11st December 2016.

## 102.66 JSON.Parse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Parse"; JSON )

### Parameters

#### JSON

The JSON text to parse.

" [ 1,2,3 ] "

**Result** Returns reference number or error.

### Description

Please use JSON.Release later to free the json object.

You can pass the reference number to all MBS JSON functions instead of JSON text.

### Examples

Parse an array:

```
# parse some json
$ref = MBS( "JSON.Parse"; " [ 1,2,3 ] " )
# query array size:
MBS( "JSON.GetArraySize"; $ref )
# free memory
MBS( "JSON.Release"; $ref )
```

Parse some JSON, display it formatted and release:

```
Set Variable [ $json; Value:MBS( "JSON.Parse"; " { \"Hello\": \"World\" } " ) ]
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json) ]
```

Query IP via ipinfo.io:

```
Go to Layout [ "Table" ]
New Record/Request
# Start new session
Set Variable [ $curl; Value:MBS("CURL.New") ]
# Set URL to load (HTTP, HTTPS, FTP, FTPS, SFTP, etc.)
Set Variable [ $result; Value:MBS("CURL.SetOptionURL"; $curl; "http://ipinfo.io") ]
# RUN now
Set Variable [ $result; Value:MBS("CURL.Perform"; $curl) ]
# Check result
Set Field [ Table::DebugLog; MBS("CURL.GetDebugAsText"; $curl) ]
Set Field [ Table::Result; MBS("CURL.GetResultAsText"; $curl; "UTF8") ]
If [ $result = "OK" ]
```

```

# Check HTTP error code
Set Variable [ $response; Value:MBS("CURL.GetResponseCode"; $curl) ]
If [ $response = 200 ]
# Query values from JSON
Set Variable [ $json; Value:MBS( "JSON.Parse"; Table::Result ) ]
Set Field [ Table::IP; MBS("JSON.GetPathItem"; $json; "ip"; 1) ]
Set Field [ Table::Hostname; MBS("JSON.GetPathItem"; $json; "hostname"; 1) ]
Set Field [ Table::City; MBS("JSON.GetPathItem"; $json; "city"; 1) ]
Set Field [ Table::Region; MBS("JSON.GetPathItem"; $json; "region"; 1) ]
Set Field [ Table::Country; MBS("JSON.GetPathItem"; $json; "country"; 1) ]
Set Field [ Table::Location; MBS("JSON.GetPathItem"; $json; "loc"; 1) ]
Set Field [ Table::Company or Provider; MBS("JSON.GetPathItem"; $json; "org"; 1) ]
Set Variable [ $r; Value:MBS( "JSON.Release"; $json ) ]
End If
End If
# Cleanup
Set Variable [ $result; Value:MBS("CURL.Release"; $curl) ]
Commit Records/Requests [ No dialog ]

```

**See also**

- [62.43 CURL.GetDebugAsText](#) 1866
- [62.111 CURL.GetResponseCode](#) 1942
- [62.121 CURL.GetResultAsText](#) 1963
- [62.149 CURL.Release](#) 2011
- [62.373 CURL.SetOptionURL](#) 2329
- [102.5 JSON.AddBooleanToObject](#) 5311
- [102.35 JSON.DeleteItemFromObject](#) 5360
- [102.40 JSON.Format](#) 5368
- [102.53 JSON.GetPathItem](#) 5387
- [102.67 JSON.Release](#) 5409

**Example Databases**

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)
- [CURL/WebServices/Query IP and Country](#)
- [JSON/JSON Benchmark](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)

**102.66.1 Blog Entries**

- [JSON with large integers](#)
- [Face detection via CoreImage in FileMaker](#)
- [MBS FileMaker Plugin 6.0 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 19th April 2020.

## 102.67 JSON.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Release"; JSONRef )

### Parameters

#### JSONRef

The JSON reference number.

\$json

**Result** Returns OK or error.

### Description

#### Examples

Parse some JSON, display it formatted and release:

```
Set Variable [ $json; Value:MBS( "JSON.Parse"; " { \"Hello\": \"World\" } " ) ]
```

```
Show Custom Dialog [ $json; MBS("JSON.Format"; $json) ]
```

```
Set Variable [ $r; Value:MBS( "JSON.Release"; $json) ]
```

### See also

- 62.143 [CURL.Perform](#) 1992
- 99.10 [Java.Release](#) 5245
- 102.5 [JSON.AddBooleanToObject](#) 5311
- 102.8 [JSON.AddItemToObject](#) 5317
- 102.10 [JSON.AddNumberToArray](#) 5322
- 102.28 [JSON.CreateObjectRef](#) 5351
- 102.40 [JSON.Format](#) 5368
- 102.66 [JSON.Parse](#) 5406
- 102.68 [JSON.ReleaseAll](#) 5411
- 108.95 [MapView.Snapshot](#) 5832

### Example Databases

- [CURL/Email/IMAP Email List](#)
- [CURL/Email/IMAP Email](#)

- [CURL/WebServices/Query IP and Country](#)
- [JSON/JSON Benchmark](#)
- [Mac and iOS/Machine Learning/Core Image Detection](#)
- [Mac and iOS/MapKit/MapKit Snapshots](#)
- [Mac only/ImageCapture/Camera Import](#)

### 102.67.1 Blog Entries

- [Fun with While function in FileMaker](#)
- [Face detection via CoreImage in FileMaker](#)
- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 5th January 2016, last changed 10th February 2016.

**102.68 JSON.ReleaseAll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.ReleaseAll" )

**Result** Returns OK or error.

**Description**

After this call all reference numbers are invalid.

This is useful if you start a script which creates dozens of JSON reference numbers and you don't want to keep track of those IDs.

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

**Examples**

Release all JSON objects:

Set Variable [ \$r; Value:MBS( "JSON.ReleaseAll" ) ]

**See also**

- 62.150 CURL.ReleaseAll 2013
- 99.11 Java.ReleaseAll 5246
- 102.67 JSON.Release 5409
- 114.24 Menu.ReleaseAll 5988
- 166.29 TAPI.ReleaseAll 7884
- 194.31 XML.ReleaseAll 9455

Created 11st January 2016, last changed 9th January 2020.

## 102.69 JSON.ReplaceItemInArray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.ReplaceItemInArray"; json; index; json2 )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3,4 ] "

#### index

The index of the array item.

2

#### json2

The new json item for the array.

5

**Result** Returns JSON code.

### Description

### Examples

Replace a value in array:

MBS( "JSON.ReplaceItemInArray"; " [ 1,2,3,4 ] "; 2; "5" )

Example result: [ 1, 2, 5, 4 ]

### See also

- 102.70 JSON.ReplaceItemInObject

5413

### 102.69.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 26th August 2014, last changed 11st December 2016.



## 102.70 JSON.ReplaceItemInObject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.ReplaceItemInObject"; json; name; json2 )

### Parameters

**json**

A JSON text or reference.

```
{ "key": "value" }
```

**name**

The name of the Object property.

```
"key"
```

**json2**

The JSON text for the item.

```
"Hello"
```

**Result** Returns JSON code.

### Description

### Examples

Replace key with new Value:

```
MBS( "JSON.ReplaceItemInObject"; " { \"key\": \"value\" } "; "key"; "\"Hello\"" )
```

Example result: {

```
"key": "Hello"
```

```
}
```

### See also

- 102.69 JSON.ReplaceItemInArray

5412

### 102.70.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 26th August 2014, last changed 11st December 2016.

## 102.71 JSON.SetPathItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.SetPathItem"; json; Path; Value )

### Parameters

#### json

A JSON text or reference.

" [ 1,2,3 ] "

#### Path

The path through the json hierarchy as list. For object, pass name of item to choose. For array pass index. For last array you can use special value "append" to add an entry.

"people\$0\$last"

#### Value

The new value as JSON.

"\"Hello\""

**Result** Returns JSON or error.

### Description

The path describes the way through the hierarchy to find the JSON node to return.

Please pass in new value as JSON.

Version 9.2 automatically creates missing object/array entries. The value parameter will be treated as text if it is not a valid JSON instead of reporting an error.

### Examples

Adds an entry with country:

```
MBS( "JSON.SetPathItem"; " { \"people\": [ { \"first\": \"Christian\", \"last\": \"Schmitz\", \"city\": \"Nickenich\" } ] } "; "people$0$country"; "\"Germany\"" )
```

Example result: {

```
"people": [ {
  "first": "Christian",
  "last": "Schmitz",
  "city": "Nickenich",
  "country": "Germany"
} ]
}
```

Sets an entry in an array:

```
MBS( "JSON.SetPathItem"; " [ 1,2,3 ] "; "1"; 5)
```

Example result: [ 1, 5, 3 ]

Adds an entry to array in object:

```
MBS( "JSON.SetPathItem"; " { \"test\": [ 1,2,3 ] } "; "test$append"; 5)
```

```
Example result: {
"test": [ 1, 2, 3, 5 ]
}
```

Sets hierarchical item:

```
MBS( "JSON.SetPathItem"; " { } "; "Hello$World$Test"; "Hello" )
```

```
Example result: {
"Hello": {
"World": {
"Test": "Hello"
}
}
}
```

Create missing array entries and add our new one:

```
MBS( "JSON.SetPathItem"; " [ ] "; "5"; "6th item" )
```

Example result: [ null, null, null, null, null, 6 ]

**See also**

- 102.53 JSON.GetPathItem

5387

### 102.71.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr2](#)

### 102.71.2 FileMaker Magazin

- Ausgabe 4/2016, Seite 20

Created 3th February 2016, last changed 3th April 2019.

## 102.72 JSON.Sort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.Sort"; json )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

**Result** Returns JSON code.

### Description

#### Examples

Sort an array of numbers:

```
MBS( "JSON.Sort"; " [ 9,4,3.2,3.1,123 ] " )
```

Sort text values:

```
MBS( "JSON.Sort"; " [ \"123\", \"Hello\", \"FileMaker\", \"World\" ] " )
```

Sort keys in object:

```
MBS( "JSON.Sort"; " { \"last\":123, \"first\":456 } " )
```

### See also

- [102.73 JSON.SortWithEvaluate](#)

5417

### 102.72.1 Blog Entries

- [Sort with evaluate in FileMaker](#)
- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [JSON Sort](#)
- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 15th June 2019, last changed 15th June 2019.

## 102.73 JSON.SortWithEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.SortWithEvaluate"; json; Expression )

### Parameters

#### json

A JSON text or reference.

[ 2,9,3,1 ]

#### Expression

The expression to evaluate. Can include "leftJSON", "rightJSON" as variables. You can call other MBS JSON functions if needed.

"(leftJSON) >GetAsNumber(rightJSON)"

**Result** Returns OK or error.

### Description

The expression is run every time two values are compared, so keep it quick. It should return 1 if leftJSON is smaller than rightJSON.

Our normal JSON.Sort is faster due to not having the overhead of evaluating expressions.

### Examples

Sort with evaluate:

```
MBS( "JSON.SortWithEvaluate"; " [ 2,9,3,1 ] "; "MBS( \"JSON.GetValue\"; leftJSON) <MBS( \"JSON.GetValue\"; rightJSON)" )
```

Sort a list of object by name:

```
MBS( "JSON.SortWithEvaluate"; " [
  { \"name\": \"Joe\" } ,
  { \"name\": \"Anna\" } ,
  { \"name\": \"Tim\" } ,
  { \"name\": \"John\" }
] "; "JSONGetElement ( leftJSON; \"name\" ) <JSONGetElement ( rightJSON; \"name\" )" )
```

### See also

- 102.56 JSON.GetValue 5393
- 102.72 JSON.Sort 5416
- 105.37 List.SortWithEvaluate 5546

### 102.73.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Sort with evaluate in FileMaker](#)

Created 9th April 2020, last changed 9th April 2020.

## 102.74 JSON.ToHTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
102 JSON	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "JSON.ToHTML"; json { ; Flags; CSS Style } )

### Parameters

#### json

A JSON text or reference.

```
{ "key": "value" }
```

#### Flags

Optional

The flags for processing. Currently you can pass 1 to exclude html header and just get a HTML table.

0

#### CSS Style

Optional

Extra CSS / HTML to include.

**Result** Returns HTML text or error.

### Description

We build for you a HTML with tables for each array and object. We include values and tag rows with even/odd CSS classes.

### Examples

Convert some JSON:

```
MBS("JSON.ToHTML"; JSON Input; 0;
/* CSS style to include */
"<style>
td
{
vertical-align:top;
}

.odd
{
background-color: white;
}

.even
{
background-color: # DDD;
}
</style>")
```

**Example Databases**

- [JSON/JSON to HTML](#)

**102.74.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr7](#)
- [MBS FileMaker Plugin, version 8.4pr9](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 8.2pr5](#)
- [Converting JSON to HTML for display](#)

Created 26th April 2018, last changed 26th April 2018.



## 102.75 LDAP.AddJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.AddJSON"; LDAPRef; dn; JSON )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### JSON

The JSON to parse. Must be a JSON array with entries. Each entry has an element operation with Add, Replace, Delete or Increment. Also a node with name "type" and the type to set. Then you can pass with value a single value or with values a list of values.

**Result** Returns OK or error.

### Description

The parent of the entry being added must already exist or the parent must be empty (equal to the root distinguished name) for an add operation to succeed.

Sample JSON for structure:

```
[ {
  "operation": "Add",
  "type": "xxx",

  "values": [ "Hello", "World" ]

},
{
  "operation": "Add",
  "type": "yyy",
  "value": "Other"
} ]
```

Type is the name of the attribute, e.g. cn.

Version 10.1 or newer accepts name instead of type for the key to match the search results.

### Examples

Add a new employee to LDAP:

```
Set Variable [ $ldap ; Value: MBS("LDAP.Connect"; "ldap.test.de"; 0; 389 ) ]
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "cn=admin,dc=ldap,dc=test,dc=de"; "S2A2S@home";
"simple" ) ]
Set Variable [ $r ; Value: MBS("LDAP.AddJSON"; $ldap; Employee::_LDAP.Entry.CN; Employee::_LDAP.JSON.Add)
]
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]
```

Example result: Input JSON used:

```
[
{
"operation": "Add",
"name": "objectClass",
"values": [
"posixAccount",
"shadowAccount",
"top",
"inetOrgPerson",
"organizationalPerson",
"person"
]
},
{
"operation": "Add",
"name": "uid",
"value": "bob.miller"
},
{
"operation": "Add",
"name": "uidNumber",
"value": "1"
},
{
"operation": "Add",
"name": "cn",
"value": "Bob Miller"
},
{
"operation": "Add",
"name": "mail",
"value": "bob.miller@test.de"
},
{
"operation": "Add",
"name": "homeDirectory",
"value": "/usr/local/var/"
},
]
```

```

{
"operation": "Add",
"name": "sn",
"value": "Miller"
},
{
"operation": "Add",
"name": "employeeType",
"value": "Employee"
},
{
"operation": "Add",
"name": "givenName",
"value": "Bob"
},
{
"operation": "Add",
"name": "employeeNumber",
"value": "77"
},
{
"operation": "Add",
"name": "userPassword",
"value": "xxxx"
},
{
"operation": "Add",
"name": "gidNumber",
"value": "100"
}
]

```

**See also**

- 104.1 LDAP.Add 5439
- 104.3 LDAP.AddList 5445
- 104.4 LDAP.AddRecord 5447
- 104.5 LDAP.Bind 5449
- 104.6 LDAP.Connect 5451
- 104.12 LDAP.JSON 5459
- 104.16 LDAP.Release 5469

**102.75.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr6](#)

- [MBS FileMaker Plugin, version 8.0pr9](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.

## 102.76 LDAP.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.JSON"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns OK or error.

### Description

Please first search, then query here the result as JSON.

### Examples

Query JSON:

```
# Connect
Set Variable [ $r ; Value: MBS("LDAP.Connect"; "ldap.forumsys.com"; 0; 389) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error" ; "Failed to connect." & $r ]
Else
Set Variable [ $ldap ; Value: $r ]
# Login
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "uid=tesla,dc=example,dc=com"; "password"; "simple") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error" ; "Failed to authenticate." & $r ]
Else
# Search
Set Variable [ $r ; Value: MBS("LDAP.Search"; $ldap; "dc=example,dc=com"; "subtree"; "(givenName=*)"; "" ; 0; 20; 999) ]
# Check results
Show Custom Dialog [ "JSON" ; MBS("LDAP.JSON"; $ldap) ]
End If
# Cleanup
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]
End If
```

```
Example result: [ {
  "dn": "uid=test,dc=example,dc=com",
  "attributes": [ {
    "name": "objectClass",
    "values": [ "posixAccount", "top", "inetOrgPerson" ]
  } , {
```

```

"name": "gidNumber",
"values": [ "0" ]
}, {
"name": "givenName",
"values": [ "Test" ]
}, {
"name": "sn",
"values": [ "Test" ]
}, {
"name": "displayName",
"values": [ "Test" ]
}, {
"name": "uid",
"values": [ "test" ]
}, {
"name": "initials",
"values": [ "TS" ]
}, {
"name": "homeDirectory",
"values": [ "home" ]
}, {
"name": "cn",
"values": [ "Test" ]
}, {
"name": "uidNumber",
"values": [ "24601" ]
}, {
"name": "o",
"values": [ "Company" ]
} ]
} ]

```

Query a person via JSON:

```

Set Variable [ $ldap ; Value: MBS("LDAP.Connect"; "ldap.test.de"; 0; 389 ) ]
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "cn=admin,dc=ldap,dc=test,dc=de"; "S2A2S@home";
"simple" ) ]
Set Variable [ $r ; Value: MBS("LDAP.Search"; $ldap; "ou=Users,dc=ldap,dc=test,dc=de"; "Subtree"; "";
""; 0; 20; 999) ]
Set Field [ Employee::_LDAP.JSON.QUERY ; MBS("LDAP.JSON"; $ldap) ]
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]

```

Example result: [

```

{
"dn": "ou=Users,dc=ldap,dc=test,dc=de",
"attributes": [
{
"name": "objectClass",
"values": [

```

```
"organizationalUnit",
"top"
]
},
{
"name": "ou",
"values": [
"Users"
]
}
],
},
{
"dn": "uid=bob.miller,ou=Users,dc=ldap,dc=test,dc=de",
"attributes": [
{
"name": "objectClass",
"values": [
"posixAccount",
"shadowAccount",
"top",
"inetOrgPerson",
"organizationalPerson",
"person"
]
},
{
"name": "uid",
"values": [
"bob.miller"
]
},
{
"name": "uidNumber",
"values": [ "1" ]
},
{
"name": "cn",
"values": [
"Bob Miller"
]
},
{
"name": "mail",
"values": [
"bob.miller@test.de"
]
},
},
}
```

```

{
  "name": "homeDirectory",
  "values": [
    "/usr/local/var/"
  ]
},
{
  "name": "sn",
  "values": [
    "Miller"
  ]
},
{
  "name": "employeeType",
  "values": [
    "Employee"
  ]
},
{
  "name": "givenName",
  "values": [
    "Bob"
  ]
},
{
  "name": "employeeNumber",
  "values": [ "77" ]
},
{
  "name": "userPassword",
  "values": [
    "xxxx"
  ]
},
{
  "name": "gidNumber",
  "values": [ "100" ]
}
]

```

**See also**

- 127.6 IsError 6374
- 104.2 LDAP.AddJSON 5441
- 104.5 LDAP.Bind 5449



<i>102.76. LDAP.JSON</i>	5429
• 104.6 LDAP.Connect	5451
• 104.16 LDAP.Release	5469
• 104.18 LDAP.Search	5471

### **102.76.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.

## 102.77 LDAP.ModifyJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.ModifyJSON"; LDAPRef; dn; JSON )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### JSON

The JSON to parse. Must be a JSON array with entries. Each entry has an element operation with Add, Replace, Delete or Increment. Also a node with name "type" and the type to set. Then you can pass with value a single value or with values a list of values.

**Result** Returns OK or error.

### Description

If values are being added to or replaced in the entry, the function creates the attribute, if necessary. If values are being deleted, the function removes the attribute if no values remain.

Sample JSON for structure:

```
[ {
  "operation": "Add",
  "type": "xxx",

  "values": [ "Hello", "World" ]

},
{
  "operation": "Replace",
  "type": "yyy",
  "value": "Other"
},
{
  "operation": "Delete",
  "type": "zzz"
} ]
```

## 102.77. LDAP.MODIFYJSON

5431

Version 10.1 or newer accepts name instead of type for the key to match the search results.

**See also**

- [104.13 LDAP.Modify](#) 5464
- [104.15 LDAP.ModifyRecord](#) 5467

### 102.77.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.



# Chapter 103

## Keychain

Manage passwords in Mac & iOS Keychain

### 103.1 Keychain.AddPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
103 Keychain	8.4	Yes	No	No	No	Yes

MBS( "Keychain.AddPassword"; Name; Location; Username; Password )

#### Parameters

##### Name

The name of the entry.

"MyDatabase"

##### Location

The location where the database is. Must be prefixed with FMP. e.g. "FMP: " or "FMPADMIN: " followed with the name or IP.

"FMPADMIN: mbs.test.ifmcloud.com"

##### Username

The user name.

"Admin"

##### Password

The password to store.

"HelloWorld"

**Result** Returns OK or error.

#### Description

Only if FileMaker you provide correct entries for FileMaker, it will find the entry.

So please check what FileMaker writes for your entry there.

**Examples**

Add a new password:

```
MBS("Keychain.AddPassword"; "Anlagen"; "FMP: Anlagen"; "Admin"; "HelloWorld")
```

**See also**

- 103.5 Keychain.UpdatePassword

5438

Created 25th August 2018, last changed 26th August 2018.

## 103.2 Keychain.DeletePassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
103 Keychain	8.4	Yes	No	No	No	Yes

MBS( "Keychain.DeletePassword"; Location; Username )

### Parameters

#### Location

The location where the database is. Must be prefixed with FMP. e.g. "FMP: " or "FMPADMIN: " followed with the name or IP.

"FMPADMIN: mbs.test.ifmcloud.com"

#### Username

The user name.

"Admin"

**Result** Returns OK or error.

### Description

We look for a FileMaker password with given account name and location.

### Examples

Deletes a password:

MBS("Keychain.DeletePassword"; "FMP: Anlagen"; "Admin")

### See also

- 103.5 Keychain.UpdatePassword

### 103.3 Keychain.ListAccounts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
103 Keychain	8.4	Yes	No	No	No	Yes

MBS( "Keychain.ListAccounts"; Location )

#### Parameters

##### Location

The location where the database is. Must be prefixed with FMP. e.g. "FMP: " or "FMPADMIN: " followed with the name or IP.

"FMPADMIN: mbs.test.ifmcloud.com"

**Result** Returns OK or error.

##### Description

##### Examples

Lists my accounts in Cloud:

MBS("Keychain.ListAccounts"; "FMPADMIN: monkeybread.fmi.filemaker-cloud.com")

Created 25th August 2018, last changed 25th August 2018.



## 103.4 Keychain.ListDatabases

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
103 Keychain	8.4	Yes	No	No	No	Yes

MBS( "Keychain.ListDatabases" )

**Result** Returns OK or error.

### Description

### Examples

Lists my databases:

```
MBS("Keychain.ListDatabases")
```

Created 25th August 2018, last changed 25th August 2018.

## 103.5 Keychain.UpdatePassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
103 Keychain	8.4	Yes	No	No	No	Yes

MBS( "Keychain.UpdatePassword"; Location; Username; Password )

### Parameters

#### Location

The location where the database is. Must be prefixed with FMP. e.g. "FMP: " or "FMPADMIN: " followed with the name or IP.

"FMPADMIN: mbs.test.ifmcloud.com"

#### Username

The user name.

"Admin"

#### Password

The new password to store.

"New password"

**Result** Returns OK or error.

### Description

### Examples

Updates account with new password:

MBS("Keychain.UpdatePassword"; "FMP: Anlagen"; "Admin"; "NewPassword")

### See also

- 103.1 Keychain.AddPassword 5433
- 103.2 Keychain.DeletePassword 5435

Created 25th August 2018, last changed 25th August 2018.

# Chapter 104

## LDAP

Query LDAP or Active Directory servers to manager user accounts.

The plugin can query, modify, add and delete values.

FileMaker can use LDAP or Active Directory for authentication. You can manage users in FileMaker database and send updates to your authentication server via our plugin.

### 104.1 LDAP.Add

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Add"; LDAPRef; dn; Type { ; Value } )

#### Parameters

##### LDAPRef

The reference number for the LDAP connection.

\$ldap

##### dn

The name of the entry to add.

##### Type

The name of the attribute to add.

##### Value

Optional

The value for the attribute.

**Result** Returns OK or error.

#### Description

The parent of the entry being added must already exist or the parent must be empty (equal to the root distinguished name) for an add operation to succeed.

With 6.4 plugin you can pass several more value parameters to form a list of values.  
Deprecated. Please use LDAP.AddJSON instead.

### Examples

Add a value:

```
MBS( "LDAP.Add"; $ldap; "test"; "cn"; "Hello" )
```

Add a value with 3 values:

```
MBS( "LDAP.Add"; $ldap; "test"; "cn"; "Hello"; "World"; "test" )
```

### See also

- [104.2 LDAP.AddJSON](#) 5441
- [104.3 LDAP.AddList](#) 5445
- [104.4 LDAP.AddRecord](#) 5447

### 104.1.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 6.4pr2](#)

Created 15th December 2015, last changed 29th February 2020.

## 104.2 LDAP.AddJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.AddJSON"; LDAPRef; dn; JSON )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### JSON

The JSON to parse. Must be a JSON array with entries. Each entry has an element operation with Add, Replace, Delete or Increment. Also a node with name "type" and the type to set. Then you can pass with value a single value or with values a list of values.

**Result** Returns OK or error.

### Description

The parent of the entry being added must already exist or the parent must be empty (equal to the root distinguished name) for an add operation to succeed.

Sample JSON for structure:

```
[ {
  "operation": "Add",
  "type": "xxx",

  "values": [ "Hello", "World" ]

},
{
  "operation": "Add",
  "type": "yyy",
  "value": "Other"
} ]
```

Type is the name of the attribute, e.g. cn.

Version 10.1 or newer accepts name instead of type for the key to match the search results.

### Examples

Add a new employee to LDAP:

```
Set Variable [ $ldap ; Value: MBS("LDAP.Connect"; "ldap.test.de"; 0; 389 ) ]
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "cn=admin,dc=ldap,dc=test,dc=de"; "S2A2S@home";
"simple" ) ]
Set Variable [ $r ; Value: MBS("LDAP.AddJSON"; $ldap; Employee::_LDAP.Entry.CN; Employee::_LDAP.JSON.Add)
]
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]
```

Example result: Input JSON used:

```
[
{
"operation": "Add",
"name": "objectClass",
"values": [
"posixAccount",
"shadowAccount",
"top",
"inetOrgPerson",
"organizationalPerson",
"person"
]
},
{
"operation": "Add",
"name": "uid",
"value": "bob.miller"
},
{
"operation": "Add",
"name": "uidNumber",
"value": "1"
},
{
"operation": "Add",
"name": "cn",
"value": "Bob Miller"
},
{
"operation": "Add",
"name": "mail",
"value": "bob.miller@test.de"
},
{
"operation": "Add",
"name": "homeDirectory",
"value": "/usr/local/var/"
},
]
```

```

{
"operation": "Add",
"name": "sn",
"value": "Miller"
},
{
"operation": "Add",
"name": "employeeType",
"value": "Employee"
},
{
"operation": "Add",
"name": "givenName",
"value": "Bob"
},
{
"operation": "Add",
"name": "employeeNumber",
"value": "77"
},
{
"operation": "Add",
"name": "userPassword",
"value": "xxxx"
},
{
"operation": "Add",
"name": "gidNumber",
"value": "100"
}
]

```

**See also**

- 104.1 LDAP.Add 5439
- 104.3 LDAP.AddList 5445
- 104.4 LDAP.AddRecord 5447
- 104.5 LDAP.Bind 5449
- 104.6 LDAP.Connect 5451
- 104.12 LDAP.JSON 5459
- 104.16 LDAP.Release 5469

**104.2.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr6](#)

- [MBS FileMaker Plugin, version 8.0pr9](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.



## 104.3 LDAP.AddList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.4	Yes	Yes	Yes	Yes	No

MBS( "LDAP.AddList"; LDAPRef; dn; Type; List )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### Type

The name of the attribute to add.

#### List

The value for the attribute as a list.

"Hello\$World"

**Result** Returns OK or error.

### Description

The parent of the entry being added must already exist or the parent must be empty (equal to the root distinguished name) for an add operation to succeed.

The list of values are transformed into a list for LDAP.

Deprecated. Please use LDAP.AddJSON instead.

### Examples

Add a list of values to a value:

```
MBS("LDAP.AddList"; $$connectLDAP; "CN=Test_FMPRO_TEMPO2,OU=Eleves,DC=mss,DC=qc,DC=ca";
"objectClass"; "user$top$person$organizationalPerson")
```

### See also

- 104.1 LDAP.Add 5439
- 104.2 LDAP.AddJSON 5441

### 104.3.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 6.4pr2](#)



## 104.4 LDAP.AddRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	7.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.AddRecord"; LDAPRef; dn; Type { ; Value; TypeN; ValueN } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### Type

The name of the attribute to add.

#### Value

Optional

The value for the attribute.

#### TypeN

Optional

nth attribute name.

#### ValueN

Optional

nth attribute value.

**Result** Returns OK or error.

### Description

The parent of the entry being added must already exist or the parent must be empty (equal to the root distinguished name) for an add operation to succeed.

This version of the Add can add several keys and values with simple text values.

So please pass as many parameters as you need, always with key and value.

Deprecated. Please use LDAP.AddJSON instead.

### Examples

Add two values:

MBS( "LDAP.Add"; \$ldap; "test"; "cn"; "Hello"; "fn"; "World" )

### See also

- 104.1 LDAP.Add

- 104.2 LDAP.AddJSON

### 104.4.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 5th January 2017, last changed 29th February 2020.

## 104.5 LDAP.Bind

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Bind"; LDAPRef; DN; Cred; AuthMethod { ; Domain } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### DN

Test that contains the distinguished name of the entry used to bind. This can be a DN, a UPN, a WinNT style user name, or other name that the directory server will accept as an identifier.

#### Cred

The credentials with which to authenticate. Arbitrary credentials can be passed using this parameter. The format and content of the credentials depends on the setting of the method parameter.

#### AuthMethod

The authentication method to use. Can be simple, SASL or Negotiate. On Mac OS X, also none, KRBv4, KRBv41 and KRBv42 are accepted. On Windows, also Sicily, MSN, NTLM, DPA, SSPI, Digest and External are accepted.

"simple"

#### Domain

Optional

Domain for Windows.

**Result** Returns OK or error.

### Description

See also SystemInfo.ADSYSTEMINFO function to query details about logged in computer user.

### Examples

Authenticate connection:

```
Set Variable [ $r; Value:MBS("LDAP.Bind"; $ldap; $UserName; $Password; $AuthMethod) ]
```

### See also

- 104.2 LDAP.AddJSON 5441
- 104.6 LDAP.Connect 5451
- 104.12 LDAP.JSON 5459
- 164.1 SystemInfo.ADSYSTEMINFO 7779

**Example Databases**

- [LDAP Query](#)

**104.5.1 Blog Entries**

- [LDAP with JSON](#)
- [MBS FileMaker Plugin, version 6.1pr2](#)
- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 18th October 2019.

## 104.6 LDAP.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Connect"; IP; SSL; Port )

### Parameters

#### IP

The IP or domain name of the server. If prefixed with ldap:// or ldaps://, the plugin will remove that prefix. If prefix is ldaps://, the plugin will assume SSL is enabled.  
"192.168.2.222"

#### SSL

Whether to use SSL. 1 to enable or 0 to not enable.  
1

#### Port

The port to use. If zero or undefined, the default port is used. e.g. 636 for LDAPS or 389 for LDAP.  
3889

**Result** Returns reference number or error.

### Description

Returns the references number which you pass to other LDAP functions.  
Please call LDAP.Release later to close connection.

### Examples

Connect to local LDAP server:

```
MBS( "LDAP.Connect"; "localhost"; 0; 389 )
```

Connect to LDAP server:

```
MBS( "LDAP.Connect"; "ldap.internal"; 1)
```

Connect via IP and special port:

```
MBS( "LDAP.Connect"; "192.168.1.123"; 1; 3636)
```

Connect using URL:

```
MBS( "LDAP.Connect"; "ldaps://192.168.1.123")
```

Connect and Query:

```
Delete All Records [ No dialog ]
# Connect
```

```

Set Variable [ $r; Value:MBS("LDAP.Connect"; LDAP Query::Server; LDAP Query::SSL; LDAP Query::Port)
]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error"; "Failed to connect." & $r ]
Exit Script [ ]
Else
Set Variable [ $ldap; Value:$r ]
# Login
Set Variable [ $r; Value:MBS("LDAP.Bind"; $ldap; LDAP Query::UserName; LDAP Query::Password;
LDAP Query::AuthMethod) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error"; "Failed to authenticate." & $r ]
Else
# Search
Set Variable [ $r; Value:MBS("LDAP.Search"; $ldap; LDAP Query::Base; LDAP Query::Scope; LDAP
Query::Filter; ""; 0; 20; 999) ]
# Check results
Set Variable [ $EntryCount; Value:MBS("LDAP.SearchResult.Count"; $ldap) ]
# Walk over all entries
Set Field [ LDAP Query::Entry Count; $EntryCount ]
If [ $EntryCount >0 ]
Set Variable [ $EntryIndex; Value:0 ]
Loop
Set Variable [ $EntryName; Value:MBS("LDAP.SearchResult.DistinguishedName"; $ldap; $EntryIndex) ]
# Walk over all attributes
Set Variable [ $AttributeCount; Value:MBS("LDAP.SearchResult.AttributeCount"; $ldap; $EntryIndex) ]
If [ $AttributeCount ]
Set Variable [ $AttributeIndex; Value:0 ]
Loop
# Check attribute name and value:
Set Variable [ $AttributeName; Value:MBS("LDAP.SearchResult.AttributeName"; $ldap; $EntryIndex; $At-
tributeIndex) ]
Set Variable [ $AttributeValues; Value:MBS("LDAP.SearchResult.AttributeValues"; $ldap; $EntryIndex;
$AttributeIndex; 1) ]
# Store in a record:
New Record/Request
Set Field [ LDAP Query::Entry; $EntryName ]
Set Field [ LDAP Query::Attribute; $AttributeName ]
Set Field [ LDAP Query::Values; $AttributeValues ]
Commit Records/Requests [ No dialog ]
# next attribute
Set Variable [ $AttributeIndex; Value:$AttributeIndex + 1 ]
Exit Loop If [ $AttributeIndex = $AttributeCount ]
End Loop
End If
# next entry
Set Variable [ $EntryIndex; Value:$EntryIndex + 1 ]
Exit Loop If [ $EntryIndex = $EntryCount ]

```



## 104.6. LDAP.CONNECT

5453

```
End Loop
End If
End If
# Cleanup
Set Variable [ $r; Value:MBS("LDAP.Release"; $ldap) ]
End If
```

### See also

- [127.6 IsError](#) 6374
- [104.2 LDAP.AddJSON](#) 5441
- [104.5 LDAP.Bind](#) 5449
- [104.12 LDAP.JSON](#) 5459
- [104.18 LDAP.Search](#) 5471
- [104.19 LDAP.SearchResult.AttributeCount](#) 5473
- [104.20 LDAP.SearchResult.AttributeName](#) 5475
- [104.22 LDAP.SearchResult.AttributeValue](#) 5477
- [104.24 LDAP.SearchResult.AttributeValues](#) 5479
- [104.27 LDAP.SearchResult.DistinguishedName](#) 5485

### Example Databases

- [LDAP Query](#)

### 104.6.1 Blog Entries

- [LDAP with JSON](#)
- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 20th November 2017.

## 104.7 LDAP.Delete

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Delete"; LDAPRef; dn )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.  
\$ldap

#### dn

The distinguished name of the entry to delete.

**Result** Returns OK or error.

### Description

Be aware that LDAP does not support deletion of entire subtrees in a single operation. When connecting to an LDAP 2 server, the application must perform a bind operation first.

#### See also

- 104.16 LDAP.Release

5469

Created 15th December 2015, last changed 15th December 2015.

## 104.8 LDAP.GetNetworkTimeOut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	No	Yes	Yes	No

MBS( "LDAP.GetNetworkTimeOut"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.  
\$ldap

**Result** Returns number or error.

### Description

#### See also

- 104.28 LDAP.SetNetworkTimeOut

5486

### 104.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 18th December 2015, last changed 17th June 2018.

## 104.9 LDAP.GetProtocolVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.GetProtocolVersion"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.  
\$ldap

**Result** Returns value or error.

### Description

#### See also

- 104.29 LDAP.SetProtocolVersion

5487

Created 15th December 2015, last changed 15th December 2015.

## 104.10 LDAP.GetReferrals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.GetReferrals"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns number or error.

### Description

#### See also

- 104.30 LDAP.SetReferrals

5488

Created 18th December 2015, last changed 18th December 2015.

## 104.11 LDAP.GetTimeOut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	No	Yes	Yes	No

MBS( "LDAP.GetTimeOut"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns number or error.

### Description

#### See also

- 104.31 LDAP.SetTimeOut

5489

### 104.11.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 18th December 2015, last changed 17th June 2018.

## 104.12 LDAP.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.JSON"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns OK or error.

### Description

Please first search, then query here the result as JSON.

### Examples

Query JSON:

```
# Connect
Set Variable [ $r ; Value: MBS("LDAP.Connect"; "ldap.forumsys.com"; 0; 389) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error" ; "Failed to connect." & $r ]
Else
Set Variable [ $ldap ; Value: $r ]
# Login
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "uid=tesla,dc=example,dc=com"; "password"; "simple") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "LDAP error" ; "Failed to authenticate." & $r ]
Else
# Search
Set Variable [ $r ; Value: MBS("LDAP.Search"; $ldap; "dc=example,dc=com"; "subtree"; "(givenName=*)"; "" ; 0; 20; 999) ]
# Check results
Show Custom Dialog [ "JSON" ; MBS("LDAP.JSON"; $ldap) ]
End If
# Cleanup
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]
End If
```

```
Example result: [ {
  "dn": "uid=test,dc=example,dc=com",
  "attributes": [ {
    "name": "objectClass",
    "values": [ "posixAccount", "top", "inetOrgPerson" ]
  } , {
```

```

"name": "gidNumber",
"values": [ "0" ]
}, {
"name": "givenName",
"values": [ "Test" ]
}, {
"name": "sn",
"values": [ "Test" ]
}, {
"name": "displayName",
"values": [ "Test" ]
}, {
"name": "uid",
"values": [ "test" ]
}, {
"name": "initials",
"values": [ "TS" ]
}, {
"name": "homeDirectory",
"values": [ "home" ]
}, {
"name": "cn",
"values": [ "Test" ]
}, {
"name": "uidNumber",
"values": [ "24601" ]
}, {
"name": "o",
"values": [ "Company" ]
} ]
} ]

```

Query a person via JSON:

```

Set Variable [ $ldap ; Value: MBS("LDAP.Connect"; "ldap.test.de"; 0; 389 ) ]
Set Variable [ $r ; Value: MBS("LDAP.Bind"; $ldap; "cn=admin,dc=ldap,dc=test,dc=de"; "S2A2S@home";
"simple" ) ]
Set Variable [ $r ; Value: MBS("LDAP.Search"; $ldap; "ou=Users,dc=ldap,dc=test,dc=de"; "Subtree"; "";
""; 0; 20; 999) ]
Set Field [ Employee::_LDAP.JSON.QUERY ; MBS("LDAP.JSON"; $ldap) ]
Set Variable [ $r ; Value: MBS("LDAP.Release"; $ldap) ]

```

Example result: [

```

{
"dn": "ou=Users,dc=ldap,dc=test,dc=de",
"attributes": [
{
"name": "objectClass",
"values": [

```



```
"organizationalUnit",
"top"
]
},
{
"name": "ou",
"values": [
"Users"
]
}
],
},
{
"dn": "uid=bob.miller,ou=Users,dc=ldap,dc=test,dc=de",
"attributes": [
{
"name": "objectClass",
"values": [
"posixAccount",
"shadowAccount",
"top",
"inetOrgPerson",
"organizationalPerson",
"person"
]
},
{
"name": "uid",
"values": [
"bob.miller"
]
},
{
"name": "uidNumber",
"values": [ "1" ]
},
{
"name": "cn",
"values": [
"Bob Miller"
]
},
{
"name": "mail",
"values": [
"bob.miller@test.de"
]
},
},
}
```

```

{
  "name": "homeDirectory",
  "values": [
    "/usr/local/var/"
  ]
},
{
  "name": "sn",
  "values": [
    "Miller"
  ]
},
{
  "name": "employeeType",
  "values": [
    "Employee"
  ]
},
{
  "name": "givenName",
  "values": [
    "Bob"
  ]
},
{
  "name": "employeeNumber",
  "values": [ "77" ]
},
{
  "name": "userPassword",
  "values": [
    "xxxx"
  ]
},
{
  "name": "gidNumber",
  "values": [ "100" ]
}
]

```

**See also**

- 127.6 IsError 6374
- 104.2 LDAP.AddJSON 5441
- 104.5 LDAP.Bind 5449

<i>104.12. LDAP.JSON</i>	5463
• 104.6 LDAP.Connect	5451
• 104.16 LDAP.Release	5469
• 104.18 LDAP.Search	5471

### **104.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.

## 104.13 LDAP.Modify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Modify"; LDAPRef; OperationType; dn; Type { ; Value } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### OperationType

What to do. Can be Delete, Replace or Add.

"Replace"

#### dn

The name of the entry to modify.

#### Type

The name of the attribute to modify.

#### Value

Optional

The value for the attribute.

**Result** Returns OK or error.

### Description

If values are being added to or replaced in the entry, the function creates the attribute, if necessary. If values are being deleted, the function removes the attribute if no values remain.

Deprecated. Please use LDAP.ModifyJSON instead.

### See also

- 104.14 LDAP.ModifyJSON 5465
- 104.15 LDAP.ModifyRecord 5467

### 104.13.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 15th December 2015, last changed 29th February 2020.

## 104.14 LDAP.ModifyJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP 102 JSON	8.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.ModifyJSON"; LDAPRef; dn; JSON )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the entry to add.

#### JSON

The JSON to parse. Must be a JSON array with entries. Each entry has an element operation with Add, Replace, Delete or Increment. Also a node with name "type" and the type to set. Then you can pass with value a single value or with values a list of values.

**Result** Returns OK or error.

### Description

If values are being added to or replaced in the entry, the function creates the attribute, if necessary. If values are being deleted, the function removes the attribute if no values remain.

Sample JSON for structure:

```
[ {
  "operation": "Add",
  "type": "xxx",

  "values": [ "Hello", "World" ]

},
{
  "operation": "Replace",
  "type": "yyy",
  "value": "Other"
},
{
  "operation": "Delete",
  "type": "zzz"
}
]
```

Version 10.1 or newer accepts name instead of type for the key to match the search results.

**See also**

- [104.13 LDAP.Modify](#) 5464
- [104.15 LDAP.ModifyRecord](#) 5467

### 104.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)
- [LDAP with JSON](#)

Created 11st December 2017, last changed 29th February 2020.

## 104.15 LDAP.ModifyRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	7.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.ModifyRecord"; LDAPRef; OperationType; dn; Type { ; Value; TypeN; ValueN } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### OperationType

What to do. Can be Delete, Replace or Add.

"Replace"

#### dn

The name of the entry to modify.

#### Type

The name of the attribute to modify.

#### Value

Optional

The value for the attribute.

#### TypeN

Optional

nth attribute name.

#### ValueN

Optional

nth attribute value.

**Result** Returns OK or error.

### Description

If values are being added to or replaced in the entry, the function creates the attribute, if necessary. If values are being deleted, the function removes the attribute if no values remain.

This version of the Modify can add several keys and values with simple text values.

So please pass as many parameters as you need, always with key and value.

Deprecated. Please use LDAP.ModifyJSON instead.

### See also

- 104.13 LDAP.Modify 5464
- 104.14 LDAP.ModifyJSON 5465

### 104.15.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 5th January 2017, last changed 29th February 2020.



## 104.16 LDAP.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Release"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns OK or error.

### Description

### Examples

Close connection:

MBS( "LDAP.Release"; \$ldap )

### See also

- [104.2 LDAP.AddJSON](#) 5441
- [104.6 LDAP.Connect](#) 5451
- [104.7 LDAP.Delete](#) 5454
- [104.12 LDAP.JSON](#) 5459
- [104.17 LDAP.Rename](#) 5470
- [166.28 TAPI.Release](#) 7883
- [190.17 WMFP.Release](#) 8923

### Example Databases

- [LDAP Query](#)

### 104.16.1 Blog Entries

- [LDAP with JSON](#)
- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 16th December 2015.

## 104.17 LDAP.Rename

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Rename"; LDAPRef; DN; NewRDN { ; NewParent; DeleteOldRdn } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### DN

The distinguished name of the entry to be renamed.

#### NewRDN

The new relative distinguished name.

#### NewParent

Optional

The distinguished name of the new parent for this entry. This parameter enables you to move the entry to a new parent container. Can be empty.

#### DeleteOldRdn

Optional

1 if the old relative distinguished name should be deleted; 0 if the old relative distinguished name should be retained.

1

**Result** Returns OK or error.

### Description

This function is available effective with LDAP 3.

#### See also

- 104.16 LDAP.Release

5469

Created 15th December 2015, last changed 15th December 2015.

## 104.18 LDAP.Search

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.Search"; LDAPRef; Base; Scope; Filter; Attributes; AttributesOnly { ; Timeout; Size Limit } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### Base

the distinguished name of the entry at which to start the search.

#### Scope

Value to indicate the search scope. Can be:

Base: Search the base entry only. OneLevel: Search all entries in the first level below the base entry, excluding the base entry. Subtree: Search the base entry and all entries in the tree below the base.

On Mac can also be Children.

"Subtree"

#### Filter

A text that specifies the search filter.

#### Attributes

List indicating which attributes to return for each matching entry.

"cn\$sn"

#### AttributesOnly

Boolean value that should be 0 if both attribute types and values are to be returned, 1 if only types are required.

0

#### Timeout

Optional

Timeout in seconds. Specifies both the local search time-out value, in seconds, and the operation time limit that is sent to the server within the search request.

10

#### Size Limit

Optional

Limit on the number of entries to return from the search. A value of zero indicates no limit.

**Result** Returns OK or error.

### Description

Searches the LDAP directory and returns a requested set of attributes for each matched entry.

On success, you can use `LDAP.SearchResult.Count` to find out the number of entries found.

### Examples

Search for name:

```
MBS( "LDAP.Search"; $ldap; "dc=example,dc=com"; "Subtree"; "(sn=Jensen)")
```

Find entries with a givenName:

```
MBS("LDAP.Search"; $ldap; ""; "Subtree"; "(givenName=*)"; ""; 0; 20; 999)
```

### See also

- [104.6 LDAP.Connect](#) 5451
- [104.19 LDAP.SearchResult.AttributeCount](#) 5473
- [104.20 LDAP.SearchResult.AttributeName](#) 5475
- [104.21 LDAP.SearchResult.AttributeNames](#) 5476
- [104.22 LDAP.SearchResult.AttributeValue](#) 5477
- [104.23 LDAP.SearchResult.AttributeValueCount](#) 5478
- [104.24 LDAP.SearchResult.AttributeValues](#) 5479
- [104.25 LDAP.SearchResult.AttributeValuesByName](#) 5481
- [104.26 LDAP.SearchResult.Count](#) 5483
- [104.27 LDAP.SearchResult.DistinguishedName](#) 5485

### Example Databases

- [LDAP Query](#)

#### 104.18.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr7](#)
- [LDAP with JSON](#)
- [MBS FileMaker Plugin, version 7.0pr4](#)
- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 4th April 2019.

## 104.19 LDAP.SearchResult.AttributeCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeCount"; LDAPRef; EntryIndex )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

**Result** Returns number or error.

### Description

### Examples

Query number of attributes in an entry:

```
Set Variable [ $AttributeCount; Value:MBS("LDAP.SearchResult.AttributeCount"; $ldap; $EntryIndex) ]
```

### See also

- [104.6 LDAP.Connect](#) 5451
- [104.18 LDAP.Search](#) 5471
- [104.20 LDAP.SearchResult.AttributeName](#) 5475
- [104.21 LDAP.SearchResult.AttributeNames](#) 5476
- [104.22 LDAP.SearchResult.AttributeValue](#) 5477
- [104.23 LDAP.SearchResult.AttributeValueCount](#) 5478
- [104.24 LDAP.SearchResult.AttributeValues](#) 5479
- [104.26 LDAP.SearchResult.Count](#) 5483

### Example Databases

- [LDAP Query](#)

### 104.19.1 Blog Entries

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 16th December 2015.

## 104.20 LDAP.SearchResult.AttributeName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeName"; LDAPRef; EntryIndex; AttributeIndex )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### AttributeIndex

The index of the attribute. From 0 to LDAP.SearchResult.AttributeCount-1.

0

**Result** Returns value or error.

### Description

#### See also

- [104.6 LDAP.Connect](#) 5451
- [104.18 LDAP.Search](#) 5471
- [104.19 LDAP.SearchResult.AttributeCount](#) 5473
- [104.21 LDAP.SearchResult.AttributeNames](#) 5476
- [104.22 LDAP.SearchResult.AttributeValue](#) 5477
- [104.23 LDAP.SearchResult.AttributeValueCount](#) 5478
- [104.24 LDAP.SearchResult.AttributeValues](#) 5479
- [104.25 LDAP.SearchResult.AttributeValuesByName](#) 5481
- [104.26 LDAP.SearchResult.Count](#) 5483

### Example Databases

- [LDAP Query](#)

### 104.20.1 Blog Entries

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 15th December 2015.

## 104.21 LDAP.SearchResult.AttributeNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeNames"; LDAPRef; EntryIndex { ; NoReturnEnding } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

### Examples

Query names of attributes as list:

MBS( "LDAP.SearchResult.AttributeNames"; \$ldap; \$EntryIndex)

### See also

- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.23 LDAP.SearchResult.AttributeValueCount 5478
- 104.24 LDAP.SearchResult.AttributeValues 5479
- 104.25 LDAP.SearchResult.AttributeValuesByName 5481

Created 15th December 2015, last changed 16th December 2015.



## 104.22 LDAP.SearchResult.AttributeValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeValue"; LDAPRef; EntryIndex; AttributeIndex; ValueIndex )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### AttributeIndex

The index of the attribute. From 0 to LDAP.SearchResult.AttributeCount-1.

0

#### ValueIndex

The index of the value. Must be range from zero to LDAP.SearchResult.AttributeValueCount-1.

0

**Result** Returns OK or error.

### Description

#### See also

- 104.6 LDAP.Connect 5451
- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.23 LDAP.SearchResult.AttributeValueCount 5478
- 104.24 LDAP.SearchResult.AttributeValues 5479
- 104.25 LDAP.SearchResult.AttributeValuesByName 5481
- 104.26 LDAP.SearchResult.Count 5483

Created 15th December 2015, last changed 15th December 2015.

## 104.23 LDAP.SearchResult.AttributeValueCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeValueCount"; LDAPRef; EntryIndex; AttributeIndex )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### AttributeIndex

The index of the attribute. From 0 to LDAP.SearchResult.AttributeCount-1.

0

**Result** Returns number or error.

### Description

If the plugin has no value, this is zero. If the attribute is a list and has more than one entry, the result is >1.

### Examples

Query attribute values as list:

```
Set Variable [ $AttributeValues; Value:MBS("LDAP.SearchResult.AttributeValues"; $ldap; $EntryIndex; $AttributeIndex; 1) ]
```

### See also

- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.24 LDAP.SearchResult.AttributeValues 5479
- 104.25 LDAP.SearchResult.AttributeValuesByName 5481

Created 15th December 2015, last changed 16th December 2015.

## 104.24 LDAP.SearchResult.AttributeValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeValues"; LDAPRef; EntryIndex; AttributeIndex { ; NoReturnEnding } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### AttributeIndex

The index of the attribute. From 0 to LDAP.SearchResult.AttributeCount-1.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 1 to include none, so a list with one value behaves as a text value.

1

**Result** Returns list or error.

### Description

#### See also

- 104.6 LDAP.Connect 5451
- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.23 LDAP.SearchResult.AttributeValueCount 5478
- 104.25 LDAP.SearchResult.AttributeValuesByName 5481
- 104.26 LDAP.SearchResult.Count 5483

### Example Databases

- [LDAP Query](#)

### 104.24.1 Blog Entries

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 7th September 2017.

## 104.25 LDAP.SearchResult.AttributeValuesByName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	7.4	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.AttributeValuesByName"; LDAPRef; EntryIndex; AttributeName { ; NoReturnEnding } )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

#### AttributeName

The name of the attribute.

"FirstName"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 1 to include none, so a list with one value behaves as a text value.

1

**Result** Returns value, list or error.

### Description

This function searches attributes by name instead of index.

If nothing is found, you get empty result.

### See also

- 104.18 LDAP.Search 5471
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.21 LDAP.SearchResult.AttributeNames 5476
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.23 LDAP.SearchResult.AttributeValueCount 5478
- 104.24 LDAP.SearchResult.AttributeValues 5479

### 104.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr5](#)



## 104.26 LDAP.SearchResult.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.Count"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns number or error.

### Description

### Examples

Query number of search results:

```
Set Variable [ $EntryCount; Value:MBS("LDAP.SearchResult.Count"; $ldap) ]
```

Loop over search results:

```
# loop over entries
Set Variable [ $EntryCount; Value:MBS("LDAP.SearchResult.Count"; $ldap) ]
Set Field [ LDAP Query::Entry Count; $EntryCount ]
If [ $EntryCount >0 ]
Set Variable [ $EntryIndex; Value:0 ]
Loop
# get info for entry
Set Variable [ $EntryName; Value:MBS("LDAP.SearchResult.DistinguishedName"; $ldap; $EntryIndex) ]
# loop over attributes
Set Variable [ $AttributeCount; Value:MBS("LDAP.SearchResult.AttributeCount"; $ldap; $EntryIndex) ]
If [ $AttributeCount ]
Set Variable [ $AttributeIndex; Value:0 ]
Loop
# get detail for attribute
Set Variable [ $AttributeCount; Value:MBS("LDAP.SearchResult.AttributeCount"; $ldap; $EntryIndex) ]
Set Variable [ $EntryName; Value:MBS("LDAP.SearchResult.DistinguishedName"; $ldap; $EntryIndex) ]
Set Variable [ $AttributeName; Value:MBS("LDAP.SearchResult.AttributeName"; $ldap; $EntryIndex; $AttributeIndex) ]
Set Variable [ $AttributeValues; Value:MBS("LDAP.SearchResult.AttributeValues"; $ldap; $EntryIndex; $AttributeIndex; 1) ]
# store in a record
New Record/Request
Set Field [ LDAP Query::Entry; $EntryName ]
Set Field [ LDAP Query::Attribute; $AttributeName ]
Set Field [ LDAP Query::Values; $AttributeValues ]
```

```
Commit Records/Requests [ No dialog ]
# next
Set Variable [ $AttributeIndex; Value:$AttributeIndex + 1 ]
Exit Loop If [ $AttributeIndex = $AttributeCount ]
End Loop
End If
Set Variable [ $EntryIndex; Value:$EntryIndex + 1 ]
Exit Loop If [ $EntryIndex = $EntryCount ]
End Loop
End If
```

**See also**

- 104.6 LDAP.Connect 5451
- 104.18 LDAP.Search 5471
- 104.19 LDAP.SearchResult.AttributeCount 5473
- 104.20 LDAP.SearchResult.AttributeName 5475
- 104.22 LDAP.SearchResult.AttributeValue 5477
- 104.24 LDAP.SearchResult.AttributeValues 5479
- 104.27 LDAP.SearchResult.DistinguishedName 5485

**Example Databases**

- [LDAP Query](#)

**104.26.1 Blog Entries**

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 16th December 2015.



## 104.27 LDAP.SearchResult.DistinguishedName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SearchResult.DistinguishedName"; LDAPRef; EntryIndex )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### EntryIndex

The index in the search results. Range from 0 to LDAP.SearchResult.EntryCount-1.

\$index

**Result** Returns value or error.

### Description

This is like the unique record ID for this entry.

### Examples

Query distinguished name for an entry:

Set Variable [ \$EntryName; Value:MBS("LDAP.SearchResult.DistinguishedName"; \$ldap; \$EntryIndex) ]

### See also

- [104.6 LDAP.Connect](#) 5451
- [104.18 LDAP.Search](#) 5471
- [104.26 LDAP.SearchResult.Count](#) 5483

### Example Databases

- [LDAP Query](#)

### 104.27.1 Blog Entries

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 16th December 2015.

## 104.28 LDAP.SetNetworkTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	No	Yes	Yes	No

MBS( "LDAP.SetNetworkTimeout"; LDAPRef; Timeout )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### Timeout

The new timeout in seconds.

5

**Result** Returns OK or error.

### Description

This function sets the socket level timeout.

Value is in seconds. Resolution is in microseconds.

### Examples

Sets network timeout:

```
Variable setzen [ $r ; Wert: MBS("LDAP.SetNetworkTimeout"; $ldap; 3) ]
```

### See also

- 104.8 LDAP.GetNetworkTimeout

5455

### 104.28.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 18th December 2015, last changed 20th March 2019.

**104.29 LDAP.SetProtocolVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SetProtocolVersion"; LDAPRef; Version )

**Parameters****LDAPRef**

The reference number for the LDAP connection.

\$ldap

**Version**

Can be 1, 2 or 3 to specify LDAP version.

3

**Result** Returns OK or error.

**Description****Examples**

Sets version 3:

MBS( "LDAP.SetProtocolVersion"; \$ldap; 3 )

**See also**

- 104.9 LDAP.GetProtocolVersion

5456

Created 15th December 2015, last changed 15th December 2015.

## 104.30 LDAP.SetReferrals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SetReferrals"; LDAPRef; Value )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### Value

The new setting.

0

**Result** Returns OK or error.

### Description

Specifies whether to automatically follow referrals returned by the LDAP server.

#### See also

- 104.10 LDAP.GetReferrals

5457

Created 18th December 2015, last changed 18th December 2015.

## 104.31 LDAP.SetTimeOut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	No	Yes	Yes	No

MBS( "LDAP.SetTimeOut"; LDAPRef; Timeout )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### Timeout

The new timeout in seconds.

5

**Result** Returns OK or error.

### Description

This sets the default timeout for the ldap connection.

Value is in seconds. Resolution is in microseconds.

### Examples

Sets timeout to 3 seconds:

```
Variable setzen [ $r ; Wert: MBS("LDAP.SetTimeOut"; $ldap; 3) ]
```

### See also

- 104.11 LDAP.GetTimeOut 5458
- 154.3 SNMP.SetTimeout 7242

### 104.31.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 18th December 2015, last changed 20th March 2019.

## 104.32 LDAP.SimpleBind

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	6.0	Yes	Yes	Yes	Yes	No

MBS( "LDAP.SimpleBind"; LDAPRef; dn; Password )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

#### dn

The name of the user to bind as. The bind operation uses the dn and password parameters to authenticate the user.

#### Password

The password of the user specified in the dn parameter.

**Result** Returns OK or error.

### Description

#### Examples

Binds anonymously to the server:

```
MBS( "LDAP.SimpleBind"; $ldap)
```

### 104.32.1 Blog Entries

- [LDAP in FileMaker](#)

Created 15th December 2015, last changed 15th December 2015.

## 104.33 LDAP.StartTLS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
104 LDAP	9.3	Yes	Yes	Yes	Yes	No

MBS( "LDAP.StartTLS"; LDAPRef )

### Parameters

#### LDAPRef

The reference number for the LDAP connection.

\$ldap

**Result** Returns OK or error.

### Description

Sends a StartTLS request to a server, waits for the reply, and then installs TLS handlers on the session if the request succeeded.

Created 13th August 2019, last changed 13th August 2019.

## 104.34 SystemInfo.ADSystemInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo 104 LDAP	9.3	No	Yes	No	No	No

MBS( "SystemInfo.ADSystemInfo" )

**Result** Returns JSON or error.

### Description

This call may take a second if a query needs to be sent to server.

Returns JSON with details including UserName, ComputerName, SiteName, DomainShortName, DomainDNSName, ForestDNSName, PDCRoleOwner, SchemaRoleOwner, IsNativeMode, DCName and DCSiteName.

The result is an empty JSON object in case of no Active Directory in use.

### Examples

Query Active Directory details on Windows:

MBS( "SystemInfo.ADSystemInfo" )

Example result: {

"UserName": "CN=John Doe,OU=2SH User,DC=2SXXX,DC=2S",

"ComputerName": "CN=2SMBP16W10,CN=Computers,DC=2SXXX,DC=2S",

"SiteName": "Default-First-Site-Name",

"DomainShortName": "2SXXX",

"DomainDNSName": "2SXXX.2S",

"ForestDNSName": "2SXXX.2S",

"PDCRoleOwner": "CN=NTDS Settings,CN=2SDCERP,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=2SXXX,DC=2S",

"SchemaRoleOwner": "CN=NTDS Settings,CN=2SDCERP,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=2SXXX,DC=2S",

"IsNativeMode": true,

"DCName": "2SDCSTORAGE.2SXXX.2S",

"DCSiteName": "Default-First-Site-Name"

}

### See also

- [104.5 LDAP.Bind](#) 5449
- [164.31 SystemInfo.SystemFont](#) 7812

### 104.34.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr2](#)

Created 4th June 2019, last changed 18th October 2019.



# Chapter 105

## List

Text functions for working with lists.

For big lists, our QuickList functions are much faster. Because the list is only parsed once and stored indexed in memory.

### 105.1 List.AddPostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.AddPostfix"; List; Postfix { ; NoReturnEnding } )

#### Parameters

##### List

The list to process.

"Hello\$World"

##### Postfix

The text to append.

"!"

##### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

#### Description

#### Examples

Add postfix to list:

```
MBS( "List.AddPostfix"; "Hello$World"; "!")
```

**See also**

- 105.2 List.AddPrefix 5495
- 105.45 QuickList.AddPostfix 5559
- 105.46 QuickList.AddPrefix 5561

### 105.1.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 105.2 List.AddPrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.AddPrefix"; List; Prefix { ; NoReturnEnding } )

### Parameters

#### List

The list to process.

"Hello\$World"

#### Prefix

The text to prepend.

"!"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

### Examples

Add prefix to list:

MBS( "List.AddPrefix"; "Hello\$World"; "!" )

### See also

- 105.1 List.AddPostfix 5493
- 105.45 QuickList.AddPostfix 5559
- 105.46 QuickList.AddPrefix 5561

### 105.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 12nd March 2016.

## 105.3 List.AddValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.AddValue"; List; Text )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Text

The text to add.

"Hello"

**Result** Returns list or error.

### Description

For big lists, using QuickList functions is much faster. The list is only parsed once and stored in memory.

### See also

- 105.15 List.GetValue 5514
- 105.17 List.HasValue 5516
- 105.19 List.InsertValue 5519
- 105.35 List.SetValue 5542
- 105.44 QuickList.AddMultiValue 5557
- 105.49 QuickList.AddValue 5566
- 105.69 QuickList.InsertValue 5596

Created 11st March 2017, last changed 11st March 2017.

## 105.4 List.And

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.And"; List1; List2 { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs a logical AND operation.

### Examples

Perform logical AND on list:

MBS( "List.AND"; "1§2§3§4"; "3§4§5§6" )

### See also

- 105.5 List.AndColumn 5499
- 105.50 QuickList.And 5568
- 105.51 QuickList.AndColumn 5570

### 105.4.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr3](#)

### 105.4.2 FileMaker Magazin

- Ausgabe 2/2020, Seite 35

Created 25th September 2014, last changed 25th September 2014.

## 105.5 List.AndColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "List.AndColumn"; List1; List2; Separator; Column { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs a logical AND operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as List.And, but slower.

### Examples

And two lists based on 2 column:

```
MBS( "List.AndColumn";
"1 test 3§a b c§d§e f";
"2 test 4§a f c§d b";
" "; 1 )
```

Example result: 2 test 4

a f c

5500

d b

**See also**

- 105.4 List.And 5497
- 105.23 List.NotColumn 5523
- 105.25 List.OrColumn 5526
- 105.42 List.XOrColumn 5553

**105.5.1 Blog Entries**

- [New in the MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.



## 105.6 List.BestMatch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "List.BestMatch"; List; SearchText )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### SearchText

The text to search.

"Hello"

**Result** Returns best match, empty or error.

### Description

If not found, returns empty result, so FileMaker function isEmpty() will tell you if it's empty (instead of just having no text).

Uses internally the Text.LevenshteinDistance function to compare all items and look for best match.

If no entry matches over 50% , this may return empty text.

See also QuickList.BestMatch in case you need to query several times and want to load list only once.

### Examples

Looking for best match for Hilo will find Hello:

MBS( "List.BestMatch"; "Test\$Hello\$World\$Hallo"; "Hilo" )

### See also

- 105.26 List.RegExMatch 5528
- 105.52 QuickList.BestMatch 5572
- 167.43 Text.LevenshteinDistance 7964

### 105.6.1 Blog Entries

- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 11st December 2014, last changed 25th June 2019.

## 105.7 List.CSVSplit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.CSVSplit"; Text { ; Delimiter } )

### Parameters

#### Text

The CSV text.

"Hello;World"

#### Delimiter

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

The delimiter to use. If empty, we auto detect it.

","

**Result** Returns list or error.

### Description

Plugin automatically detects if comma or semicolon is used.

Returns list with all values.

Version 8 can detect tab character, too.

### Examples

Split with one value:

```
MBS("List.CSVSplit"; "hello")
```

Split with three values:

```
MBS("List.CSVSplit"; "\hello\";\test\";\CSV\")
```

Split with 3 rows and 3 values:

```
MBS("List.CSVSplit"; "\hello1\";\test\";\CSV\">$\"hello2\";\test\";\CSV\">$\"hello3\";\test\";\CSV\")
```

### See also

- 81.19 FM.InsertRecordCSV 4177
- 105.53 QuickList.CSVSplit 5573
- 167.49 Text.ReadTextFile 7971

### 105.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr3](#)
- [MBS FileMaker Plugin, version 8.5pr7](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [MBS FileMaker Plugin, version 8.0pr8](#)
- [Parsing VCard file](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 7.4pr8](#)

Created 21st September 2017, last changed 22nd October 2018.

## 105.8 List.CountValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.CountValues"; List )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

**Result** Returns list or error.

### Description

The result contains count, tab and the word and is not sorted.

### Examples

List values:

MBS( "List.CountValues"; "Hello\$World\$Hello" )

Example result: 1 World

2 Hello

### See also

- [105.9 List.CountValuesMatching](#) 5505
- [105.57 QuickList.CountValuesMatching](#) 5578
- [167.44 Text.ListWords](#) 7965

### Example Databases

- [Text functions/Word Count functions](#)

### 105.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 5th February 2018, last changed 5th February 2018.

## 105.9 List.CountValuesMatching

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.CountValuesMatching"; List; Operator )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Operator

The compare operator. Can be =, !=, <, >, <=, >=, , or .  
""

**Result** Returns number or error.

### Description

#### Examples

Count values 3:

MBS( "List.CountValuesMatching"; "1§2§3§4"; ">="; 3 )

Example result: 2

Count values <4:

MBS( "List.CountValuesMatching"; "1§2§3§4"; "<"; 4 )

### See also

- [105.8 List.CountValues](#) 5504
- [105.57 QuickList.CountValuesMatching](#) 5578

### 105.9.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 5th April 2020, last changed 5th April 2020.

## 105.10 List.CrossProduct

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.CrossProduct"; List1; List2 { ; Prefix; Midfix; Postfix; Flags } )

### Parameters

#### List1

The first list to process.  
"Hello\$World"

#### List2

The second list to process.  
"1\$2"

#### Prefix

Optional  
The prefix to use

#### Midfix

Optional  
The middle to use. This text is put between texts from both lists.

#### Postfix

Optional  
The postfix to use

#### Flags

Optional  
Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists. Add 2 for a diagonal cross, so we combine each element of first list with the same element index from the second list.  
1

**Result** Returns list or error.

### Description

Optionally adds prefix, postfix and midfix.  
Returns empty list if one of the lists are empty!

### Examples

Test with all parameters:

```
MBS( "List.CrossProduct"; "Hello$World"; "1$2"; "before"; "middle"; "after" )
```

Combine elements from lists:

```
MBS( "List.CrossProduct"; "Hello$World"; "1$2"; "before"; "middle"; "after"; 2 )
```

105.10. *LIST.CROSSPRODUCT*

5507

**See also**

- 105.58 QuickList.CrossProduct
- 105.95 QuickList.SortWith

5579

5635

### **105.10.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr1](#)
- [New functions for MBS FileMaker Plugin coming soon](#)
- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 17th March 2016.

## 105.11 List.DeCombine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "List.DeCombine"; List; ColumnDelimiter; StartColumn; EndColumn { ; NoReturnEnding } )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### ColumnDelimiter

The delimiter between cols. This is also used in result.

" | "

#### StartColumn

Index of column to start. First is 0.

0

#### EndColumn

Index of column to end. First is 0. If you only want one column, please pass same value for start and end column.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

This function combines values from a list by picking only given columns.

### Examples

Queries second word in each entry:

```
MBS( "List.DeCombine"; "Hello | The | World$Thats | What | WeMake$YUPP | Thats | Fun"; " | "; 1; 1;1 )
```

Example result: "The\$What\$Thats"

Query fist word in each entry:

```
MBS( "List.DeCombine"; "Hello | The | World$Thats | What | WeMake$YUPP | Thats | Fun"; " | "; 0; 0;1 )
```

Example result: "Hello\$Thats\$YUPP"

Query first adn second word in each entry:



## 105.11. *LIST.DECOMBINE*

5509

MBS( "List.DeCombine"; "Hello | The | World\$Thats | What | WeMake\$YUPP | Thats | Fun"; " | "; 0; 1 ;1 )

Example result: "Hello | The\$Thats | What\$YUPP | Thats"

### See also

- 105.59 QuickList.DeCombine 5581
- 105.95 QuickList.SortWith 5635

### 105.11.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 25th June 2016, last changed 11st December 2016.

## 105.12 List.Deserialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.Deserialize"; Text { ; NoReturnEnding } )

### Parameters

#### Text

The serialized data as text.

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

### Examples

Save and restore a list:

```
Set Variable [ $list; Value:"Hello$World$1234$Just a test!" ]
```

```
Set Variable [ $text; Value:MBS("List.Serialize"; $list) ]
```

```
Show Custom Dialog [ "List"; "Encoded: " & $text & $& $& "Decoded: " & MBS("List.Deserialize"; $text) ]
```

### See also

- 105.34 List.Serialize 5541
- 105.60 QuickList.Deserialize 5583
- 105.91 QuickList.Serialize 5628
- 167.24 Text.Deserialize 7937

### 105.12.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 27th September 2017.

## 105.13 List.FindEquals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.FindEquals"; List1; List2 { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list.

### Description

### Examples

Find equal entries in both lists:

MBS( "List.FindEquals"; "Hello" §"World"; "Hello" §"Friends" )

### See also

- 105.14 List.FindUnequals

5512

### Example Databases

- [Text functions/Lists](#)

### 105.13.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr11](#)

Created 18th August 2014, last changed 21st September 2014.

## 105.14 List.FindUnequals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.FindUnequals"; List1; List2 { ; NoReturnEnding; NotFromSecondList } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

#### NotFromSecondList

Optional

Pass 1 to only returns items from first list not present in second list. Default is 0 to get items from both lists.

0

**Result** Returns new list.

### Description

### Examples

Find non equal entries in both lists:

```
MBS( "List.FindUnequals"; "Hello§World"; "Hello§Friends"; 1 )
```

Example result: "World

Friends"

Find items in first list which are not in second list:

```
MBS( "List.FindUnequals"; "Hello§World"; "Hello§Friends"; 1; 1 )
```

Example result: "Hello"

### See also

- 105.13 List.FindEquals 5511
- 105.62 QuickList.FindUnequals 5585

**Example Databases**

- [Mac and iOS/Events/Events Changes](#)
- [Text functions/Lists](#)

**105.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS Filemaker Plugin, version 4.2pr11](#)

Created 18th August 2014, last changed 27th May 2017.

## 105.15 List.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.GetValue"; List; Index )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Index

The index of the value to get. Must be in range from 0 to QuickList.Count-1.

\$index

**Result** Returns list or error.

### Description

If you enable tracing with Trace command, this function will be much slower due to the debug output.

### See also

- 105.3 List.AddValue 5496
- 105.17 List.HasValue 5516
- 105.35 List.SetValue 5542
- 105.56 QuickList.Count 5576
- 105.65 QuickList.GetValue 5590

Created 11st March 2017, last changed 11st March 2017.

**105.16 List.HasDuplicateItems**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "List.HasDuplicateItems"; List )

**Parameters****List**

The list to process.

"Hello" §"Hello" §"World"

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if duplicate lines are found or 0 if not.

**See also**

- 105.28 List.RemoveDuplicateItems 5531
- 105.66 QuickList.HasDuplicateItems 5592

**105.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 21st October 2017, last changed 21st October 2017.

## 105.17 List.HasValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.HasValue"; List; Value )

### Parameters

#### List

The list to process.  
"Hello" §" §"World"

#### Value

The value to check.  
"Hello"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if value is found or 0 if not. Text comparison is case sensitive.

### Examples

Check if value is in list:

```
MBS( "List.HasValue"; "1§2§3"; "2" )
```

Print what user selected:

```
# Show dialog to select something
Set Variable [ $r; Value:MBS("ListDialog.ClearList") ]
Set Variable [ $r; Value:MBS("ListDialog.SetPrompt"; "Please select items to print:") ]
# We use tags as the visible titles may be localized.
Set Variable [ $r; Value:MBS("ListDialog.AddItemToList"; "Werbung§Angebot§Rechnung§Erinnerung"; "Flyer§Of-fer§Invoice§Reminder") ]
Set Variable [ $r; Value:MBS("ListDialog.SetAllowMultipleSelection"; 1) ]
Set Variable [ $r; Value:MBS("ListDialog.SetSelectedTitle"; "Offer") ]
# Show dialog
Set Variable [ $r; Value:MBS("ListDialog.ShowDialog") ]
# now do things
Set Variable [ $selected; Value:MBS("ListDialog.GetSelectedTag") ]
If [ MBS("List.HasValue"; $selected; "Flyer") ]
# print flyer
End If
If [ MBS("List.HasValue"; $selected; "Invoice") ]
# print invoice
End If
If [ MBS("List.HasValue"; $selected; "Offer") ]
# print offer
```



105.17. *LIST.HASVALUE* 5517

```
End If  
If [ MBS("List.HasValue"; $selected; "Reminder") ]  
# print reminder  
End If
```

#### See also

- 105.3 List.AddValue 5496
- 105.15 List.GetValue 5514
- 106.1 ListDialog.AddItemToList 5647
- 106.5 ListDialog.ClearList 5652
- 106.18 ListDialog.GetSelectedTag 5665
- 106.27 ListDialog.SetAllowMultipleSelection 5674
- 106.37 ListDialog.SetPrompt 5684
- 106.40 ListDialog.SetSelectedTitle 5687
- 106.43 ListDialog.ShowDialog 5690
- 105.67 QuickList.HasValue 5593

#### 105.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr8](#)

Created 16th September 2016, last changed 16th September 2016.

## 105.18 List.IndexOfFirstValueMatching

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.IndexOfFirstValueMatching"; List; Operator { ; Text } )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Operator

The compare operator. Can be =, !=, <, >, <=, >=, , or .

""

#### Text

Optional

The text to compare.

"Test"

**Result** Returns number or error.

### Description

#### Examples

Find the value =2:

MBS( "List.IndexOfFirstValueMatching"; "1§2§3§4"; "="; 2 )

Example result: 1

Find the value 3

MBS( "List.IndexOfFirstValueMatching"; "1§2§3§4"; ">="; 3 )

Example result: 2

#### See also

- 105.68 QuickList.IndexOfFirstValueMatching

5595

### 105.18.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 5th April 2020, last changed 5th April 2020.

**105.19 List.InsertValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.InsertValue"; List; Index; Text )

**Parameters****List**

The list to process.

"Hello" §" §"World"

**Index**

the index where to insert.

0

**Text**

The text to add.

"Hello"

**Result** Returns list or error.

**Description**

Please note that List.AddValue is more efficient than inserting.

**See also**

- 105.3 List.AddValue

5496

**105.19.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr1](#)

Created 11st March 2017, last changed 11st March 2017.

## 105.20 List.MatchesPostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.MatchesPostfix"; List; Text { ; NoReturnEnding } )

### Parameters

#### List

The list of texts to search.

"Hello"

#### Text

The text to find.

"Hello"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list or error.

### Description

Comparison is case insensitive.

### Examples

Finds list entries with matching postfixes:

MBS( "List.MatchesPostfix"; "Hello\$auto\$World"; "o" )

### See also

- [79.37 Files.List](#) 3882
- [105.21 List.MatchesPrefix](#) 5521
- [105.71 QuickList.MatchesPostfix](#) 5598

### 105.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 20th November 2015.

## 105.21 List.MatchesPrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.MatchesPrefix"; List; Text { ; NoReturnEnding } )

### Parameters

#### List

The list of texts to search.

"Hello"

#### Text

The text to find.

"Hello"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list or error.

### Description

Comparison is case insensitive.

### Examples

Finds matching prefixes:

MBS( "List.MatchesPrefix"; "Hello\$www\$World"; "w" )

### See also

- 62.59 [CURL.GetHeaderAsText](#) 1887
- 62.112 [CURL.GetResultAsContainer](#) 1944
- 105.20 [List.MatchesPostfix](#) 5520
- 105.72 [QuickList.MatchesPrefix](#) 5600

### 105.21.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 20th November 2015.

## 105.22 List.Not

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.Not"; List1; List2 { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

Performs a logical NOT operation.

### Examples

Operate not on two lists:

MBS("List.Not"; "Abc\$Def\$Ghi\$Jkl"; "Abc\$Jkl\$Zui\$Edf" )

### See also

- 105.23 List.NotColumn 5523
- 105.36 List.Sort 5543
- 105.76 QuickList.NotColumn 5608

### 105.22.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 8th October 2014, last changed 8th October 2014.

## 105.23 List.NotColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "List.NotColumn"; List1; List2; Separator; Column { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs a logical NOT operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as List.Not, but slower.

### See also

- 105.5 List.AndColumn 5499
- 105.22 List.Not 5522
- 105.25 List.OrColumn 5526
- 105.42 List.XOrColumn 5553

### 105.23.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.



## 105.24 List.Or

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.Or"; List1; List2 { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs a logical OR operation.

### Examples

Perform logical OR on list:

MBS( "List.Or"; "1§2§3§4"; "3§4§5§6" )

### See also

- 105.25 List.OrColumn 5526
- 105.41 List.XOr 5552
- 105.77 QuickList.Or 5610
- 105.78 QuickList.OrColumn 5612

### 105.24.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 25th September 2014, last changed 25th September 2014.

## 105.25 List.OrColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "List.OrColumn"; List1; List2; Separator; Column { ; NoReturnEnding } )

### Parameters

#### List1

The first list.  
"Hello" §"World"

#### List2

The second list.  
"Hello" §"Friends"

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".  
Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.  
0

#### NoReturnEnding

Optional  
Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.  
1

**Result** Returns list or error.

### Description

Performs a logical OR operation.

Checks the given column in both lists too compare.  
If Separator is empty, this is same as List.Or, but slower.

### Examples

Trying OR based on second column:

MBS( "List.OrColumn"; "1 test 3\$a b c\$d\$e f"; "2 test 4\$a f c\$d b"; " "; 1 )

Example result: 1 test 3

a b c

d

e f

2 test 4

105.25. *LIST.ORCOLUMN*

5527

**See also**

- 105.5 List.AndColumn 5499
- 105.23 List.NotColumn 5523
- 105.24 List.Or 5525
- 105.42 List.XOrColumn 5553

**105.25.1 Blog Entries**

- [New in the MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.

## 105.26 List.RegExMatch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.RegExMatch"; List; Pattern; CompilerOptions; ExecuteOptions { ; NoReturnEnding } )

### Parameters

#### List

The list of texts to search.

"Hello"

#### Pattern

The pattern to use.

"H(\*)"

#### CompilerOptions

A number for the options to use. e.g. 1 for case insensitive or 512 for ungreedy.

512+1

#### ExecuteOptions

The options for executing.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

This compiles the pattern, executes it and looks if we have a match or not for each list item.

Returns the list items which match.

### Examples

Match Hello with pattern:

```
MBS( "List.RegExMatch"; "Hello$Test$World$House$Test"; "H(*)o")
```

same without return on end of result:

```
MBS( "List.RegExMatch"; "Hello$Test$World$House$Test"; "H(*)o"; 0; 0; 1)
```

### See also

- 105.6 List.BestMatch

### 105.26.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr9](#)

Created 2nd November 2014, last changed 29th June 2015.

## 105.27 List.Remove

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.Remove"; List; Index )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Index

The index of the item to remove. Range from 0 to QuickList.Count-1.

0

**Result** Returns list or error.

### Description

Returns a new list where the value is missing.

For big lists, using QuickList functions is much faster. The list is only parsed once and stored in memory.

### See also

- 105.28 List.RemoveDuplicateItems 5531
- 105.29 List.RemoveEmptyItems 5533
- 105.30 List.RemovePostfix 5534
- 105.31 List.RemovePrefix 5536
- 105.32 List.RemoveValue 5538
- 105.56 QuickList.Count 5576
- 105.86 QuickList.RemovePostfix 5621
- 105.87 QuickList.RemovePrefix 5623
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

Created 11st March 2017, last changed 13th November 2017.

## 105.28 List.RemoveDuplicateItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.RemoveDuplicateItems"; List { ; NoReturnEnding; RemoveAll } )

### Parameters

#### List

The list to process.

"Hello" §"Hello" §"World"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

#### RemoveAll

Optional

If duplicate is found also remove the first occurrence. Set to 1 to enable or 0 to disable. Default is disabled.

1

**Result** Returns new list.

### Description

Similar to UniqueValues function in FileMaker to find unique values.

### Examples

Remove duplicates:

MBS( "List.RemoveDuplicateItems"; "Hello\$World\$Hello" )

Remove all duplicates

MBS( "List.RemoveDuplicateItems"; "Hello\$World\$Hello"; 0; 1 )

### See also

- 105.16 List.HasDuplicateItems 5515
- 105.27 List.Remove 5530
- 105.84 QuickList.RemoveDuplicateItems 5619

### Example Databases

- [Text functions/Lists](#)

### 105.28.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr3](#)
- [MBS Filemaker Plugin, version 4.2pr11](#)

Created 18th August 2014, last changed 6th February 2018.



## 105.29 List.RemoveEmptyItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.RemoveEmptyItems"; List { ; NoReturnEnding } )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list.

### Description

### Examples

Remove empty lines:

MBS( "List.RemoveEmptyItems"; "Hello" §" §"World" )

### See also

- [105.27 List.Remove](#) 5530
- [105.85 QuickList.RemoveEmptyItems](#) 5620

### Example Databases

- [Text functions/Lists](#)

### 105.29.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr11](#)

Created 18th August 2014, last changed 21st September 2014.

## 105.30 List.RemovePostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.RemovePostfix"; List; Postfix { ; NoReturnEnding; CaseSensitive } )

### Parameters

#### List

The list to process.

"Hello\$World"

#### Postfix

The text to remove.

"llo"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

#### CaseSensitive

Optional

Whether to match with case sensitive comparison. Default is 0 for case insensitive. You can pass 1 to have a case sensitive comparison.

0

**Result** Returns list or error.

### Description

### Examples

Remove postfix from list:

MBS( "List.RemovePostfix"; "Hello?\$Other\$World?"; "?" )

### See also

- 105.27 List.Remove 5530
- 105.31 List.RemovePrefix 5536
- 105.86 QuickList.RemovePostfix 5621
- 105.87 QuickList.RemovePrefix 5623
- 162.1 SyntaxColoring.AddContextMenuCommand 7679
- 167.56 Text.RemovePostfix 7981

### 105.30.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 105.31 List.RemovePrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.RemovePrefix"; List; Prefix { ; NoReturnEnding; CaseSensitive } )

### Parameters

#### List

The list to process.

"Hello\$World"

#### Prefix

The text to remove.

"H"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

#### CaseSensitive

Optional

Whether to match with case sensitive comparison. Default is 0 for case insensitive. You can pass 1 to have a case sensitive comparison.

0

**Result** Returns list or error.

### Description

#### Examples

Remove prefix from list:

```
MBS( "List.RemovePrefix"; "testHello$Other$testWorld"; "test")
```

List files with relative paths:

```
MBS( "List.RemovePrefix"; MBS( "Files.ListRecursive"; "/Users/Shared/"); "/Users/Shared/")
```

### See also

- 79.37 Files.List 3882
- 79.38 Files.ListRecursive 3885
- 105.27 List.Remove 5530
- 105.30 List.RemovePostfix 5534

<i>105.31. LIST.REMOVEPREFIX</i>	5537
• 105.86 QuickList.RemovePostfix	5621
• 105.87 QuickList.RemovePrefix	5623
• 167.57 Text.RemovePrefix	7982

### **105.31.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 27th April 2019.

## 105.32 List.RemoveValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "List.RemoveValue"; List; Value { ; All } )
```

### Parameters

#### List

The list to process.

```
"Hello" §" §"World"
```

#### Value

The value to remove.

```
"Hello"
```

#### All

Optional

Optional, pass 1 to remove all values with the given value. Pass 0 (default) to remove only the first matching value.

```
0
```

**Result** Returns list or error.

### Description

### Examples

Remove one value:

```
MBS( "List.RemoveValue"; "Hello§123§World§123§abc"; "123")
```

Example result: Hello

World

123

abc

Remove all values:

```
MBS( "List.RemoveValue"; "Hello§123§World§123§abc"; "123"; 1)
```

Example result: Hello

World

abc

### See also

- 105.27 List.Remove

### 105.32.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.6pr3](#)

Created 11st March 2017, last changed 28th July 2019.

## 105.33 List.Reverse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.Reverse"; List { ; NoReturnEnding } )

### Parameters

#### List

The list to sort.

"Hello" §"World"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

### Examples

Reverse list:

MBS( "List.Reverse"; "Hello\$World\$Test" )

### 105.33.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr5](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 29th September 2014, last changed 29th September 2014.



## 105.34 List.Serialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.Serialize"; List )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

**Result** Returns text or error.

### Description

The dictionary content is stored in a base64 encoded string which the plugin function List.Deserialize and QuickList.Deserialize can read.

Using this function allows to store a list in a text field or transmit it with Socket functions, SerialPort functions or by writing it to a file.

### Examples

Save and restore a list:

```
Set Variable [ $list; Value:"Hello$World$1234$Just a test!" ]
```

```
Set Variable [ $text; Value:MBS("List.Serialize"; $list) ]
```

```
Show Custom Dialog [ "List"; "Encoded: " & $text & §& §& "Decoded: " & MBS("List.Deserialize"; $text) ]
```

### See also

- 105.12 List.Deserialize 5510
- 105.60 QuickList.Deserialize 5583
- 105.91 QuickList.Serialize 5628
- 167.60 Text.Serialize 7988

### 105.34.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 6th July 2015.

## 105.35 List.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "List.SetValue"; List; Index; Text )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Index

The index of the value to set. Must be in range from 0 to ValueCount(List).

\$index

#### Text

The text to add.

"Hello"

**Result** Returns list or error.

### Description

If index is equal to count, we append the text to the list.

For big lists, using QuickList functions is much faster. The list is only parsed once and stored in memory.

### See also

- 105.3 List.AddValue 5496
- 105.15 List.GetValue 5514
- 105.17 List.HasValue 5516
- 105.93 QuickList.SetValue 5631

Created 11st March 2017, last changed 29th March 2019.

## 105.36 List.Sort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.Sort"; List { ; Flags; NoReturnEnding } )

### Parameters

#### List

The list to sort.  
"Hello" §"World"

#### Flags

Optional

Optional, whether to sort case insensitive or descending. Pass 1 to sort case insensitive or 0 to sort case sensitive. Add 2 to sort descending. Add 4 for sorting dates in DD.MM.YYYY style and 8 for sorting dates in MM.DD.YYYY style. Add 16 for number sorting (new in 7.5).

1

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list.

### Description

Version 6.2 adds new modes for date sorting. Mode 4 for DD.MM.YYYY style and mode 8 for MM.DD.YYYY style.

Version 7.5 adds number sorting.

### Examples

Sort case sensitive:

```
MBS( "List.Sort"; "Hello$World$Test" )
```

Sort case insensitive:

```
MBS( "List.Sort"; "Hello$World$test"; 1 )
```

Sort case sensitive and descending:

```
MBS( "List.Sort"; "Hello$World$Test"; 2 )
```

Sort case insensitive and descending:

```
MBS( "List.Sort"; "Hello$World$test"; 3 )
```

Sort German dates:

Show Custom Dialog [ MBS("List.Sort"; "01.01.2001§12.04.1981§01.04.1981§12.07.1981§12.01.1981§23.11.2014";  
4; 0) ]

Sort US dates:

Show Custom Dialog [ MBS("List.Sort"; "01/01/2001§04/12/1981§04/01/1981§07/12/1981§01/12/1981§11/23/2014";  
8; 0) ]

Sort numbers

MBS( "List.Sort"; "1§55§7"; 16 )

Example result: "1

7

555

"

#### See also

- [79.37 Files.List](#) 3882
- [83.7 FontManager.ListFontFamilies](#) 4261
- [83.8 FontManager.ListFonts](#) 4262
- [105.22 List.Not](#) 5522
- [105.37 List.SortWithEvaluate](#) 5546
- [105.59 QuickList.DeCombine](#) 5581
- [105.94 QuickList.Sort](#) 5633
- [105.95 QuickList.SortWith](#) 5635
- [105.96 QuickList.SortWithEvaluate](#) 5638

#### Example Databases

- [List/List Sorting](#)
- [List/Sort Benchmark](#)
- [Text functions/Lists](#)

### 105.36.1 **Blog Entries**

- [Sort with evaluate in FileMaker](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 7.5pr5](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)
- [New functions for MBS FileMaker Plugin coming soon](#)
- [MBS Filemaker Plugin, version 4.4pr4](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)
- [MBS Filemaker Plugin, version 4.2pr11](#)

Created 18th August 2014, last changed 1st November 2017.

## 105.37 List.SortWithEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "List.SortWithEvaluate"; List; Expression { ; NoReturnEnding } )

### Parameters

#### List

The list to sort.

"Hello" §"World"

#### Expression

The expression to evaluate. Can include "leftValue" and "rightValue" as variables.

"leftValue >rightValue"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

The expression is run every time two values are compared, so keep it quick. It should return 1 if leftValue is smaller than rightValue.

Our normal List.Sort is faster due to not having the overhead of evaluating expressions.

### Examples

Sort numbers numeric with GetAsNumber() function:

```
MBS("List.SortWithEvaluate"; "1§2§3"; "GetAsNumber(leftValue) <GetAsNumber(rightValue)")
```

Example result: 1

3

22

Sort dates with using GetAsDate:

```
MBS("List.SortWithEvaluate"; "1.1.2000§2.2.2020§3.4.1998"; "GetAsDate(leftValue) <GetAsDate(right-Value)")
```

### See also

- 102.73 JSON.SortWithEvaluate 5417
- 105.36 List.Sort 5543

105.37. *LIST.SORTWITHEVALUATE*

5547

- 105.96 QuickList.SortWithEvaluate

5638

### 105.37.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Sort with evaluate in FileMaker](#)

Created 9th April 2020, last changed 9th April 2020.

## 105.38 List.SubList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "List.SubList"; List; Index; Count { ; NoReturnEnding } )

### Parameters

#### List

The list to process.

"Hello" §" §"World"

#### Index

The zero based index where to start. Or in other words: How many entries to skip.

3

#### Count

How many entries to copy. If negative, we pick the other items left.

5

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

#### Examples

Get first item:

```
MBS( "List.SubList"; "Hello"; 0; 1; 1)
```

Example result: "Hello"

Get all items:

```
MBS( "List.SubList"; "a$b$c$d$e"; 0; -1)
```

Example result: "a

b

c

d

e

"

Get 2 items starting at offset 2:

```
MBS( "List.SubList"; "a$b$c$d$e"; 2; 2)
```



Example result: "c  
d  
"

### 105.38.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr1](#)

Created 27th September 2017, last changed 27th September 2017.

## 105.39 List.Trim

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "List.Trim"; List { ; NoReturnEnding } )

### Parameters

#### List

The list to sort.

"Hello" §"World"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

### Examples

Trim list values:

MBS( "List.Trim"; " Hello §With tab §" )

Created 21st October 2017, last changed 21st October 2017.

## 105.40 List.ValueIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.ValueIndex"; List; Value )

### Parameters

#### List

The list of texts to search.

"Hello"

#### Value

The text to find.

"Hello"

**Result** Returns index, nothing or error.

### Description

Returns zero based index (0 = first list value).

Returns empty result if not found.

Comparison is case insensitive.

### Examples

Searches a word in a list:

# Returns 4

MBS( "List.ValueIndex"; "Hello\$1\$2\$3\$World"; "world" )

### 105.40.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 20th November 2015.

## 105.41 List.XOr

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "List.XOr"; List1; List2 { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs an exclusive logical OR operation.

### Examples

Perform logical XOR on list:

MBS( "List.XOr"; "1§2§3§4"; "3§4§5§6" )

### See also

- 105.24 List.Or 5525
- 105.42 List.XOrColumn 5553
- 105.101 QuickList.XOrColumn 5644

### 105.41.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 25th September 2014, last changed 25th September 2014.

## 105.42 List.XOrColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "List.XOrColumn"; List1; List2; Separator; Column { ; NoReturnEnding } )

### Parameters

#### List1

The first list.

"Hello" §"World"

#### List2

The second list.

"Hello" §"Friends"

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Performs an exclusive logical OR operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as List.XOr, but slower.

### See also

- 105.5 List.AndColumn 5499
- 105.23 List.NotColumn 5523
- 105.25 List.OrColumn 5526
- 105.41 List.XOr 5552

### 105.42.1 Blog Entries

- [New in the MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.

## 105.43 QuickList.AddList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddList"; List1; List2 { ; Separator } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The list to add.

\$List2

#### Separator

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

The separator to use. Can be ASCII character number (e.g. 9 for tab) or a text where we use first character as separator. Default is newline character.

" | "

**Result** Returns OK or error.

### Description

### Examples

Create a quicklist and add a list:

```
Set Variable [ $q; Value:MBS("QuickList.New"; "Hello$World") ]
Set Variable [ $r; Value:MBS("QuickList.AddList"; $q; "Hello$World") ]
Show Custom Dialog [ MBS("QuickList.GetList"; $q) ]
Set Variable [ $r; Value:MBS("QuickList.Free"; $q) ]
```

### See also

- 105.45 QuickList.AddPostfix 5559
- 105.47 QuickList.AddQuickList 5563
- 105.48 QuickList.AddSQL 5564
- 105.49 QuickList.AddValue 5566
- 105.63 QuickList.Free 5586
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604

- 105.80 QuickList.PopFirst 5615
- 105.92 QuickList.SetList 5630
- 105.97 QuickList.SubList 5639

### 105.43.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 27th September 2018.



## 105.44 QuickList.AddMultiValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddMultiValue"; ListRef; Text; Count { ; Separator } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to add. Can be a list itself.

"Hello"

#### Count

The number of times to add the value/list. Default is 0.

5

#### Separator

Optional

Available in MBS FileMaker Plugin 8.5 or newer.

The separator to use. Can be ASCII character number (e.g. 9 for tab) or a text where we use first character as separator. Default is newline.

" | "

**Result** Returns OK or error.

### Description

### Examples

Create a list:

```
Let ( [
q = MBS( "QuickList.New" );
r = MBS( "QuickList.AddValue"; q; "First" );
r = MBS( "QuickList.AddMultiValue"; q; "Middle"; 10 );
r = MBS( "QuickList.AddValue"; q; "Last" );
list = MBS("QuickList.GetList"; q);
r = MBS( "QuickList.Free"; q )
]; list )
```

Example result: First

Middle

Middle

Middle

Middle

Middle

Middle

Middle

Middle

Middle

Middle

Last

Create list from list:

```
Let ( [  
q = MBS( "QuickList.New" );  
r = MBS( "QuickList.AddMultiValue"; q; "Hello$World"; 3 );  
list = MBS("QuickList.GetList"; q);  
r = MBS( "QuickList.Free"; q )  
] ; list )
```

Example result: Hello

World

Hello

World

Hello

World

### See also

- [105.3 List.AddValue](#) 5496
- [105.49 QuickList.AddValue](#) 5566
- [105.63 QuickList.Free](#) 5586
- [105.64 QuickList.GetList](#) 5588
- [105.74 QuickList.New](#) 5604

### 105.44.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr1](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 15th March 2017, last changed 27th September 2018.

## 105.45 QuickList.AddPostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddPostfix"; ListRef; Postfix { ; ReturnNewList } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Postfix

The text to append.

"!"

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.  
Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list or error.

### Description

### Examples

Try in one Let statement:

```
Let( [
list = MBS("QuickList.New"; "Hello$World");
e = MBS("QuickList.AddPrefix"; list; ">");
e = MBS("QuickList.AddPostfix"; list; "<");
r = MBS("QuickList.GetList"; list);
d = MBS("QuickList.Free"; list)
]; r)
```

### See also

- 105.1 List.AddPostfix 5493
- 105.2 List.AddPrefix 5495
- 105.43 QuickList.AddList 5555
- 105.46 QuickList.AddPrefix 5561
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588

- 105.74 QuickList.New

### 105.45.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 105.46 QuickList.AddPrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddPrefix"; ListRef; Prefix { ; ReturnNewList } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Prefix

The text to prepend.

"!"

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.  
Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list or error.

### Description

### Examples

Try in one Let statement:

```
Let( [
list = MBS("QuickList.New"; "Hello$World");
e = MBS("QuickList.AddPrefix"; list; ">");
e = MBS("QuickList.AddPostfix"; list; "<");
r = MBS("QuickList.GetList"; list);
d = MBS("QuickList.Free"; list)
]; r)
```

### See also

- 105.1 List.AddPostfix 5493
- 105.2 List.AddPrefix 5495
- 105.45 QuickList.AddPostfix 5559
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604

### 105.46.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 5th June 2016.

## 105.47 QuickList.AddQuickList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddQuickList"; ListRef; ListRef2 )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

#### ListRef2

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns OK or error.

### Description

### Examples

Build two quicklists and add one to other:

```
Set Variable [ $q; Value:MBS("QuickList.New"; "Hello$World") ]
Set Variable [ $o; Value:MBS("QuickList.New"; "1$2") ]
Set Variable [ $r; Value:MBS("QuickList.AddQuickList"; $q; $o) ]
Show Custom Dialog [ MBS("QuickList.GetList"; $q) ]
Set Variable [ $r; Value:MBS("QuickList.Free"; $q) ]
Set Variable [ $r; Value:MBS("QuickList.Free"; $o) ]
```

### See also

- [105.43 QuickList.AddList](#) 5555
- [105.63 QuickList.Free](#) 5586
- [105.64 QuickList.GetList](#) 5588
- [105.74 QuickList.New](#) 5604

### 105.47.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 12nd December 2014.

## 105.48 QuickList.AddSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddSQL"; ListRef; SQL Statement; FileName { ; Params } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### SQL Statement

SQL Statement as a Text string

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns number of items added or error.

### Description

All values in the result set are added as text to the list.

Returns error in case of SQL error with error message.

This function is currently only supported for FileMaker 11 and newer. If you need it for older versions, please contact us.

### Examples

Fill a list and return it:

```
# create new list
$list = MBS("QuickList.New")
# add values via SQL
MBS("QuickList.AddSQL"; $list; "SELECT TextField FROM \"Test Table\"")
# query list content for displaying
$text = MBS("QuickList.GetList"; $list)
# and free it
MBS("QuickList.Free"; $list )
```

Add values based on SQL query in current file and one parameter:

```
MBS("QuickList.AddSQL"; "12002"; "SELECT TextField FROM \"Test Table\" WHERE NumberField>?";
```



Get(FileName); 1 )

Run query with quoted names and parameters for value:

```
Set Variable [ $Text ; Value: MBS("QuickList.AddSQL"; $ListNum; "SELECT \"MyField\" from \"MyTable\"  
Where \"SomeField\" = ?"; Get(FileName); "xyz") ]
```

#### See also

- 105.43 QuickList.AddList 5555
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604

#### 105.48.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 12nd March 2015, last changed 17th June 2018.

## 105.49 QuickList.AddValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AddValue"; ListRef; Text )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to add.

"Hello"

**Result** Returns OK or error.

### Description

Building list via plugin can be much faster than building using FileMaker internal functions.

### Examples

Add items to a list:

```
$listID = MBS( "QuickList.New"; "Hello$World" )
$r = MBS( "QuickList.AddValue"; $listID; "1234" )
$r = MBS( "QuickList.AddValue"; $listID; "5678" )
$list = MBS( "QuickList.GetList"; $listID )
$r = MBS( "QuickList.Free"; $listID )
```

### See also

- 105.3 List.AddValue 5496
- 105.43 QuickList.AddList 5555
- 105.44 QuickList.AddMultiValue 5557
- 105.51 QuickList.AndColumn 5570
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.65 QuickList.GetValue 5590
- 105.67 QuickList.HasValue 5593
- 105.74 QuickList.New 5604
- 105.93 QuickList.SetValue 5631

**Example Databases**

- [DynaPDF/Invoice/Invoice](#)
- [List/QuickList Test](#)
- [List/Sort Benchmark](#)

**105.49.1 Blog Entries**

- [Quicklist - Fast lists for FileMaker](#)

Created 21st September 2014, last changed 21st September 2014.

## 105.50 QuickList.And

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.And"; List1; List2 { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical AND operation.

### Examples

Performs And on two quicklists:

```
$list1 = MBS( "QuickList.New"; "a$b$c$d" )
$list2 = MBS( "QuickList.New"; "a$d" )
$list3 = MBS( "QuickList.And"; $list1; $list2; 1 )
$list = MBS( "QuickList.GetList"; $list3 )
$r = MBS( "QuickList.Free"; $list1 )
$r = MBS( "QuickList.Free"; $list2 )
$r = MBS( "QuickList.Free"; $list3 )
```

### See also

- 105.4 List.And 5497
- 105.51 QuickList.AndColumn 5570
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604

<i>105.50. QUICKLIST.AND</i>	5569
• 105.75 QuickList.Not	5606
• 105.77 QuickList.Or	5610
• 105.79 QuickList.Pop	5614
• 105.100 QuickList.XOr	5643

### **105.50.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 8th October 2014, last changed 8th October 2014.

## 105.51 QuickList.AndColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.AndColumn"; List1; List2; Separator; Column { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical AND operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as QuickList.And, but slower.

### See also

- 105.4 List.And 5497
- 105.49 QuickList.AddValue 5566
- 105.50 QuickList.And 5568
- 105.63 QuickList.Free 5586
- 105.76 QuickList.NotColumn 5608

<i>105.51. QUICKLIST.ANDCOLUMN</i>	5571
• 105.78 QuickList.OrColumn	5612
• 105.101 QuickList.XOrColumn	5644

### **105.51.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.

## 105.52 QuickList.BestMatch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.BestMatch"; ListRef; SearchText )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### SearchText

The text to search.

"Hello"

**Result** Returns best match, empty or error.

### Description

If not found, returns empty result, so FileMaker function isEmpty() will tell you if it's empty (instead of just having no text).

Uses internally the Text.LevenshteinDistance function to compare all items and look for best match.

If no entry matches over 50% , this may return empty text.

### See also

- 105.6 List.BestMatch 5501
- 105.74 QuickList.New 5604
- 105.82 QuickList.RegExMatch 5617
- 167.43 Text.LevenshteinDistance 7964

### 105.52.1 Blog Entries

- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 11st December 2014, last changed 25th June 2019.



## 105.53 QuickList.CSVSplit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.CSVSplit"; Text { ; Delimiter } )

### Parameters

#### Text

The CSV text.  
"Hello;World"

#### Delimiter

Optional  
Available in MBS FileMaker Plugin 8.5 or newer.  
The delimiter to use. If empty, we auto detect it.  
";"

**Result** Returns QuickList reference number or error.

### Description

Plugin automatically detects if comma or semicolon is used.  
Returns list with all values.

Version 8 can detect tab character, too.

### Examples

Try with 3 values:

```
MBS("QuickList.CSVSplit"; "\hello\";\test\";\CSV\")
```

### See also

- [105.7 List.CSVSplit](#)

5502

### 105.53.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr3](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 7.4pr8](#)

Created 21st September 2017, last changed 22nd October 2018.

## 105.54 QuickList.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Clear"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns OK or error.

### Description

#### See also

- 105.55 QuickList.Clone 5575
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604

Created 21st September 2014, last changed 21st September 2014.

## 105.55 QuickList.Clone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Clone"; List )

### Parameters

#### List

The reference to the quicklist.

\$List

**Result** Returns reference number or error.

### Description

A new reference number with a new list object or array behind and all content copied.

### See also

- 105.54 QuickList.Clear 5574
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.83 QuickList.Remove 5618
- 105.94 QuickList.Sort 5633

### 105.55.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 5th March 2016, last changed 5th March 2016.

## 105.56 QuickList.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Count"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns OK or error.

### Description

#### See also

- 105.15 List.GetValue 5514
- 105.54 QuickList.Clear 5574
- 105.55 QuickList.Clone 5575
- 105.57 QuickList.CountValuesMatching 5578
- 105.65 QuickList.GetValue 5590
- 105.70 QuickList.List 5597
- 105.75 QuickList.Not 5606
- 105.81 QuickList.Push 5616
- 105.83 QuickList.Remove 5618
- 105.94 QuickList.Sort 5633

### Example Databases

- [List/QuickList Test](#)

#### 105.56.1 Blog Entries

- [Quicklist - Fast lists for FileMaker](#)

**105.56.2 FileMaker Magazin**

- Ausgabe 1/2015, Seite 20
- Ausgabe 1/2015, Seite 19

Created 21st September 2014, last changed 21st September 2014.

## 105.57 QuickList.CountValuesMatching

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.CountValuesMatching"; ListRef; Operator )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

#### Operator

The compare operator. Can be =, !=, <, >, <=, >=, , or .  
"""

**Result** Returns number or error.

### Description

### Examples

Count values in a quick list <4:

```
Let( [
list = MBS( "QuickList.New"; "1§2§3§4");
count = MBS( "QuickList.CountValuesMatching"; list; "<"; 4 );
r = MBS("QuickList.Free"; list) ] ;
count)
```

### See also

- 105.8 List.CountValues 5504
- 105.9 List.CountValuesMatching 5505
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604

### 105.57.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 5th April 2020, last changed 6th April 2020.

## 105.58 QuickList.CrossProduct

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.CrossProduct"; List1; List2 { ; Prefix; Midfix; Postfix; Flags } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### Prefix

Optional

The prefix to use

#### Midfix

Optional

The middle to use. This text is put between texts from both lists.

#### Postfix

Optional

The postfix to use

#### Flags

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter. Add 2 for a diagonal cross, so we combine each element of first list with the same element index from the second list.

0

**Result** Returns list or error.

### Description

Optionally adds prefix, postfix and midfix.

Returns empty list if one of the lists are empty!

### Examples

Try in a Let statement:

```
Let( [
list1 = MBS("QuickList.New"; "Hello$World");
list2 = MBS("QuickList.New"; "1$2");
e = MBS("QuickList.CrossProduct"; list1; list2);
r = MBS("QuickList.GetList"; list1);
d = MBS("QuickList.Free"; list1);
```

```
d = MBS("QuickList.Free"; list2)
]; r)
```

**See also**

- 105.10 List.CrossProduct 5506
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604

**105.58.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr5](#)
- [Evaluate vs. Script Trigger](#)

Created 4th March 2016, last changed 17th March 2016.



## 105.59 QuickList.DeCombine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "QuickList.DeCombine"; ListRef; ColumnDelimiter; StartColumn; EndColumn { ; ReturnNewList; NoReturnEnding } )
```

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### ColumnDelimiter

The delimiter between cols. This is also used in result.

" | "

#### StartColumn

Index of column to start. First is 0.

0

#### EndColumn

Index of column to end. First is 0. If you only want one column, please pass same value for start and end column.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to return a text list.

0

#### NoReturnEnding

Optional

If you passed 0 for ReturnNewList, decides about new list: Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns new list or error.

### Description

This function combines values from a list by picking only given columns.

### Examples

Sort a list column:

```
Set Variable [ $List ; Value: "65412 | Schreiber | Klaus | 459oz8235" & §& "76542 | Abraham | Hermmann | 38957zf" & §& "85112 | Behrens | Robert | 489748hj" ]
```

```
Set Variable [ $QuickList1 ; Value: MBS( "QuickList.New"; $list ) ]
```

```
#
```

```

Set Variable [ $QuickList2 ; Value: MBS( "QuickList.DeCombine"; $QuickList1; " | "; 1 /* StartColumn*/;
1 /* EndColumn */; 1 /* New List*/ ) ]
Set Variable [ $List2 ; Value: MBS( "QuickList.GetList"; $QuickList2) ]
Set Variable [ $r ; Value: MBS( "QuickList.SortWith"; $QuickList2; 1; $QuickList1 ) ]
Set Variable [ $List1 ; Value: MBS( "QuickList.GetList"; $QuickList1) ]
#
Set Variable [ $r ; Value: MBS( "QuickList.Free"; $QuickList1 ) ]
Set Variable [ $r ; Value: MBS( "QuickList.Free"; $QuickList2 ) ]

```

**See also**

- 105.11 List.DeCombine 5508
- 105.36 List.Sort 5543
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.94 QuickList.Sort 5633
- 105.95 QuickList.SortWith 5635

**105.59.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr1](#)

Created 29th September 2017, last changed 21st December 2018.

## 105.60 QuickList.Deserialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Deserialize"; Text )

### Parameters

#### Text

The serialized data as text.

**Result** Returns quick list reference number or error.

### Description

### Examples

Create and save a list to restore it:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$1234$Just a test!" ) ]
Set Variable [ $text; Value:MBS("Quicklist.Serialize"; $list) ]
Set Variable [ $secondList; Value:MBS("Quicklist.Deserialize"; $text) ]
Show Custom Dialog [ "List"; "Encoded: " & $text & $& $& "Decoded: " & MBS("QuickList.GetList";
$secondList) ]
Set Variable [ $r; Value:MBS("Quicklist.Free"; $list) ]
Set Variable [ $r; Value:MBS("Quicklist.Free"; $secondList) ]
```

### See also

- 105.12 List.Deserialize 5510
- 105.34 List.Serialize 5541
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.69 QuickList.InsertValue 5596
- 105.74 QuickList.New 5604
- 105.91 QuickList.Serialize 5628

### 105.60.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 1st August 2015.

## 105.61 QuickList.FindEquals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "QuickList.FindEquals"; List1; List2 { ; ReturnNewList } )
```

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.  
Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

### See also

- 105.62 QuickList.FindUnequals 5585
- 105.63 QuickList.Free 5586

Created 8th October 2014, last changed 8th October 2014.

## 105.62 QuickList.FindUnequals

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.FindUnequals"; List1; List2 { ; ReturnNewList; NotFromSecondList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.  
Pass 0 (Default) to modify the list in the List1 parameter.

0

#### NotFromSecondList

Optional

Pass 1 to only returns items from first list not present in second list. Default is 0 to get items from both lists.

0

**Result** Returns list, OK or error.

### Description

See also

- 105.14 List.FindUnequals 5512
- 105.61 QuickList.FindEquals 5584
- 105.63 QuickList.Free 5586

### 105.62.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 8th October 2014, last changed 27th May 2017.

## 105.63 QuickList.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Free"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns OK or error.

### Description

Please call this for each list to make sure you don't run out of memory.

### Examples

Creates list and frees it:

```
$list = MBS( "QuickList.New"; "Hello$World$Test" )
$r = MBS( "QuickList.Free"; $list)
```

### See also

- [105.54 QuickList.Clear](#) 5574
- [105.55 QuickList.Clone](#) 5575
- [105.77 QuickList.Or](#) 5610
- [105.79 QuickList.Pop](#) 5614
- [105.82 QuickList.RegExMatch](#) 5617
- [105.86 QuickList.RemovePostfix](#) 5621
- [105.91 QuickList.Serialize](#) 5628
- [105.93 QuickList.SetValue](#) 5631
- [105.100 QuickList.XOr](#) 5643
- [105.101 QuickList.XOrColumn](#) 5644

### Example Databases

- [DynaPDF/Invoice/Invoice](#)
- [List/QuickList Test](#)
- [List/Sort Benchmark](#)

### **105.63.1 Blog Entries**

- [Evaluate vs. Script Trigger](#)
- [Quicklist - Fast lists for FileMaker](#)

### **105.63.2 FileMaker Magazin**

- Ausgabe 1/2015, Seite 20
- Ausgabe 1/2015, Seite 19

Created 21st September 2014, last changed 21st September 2014.

## 105.64 QuickList.GetList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.GetList"; ListRef { ; NoReturnEnding; Delimiter } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

#### Delimiter

Optional

The delimiter to use. Can be empty to have no delimiter. Common use is to pass "§", ", " or "; ".  
", "

**Result** Returns text or error.

### Description

Lines are separated by return character.

### Examples

Create a list and query it:

```
$listID = MBS( "QuickList.New"; "Hello$World" )
$list = MBS( "QuickList.GetList"; $listID )
$r = MBS( "QuickList.Free"; $listID )
```

Try with delimiter:

```
Set Variable [ $listID; Value:MBS( "QuickList.New"; "Hello$World" ) ]
Set Variable [ $list1; Value:MBS( "QuickList.GetList"; $listID ) ]
Show Custom Dialog [ "Result default"; $list1 ]
Set Variable [ $list2; Value:MBS( "QuickList.GetList"; $listID; 0; "" ) ]
Show Custom Dialog [ "Result with empty delimiter"; $list2 ]
Set Variable [ $list3; Value:MBS( "QuickList.GetList"; $listID; 0; " " ) ]
Show Custom Dialog [ "Result with space delimiter"; $list3 ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $listID ) ]
```

**See also**



<i>105.64. QUICKLIST.GETLIST</i>	5589
• 105.70 QuickList.List	5597
• 105.77 QuickList.Or	5610
• 105.80 QuickList.PopFirst	5615
• 105.81 QuickList.Push	5616
• 105.86 QuickList.RemovePostfix	5621
• 105.90 QuickList.Reverse	5627
• 105.91 QuickList.Serialize	5628
• 105.92 QuickList.SetList	5630
• 105.93 QuickList.SetValue	5631
• 105.94 QuickList.Sort	5633

### **Example Databases**

- [List/QuickList Test](#)
- [List/Sort Benchmark](#)

### **105.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr4](#)
- [Evaluate vs. Script Trigger](#)
- [Quicklist - Fast lists for FileMaker](#)

### **105.64.2 FileMaker Magazin**

- [Ausgabe 1/2015, Seite 19](#)

Created 21st September 2014, last changed 7th April 2016.

## 105.65 QuickList.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.GetValue"; ListRef; Index )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Index

The index of the value to get. Must be in range from 0 to QuickList.Count-1.

\$index

**Result** Returns OK or error.

### Description

Using our QuickList functions is much faster than using GetValue(listOfValues;valueNumber) function in FileMaker for large lists.

If you enable tracing with Trace command, this function will be much slower due to the debug output.

### Examples

Query values from List:

```
$listID = MBS( "QuickList.New"; "Hello$World" )
$v1 = MBS( "QuickList.GetValue"; $listID; 1 )
$v2 = MBS( "QuickList.GetValue"; $listID; 2 )
$r = MBS( "QuickList.Free"; $listID )
```

### See also

- 105.15 List.GetValue 5514
- 105.49 QuickList.AddValue 5566
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.67 QuickList.HasValue 5593
- 105.69 QuickList.InsertValue 5596
- 105.74 QuickList.New 5604
- 105.88 QuickList.RemoveValue 5625
- 105.91 QuickList.Serialize 5628

105.65. *QUICKLIST.GETVALUE*

5591

- 105.93 QuickList.SetValue

5631

### **Example Databases**

- [DynaPDF/Invoice/Invoice](#)
- [List/QuickList Test](#)

### **105.65.1 Blog Entries**

- [Quicklist - Fast lists for FileMaker](#)

### **105.65.2 FileMaker Magazin**

- [Ausgabe 1/2015, Seite 20](#)
- [Ausgabe 1/2015, Seite 19](#)

Created 21st September 2014, last changed 4th October 2014.

## 105.66 QuickList.HasDuplicateItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.HasDuplicateItems"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns 1, 0 or error.

### Description

Returns 1 if duplicate lines are found or 0 if not.

### See also

- [105.16 List.HasDuplicateItems](#) 5515
- [105.74 QuickList.New](#) 5604
- [105.84 QuickList.RemoveDuplicateItems](#) 5619

### 105.66.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 21st October 2017, last changed 26th October 2017.

## 105.67 QuickList.HasValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.HasValue"; ListRef; Value )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Value

The value to check.

"Hello"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if value is found or 0 if not. Text comparison is case sensitive.

### Examples

Checks if list contains value:

```
Set Variable [ $q; Value:MBS("QuickList.New"; "Hello$World") ]
Show Custom Dialog [ "Contains World"; MBS("QuickList.HasValue"; $q; "World") ]
Show Custom Dialog [ "Contains Test"; MBS("QuickList.HasValue"; $q; "Test") ]
Set Variable [ $r; Value:MBS("QuickList.Free"; $q) ]
```

### See also

- [105.17 List.HasValue](#) 5516
- [105.49 QuickList.AddValue](#) 5566
- [105.63 QuickList.Free](#) 5586
- [105.65 QuickList.GetValue](#) 5590
- [105.69 QuickList.InsertValue](#) 5596
- [105.74 QuickList.New](#) 5604
- [105.93 QuickList.SetValue](#) 5631

### 105.67.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr2](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 12nd December 2014.

## 105.68 QuickList.IndexOfFirstValueMatching

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.IndexOfFirstValueMatching"; ListRef; Operator { ; Text } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Operator

The compare operator. Can be =, !=, <, >, <=, >=, , or .

"""

#### Text

Optional

The text to compare.

"Test"

**Result** Returns number or error.

### Description

### Examples

Find index of first value 4:

```
Let( [
list = MBS( "QuickList.New"; "1$2$3$4");
count = MBS( "QuickList.IndexOfFirstValueMatching"; list; ""; 4 );
r = MBS("QuickList.Free"; list) ] ;
count)
```

### See also

- 105.18 List.IndexOfFirstValueMatching 5518
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604

### 105.68.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 5th April 2020, last changed 6th April 2020.

## 105.69 QuickList.InsertValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.InsertValue"; ListRef; Index; Text )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

#### Index

the index where to insert.  
0

#### Text

The text to add.  
"Hello"

**Result** Returns OK or error.

### Description

Please note that QuickList.AddValue is more efficient than inserting.

#### See also

- 105.3 List.AddValue 5496
- 105.49 QuickList.AddValue 5566
- 105.60 QuickList.Deserialize 5583
- 105.65 QuickList.GetValue 5590
- 105.67 QuickList.HasValue 5593
- 105.74 QuickList.New 5604
- 105.88 QuickList.RemoveValue 5625
- 105.93 QuickList.SetValue 5631

Created 2nd August 2015, last changed 2nd August 2015.



## 105.70 QuickList.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.List" )

**Result** Returns list or error.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.

### See also

- 105.43 QuickList.AddList 5555
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.75 QuickList.Not 5606
- 105.81 QuickList.Push 5616
- 105.92 QuickList.SetList 5630
- 105.94 QuickList.Sort 5633
- 105.97 QuickList.SubList 5639
- 105.98 QuickList.Trim 5641

### 105.70.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr4](#)

Created 21st September 2015, last changed 21st September 2015.

## 105.71 QuickList.MatchesPostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.MatchesPostfix"; ListRef; Text { ; Flags } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to find.

"Hello"

#### Flags

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter. Add 2 to split. This is only useful with first option together (so pass 3 for both). Matching entries will be in new list and non matching entries will stay in old list. Add 4 to reverse operation (NOT).

0

**Result** Returns OK, list or error.

### Description

Comparison is case insensitive.

### Examples

Finds list entries with same postfixes:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$auto" ) ]
Set Variable [ $matchesList; Value:MBS( "QuickList.MatchesPostfix"; $list; "o"; 0 ) ]
Set Variable [ $text; Value:MBS( "QuickList.GetList"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
Show Custom Dialog [ "result"; $text ]
```

### See also

- 105.20 List.MatchesPostfix 5520
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.72 QuickList.MatchesPrefix 5600
- 105.73 QuickList.MatchesSubString 5602

<i>105.71. QUICKLIST.MATCHESPOSTFIX</i>	5599
• 105.74 QuickList.New	5604
• 105.86 QuickList.RemovePostfix	5621

### **105.71.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr5](#)
- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 30th December 2015.

## 105.72 QuickList.MatchesPrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.MatchesPrefix"; ListRef; Text { ; Flags } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to find.

"Hello"

#### Flags

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter. Add 2 to split. This is only useful with first option together (so pass 3 for both). Matching entries will be in new list and non matching entries will stay in old list. Add 4 to reverse operation (NOT).

0

**Result** Returns OK, list or error.

### Description

Comparison is case insensitive.

### Examples

Finds list entries with same prefixes:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$auto" ) ]
Set Variable [ $matchesList; Value:MBS( "QuickList.MatchesPrefix"; $list; "w"; 0 ) ]
Set Variable [ $text; Value:MBS( "QuickList.GetList"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
Show Custom Dialog [ "result"; $text ]
```

Find entries not matching in prefix:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$auto" ) ]
Set Variable [ $matchesList; Value:MBS( "QuickList.MatchesPrefix"; $list; "w"; 4 ) ]
Set Variable [ $text; Value:MBS( "QuickList.GetList"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
Show Custom Dialog [ "Result"; $text ]
```

### See also

<i>105.72. QUICKLIST.MATCHESPREFIX</i>	5601
• 105.21 List.MatchesPrefix	5521
• 105.63 QuickList.Free	5586
• 105.64 QuickList.GetList	5588
• 105.71 QuickList.MatchesPostfix	5598
• 105.74 QuickList.New	5604
• 105.87 QuickList.RemovePrefix	5623

### **105.72.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr5](#)
- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 30th December 2015.

## 105.73 QuickList.MatchesSubString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.MatchesSubString"; ListRef; Text { ; Flags } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to find.

"Hello"

#### Flags

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter. Add 2 to split. This is only useful with first option together (so pass 3 for both). Matching entries will be in new list and non matching entries will stay in old list. Add 4 to reverse operation (NOT).

0

**Result** Returns OK, list or error.

### Description

Comparison is case insensitive. (currently case sensitive on Windows)

### Examples

Split a list matching substring:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$auto" ) ]
Set Variable [ $matchesList; Value:MBS( "QuickList.MatchesSubString"; $list; "orl"; 3 ) ]
Set Variable [ $text1; Value:MBS( "QuickList.GetList"; $list ) ]
Set Variable [ $text2; Value:MBS( "QuickList.GetList"; $matchesList ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $matchesList ) ]
Show Custom Dialog [ "Result"; "Matches: " & $text1 & $r "Others: " & $text2 ]
```

### See also

- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.71 QuickList.MatchesPostfix 5598
- 105.74 QuickList.New 5604

### 105.73.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)
- [MBS FileMaker Plugin, version 6.0pr5](#)

Created 30th December 2015, last changed 1st January 2016.

## 105.74 QuickList.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.New" { ; Text; Separator; RefNum } )

### Parameters

#### Text

Optional

Initial list content.

"Hello\$World\$Test"

#### Separator

Optional

The separator to use. Can be ASCII character number (e.g. 9 for tab) or a text where we use first character as separator. Default is newline.

" | "

#### RefNum

Optional

The desired reference number. Leave empty for default.

"IDs"

**Result** Returns reference number or error.

### Description

You can provide whatever separator you need. Default is new line characters. But works also fine with comma, semicolon or tab characters.

Please use QuickList.Free to release the list later.

QuickList reference numbers are starting at 12000 and counting up for each new list.

### Examples

Creates new list:

```
MBS( "QuickList.New"; "Hello$World$Test" )
```

Create list with | as separator:

```
MBS("QuickList.New"; "Hello | World"; " | ")
```

Parse with newline as separator:

```
MBS("QuickList.GetList"; MBS( "QuickList.New"; "1$2" & Char(10) & "3" & Char(13) & "4" ))
```

# accepts CR and LF as delimiter.

### See also



105.74. QUICKLIST.NEW	5605
• 105.50 QuickList.And	5568
• 105.73 QuickList.MatchesSubString	5602
• 105.77 QuickList.Or	5610
• 105.81 QuickList.Push	5616
• 105.86 QuickList.RemovePostfix	5621
• 105.87 QuickList.RemovePrefix	5623
• 105.91 QuickList.Serialize	5628
• 105.92 QuickList.SetList	5630
• 105.96 QuickList.SortWithEvaluate	5638
• 105.97 QuickList.SubList	5639

### Example Databases

- [DynaPDF/Invoice/Invoice](#)
- [List/QuickList Test](#)
- [List/Sort Benchmark](#)

### 105.74.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr6](#)
- [Data structures in FileMaker with MBS Plugins](#)
- [Evaluate vs. Script Trigger](#)
- [Quicklist - Fast lists for FileMaker](#)

### 105.74.2 FileMaker Magazin

- [Ausgabe 1/2015, Seite 20](#)
- [Ausgabe 1/2015, Seite 19](#)

Created 21st September 2014, last changed 18th February 2019.

## 105.75 QuickList.Not

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Not"; List1; List2 { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical NOT operation.

### See also

- 105.50 QuickList.And 5568
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604
- 105.76 QuickList.NotColumn 5608
- 105.77 QuickList.Or 5610
- 105.79 QuickList.Pop 5614
- 105.94 QuickList.Sort 5633
- 105.100 QuickList.XOr 5643

### 105.75.1 **Blog Entries**

- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 8th October 2014, last changed 8th October 2014.

## 105.76 QuickList.NotColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.NotColumn"; List1; List2; Separator; Column { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical NOT operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as QuickList.Not, but slower.

### See also

- 105.22 List.Not 5522
- 105.51 QuickList.AndColumn 5570
- 105.63 QuickList.Free 5586
- 105.75 QuickList.Not 5606
- 105.78 QuickList.OrColumn 5612
- 105.101 QuickList.XOrColumn 5644

### 105.76.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.

## 105.77 QuickList.Or

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Or"; List1; List2 { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical OR operation.

### Examples

Creates two lists and combines them:

```
$list1 = MBS( "QuickList.New"; "Hello$World")
```

```
$list2 = MBS( "QuickList.New"; "a$b")
```

```
$list3 = MBS( "QuickList.Or"; $list1; $list2; 1 )
```

```
$list = MBS( "QuickList.GetList"; $list3)
```

```
$r = MBS("QuickList.Free"; $list1)
```

```
$r = MBS("QuickList.Free"; $list2)
```

```
$r = MBS("QuickList.Free"; $list3)
```

### See also

- 105.24 List.Or 5525
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606

<i>105.77. QUICKLIST.OR</i>	5611
• 105.78 QuickList.OrColumn	5612
• 105.79 QuickList.Pop	5614
• 105.94 QuickList.Sort	5633
• 105.98 QuickList.Trim	5641
• 105.100 QuickList.XOr	5643

### **105.77.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 8th October 2014, last changed 8th October 2014.

## 105.78 QuickList.OrColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.OrColumn"; List1; List2; Separator; Column { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs a logical OR operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as QuickList.Or, but slower.

### See also

- 105.24 List.Or 5525
- 105.51 QuickList.AndColumn 5570
- 105.63 QuickList.Free 5586
- 105.76 QuickList.NotColumn 5608
- 105.77 QuickList.Or 5610
- 105.101 QuickList.XOrColumn 5644



### 105.78.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.

## 105.79 QuickList.Pop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Pop"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns value or error.

### Description

### Examples

Push and pop:

```
Set Variable [ $list; Value:MBS( "QuickList.New" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "Hello" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "World" ) ]
Show Custom Dialog [ "List"; MBS( "QuickList.Pop"; $list ) ]
Show Custom Dialog [ "List"; MBS( "QuickList.Pop"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
```

### See also

- 105.50 QuickList.And 5568
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606
- 105.77 QuickList.Or 5610
- 105.80 QuickList.PopFirst 5615
- 105.81 QuickList.Push 5616
- 105.94 QuickList.Sort 5633
- 105.100 QuickList.XOr 5643

Created 2nd August 2015, last changed 2nd August 2015.

## 105.80 QuickList.PopFirst

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.PopFirst"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns value or error.

### Description

Please note that QuickList.Pop is more efficient than QuickList.PopFirst.

### Examples

Push and pop first:

```
Set Variable [ $list; Value:MBS( "QuickList.New" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "Hello" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "World" ) ]
Show Custom Dialog [ "List"; MBS( "QuickList.PopFirst"; $list ) ]
Show Custom Dialog [ "List"; MBS( "QuickList.PopFirst"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
```

### See also

- 105.43 QuickList.AddList 5555
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.79 QuickList.Pop 5614
- 105.81 QuickList.Push 5616
- 105.92 QuickList.SetList 5630
- 105.97 QuickList.SubList 5639

Created 2nd August 2015, last changed 2nd August 2015.

## 105.81 QuickList.Push

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Push"; ListRef; Text )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

The text to add.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Trying push:

```
Set Variable [ $list; Value:MBS( "QuickList.New" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "Hello" ) ]
Set Variable [ $r; Value:MBS( "QuickList.Push"; $list; "World" ) ]
Show Custom Dialog [ "List"; MBS( "QuickList.GetList"; $list ) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $list ) ]
```

### See also

- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604
- 105.79 QuickList.Pop 5614
- 105.80 QuickList.PopFirst 5615
- 105.94 QuickList.Sort 5633
- 105.98 QuickList.Trim 5641

Created 2nd August 2015, last changed 2nd August 2015.

## 105.82 QuickList.RegExMatch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "QuickList.RegExMatch"; ListRef; Pattern; CompilerOptions; ExecuteOptions { ; ReturnNewList }
)
```

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Pattern

The pattern to use.

"H(.\*)"

#### CompilerOptions

A number for the options to use. e.g. 1 for case insensitive or 512 for ungreedy.

512+1

#### ExecuteOptions

The options for executing.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list or error.

### Description

This compiles the pattern, executes it and looks if we have a match or not for each list item.

Returns the list items which match.

### See also

- 105.52 QuickList.BestMatch 5572
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604

### 105.82.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr9](#)

Created 2nd November 2014, last changed 8th November 2014.

## 105.83 QuickList.Remove

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Remove"; ListRef; Index )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Index

The index of the item to remove. Range from 0 to QuickList.Count-1.

0

**Result** Returns OK or error.

### Description

#### See also

- 105.55 QuickList.Clone 5575
- 105.56 QuickList.Count 5576
- 105.74 QuickList.New 5604
- 105.86 QuickList.RemovePostfix 5621
- 105.87 QuickList.RemovePrefix 5623
- 105.89 QuickList.Reserve 5626
- 105.90 QuickList.Reverse 5627

### 105.83.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 12nd December 2014.

**105.84 QuickList.RemoveDuplicateItems**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.RemoveDuplicateItems"; ListRef )

**Parameters****ListRef**

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns OK or error.

**Description**

Similar to UniqueValues function in FileMaker to find unique values.

**See also**

- 105.28 List.RemoveDuplicateItems 5531
- 105.66 QuickList.HasDuplicateItems 5592
- 105.74 QuickList.New 5604
- 105.85 QuickList.RemoveEmptyItems 5620

Created 21st September 2014, last changed 6th February 2018.

## 105.85 QuickList.RemoveEmptyItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.RemoveEmptyItems"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns OK or error.

### Description

#### See also

- 105.29 List.RemoveEmptyItems 5533
- 105.74 QuickList.New 5604
- 105.84 QuickList.RemoveDuplicateItems 5619

Created 21st September 2014, last changed 21st September 2014.



## 105.86 QuickList.RemovePostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.RemovePostfix"; ListRef; Postfix { ; ReturnNewList; CaseSensitive } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Postfix

The text to remove.

"llo"

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

#### CaseSensitive

Optional

Whether to match with case sensitive comparison. Default is 0 for case insensitive. You can pass 1 to have a case sensitive comparison.

0

**Result** Returns list or error.

### Description

#### Examples

Try in one let statement:

```
Let( [
list = MBS("QuickList.New"; ">Hello<$>World<");
e = MBS("QuickList.RemovePrefix"; list; ">");
e = MBS("QuickList.RemovePostfix"; list; "<");
r = MBS("QuickList.GetList"; list);
d = MBS("QuickList.Free"; list)
]; r)
```

### See also

- 105.27 List.Remove 5530
- 105.30 List.RemovePostfix 5534
- 105.31 List.RemovePrefix 5536

- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.71 QuickList.MatchesPostfix 5598
- 105.74 QuickList.New 5604
- 105.83 QuickList.Remove 5618
- 105.87 QuickList.RemovePrefix 5623

### 105.86.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 105.87 QuickList.RemovePrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.RemovePrefix"; ListRef; Prefix { ; ReturnNewList; CaseSensitive } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Prefix

The text to remove.

"H"

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to modify the list in the List1 parameter.

0

#### CaseSensitive

Optional

Whether to match with case sensitive comparison. Default is 0 for case insensitive. You can pass 1 to have a case sensitive comparison.

0

**Result** Returns list or error.

### Description

### Examples

Try in one let statement:

```
Let( [
list = MBS("QuickList.New"; ">Hello<$>World<");
e = MBS("QuickList.RemovePrefix"; list; ">");
e = MBS("QuickList.RemovePostfix"; list; "<");
r = MBS("QuickList.GetList"; list);
d = MBS("QuickList.Free"; list)
]; r)
```

### See also

- 105.27 List.Remove 5530
- 105.30 List.RemovePostfix 5534
- 105.31 List.RemovePrefix 5536

- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.72 QuickList.MatchesPrefix 5600
- 105.74 QuickList.New 5604
- 105.83 QuickList.Remove 5618
- 105.86 QuickList.RemovePostfix 5621
- 105.88 QuickList.RemoveValue 5625

### 105.87.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 105.88 QuickList.RemoveValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.RemoveValue"; ListRef; Value { ; All } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Value

The value to remove.

"Hello"

#### All

Optional

Optional, pass 1 to remove all values with the given value. Pass 0 (default) to remove only the first matching value.

0

**Result** Returns OK or error.

### Description

#### See also

- 105.65 QuickList.GetValue 5590
- 105.69 QuickList.InsertValue 5596
- 105.74 QuickList.New 5604
- 105.87 QuickList.RemovePrefix 5623
- 105.93 QuickList.SetValue 5631

### 105.88.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr3](#)
- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 12nd November 2014, last changed 12nd December 2014.

## 105.89 QuickList.Reserve

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Reserve"; ListRef; Size )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Size

The new size in entries. So passing 100 will make sure we have space for 100 list entries at least. If more are added, the list grows automatically.

100

**Result** Returns OK or error.

### Description

To ensure upfront that enough memory is available.

This will not change the count, just preallocate memory.

#### See also

- 105.74 QuickList.New 5604
- 105.83 QuickList.Remove 5618
- 105.90 QuickList.Reverse 5627

### 105.89.1 Blog Entries

- [Quicklist - Fast lists for FileMaker](#)

### 105.89.2 FileMaker Magazin

- Ausgabe 1/2015, Seite 19

Created 21st September 2014, last changed 18th December 2015.

## 105.90 QuickList.Reverse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Reverse"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns OK or error.

### Description

#### See also

- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.83 QuickList.Remove 5618
- 105.89 QuickList.Reserve 5626
- 105.92 QuickList.SetList 5630

### 105.90.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr5](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 29th September 2014, last changed 29th September 2014.

## 105.91 QuickList.Serialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Serialize"; ListRef )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

**Result** Returns text or error.

### Description

The dictionary content is stored in a base64 encoded string which the plugin function List.Deserialize and QuickList.Deserialize can read.

Using this function allows to store a list in a text field or transmit it with Socket functions, SerialPort functions or by writing it to a file.

### Examples

Create and save a list to restore it:

```
Set Variable [ $list; Value:MBS( "QuickList.New"; "Hello$World$1234$Just a test!" ) ]
Set Variable [ $text; Value:MBS("Quicklist.Serialize"; $list) ]
Set Variable [ $secondList; Value:MBS("Quicklist.Deserialize"; $text) ]
Show Custom Dialog [ "List"; "Encoded: " & $text & $& $& "Decoded: " & MBS("QuickList.GetList";
$secondList) ]
Set Variable [ $r; Value:MBS("Quicklist.Free"; $list) ]
Set Variable [ $r; Value:MBS("Quicklist.Free"; $secondList) ]
```

### See also

- 105.12 List.Deserialize 5510
- 105.34 List.Serialize 5541
- 105.60 QuickList.Deserialize 5583
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.65 QuickList.GetValue 5590
- 105.74 QuickList.New 5604
- 105.93 QuickList.SetValue 5631



### 105.91.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 6th July 2015, last changed 1st August 2015.

## 105.92 QuickList.SetList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.SetList"; ListRef; Text { ; Separator } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Text

New content for the list.

"Hello\$World\$Test"

#### Separator

Optional

The separator to use. Can be ASCII character number (e.g. 9 for tab) or a text where we use first character as separator.

" | "

**Result** Returns OK or error.

### Description

#### See also

- 105.43 QuickList.AddList 5555
- 105.64 QuickList.GetList 5588
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604
- 105.80 QuickList.PopFirst 5615
- 105.90 QuickList.Reverse 5627
- 105.93 QuickList.SetValue 5631
- 105.95 QuickList.SortWith 5635
- 105.97 QuickList.SubList 5639

### 105.92.1 Blog Entries

- [Quicklist - Fast lists for FileMaker](#)

Created 21st September 2014, last changed 23th September 2014.

## 105.93 QuickList.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.SetValue"; ListRef; Index; Text )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Index

The index of the value to get. Must be in range from 0 to QuickList.Count-1.

\$index

#### Text

The text to add.

"Hello"

**Result** Returns OK or error.

### Description

If index is equal to count, we append the text to the list.

### Examples

Tries set value:

```
Variable setzen [ $list; Wert:MBS( "QuickList.New"; "Hello$World$Test" ) ]
Variable setzen [ $r; Wert:MBS( "QuickList.SetValue"; $list; 0; "Element 0" ) ]
Eigenes Dialogfeld anzeigen [ "List contains"; MBS( "QuickList.GetList"; $list ) ]
Variable setzen [ $r; Wert:MBS( "QuickList.Free"; $list ) ]
```

### See also

- 105.35 List.SetValue 5542
- 105.49 QuickList.AddValue 5566
- 105.56 QuickList.Count 5576
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.65 QuickList.GetValue 5590
- 105.67 QuickList.HasValue 5593
- 105.69 QuickList.InsertValue 5596

5632

*CHAPTER 105. LIST*

- 105.74 QuickList.New 5604
- 105.88 QuickList.RemoveValue 5625

Created 21st September 2014, last changed 19th March 2016.

## 105.94 QuickList.Sort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Sort"; ListRef { ; Flags } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Flags

Optional

Optional, whether to sort case insensitive or descending. Pass 1 to sort case insensitive or 0 to sort case sensitive. Add 2 to sort descending. Add 4 for sorting dates in DD.MM.YYYY style and 8 for sorting dates in MM.DD.YYYY style.

1

**Result** Returns OK or error.

### Description

Version 6.2 adds new modes for date sorting. Mode 4 for DD.MM.YYYY style and mode 8 for MM.DD.YYYY style.

### Examples

Sort a list:

```
Let
( [
l = MBS("QuickList.New"; "aßeä$1");
r = MBS("QuickList.Sort"; l);
list = MBS("QuickList.GetList"; l);
r = MBS("QuickList.Free"; l)
]; list )
```

Sort a list ascending case sensitive:

```
Let
( [
l = MBS("QuickList.New"; "Aßeä$1");
r = MBS("QuickList.Sort"; l);
list = MBS("QuickList.GetList"; l);
r = MBS("QuickList.Free"; l)
]; list )
```

Sort a list descending case insensitive:

```
Let  
( [  
l = MBS("QuickList.New"; "A$e$ä$Ä$9$1");  
r = MBS("QuickList.Sort"; l; 3);  
list = MBS("QuickList.GetList"; l);  
r = MBS("QuickList.Free"; l)  
]; list )
```

**See also**

- 105.36 List.Sort 5543
- 105.56 QuickList.Count 5576
- 105.59 QuickList.DeCombine 5581
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606
- 105.77 QuickList.Or 5610
- 105.79 QuickList.Pop 5614
- 105.95 QuickList.SortWith 5635
- 105.100 QuickList.XOr 5643

**105.94.1 Blog Entries**

- [Sort with evaluate in FileMaker](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)
- [New functions for MBS FileMaker Plugin coming soon](#)
- [MBS Filemaker Plugin, version 4.4pr3](#)

Created 21st September 2014, last changed 16th March 2016.

## 105.95 QuickList.SortWith

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.SortWith"; ListRef; Flags; List1 { ; List2 } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Flags

Optional, whether to sort case insensitive or descending. Pass 1 to sort case insensitive or 0 to sort case sensitive. Add 2 to sort descending. Add 4 for sorting dates in DD.MM.YYYY style and 8 for sorting dates in MM.DD.YYYY style.

1

#### List1

The first list to sort with.

\$list1

#### List2

Optional

The second list to sort with.

\$list2

**Result** Returns OK or error.

### Description

We sort the first list and move all items in other lists as well to match the order.

You can pass as many lists in the parameters as needed, not just 2.

### Examples

Test sorting with four lists:

```
# build some lists
Set Variable [ $keys; Value:MBS( "QuickList.New"; "234$123$545$152" ) ]
Set Variable [ $firstnames; Value:MBS( "QuickList.New"; "Bob$John$Bill$Chris" ) ]
Set Variable [ $lastnames; Value:MBS( "QuickList.New"; "Miller$Jones$Becks$Meyer" ) ]
Set Variable [ $cities; Value:MBS( "QuickList.New"; "New York$Santa Clara$San Francisco$Atlanta" ) ]
# show before
Set Variable [ $r1; Value:MBS( "List.CrossProduct"; MBS("QuickList.GetList"; $keys); MBS("QuickList.GetList"; $firstnames); ""; " "; ""; 2) ]
Set Variable [ $r2; Value:MBS( "List.CrossProduct"; MBS("QuickList.GetList"; $lastnames); MBS("QuickList.GetList"; $cities); ""; " "; ""; 2) ]
Set Variable [ $r3; Value:MBS( "List.CrossProduct"; $r1; $r2; ""; " "; ""; 2) ]
# sort
Set Variable [ $r; Value:MBS( "QuickList.SortWith"; $keys; 0; $firstnames; $lastnames; $cities) ]
```

```

# show result:
Set Variable [ $r1; Value:MBS( "List.CrossProduct"; MBS("QuickList.GetList"; $keys); MBS("QuickList.GetList";
$firstnames); ""; ", "; ""; 2) ]
Set Variable [ $r2; Value:MBS( "List.CrossProduct"; MBS("QuickList.GetList"; $lastnames); MBS("Quick-
List.GetList"; $cities); ""; ", "; ""; 2) ]
Set Variable [ $r4; Value:MBS( "List.CrossProduct"; $r1; $r2; ""; ", "; ""; 2) ]
Show Custom Dialog [ "Sort results"; "Before: " & $r3 & $r4 & "Sorted: " & $r4 ]
# cleanup memory
Set Variable [ $r; Value:MBS( "QuickList.Free"; $keys) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $cities) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $firstnames) ]
Set Variable [ $r; Value:MBS( "QuickList.Free"; $lastnames) ]

```

Sort a list column:

```

Set Variable [ $List ; Value: "65412 | Schreiber | Klaus | 459oz8235" & $r3 & "76542 | Abraham | Hermmann |
38957zf" & $r4 & "85112 | Behrens | Robert | 489748hj" ]
Set Variable [ $QuickList1 ; Value: MBS( "QuickList.New"; $List ) ]
#
Set Variable [ $QuickList2 ; Value: MBS( "QuickList.DeCombine"; $QuickList1; " | "; 1 /* StartColumn*/;
1 /* EndColumn */; 1 /* New List*/ ) ]
Set Variable [ $List2 ; Value: MBS( "QuickList.GetList"; $QuickList2) ]
Set Variable [ $r ; Value: MBS( "QuickList.SortWith"; $QuickList2; 1; $QuickList1 ) ]
Set Variable [ $List1 ; Value: MBS( "QuickList.GetList"; $QuickList1) ]
#
Set Variable [ $r ; Value: MBS( "QuickList.Free"; $QuickList1 ) ]
Set Variable [ $r ; Value: MBS( "QuickList.Free"; $QuickList2 ) ]

```

### See also

- 105.10 List.CrossProduct 5506
- 105.11 List.DeCombine 5508
- 105.36 List.Sort 5543
- 105.59 QuickList.DeCombine 5581
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.74 QuickList.New 5604
- 105.92 QuickList.SetList 5630
- 105.94 QuickList.Sort 5633



### 105.95.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 25th March 2016, last changed 21st December 2018.

## 105.96 QuickList.SortWithEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.SortWithEvaluate"; ListRef; Expression )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Expression

The expression to evaluate. Can include "leftValue" and "rightValue" as variables.

"leftValue >rightValue"

**Result** Returns OK or error.

### Description

The expression is run every time two values are compared, so keep it quick. It should return 1 if leftValue is smaller than rightValue.

Our normal QuickList.Sort is faster due to not having the overhead of evaluating expressions.

### See also

- [105.36 List.Sort](#) 5543
- [105.37 List.SortWithEvaluate](#) 5546
- [105.74 QuickList.New](#) 5604
- [105.94 QuickList.Sort](#) 5633

### 105.96.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Sort with evaluate in FileMaker](#)

Created 9th April 2020, last changed 9th April 2020.

## 105.97 QuickList.SubList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.SubList"; ListRef; Index; Count { ; ReturnNewList; NoReturnEnding } )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Index

The zero based index where to start. Or in other words: How many entries to skip.

3

#### Count

How many entries to copy. If negative, we pick the other items left.

5

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.

Pass 0 (Default) to return a text list.

0

#### NoReturnEnding

Optional

If you passed 0 for ReturnNewList, decides about new list: Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns OK or error.

### Description

Can return new QuickList or normal list.

#### See also

- 105.43 QuickList.AddList 5555
- 105.63 QuickList.Free 5586
- 105.64 QuickList.GetList 5588
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604
- 105.80 QuickList.PopFirst 5615
- 105.92 QuickList.SetList 5630

**105.97.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr1](#)

Created 27th September 2017, last changed 30th September 2017.

**105.98 QuickList.Trim**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.Trim"; ListRef )

**Parameters****ListRef**

The reference to the list returned from QuickList.New function.  
\$List

**Result** Returns OK or error.

**Description****See also**

- 105.63 QuickList.Free 5586
- 105.70 QuickList.List 5597
- 105.74 QuickList.New 5604
- 105.77 QuickList.Or 5610
- 105.81 QuickList.Push 5616
- 105.94 QuickList.Sort 5633

Created 21st October 2017, last changed 26th October 2017.

## 105.99 QuickList.ValueIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.ValueIndex"; ListRef; Value )

### Parameters

#### ListRef

The reference to the list returned from QuickList.New function.

\$List

#### Value

The text to find.

"Hello"

**Result** Returns index, nothing or error.

### Description

Returns zero based index (0 = first list value).

Returns empty result if not found.

Comparison is case insensitive.

### See also

- 105.74 QuickList.New

5604

### 105.99.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr7](#)

Created 20th November 2015, last changed 20th November 2015.

## 105.100 QuickList.XOr

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.XOr"; List1; List2 { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function.  
Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs an exclusive logical OR operation.

#### See also

- 105.50 QuickList.And 5568
- 105.63 QuickList.Free 5586
- 105.74 QuickList.New 5604
- 105.75 QuickList.Not 5606
- 105.77 QuickList.Or 5610
- 105.79 QuickList.Pop 5614
- 105.94 QuickList.Sort 5633
- 105.101 QuickList.XOrColumn 5644

### 105.100.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 8th October 2014, last changed 8th October 2014.

## 105.101 QuickList.XOrColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
105 List	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "QuickList.XOrColumn"; List1; List2; Separator; Column { ; ReturnNewList } )

### Parameters

#### List1

The reference to the first quicklist.

\$List1

#### List2

The reference to the second quicklist.

\$List2

#### Separator

The separator text. Can be multiple characters. For tab separated text, pass Char(9). For CSV separated text, pass ";" or ",".

Char(9)

#### Column

The index of the column to compare. Starts with 0 for first column.

0

#### ReturnNewList

Optional

Pass 1 to return result as new QuickList. This new list must be freed later using QuickList.Free function. Pass 0 (Default) to modify the list in the List1 parameter.

0

**Result** Returns list, OK or error.

### Description

Performs an exclusive logical OR operation.

Checks the given column in both lists too compare.

If Separator is empty, this is same as QuickList.XOr, but slower.

### See also

- 105.41 List.XOr 5552
- 105.51 QuickList.AndColumn 5570
- 105.63 QuickList.Free 5586
- 105.76 QuickList.NotColumn 5608
- 105.78 QuickList.OrColumn 5612
- 105.100 QuickList.XOr 5643



### 105.101.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 23th December 2019, last changed 23th December 2019.



# Chapter 106

## ListDialog

Functions for a dialog to pick items from a list.

### 106.1 ListDialog.AddItemToList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

```
MBS( "ListDialog.AddItemToList"; title { ; tag; Header } )
```

#### Parameters

##### title

The title to show.

"Hello World"

##### tag

Optional

The tag, e.g. the record ID.

"1234"

##### Header

Optional

Pass 1 to make this an header item, which is shown differently.

1

**Result** Returns OK.

#### Description

#### Examples

Clears list and adds three lines:

```
MBS( "ListDialog.ClearList" )  
MBS( "ListDialog.AddItemToList"; "Bob"; 1 )  
MBS( "ListDialog.AddItemToList"; "Joe"; 2 )  
MBS( "ListDialog.AddItemToList"; "Tim"; 3 )
```

**See also**

- 105.17 List.HasValue 5516
- 106.2 ListDialog.AddItemToList 5649
- 106.5 ListDialog.ClearList 5652
- 106.43 ListDialog.ShowDialog 5690

**Example Databases**

- [List/ListDialog](#)

**106.1.1 Blog Entries**

- [New functions of the MBS Plugin Version 9.5](#)

Created 18th August 2014, last changed 21st March 2015.

## 106.2 ListDialog.AddItemstoList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.AddItemstoList"; titles { ; tags } )

### Parameters

#### titles

The titles to add.

"Hello World"

#### tags

Optional

The tags, e.g. the record ID.

"1234"

**Result** Returns number of items.

### Description

You can pass a list of items (separated with new line character)

If tag for an item is # , plugin will mark this entry as header item.

### Examples

Add two items

MBS( "ListDialog.AddItemstoList"; "Hello\$World" )

Add header with two items

MBS( "ListDialog.AddItemstoList"; "Names\$Steve\$Joe\$Geoff"; "# §1§2§3" )

### See also

- 106.1 ListDialog.AddItemtoList 5647
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

Created 18th August 2014, last changed 21st March 2015.

## 106.3 ListDialog.AddSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	5.1	Yes	Yes	No	No	No

MBS( "ListDialog.AddSQL"; SQL Statement; FileName { ; Params } )

### Parameters

#### SQL Statement

SQL Statement as a Text string

#### FileName

The target database name. Can be empty to not limit query to one database.

””

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns number of items added or error.

### Description

First field from SQL result is used as text, second as tag and third as header flag.

Tag and header columns are optional.

### Examples

Add items:

MBS("ListDialog.AddSQL"; "select Text, Tag, Header from Liste")

### 106.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr2](#)

Created 21st March 2015, last changed 12nd August 2016.

## 106.4 ListDialog.ClearColumnHeaders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.2	Yes	Yes	No	No	No

MBS( "ListDialog.ClearColumnHeaders" )

**Result** Returns OK or error.

### Description

If no header text is set, we hide the headers.

### See also

- 106.10 ListDialog.GetColumnHeader 5657
- 106.25 ListDialog.Reset 5672
- 106.30 ListDialog.SetColumnHeader 5677

### 106.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr5](#)

Created 27th April 2019, last changed 27th April 2019.

## 106.5 ListDialog.ClearList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.ClearList" )

**Result** Returns OK.

### Description

Also clears the selection.

### Examples

Clears list and adds three lines:

```
MBS( "ListDialog.ClearList" )
MBS( "ListDialog.AddItemToList"; "Bob"; 1 )
MBS( "ListDialog.AddItemToList"; "Joe"; 2 )
MBS( "ListDialog.AddItemToList"; "Tim"; 3 )
```

### See also

- 105.17 List.HasValue 5516
- 106.1 ListDialog.AddItemToList 5647
- 106.25 ListDialog.Reset 5672
- 106.43 ListDialog.ShowDialog 5690

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

#### 106.5.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)

Created 18th August 2014, last changed 18th August 2014.



## 106.6 ListDialog.ColumnCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.2	Yes	Yes	No	No	No

MBS( "ListDialog.ColumnCount" )

**Result** Returns number or error.

**Description**

**See also**

- 106.29 ListDialog.SetColumnCount

5676

### 106.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr5](#)

Created 27th April 2019, last changed 27th April 2019.

## 106.7 ListDialog.GetAllowEmptySelection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	5.0	Yes	Yes	No	No	No

MBS( "ListDialog.GetAllowEmptySelection" )

**Result** Returns 1 if allowed, 0 if not allowed.

### Description

#### See also

- [106.8 ListDialog.GetAllowMultipleSelection](#) 5655
- [106.26 ListDialog.SetAllowEmptySelection](#) 5673
- [106.27 ListDialog.SetAllowMultipleSelection](#) 5674

### 106.7.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 29th November 2014, last changed 29th November 2014.

## 106.8 ListDialog.GetAllowMultipleSelection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetAllowMultipleSelection" )

**Result** Returns 1 if allowed, 0 if not allowed.

### Description

### See also

- 106.7 ListDialog.GetAllowEmptySelection 5654
- 106.26 ListDialog.SetAllowEmptySelection 5673
- 106.27 ListDialog.SetAllowMultipleSelection 5674

Created 18th August 2014, last changed 18th August 2014.

## 106.9 ListDialog.GetCancelButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetCancelButtonLabel" )

**Result** Returns text.

### Description

### See also

- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.17 ListDialog.GetSelectButtonLabel 5664
- 106.28 ListDialog.SetCancelButtonLabel 5675
- 106.33 ListDialog.SetOtherButtonLabel 5680
- 106.38 ListDialog.SetSelectButtonLabel 5685

Created 18th August 2014, last changed 18th August 2014.

## 106.10 ListDialog.GetColumnHeader

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetColumnHeader"; Index )

### Parameters

#### Index

The index of the column starting with zero for the first one.

0

**Result** Returns text or error.

### Description

#### See also

- [106.4 ListDialog.ClearColumnHeaders](#) 5651
- [106.29 ListDialog.SetColumnCount](#) 5676
- [106.30 ListDialog.SetColumnHeader](#) 5677

### 106.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr5](#)

Created 27th April 2019, last changed 27th April 2019.

## 106.11 ListDialog.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.3	Yes	Yes	No	No	No

MBS( "ListDialog.GetHeight" )

**Result** Returns height value.

### Description

See also ListDialog.SetWidth, ListDialog.GetWidth and ListDialog.SetHeight.

### See also

- 106.16 ListDialog.GetPrompt 5663
- 106.20 ListDialog.GetWidth 5667
- 106.31 ListDialog.SetHeight 5678
- 106.41 ListDialog.SetWidth 5688

Created 18th August 2014, last changed 18th August 2014.

## 106.12 ListDialog.GetOtherButtonEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.5	Yes	Yes	No	No	No

MBS( "ListDialog.GetOtherButtonEvaluate" )

**Result** Returns OK or error.

### Description

#### See also

- [106.13 ListDialog.GetOtherButtonLabel](#) 5660
- [106.32 ListDialog.SetOtherButtonEvaluate](#) 5679
- [106.33 ListDialog.SetOtherButtonLabel](#) 5680

### 106.12.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 11st October 2019, last changed 11st October 2019.

## 106.13 ListDialog.GetOtherButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.5	Yes	Yes	No	No	No

MBS( "ListDialog.GetOtherButtonLabel" )

**Result** Returns text.

### Description

#### See also

- [106.9 ListDialog.GetCancelButtonLabel](#) 5656
- [106.12 ListDialog.GetOtherButtonEvaluate](#) 5659
- [106.17 ListDialog.GetSelectButtonLabel](#) 5664
- [106.28 ListDialog.SetCancelButtonLabel](#) 5675
- [106.32 ListDialog.SetOtherButtonEvaluate](#) 5679
- [106.33 ListDialog.SetOtherButtonLabel](#) 5680
- [106.38 ListDialog.SetSelectButtonLabel](#) 5685

### 106.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 11st October 2019, last changed 11st October 2019.



## 106.14 ListDialog.GetPositionX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	6.5	Yes	Yes	No	No	No

MBS( "ListDialog.GetPositionX" )

**Result** Returns number or error.

### Description

After dialog is shown, you can ask here for current position.

### See also

- 106.15 ListDialog.GetPositionY 5662
- 106.34 ListDialog.SetPosition 5681
- 106.35 ListDialog.SetPositionX 5682
- 106.36 ListDialog.SetPositionY 5683

### 106.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

## 106.15 ListDialog.GetPositionY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	6.5	Yes	Yes	No	No	No

MBS( "ListDialog.GetPositionY" )

**Result** Returns number or error.

### Description

After dialog is shown, you can ask here for current position.

### See also

- [106.14 ListDialog.GetPositionX](#) 5661
- [106.34 ListDialog.SetPosition](#) 5681
- [106.35 ListDialog.SetPositionX](#) 5682
- [106.36 ListDialog.SetPositionY](#) 5683

### 106.15.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

## 106.16 ListDialog.GetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetPrompt" )

**Result** Returns text.

### Description

### See also

- 78.21 FileDialog.GetPrompt 3785
- 78.40 FileDialog.SetPrompt 3815
- 106.11 ListDialog.GetHeight 5658
- 106.37 ListDialog.SetPrompt 5684

Created 18th August 2014, last changed 7th November 2016.

## 106.17 ListDialog.GetSelectButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetSelectButtonLabel" )

**Result** Returns text.

### Description

### See also

- 106.9 ListDialog.GetCancelButtonLabel 5656
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.28 ListDialog.SetCancelButtonLabel 5675
- 106.33 ListDialog.SetOtherButtonLabel 5680
- 106.38 ListDialog.SetSelectButtonLabel 5685

Created 18th August 2014, last changed 11st October 2019.

## 106.18 ListDialog.GetSelectedTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetSelectedTag" )

**Result** Returns text.

### Description

The tag allows you to store anything with the list like a record ID.

Text is empty if nothing is selected.

This can be a list if used with multiple selection.

### See also

- 105.17 List.HasValue 5516
- 106.19 ListDialog.GetSelectedTitle 5666
- 106.39 ListDialog.SetSelectedTag 5686
- 106.40 ListDialog.SetSelectedTitle 5687
- 106.43 ListDialog.ShowDialog 5690
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

Created 18th August 2014, last changed 18th August 2014.

## 106.19 ListDialog.GetSelectedTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetSelectedTitle" )

**Result** Returns text.

### Description

Text is empty if nothing is selected.  
This can be a list if used with multiple selection.

### See also

- 106.18 ListDialog.GetSelectedTag 5665
- 106.39 ListDialog.SetSelectedTag 5686
- 106.40 ListDialog.SetSelectedTitle 5687
- 106.43 ListDialog.ShowDialog 5690

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

Created 18th August 2014, last changed 18th August 2014.

## 106.20 ListDialog.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.3	Yes	Yes	No	No	No

MBS( "ListDialog.GetWidth" )

**Result** Returns width.

### Description

See also ListDialog.SetWidth, ListDialog.SetHeight and ListDialog.GetHeight.

### See also

- 106.11 ListDialog.GetHeight 5658
- 106.31 ListDialog.SetHeight 5678
- 106.41 ListDialog.SetWidth 5688

Created 18th August 2014, last changed 18th August 2014.

## 106.21 ListDialog.GetWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.GetWindowTitle" )

**Result** Returns text.

### Description

### See also

- 64.26 Dialog.GetWindowTitle 2407
- 64.48 Dialog.SetWindowTitle 2433
- 78.26 FileDialog.GetWindowTitle 3790
- 78.46 FileDialog.SetWindowTitle 3822
- 106.42 ListDialog.SetWindowTitle 5689

Created 18th August 2014, last changed 18th August 2014.



## 106.22 ListDialog.ListCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.ListCount" )

**Result** Returns number or error.

### Description

### See also

- 106.23 ListDialog.ListItem 5670
- 106.24 ListDialog.ListTag 5671

Created 18th August 2014, last changed 18th August 2014.

## 106.23 ListDialog.ListItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.ListItem"; Index )

### Parameters

#### Index

The index from 0 to ListDialog.ListCount-1.

\$index

**Result** Returns text.

### Description

#### See also

- 106.22 ListDialog.ListCount 5669
- 106.24 ListDialog.ListTag 5671

Created 18th August 2014, last changed 18th August 2014.

**106.24 ListDialog.ListTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.ListTag"; Index )

**Parameters****Index**

The index from 0 to ListDialog.ListCount-1.

\$index

**Result** Returns text.

**Description**

The tag allows you to store anything with the list like a record ID.

**See also**

- 106.22 ListDialog.ListCount 5669
- 106.23 ListDialog.ListItem 5670

Created 18th August 2014, last changed 18th August 2014.

## 106.25 ListDialog.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	10.0	Yes	Yes	No	No	No

MBS( "ListDialog.Reset" )

**Result** Returns OK or error.

### Description

Includes ListDialog.ClearList and ListDialog.ClearColumnHeaders.

### See also

- 78.28 FileDialog.Reset 3794
- 106.4 ListDialog.ClearColumnHeaders 5651
- 106.5 ListDialog.ClearList 5652
- 106.44 ListDialog.Sort 5692
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

### 106.25.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 20th November 2019, last changed 20th November 2019.

## 106.26 ListDialog.SetAllowEmptySelection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	5.0	Yes	Yes	No	No	No

MBS( "ListDialog.SetAllowEmptySelection"; value )

### Parameters

#### value

Whether to allow empty selections. Pass 1 to allow and 0 to disallow.

1

**Result** Returns OK or error.

### Description

### Examples

Enable empty selection:

```
MBS( "ListDialog.SetAllowEmptySelection"; 1 )
```

Disable empty selection:

```
MBS( "ListDialog.SetAllowEmptySelection"; 0 )
```

### See also

- [106.7 ListDialog.GetAllowEmptySelection](#) 5654
- [106.8 ListDialog.GetAllowMultipleSelection](#) 5655
- [106.27 ListDialog.SetAllowMultipleSelection](#) 5674

### 106.26.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 29th November 2014, last changed 1st December 2014.

## 106.27 ListDialog.SetAllowMultipleSelection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetAllowMultipleSelection"; value )

### Parameters

#### value

Whether to allow multiple selections. Pass 1 to allow and 0 to disallow.

1

**Result** Returns OK.

### Description

#### Examples

Enable multiple selection:

```
MBS( "ListDialog.SetAllowMultipleSelection"; 1 )
```

Disable multiple selection:

```
MBS( "ListDialog.SetAllowMultipleSelection"; 0 )
```

### See also

- 105.17 List.HasValue 5516
- 106.7 ListDialog.GetAllowEmptySelection 5654
- 106.8 ListDialog.GetAllowMultipleSelection 5655
- 106.26 ListDialog.SetAllowEmptySelection 5673
- 106.43 ListDialog.ShowDialog 5690

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

#### 106.27.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)

Created 18th August 2014, last changed 18th August 2014.

**106.28 ListDialog.SetCancelButtonLabel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetCancelButtonLabel"; text )

**Parameters****text**

The new text.

"Cancel"

**Result** Returns OK.

**Description****Examples**

Sets label:

MBS( "ListDialog.SetCancelButtonLabel"; "Abbrechen" )

**See also**

- 106.9 ListDialog.GetCancelButtonLabel 5656
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.17 ListDialog.GetSelectButtonLabel 5664
- 106.33 ListDialog.SetOtherButtonLabel 5680
- 106.38 ListDialog.SetSelectButtonLabel 5685

Created 18th August 2014, last changed 18th August 2014.

## 106.29 ListDialog.SetColumnCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetColumnCount"; Value )

### Parameters

#### Value

The new column count.

2

**Result** Returns OK or error.

### Description

Currently we support up to 5 columns.

Default is 1 column unless you change it.

### Examples

Set column headers:

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnCount"; 2) ]
```

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnHeader"; 0; "Column left") ]
```

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnHeader"; 1; "Column right") ]
```

### See also

- [106.6 ListDialog.ColumnCount](#) 5653
- [106.10 ListDialog.GetColumnHeader](#) 5657
- [106.30 ListDialog.SetColumnHeader](#) 5677

### 106.29.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr5](#)
- [List Dialogs with headers](#)
- [List Dialogs with multiple columns](#)

Created 27th April 2019, last changed 28th April 2019.



## 106.30 ListDialog.SetColumnHeader

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetColumnHeader"; Index; Text )

### Parameters

#### Index

The index of the column starting with zero for the first one.

0

#### Text

The text for the column header.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Set column headers:

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnCount"; 2) ]
```

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnHeader"; 0; "Column left") ]
```

```
Variable setzen [ $r ; Wert: MBS("ListDialog.SetColumnHeader"; 1; "Column right") ]
```

### See also

- 106.4 ListDialog.ClearColumnHeaders 5651
- 106.10 ListDialog.GetColumnHeader 5657
- 106.29 ListDialog.SetColumnCount 5676

### 106.30.1 Blog Entries

- [List Dialogs with headers](#)

Created 27th April 2019, last changed 28th April 2019.

## 106.31 ListDialog.SetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.3	Yes	Yes	No	No	No

MBS( "ListDialog.SetHeight" )

**Result** Returns OK.

### Description

See also ListDialog.SetWidth, ListDialog.GetWidth and ListDialog.GetHeight.

### Examples

Set size to 800x600:

```
MBS( "ListDialog.SetWidth"; 800 )
```

```
MBS( "ListDialog.SetHeight"; 600 )
```

### See also

- 106.11 ListDialog.GetHeight 5658
- 106.20 ListDialog.GetWidth 5667
- 106.37 ListDialog.SetPrompt 5684
- 106.41 ListDialog.SetWidth 5688

Created 18th August 2014, last changed 18th August 2014.

## 106.32 ListDialog.SetOtherButtonEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.5	Yes	Yes	No	No	No

MBS( "ListDialog.SetOtherButtonEvaluate" )

**Result** Returns OK or error.

### Description

If set, we run this expression instead of closing the dialog.

This can be useful to start action while dialog stays open. Please note you can't run a script while dialog is open.

Other button is only visible if the label is set.

### Examples

Add a button and let it run showurl to open website:

```
Set Variable [ $r ; Value: MBS("ListDialog.SetOtherButtonLabel"; "Help") ]
```

```
Set Variable [ $r ; Value: MBS("ListDialog.SetOtherButtonEvaluate"; "MBS( \"ShowURL\"; \"https://mbs-plugins.eu\" )" ) ]
```

### See also

- [64.40 Dialog.SetOtherButton](#) 2423
- [106.12 ListDialog.GetOtherButtonEvaluate](#) 5659
- [106.13 ListDialog.GetOtherButtonLabel](#) 5660
- [106.33 ListDialog.SetOtherButtonLabel](#) 5680

### 106.32.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)
- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 11st October 2019, last changed 11st October 2019.

## 106.33 ListDialog.SetOtherButtonLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	9.5	Yes	Yes	No	No	No

MBS( "ListDialog.SetOtherButtonLabel"; text )

### Parameters

#### text

The new text.

"Help"

**Result** Returns OK or error.

### Description

Other button is only visible if the label is set.

If expression to evaluate is set, the evaluate happens when button is clicked. If no expression is set, the result for running the dialog and clicking this button is "Other".

### Examples

Add a button and let it run showurl to open website:

```
Set Variable [ $r ; Value: MBS("ListDialog.SetOtherButtonLabel"; "Help") ]
```

```
Set Variable [ $r ; Value: MBS("ListDialog.SetOtherButtonEvaluate"; "MBS( \"ShowURL\"; \"https://mb-plugins.eu\" )" ) ]
```

### See also

- 64.40 Dialog.SetOtherButton 2423
- 106.9 ListDialog.GetCancelButtonLabel 5656
- 106.12 ListDialog.GetOtherButtonEvaluate 5659
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.17 ListDialog.GetSelectButtonLabel 5664
- 106.28 ListDialog.SetCancelButtonLabel 5675
- 106.32 ListDialog.SetOtherButtonEvaluate 5679
- 106.38 ListDialog.SetSelectButtonLabel 5685

### 106.33.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)
- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 11st October 2019, last changed 11st October 2019.

## 106.34 ListDialog.SetPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	6.5	Yes	Yes	No	No	No

MBS( "ListDialog.SetPosition"; X; Y )

### Parameters

#### X

The x position.

#### Y

The y position.

**Result** Returns OK or error.

### Description

### Examples

Set position:

```
Set Variable [ $r; Value:MBS("ListDialog.SetPosition"; 200; 200) ]
```

### See also

- 106.14 ListDialog.GetPositionX 5661
- 106.15 ListDialog.GetPositionY 5662
- 106.35 ListDialog.SetPositionX 5682
- 106.36 ListDialog.SetPositionY 5683

### 106.34.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

## 106.35 ListDialog.SetPositionX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	6.5	Yes	Yes	No	No	No

MBS( "ListDialog.SetPositionX"; X )

### Parameters

#### X

The x position.

**Result** Returns OK or error.

### Description

#### See also

- [106.14 ListDialog.GetPositionX](#) 5661
- [106.15 ListDialog.GetPositionY](#) 5662
- [106.34 ListDialog.SetPosition](#) 5681
- [106.36 ListDialog.SetPositionY](#) 5683

### 106.35.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

**106.36 ListDialog.SetPositionY**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	6.5	Yes	Yes	No	No	No

MBS( "ListDialog.SetPositionY"; Y )

**Parameters****Y**

The y position.

**Result** Returns OK or error.

**Description****See also**

- 106.14 ListDialog.GetPositionX 5661
- 106.15 ListDialog.GetPositionY 5662
- 106.34 ListDialog.SetPosition 5681
- 106.35 ListDialog.SetPositionX 5682

**106.36.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr7](#)

Created 15th November 2016, last changed 15th November 2016.

## 106.37 ListDialog.SetPrompt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetPrompt"; text )

### Parameters

#### text

The new text.

"Please select an item:"

**Result** Returns OK.

### Description

This text is shown on the top of the dialog over the listbox.

### Examples

Sets label:

MBS( "ListDialog.SetPrompt"; "Bitte einen Namen wählen:" )

### See also

- [78.21 FileDialog.GetPrompt](#) 3785
- [78.40 FileDialog.SetPrompt](#) 3815
- [105.17 List.HasValue](#) 5516
- [106.16 ListDialog.GetPrompt](#) 5663
- [106.31 ListDialog.SetHeight](#) 5678
- [106.43 ListDialog.ShowDialog](#) 5690
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

### 106.37.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)

Created 18th August 2014, last changed 18th August 2014.



**106.38 ListDialog.SetSelectButtonLabel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetSelectButtonLabel"; text )

**Parameters****text**

The new text.

"Select"

**Result** Returns OK or error.

**Description****Examples**

Sets label:

MBS( "ListDialog.SetSelectButtonLabel"; "Auswählen" )

**See also**

- 106.9 ListDialog.GetCancelButtonLabel 5656
- 106.13 ListDialog.GetOtherButtonLabel 5660
- 106.17 ListDialog.GetSelectButtonLabel 5664
- 106.28 ListDialog.SetCancelButtonLabel 5675
- 106.33 ListDialog.SetOtherButtonLabel 5680

Created 18th August 2014, last changed 11st October 2019.

## 106.39 ListDialog.SetSelectedTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetSelectedTag"; text )

### Parameters

#### text

The text to select.

"1234"

**Result** Returns OK.

### Description

You can preselect one or more items using this function.

This can be a list if used with multiple selection.

### See also

- 106.18 ListDialog.GetSelectedTag 5665
- 106.19 ListDialog.GetSelectedTitle 5666
- 106.40 ListDialog.SetSelectedTitle 5687

Created 18th August 2014, last changed 18th August 2014.

## 106.40 ListDialog.SetSelectedTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetSelectedTitle"; text )

### Parameters

#### text

The text to select.

"Hello World"

**Result** Returns OK.

### Description

You can preselect one or more items using this function.

This can be a list if used with multiple selection.

### Examples

Define to pick an item from the list by default via title:

```
MBS( "ListDialog.SetSelectedTitle"; "Hello World" )
```

### See also

- [105.17 List.HasValue](#) 5516
- [106.18 ListDialog.GetSelectedTag](#) 5665
- [106.19 ListDialog.GetSelectedTitle](#) 5666
- [106.39 ListDialog.SetSelectedTag](#) 5686
- [106.43 ListDialog.ShowDialog](#) 5690

### Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

### 106.40.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 106.41 ListDialog.SetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.3	Yes	Yes	No	No	No

MBS( "ListDialog.SetWidth" )

**Result** Returns OK.

### Description

See also ListDialog.SetHeight, ListDialog.GetWidth and ListDialog.GetHeight.  
Minimum width in 4.3/4.4 is 300 pixel which was lowed to 260 in plugin version 4.5.

### Examples

Set size to 800x600:

```
MBS( "ListDialog.SetWidth"; 800 )
```

```
MBS( "ListDialog.SetHeight"; 600 )
```

### See also

- 106.11 ListDialog.GetHeight 5658
- 106.20 ListDialog.GetWidth 5667
- 106.31 ListDialog.SetHeight 5678

Created 18th August 2014, last changed 29th November 2014.

**106.42 ListDialog.SetWindowTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.SetWindowTitle"; text )

**Parameters****text**

The new text.  
"Your Choice"

**Result** Returns OK.

**Description****Examples**

Sets window title:

MBS( "ListDialog.SetWindowTitle"; "Freunde wählen" )

**See also**

- 64.26 Dialog.GetWindowTitle 2407
- 64.48 Dialog.SetWindowTitle 2433
- 78.26 FileDialog.GetWindowTitle 3790
- 78.46 FileDialog.SetWindowTitle 3822
- 106.21 ListDialog.GetWindowTitle 5668

Created 18th August 2014, last changed 18th August 2014.

## 106.43 ListDialog.ShowDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	4.2	Yes	Yes	No	No	No

MBS( "ListDialog.ShowDialog" { ; TopMost } )

### Parameters

#### TopMost

Optional

Available in MBS FileMaker Plugin 10.1 or newer.

Whether the dialog will get top most flag on Windows. Pass 1 to make it topmost, pass 0 or nothing for normal behavior.

**Result** Returns OK or Cancel.

### Description

### Examples

Shows a dialog:

```
Set Variable [ $r; Value:MBS("ListDialog.ClearList") ]
Set Variable [ $r; Value:MBS("ListDialog.SetPrompt"; "Please select an item:") ]
Set Variable [ $r; Value:MBS("ListDialog.AddItemToList"; "First Item"; "1234") ]
Set Variable [ $r; Value:MBS("ListDialog.SetAllowMultipleSelection"; 1) ]
Set Variable [ $r; Value:MBS("ListDialog.SetSelectedTitle"; "1234") ]
Set Variable [ $r; Value:MBS("ListDialog.ShowDialog") ]
Set Field [ ListDialog::Result; $r ]
Set Field [ ListDialog::Selected Tag; MBS("ListDialog.GetSelectedTag") ]
Set Field [ ListDialog::Selected; MBS("ListDialog.GetSelectedTitle") ]
```

### See also

- 105.17 List.HasValue 5516
- 106.1 ListDialog.AddItemToList 5647
- 106.5 ListDialog.ClearList 5652
- 106.18 ListDialog.GetSelectedTag 5665
- 106.19 ListDialog.GetSelectedTitle 5666
- 106.27 ListDialog.SetAllowMultipleSelection 5674
- 106.37 ListDialog.SetPrompt 5684
- 106.40 ListDialog.SetSelectedTitle 5687
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

## Example Databases

- [List/ListDialog Grouping](#)
- [List/ListDialog](#)

### 106.43.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)

Created 18th August 2014, last changed 17th January 2020.

## 106.44 ListDialog.Sort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
106 ListDialog	7.5	Yes	Yes	No	No	No

MBS( "ListDialog.Sort" { ; Descending } )

### Parameters

#### Descending

Optional

Pass 1 for descending sort. Default is 0 for ascending.

0

**Result** Returns OK or error.

### Description

Sorts ignoring case, by default ascending.

### See also

- [106.25 ListDialog.Reset](#)

5672

### 106.44.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 6th November 2017, last changed 6th November 2017.



# Chapter 107

## MailComposer

A panel for iOS to edit and send an email.

You can add attachments and optionally html content.

See also MessageComposer functions for creating text messages.

### 107.1 MailComposer.AddAttachmentContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.AddAttachmentContainer"; Container; Name { ; MimeType } )

#### Parameters

##### Container

The container to attach to email.

Attachment::Container

##### Name

The name for the attachment.

"sample.pdf"

##### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".

"application/octet-stream"

**Result** Returns OK or error.

#### Description

You can use Text.FileExtensionToMimeType to find the mime type for a file extension.

You can use `AddAttachment` several times to add several attachments.

### Examples

Adds an attachment:

```
Set Variable [ $FieldName ; Value: Get(ScriptParameter) ]
Set Variable [ $Container ; Value: GetField ( $FieldName) ]
If [ IsEmpty ( $container ) = 0 ]
Set Variable [ $path ; Value: GetAsText ( $Container ) ]
Set Variable [ $name ; Value: MBS( "Path.LastPathComponent"; $path) ]
Set Variable [ $extension ; Value: MBS( "Files.FileExtension"; $name ) ]
Set Variable [ $mimeType ; Value: MBS( "Text.FileExtensionToMimeType"; $extension ) ]
#
Set Variable [ $r ; Value: MBS( "MailComposer.AddAttachmentContainer"; $container; $name; $mimeType) ]
End If
```

### See also

- 79.20 `Files.FileExtension` 3857
- 107.2 `MailComposer.AddAttachmentFile` 5695
- 107.3 `MailComposer.AddAttachmentText` 5696
- 116.1 `MessageComposer.AddAttachmentContainer` 6105
- 124.5 `Path.LastPathComponent` 6252
- 167.37 `Text.FileExtensionToMimeType` 7956

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.2 MailComposer.AddAttachmentFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.AddAttachmentFile"; Path; Name { ; mimeType } )

### Parameters

#### Path

The native file path to the file to include as attachment.

"/Users/cs/Desktop/sample.pdf"

#### Name

The name for the attachment.

"sample.pdf"

#### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".  
"application/octet-stream"

**Result** Returns OK or error.

### Description

Attachments over 100 MB are not supported.

You can use `Text.FileExtensionToMimeType` to find the mime type for a file extension.

You can use `AddAttachment` several times to add several attachments.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

### See also

- 107.1 MailComposer.AddAttachmentContainer 5693
- 107.3 MailComposer.AddAttachmentText 5696
- 116.2 MessageComposer.AddAttachmentFile 6107
- 124.2 Path.FileMakerPathToNativePath 6247
- 167.37 Text.FileExtensionToMimeType 7956

Created 10th June 2017, last changed 10th June 2017.

### 107.3 MailComposer.AddAttachmentText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.AddAttachmentText"; Text; Encoding; Name { ; MimeType } )

#### Parameters

##### Text

The text to use for the attachment.

"Hello World"

##### Encoding

The text encoding for text parameter. Default is UTF-8.

"UTF8"

##### Name

The name for the attachment. If empty, version 6.2 or newer uses file name from file path.

"sample.txt"

##### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "text/plain".

"text/plain"

**Result** Returns OK or error.

#### Description

Attachments over 100 MB are not supported.

You can use `Text.FileExtensionToMimeType` to find the mime type for a file extension.

You can use `AddAttachment` several times to add several attachments.

#### See also

- 107.1 MailComposer.AddAttachmentContainer 5693
- 107.2 MailComposer.AddAttachmentFile 5695
- 167.37 Text.FileExtensionToMimeType 7956

Created 10th June 2017, last changed 10th June 2017.

## 107.4 MailComposer.CanSendMail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.CanSendMail" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the user has set up the device for sending email.

The client may continue to set the recipients and content if the return value was 1. If 0 was the result, the client has a couple options. It may choose to simply notify the user of the inability to send mail, or it may issue a "mailto" URL via Open URL.

This function can be called before having a composer initialized.

### Examples

Checks whether we can email:

```
Set Variable [ $r ; Value: MBS( "MailComposer.CanSendMail" ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't send emails." ; "This iOS device is not configured to send emails." ]
Exit Script [ Text Result: "failed" ]
End If
```

### See also

- 107.17 MailComposer.Present

5710

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 18th June 2017.

## 107.5 MailComposer.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.Dismiss" )

**Result** Returns OK or error.

### Description

Something you can call in a script to cancel the email creation.

### See also

- 116.7 MessageComposer.Dismiss 6112
- 156.4 SocialComposer.Dismiss 7279

Created 10th June 2017, last changed 10th June 2017.

## 107.6 MailComposer.Error

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.Error" )

**Result** Returns error text or empty.

### Description

Returns empty result if there was no error.

### Examples

Show result in a field:

```
Set Variable [ $result ; Value: MBS( "MailComposer.Result" ) ]
Set Variable [ $error ; Value: MBS( "MailComposer.Error" ) ]
Set Field [ Placeholder::Result ; $result & ": " & $error ]
```

### See also

- [107.18 MailComposer.Result](#) 5712
- [107.21 MailComposer.SetEvaluate](#) 5715
- [107.23 MailComposer.SetScript](#) 5717
- [156.18 SocialComposer.SetEvaluate](#) 7295
- [156.20 SocialComposer.SetScript](#) 7297

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.7 MailComposer.GetBCCRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetBCCRecipients" )

**Result** Returns text or error.

### Description

### See also

- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.11 MessageComposer.GetRecipients 6116

Created 11st June 2017, last changed 11st June 2017.



**107.8 MailComposer.GetCCRecipients**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetCCRecipients" )

**Result** Returns text or error.

**Description****See also**

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.14 MailComposer.GetTORecipients 5707
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.11 MessageComposer.GetRecipients 6116
- 116.20 MessageComposer.SetRecipients 6126

Created 11st June 2017, last changed 11st June 2017.

## 107.9 MailComposer.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetEvaluate" )

**Result** Returns expression or error.

### Description

### See also

- 107.10 MailComposer.GetFileName 5703
- 107.21 MailComposer.SetEvaluate 5715
- 116.8 MessageComposer.GetEvaluate 6113
- 116.18 MessageComposer.SetEvaluate 6124
- 156.5 SocialComposer.GetEvaluate 7280
- 156.18 SocialComposer.SetEvaluate 7295

Created 10th June 2017, last changed 10th June 2017.

## 107.10 MailComposer.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetFileName" )

**Result** Returns text or error.

### Description

### See also

- 107.9 MailComposer.GetEvaluate 5702
- 107.12 MailComposer.GetScriptName 5705
- 107.21 MailComposer.SetEvaluate 5715
- 116.9 MessageComposer.GetFileName 6114
- 156.6 SocialComposer.GetFileName 7281

Created 10th June 2017, last changed 10th June 2017.

## 107.11 MailComposer.GetMessageBody

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetMessageBody" )

**Result** Returns text or error.

### Description

Can be HTML or plain text.

### See also

- 107.22 MailComposer.SetMessageBody 5716
- 116.10 MessageComposer.GetMessageBody 6115
- 116.19 MessageComposer.SetMessageBody 6125

Created 11st June 2017, last changed 11st June 2017.

## 107.12 MailComposer.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetScriptName" )

**Result** Returns text or error.

### Description

### See also

- 107.10 MailComposer.GetFileName 5703
- 107.23 MailComposer.SetScript 5717
- 116.12 MessageComposer.GetScriptName 6117
- 156.8 SocialComposer.GetScriptName 7283

Created 10th June 2017, last changed 10th June 2017.

## 107.13 MailComposer.GetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetSubject" )

**Result** Returns text or error.

### Description

### See also

- 107.23 MailComposer.SetScript 5717
- 107.24 MailComposer.SetSubject 5719
- 116.13 MessageComposer.GetSubject 6118
- 116.22 MessageComposer.SetSubject 6129

Created 11st June 2017, last changed 11st June 2017.

**107.14 MailComposer.GetTORecipients**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.GetTORecipients" )

**Result** Returns text or error.

**Description****See also**

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.11 MessageComposer.GetRecipients 6116
- 116.20 MessageComposer.SetRecipients 6126

Created 11st June 2017, last changed 11st June 2017.

## 107.15 MailComposer.IsPresented

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.IsPresented" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if not.

### See also

- 107.17 MailComposer.Present 5710
- 116.14 MessageComposer.IsPresented 6119
- 156.11 SocialComposer.IsPresented 7286

Created 10th June 2017, last changed 10th June 2017.



**107.16 MailComposer.New**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.New" )

**Result** Returns OK or error.

**Description**

Resets last error and clears last email content.

**Examples**

Start a new email:

```
Set Variable [ $r ; Value: MBS( "MailComposer.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MailComposer.SetSubject"; Placeholder::Subject ) ]
```

**See also**

- 107.17 MailComposer.Present 5710
- 107.24 MailComposer.SetSubject 5719
- 156.12 SocialComposer.New 7287

**Example Databases**

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.17 MailComposer.Present

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.Present" )

**Result** Returns OK or error.

### Description

This will show the user interface and start the process.  
Your script may call this in a script and then wait for the script trigger.

### Examples

Setups email and send:

```

Set Variable [ $r ; Value: MBS( "MailComposer.CanSendMail" ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't send emails." ; "This iOS device is not configured to send emails." ]
Exit Script [ Text Result: "failed" ]
End If
Set Variable [ $r ; Value: MBS( "MailComposer.New" ) ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetSubject"; Placeholder::Subject ) ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetScript"; Get(FileName); "Sent" ) ]
If [ Length ( Placeholder::Body ) > 0 ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetMessageBody"; Placeholder::Body; Position ( Placeholder::Body ; "<html>" ; 1 ; 1 ) > 0 ) ]
End If
If [ Length ( Placeholder::CCRecipients ) > 0 ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetCCRecipients"; Placeholder::CCRecipients ) ]
End If
If [ Length ( Placeholder::BCCRecipients ) > 0 ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetBCCRecipients"; Placeholder::BCCRecipients ) ]
End If
If [ Length ( Placeholder::TORecipients ) > 0 ]
Set Variable [ $r ; Value: MBS( "MailComposer.SetTORecipients"; Placeholder::TORecipients ) ]
End If
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment1 ) ]
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment2 ) ]
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment3 ) ]
Set Variable [ $r ; Value: MBS( "MailComposer.Present" ) ]

```

### See also

- 107.15 MailComposer.IsPresented 5708
- 107.16 MailComposer.New 5709
- 107.18 MailComposer.Result 5712

<i>107.17. MAILCOMPOSER.PRESENT</i>	5711
• 107.19 MailComposer.SetBCCRecipients	5713
• 107.20 MailComposer.SetCCRecipients	5714
• 107.22 MailComposer.SetMessageBody	5716
• 107.23 MailComposer.SetScript	5717
• 107.25 MailComposer.SetTORecipients	5720
• 116.16 MessageComposer.Present	6121
• 156.13 SocialComposer.Present	7289

### **Example Databases**

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.18 MailComposer.Result

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.Result" )

**Result** Returns value or error.

### Description

If email composer is not yet finished, the result is empty.  
Status can be Cancelled, Saved, Sent, Failed.

### Examples

Show result in a field:

```
Set Variable [ $result ; Value: MBS( "MailComposer.Result" ) ]
Set Variable [ $error ; Value: MBS( "MailComposer.Error" ) ]
Set Field [ Placeholder::Result ; $result & ": " & $error ]
```

### See also

- 107.6 MailComposer.Error 5699
- 107.17 MailComposer.Present 5710
- 107.21 MailComposer.SetEvaluate 5715
- 107.23 MailComposer.SetScript 5717
- 116.17 MessageComposer.Result 6123
- 156.16 SocialComposer.Result 7293
- 156.18 SocialComposer.SetEvaluate 7295
- 156.20 SocialComposer.SetScript 7297

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.19 MailComposer.SetBCCRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetBCCRecipients"; Recipients )

### Parameters

#### Recipients

List of recipients.

**Result** Returns OK or error.

### Description

Will set the BCC header for the email message. This should be called prior to display.

Recipient addresses should be specified as per RFC5322.

After the view has been presented to the user, this method will no longer change the value.

#### See also

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.17 MailComposer.Present 5710
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.20 MessageComposer.SetRecipients 6126

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.20 MailComposer.SetCCRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetCCRecipients"; Recipients )

### Parameters

#### Recipients

List of recipients.

**Result** Returns OK or error.

### Description

Will set the CC header for the email message. This should be called prior to display.

Recipient addresses should be specified as per RFC5322.

After the view has been presented to the user, this method will no longer change the value.

### See also

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.17 MailComposer.Present 5710
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.25 MailComposer.SetTORecipients 5720
- 116.11 MessageComposer.GetRecipients 6116
- 116.20 MessageComposer.SetRecipients 6126

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

**107.21 MailComposer.SetEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetEvaluate"; Expression )

**Parameters****Expression**

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

**Description**

In the script you can check with MailComposer.Result and MailComposer.Error what happened.

**See also**

- 107.6 MailComposer.Error 5699
- 107.9 MailComposer.GetEvaluate 5702
- 107.10 MailComposer.GetFileName 5703
- 107.18 MailComposer.Result 5712
- 116.8 MessageComposer.GetEvaluate 6113
- 116.18 MessageComposer.SetEvaluate 6124
- 156.5 SocialComposer.GetEvaluate 7280
- 156.18 SocialComposer.SetEvaluate 7295

Created 10th June 2017, last changed 4th April 2018.

## 107.22 MailComposer.SetMessageBody

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetMessageBody"; Body; IsHTML )

### Parameters

#### Body

The text containing the body contents of the email message.

#### IsHTML

A boolean value indicating if the body argument is to be interpreted as HTML content. Pass 1 if Body is html or 0 for plain text. Default is 0 for plain text.

0

**Result** Returns OK or error.

### Description

This method will set the body of the email message. This should be called prior to display. The user's signature, if specified, will be added after the body content.

### See also

- 107.11 MailComposer.GetMessageBody 5704
- 107.17 MailComposer.Present 5710
- 116.10 MessageComposer.GetMessageBody 6115
- 116.19 MessageComposer.SetMessageBody 6125

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.



## 107.23 MailComposer.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetScript"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The file name for the script to trigger.

"test.fmp12"

#### ScriptName

The script name of the script to launch.

"EmailComposerFinished"

#### Parameter

Optional

The parameter to pass to the script.

**Result** Returns OK or error.

### Description

In the script you can check with MailComposer.Result and MailComposer.Error what happened.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Set script:

```
Set Variable [ $r ; Value: MBS( "MailComposer.SetScript"; Get(FileName); "Sent") ]
```

### See also

- 107.6 MailComposer.Error 5699
- 107.12 MailComposer.GetScriptName 5705
- 107.13 MailComposer.GetSubject 5706
- 107.17 MailComposer.Present 5710
- 107.18 MailComposer.Result 5712
- 107.24 MailComposer.SetSubject 5719
- 116.21 MessageComposer.SetScript 6127

- 156.20 SocialComposer.SetScript

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.24 MailComposer.SetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetSubject"; Subject )

### Parameters

#### Subject

The new subject.  
"Hello World"

**Result** Returns OK or error.

### Description

This method will set the Subject header for the email message. This should be called prior to display. Newlines are removed from the parameter. After the view has been presented to the user, this method will no longer change the value.

### Examples

Start a new email:

```
Set Variable [ $r ; Value: MBS( "MailComposer.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MailComposer.SetSubject"; Placeholder::Subject ) ]
```

### See also

- 107.13 MailComposer.GetSubject 5706
- 107.16 MailComposer.New 5709
- 107.17 MailComposer.Present 5710
- 107.23 MailComposer.SetScript 5717
- 116.13 MessageComposer.GetSubject 6118
- 116.22 MessageComposer.SetSubject 6129

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 107.25 MailComposer.SetTORecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
107 MailComposer	7.3	No	No	No	No	Yes

MBS( "MailComposer.SetTORecipients"; Recipients )

### Parameters

#### Recipients

List of recipients.

**Result** Returns OK or error.

### Description

Set the To header for the email message. This should be called prior to display.

Recipient addresses should be specified as per RFC5322.

After the view has been presented to the user, this method will no longer change the value.

### See also

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.17 MailComposer.Present 5710
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.20 MailComposer.SetCCRecipients 5714
- 116.11 MessageComposer.GetRecipients 6116
- 116.20 MessageComposer.SetRecipients 6126

### Example Databases

- [iOS/iOS Email Sending](#)

Created 10th June 2017, last changed 10th June 2017.

# Chapter 108

## MapView

MapKit functions for MacOS to show maps.

### 108.1 MapView.AddCircle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.AddCircle"; MapView; JSON )

#### Parameters

##### MapView

The map view reference number.

\$\$MapView

##### JSON

The JSON to describe the circle.

```
{ "address": "Nickenich", "radius": 500, "title": "Monkeybread Software", "subtitle": "MBS is here", "color": "# FF000077" }
```

**Result** Returns identifier or error.

#### Description

The JSON may contain the following entries:

You can either pass latitude and longitude together or pass the address and we lookup it to find coordinates.

#### Examples

Add circle for MBS with address string:

```
Set Variable [ $r ; Value: MBS( "MapView.AddCircle"; $$MapView; " { \"address\": \"Nickenich\",
```

latitude	The latitude of the coordinate.
longitude	The longitude of the coordinate.
address	The address to lookup to find latitude or longitude.
radius	The radius in meter.
title	The title for the circle.
subtitle	The subtitle for the item.
strokeColor	The stroke color as name or hex notation.
fillColor	The fill color as name or hex notation.
identifier	The identifier to use. Can be empty to get new identifier auto assigned.

```
\”radius\”: 500, \”title\”: \”Monkeybread Software\”, \”subtitle\”: \”MBS is here\”, \”color\”: \”#FF000077\” } ”) ]
```

Add circle for MBS with coordinates:

```
Set Variable [ $r ; Value: MBS( ”MapView.AddCircle”; $$MapView; ” { \”longitude\”: 7.329722, \”latitude\”: 50.413333, \”radius\”: 500, \”title\”: \”Monkeybread Software\”, \”subtitle\”: \”MBS is here\”, \”color\”: \”# FF000077\” } ”) ]
```

## Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 7th September 2019, last changed 11st September 2019.

## 108.2 MapView.AddPin

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.AddPin"; MapView; Latitude; Longitude { ; Title; Subtitle; Identifier; color } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Latitude

The latitude of the coordinate.

#### Longitude

The longitude of the coordinate.

#### Title

Optional

The title for the pin.

#### Subtitle

Optional

The subtitle for the pin.

#### Identifier

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The identifier for the pin to use with script trigger.

#### color

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The color to use. Can be a color name or hex notation like in HTML.

"# FF0000"

**Result** Returns identifier or error.

### Description

Deprecated. Please use MapView.AddPoint function instead for more options.

### See also

- 108.4 MapView.AddPoint

5727

### 108.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)

- [MBS FileMaker Plugin, version 9.3pr2](#)
- [More on MapViews in FileMaker](#)
- [Apple Maps in FileMaker on iOS](#)

Created 14th January 2019, last changed 11st September 2019.



## 108.3 MapView.AddPinWithAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.AddPinWithAddress"; MapView; Address { ; Title; Subtitle; Identifier; color } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Address

The address to lookup.”

”New York”

#### Title

Optional

The title for the pin.

#### Subtitle

Optional

The subtitle for the pin.

#### Identifier

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The identifier for the pin to use with script trigger.

#### color

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The color to use. Can be a color name or hex notation like in HTML.

”# FF0000”

**Result** Returns identifier or error.

### Description

Deprecated. Please use MapView.AddPoint function instead for more options.

### See also

- 108.4 MapView.AddPoint

5727

### Example Databases

- [Mac and iOS/MapKit/MapView](#)

### 108.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)
- [MBS FileMaker Plugin, version 9.3pr2](#)
- [More on MapViews in FileMaker](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)

Created 14th January 2019, last changed 11st September 2019.

## 108.4 MapView.AddPoint

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.AddPoint"; MapView; JSON )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### JSON

The JSON to describe the point.

**Result** Returns identifier or error.

### Description

The JSON may contain the following entries:

latitude	The latitude of the coordinate.
longitude	The longitude of the coordinate.
address	The address to lookup to find latitude or longitude.
radius	The radius in meter.
title	The title for the pin.
subtitle	The subtitle for the item.
color	The color as name or hex notation for the pin.
identifier	The identifier to use. Can be empty to get new identifier auto assigned.
image	The base64 encoded image data to use.
imageWidth	Optional the image width to use.
imageHeight	Optional the image height to use.
clusteringIdentifier	Optionally an identifier that determines whether the annotation view participates in clustering.
displayPriority	Optionally the display priority of this annotation view. Can be Required, High, Low or Default.

New in 9.5 are some boolean keys named `enabled`, `draggable` and `canShowCallout` to customize behavior.

You can either pass latitude and longitude together or pass the address and we lookup it to find coordinates.

### Examples

Create MBS Pin on map with custom image:

```
Set Variable [ $json ; Value: " { \"address\": \"Nickenich\", \"title\": \"Monkeybread Software\", \"subtitle\": \"MBS is here\", \"imageWidth\": 40, \"imageHeight\": 40 } " ]
```

```
# add image from container field to JSON
Set Variable [ $json ; Value: MBS( "JSON.AddStringToObject"; $json; "image"; Base64Encode ( MapView:image ) ) ]
# show
Set Variable [ $r ; Value: MBS( "MapView.AddPoint"; $$MapView; $JSON ) ]
```

Adds simple pin for Hamburg:

```
Set Variable [ $r ; Value: MBS( "MapView.AddPoint"; $$MapView; " { \"address\": \"Hamburg, Germany\", \"title\": \"Hamburg\" } )" ]
```

Create circle of pins around current region:

```
# create some pins on a circle around a given point
Set Variable [ $centerLat ; Value: MBS( "MapView.GetCenterCoordinateLatitude"; $$MapView ) ]
Set Variable [ $centerLon ; Value: MBS( "MapView.GetCenterCoordinateLongitude"; $$MapView ) ]
#
# loop counting up from 1 to $count
Set Variable [ $count ; Value: 12 ]
Set Variable [ $index ; Value: 1 ]
If [ $index $count ]
Loop
# your script steps here
Set Variable [ $angle ; Value: 360 * ($index / 12) ]
Set Variable [ $a ; Value: $angle / 180 * Pi ]
#
# calculate new coordinates
Set Variable [ $fLat ; Value: ,005 ]
Set Variable [ $fLon ; Value: ,01 ]
Set Variable [ $lat ; Value: $centerLat + Sin($a) * $fLat ]
Set Variable [ $lon ; Value: $centerLon + Cos($a) * $fLon ]
#
Set Variable [ $json ; Value: " { } " ]
Set Variable [ $json ; Value: MBS( "JSON.AddNumberToObject"; $json; "latitude"; $lat ) ]
Set Variable [ $json ; Value: MBS( "JSON.AddNumberToObject"; $json; "longitude"; $lon ) ]
Set Variable [ $json ; Value: MBS( "JSON.AddNumberToObject"; $json; "clusteringIdentifier"; "pin" ) ]
Set Variable [ $r ; Value: MBS( "MapView.AddPoint"; $$MapView; $JSON ) ]
#
# next
Set Variable [ $index ; Value: $index + 1 ]
Exit Loop If [ $index >$count ]
End Loop
End If
```

**See also**

- 102.11 JSON.AddNumberToObject

<i>108.4. MAPVIEW.ADDPOINT</i>	5729
• 102.13 JSON.AddStringToObject	5328
• 108.2 MapView.AddPin	5723
• 108.3 MapView.AddPinWithAddress	5725
• 108.6 MapView.AddPolyline	5732
• 108.16 MapView.GetCenterCoordinateLatitude	5746
• 108.17 MapView.GetCenterCoordinateLongitude	5747

### **Example Databases**

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

### **108.4.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 10th September 2019, last changed 9th April 2020.

## 108.5 MapView.AddPolygon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.AddPolygon"; MapView; JSON )

### Parameters

#### MapView

The map view reference number.  
\$\$MapView

#### JSON

The JSON to describe the circle.

**Result** Returns identifier or error.

### Description

The JSON may contain the following entries:

coordinates	The JSON array with the objects for the coordinates. Each entry can contain either longitude & latitude pair, x and y pair or address value.
title	The title for the polygon.
subtitle	The subtitle for the item.
fillColor	The fill color as name or hex notation for the polygon.
strokeColor	The stroke color as name or hex notation for the polygon.
identifier	The identifier to use. Can be empty to get new identifier auto assigned.
lineWidth	The line width to use. Default 5 point.

You can either pass latitude and longitude together or pass the address and we lookup it to find coordinates.

### Examples

Add polygon from Hamburg to Munich and Cologne:

```
Set Variable [ $r ; Value: MBS( "MapView.AddPolygon"; $$MapView; " { \"coordinates\": [ { \"address\": \"Hamburg, Germany\" } , { \"address\": \"Munich, Germany\" } , { \"address\": \"Cologne, Germany\" } ] , \"strokeColor\": \"# FF00077\" } )" ]
```

Add polygon with some coordinates:

```
Set Variable [ $r ; Value: MBS( "MapView.AddPolygon"; $$MapView; " { \"coordinates\": [ { \"longitude\": 7.3, \"latitude\": 50.4 } , { \"longitude\": 7.3, \"latitude\": 50.5 } ,
```

### 108.5. MAPVIEW.ADDPOLYGON

5731

```
{ \"longitude\": 7.4, \"latitude\": 50.5 } ,  
{ \"longitude\": 7.4, \"latitude\": 50.4 }  
],  
\"strokeColor\": \"# FF00077\"  
} ” ]
```

#### See also

- 108.6 MapView.AddPolyline

5732

#### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

#### 108.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 11st September 2019, last changed 20th September 2019.

## 108.6 MapView.AddPolyline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.AddPolyline"; MapView; JSON )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### JSON

The JSON to describe the circle.

**Result** Returns identifier or error.

### Description

The JSON may contain the following entries:

coordinates	The JSON array with the objects for the coordinates. Each entry can contain either longitude & latitude pair or address value.
title	The title for the poly line.
subtitle	The subtitle for the item.
fillColor	The fill color as name or hex notation for the line.
strokeColor	The stroke color as name or hex notation for the line.
identifier	The identifier to use. Can be empty to get new identifier auto assigned.
lineWidth	The line width to use. Default 5 point.

You can either pass latitude and longitude together or pass the address and we lookup it to find coordinates.

### Examples

Add poly line from Hamburg to Munich and Cologne:

```
Set Variable [ $r ; Value: MBS( "MapView.AddPolyline"; $$MapView; " { \"coordinates\": [ { \"address\": \"Hamburg, Germany\" } , { \"address\": \"Munich, Germany\" } , { \"address\": \"Cologne, Germany\" } ] , \"strokeColor\": \"# FF00077\" } )" ]
```

### See also

- 108.4 MapView.AddPoint 5727
- 108.5 MapView.AddPolygon 5730

### Example Databases



- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.6.1 **Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 11st September 2019, last changed 11st September 2019.

## 108.7 MapView.Annotations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.Annotations"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns list of identifiers or error.

### Description

### Examples

Queries annotations:

MBS( "MapView.Annotations"; 78001 )

### 108.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 7th September 2019, last changed 7th September 2019.

## 108.8 MapView.CreateWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.CreateWithControl"; WindowRef; ControlName { ; DX; DY } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns map view reference number or error.

### Description

Use MapView.Release later to destroy the image view.

If you use a register (tab controls) on the window, be aware that the image view actually is in front of the register (tab controls). So you need to check in the script which register page is current and should show what image view. Or by a trigger you turn the visibility on and off.

Image view reference numbers are starting at 78000 and counting up for each new map view.

Not supported for MacOS 32-bit.

Does not work for WebDirect.

When creating on a card window, please pass reference to parent window or just 0 for front window. On MacOS you may need to pass delta y value to adjust position.

If you create a control on a new window, you may do window update command in your script first to have

FileMaker actually build the window with controls and display it. A short script pause or using FM.RunScriptLater with 0.1 delay can help having all controls draw themselves. Then you can use this command to put our control on top. We use GetControl() to query left, top, width and height and this gives empty value if control is not yet here.

Creation fails to pick the right window in case the window is selected by name and the window name is not unique. In that case better work with window reference numbers or just pass 0 for current front window.

**See also**

- 70.6 DragDrop.CreateWithControl 2529
- 80.57 FM.RunScript 4045
- 80.59 FM.RunScriptLater 4049
- 95.2 ImageView.CreateWithControl 5162
- 108.53 MapView.Release 5785
- 108.69 MapView.SetFrameWithControl 5803
- 108.78 MapView.SetScript 5812
- 108.85 MapView.SetShowsUserLocation 5820
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

**Example Databases**

- [iOS/MapKit iOS](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Mac and iOS/MapKit/MapView](#)

**108.8.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr4](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)

Created 14th January 2019, last changed 28th April 2020.

## 108.9 MapView.CreateWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.CreateWithSize"; WindowRef; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### x

The left coordinate in the window.

0

#### y

The top coordinate in the window.

0

#### w

The width of the image view in the window.

100

#### h

The height of the image view in the window.

100

**Result** Returns map view reference number or error.

### Description

Use MapView.Release later to destroy the image view.

If you use a register (tab controls) on the window, be aware that the image view actually is in front of the register (tab controls). So you need to check in the script which register page is current and should show what image view. Or by a trigger you turn the visibility on and off.

Image view reference numbers are starting at 78000 and counting up for each new map view.

Not supported for MacOS 32-bit.

Does not work for WebDirect.

### See also

- 95.3 ImageView.CreateWithSize 5164
- 108.53 MapView.Release 5785

- 168.6 `TextView.CreateWithSize` 8012
- 185.15 `Window.FindByIndex` 8686
- 185.16 `Window.FindByTitle` 8688

### Example Databases

- [Mac and iOS/MapKit/MapView](#)

Created 14th January 2019, last changed 16th January 2020.

## 108.10 MapView.FormatDistance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.2	Yes	No	Yes, macOS only	No	Yes

MBS( "MapView.FormatDistance"; distance )

### Parameters

#### distance

The distance in meters to format.

123

**Result** Returns text or error.

### Description

Uses current locale for formatting, so it uses km in Europe and miles in USA.

### Examples

Format a distance:

MBS( "MapView.FormatDistance"; 9555 )

Example result: "9,6 km"

### See also

- [108.51 MapView.ParseDistance](#)

5782

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 17th March 2019, last changed 17th March 2019.

## 108.11 MapView.GetAnnotationCoordinate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.GetAnnotationCoordinate"; MapView; Annotation Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation to remove.

"82001"

**Result** Returns JSON or error.

### Description

Returns JSON with longitude and latitude.

### See also

- 108.12 MapView.GetAnnotationDragImage 5741
- 108.61 MapView.SetAnnotationCoordinate 5794

### 108.11.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 12nd September 2019, last changed 12nd September 2019.



## 108.12 MapView.GetAnnotationDragImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetAnnotationDragImage"; MapView; Annotation Identifier { ; ImageType; Filename } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value or error.

### Description

Only for point annotations with image.

### See also

- 108.11 MapView.GetAnnotationCoordinate 5740
- 108.13 MapView.GetAnnotationImage 5742
- 108.14 MapView.GetAnnotationSelectedImage 5743
- 108.62 MapView.SetAnnotationDragImage 5795
- 108.63 MapView.SetAnnotationImage 5796

### 108.12.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 23th September 2019, last changed 23th September 2019.

## 108.13 MapView.GetAnnotationImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetAnnotationImage"; MapView; Annotation Identifier { ; ImageType; Filename } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value or error.

### Description

Only for point annotations with image.

### See also

- 108.12 MapView.GetAnnotationDragImage 5741
- 108.62 MapView.SetAnnotationDragImage 5795
- 108.63 MapView.SetAnnotationImage 5796

### 108.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.

## 108.14 MapView.GetAnnotationSelectedImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetAnnotationSelectedImage"; MapView; Annotation Identifier { ; ImageType; Filename } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value or error.

### Description

Only for point annotations with image.

### See also

- 108.12 MapView.GetAnnotationDragImage 5741
- 108.64 MapView.SetAnnotationSelectedImage 5797

### 108.14.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 23th September 2019, last changed 23th September 2019.

## 108.15 MapView.GetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetAutoResizingMask"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns number or error.

### Description

This defines whether web viewer changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.5 AVPlayer.GetAutoResizingMask 1077
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 70.9 DragDrop.GetAutoResizingMask 2536
- 70.38 DragDrop.SetAutoResizingMask 2573
- 108.65 MapView.SetAutoResizingMask 5798
- 168.10 TextView.GetAutoResizingMask 8016
- 168.30 TextView.SetAutoResizingMask 8036
- 183.52 WebView.GetAutoResizingMask 8477
- 183.124 WebView.SetAutoResizingMask 8583

### 108.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr9](#)

Created 16th January 2019, last changed 16th January 2019.

## 108.16 MapView.GetCenterCoordinateLatitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetCenterCoordinateLatitude"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns number or error.

### Description

### See also

- 108.4 MapView.AddPoint 5727
- 108.17 MapView.GetCenterCoordinateLongitude 5747

Created 14th January 2019, last changed 15th January 2019.

## 108.17 MapView.GetCenterCoordinateLongitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetCenterCoordinateLongitude"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns number or error.

### Description

#### See also

- 108.4 MapView.AddPoint 5727
- 108.16 MapView.GetCenterCoordinateLatitude 5746

Created 14th January 2019, last changed 15th January 2019.

## 108.18 MapView.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetHeight"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns height or error.

### Description

#### See also

- 95.5 ImageView.GetHeight 5167
- 108.19 MapView.GetLeft 5749
- 108.26 MapView.GetRegion 5757
- 108.45 MapView.GetWidth 5776
- 108.76 MapView.SetRegion 5810
- 168.12 TextView.GetHeight 8018

Created 14th January 2019, last changed 15th January 2019.



## 108.19 MapView.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetLeft"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns x coordinate or error.

### Description

#### See also

- 95.6 ImageView.GetLeft 5168
- 108.18 MapView.GetHeight 5748
- 108.40 MapView.GetTag 5771
- 108.42 MapView.GetTop 5773
- 108.45 MapView.GetWidth 5776
- 168.13 TextView.GetLeft 8019

Created 14th January 2019, last changed 15th January 2019.

## 108.20 MapView.GetMapType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetMapType"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns text or error.

### Description

Value can be Standard, Satellite, Hybrid, SatelliteFlyover, HybridFlyover or MutedStandard.

### See also

- 108.70 MapView.SetMapType

5804

Created 14th January 2019, last changed 15th January 2019.

## 108.21 MapView.GetOverlayFillColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetOverlayFillColor"; MapView; Overlay Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

**Result** Returns color or error.

### Description

#### See also

- 108.22 MapView.GetOverlayLineWidth 5752
- 108.24 MapView.GetOverlayStrokeColor 5755
- 108.71 MapView.SetOverlayFillColor 5805
- 108.74 MapView.SetOverlayStrokeColor 5808

### 108.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.22 MapView.GetOverlayLineWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetOverlayLineWidth"; MapView; Overlay Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

**Result** Returns line width or error.

### Description

#### See also

- 108.21 MapView.GetOverlayFillColor 5751
- 108.23 MapView.GetOverlayPoints 5753
- 108.72 MapView.SetOverlayLineWidth 5806

### 108.22.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.23 MapView.GetOverlayPoints

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetOverlayPoints"; MapView; Overlay Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay.

"82001"

**Result** Returns JSON or error.

### Description

Only for polygon and poly line overlays.

Returns JSON with points (x/y) and coordinates (longitude/latitude).

### Examples

Queries points for an overlay:

MBS( "MapView.GetOverlayPoints"; \$\$MapView; 82002 )

```
Example result: {
  "points" : [
    {
      "y" : 90572524.642136484,
      "latitude" : 50.399999999999984,
      "x" : 139661002.524444446,
      "longitude" : 7.3000000000000114
    },
    {
      "y" : 90455421.722824365,
      "latitude" : 50.499999999999993,
      "x" : 139661002.524444446,
      "longitude" : 7.3000000000000114
    },
    {
      "y" : 90455421.722824365,
      "latitude" : 50.499999999999993,
      "x" : 139735567.92888889,
      "longitude" : 7.4000000000000057
    },
    {
      "y" : 90572524.642136484,
```

5754

```
"latitude" : 50.399999999999984,  
"x" : 139735567.92888889,  
"longitude" : 7.4000000000000057  
}  
],  
"pointCount" : 4  
}
```

**See also**

- 108.22 [MapView.GetOverlayLineWidth](#) 5752
- 108.73 [MapView.SetOverlayPoints](#) 5807

**Example Databases**

- [Mac and iOS/MapKit/MapView Click Polygons](#)

**108.23.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.

## 108.24 MapView.GetOverlayStrokeColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetOverlayStrokeColor"; MapView; Overlay Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

**Result** Returns color or error.

### Description

#### See also

- [108.21 MapView.GetOverlayFillColor](#) 5751
- [108.71 MapView.SetOverlayFillColor](#) 5805
- [108.74 MapView.SetOverlayStrokeColor](#) 5808

### 108.24.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.25 MapView.GetPitchEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetPitchEnabled"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

A Boolean value indicating whether the map camera's pitch information is used.

### See also

- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.46 MapView.GetZoomEnabled 5777
- 108.75 MapView.SetPitchEnabled 5809
- 108.77 MapView.SetRotateEnabled 5811
- 108.91 MapView.SetZoomEnabled 5827

Created 14th January 2019, last changed 15th January 2019.



## 108.26 MapView.GetRegion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRegion"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

### Examples

Query region:

MBS( "MapView.GetRegion"; \$\$MapView)

Example result: {

```
"longitude" : 9.3726796999999955,
"longitudeDelta" : 2.0140728459134323,
"latitude" : 53.6798862999999907,
"latitudeDelta" : 0.63485953767546732
}
```

### See also

- 108.18 MapView.GetHeight 5748
- 108.76 MapView.SetRegion 5810

Created 14th January 2019, last changed 15th January 2019.

## 108.27 MapView.GetRegionLatitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRegionLatitude"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns value or error.

### Description

#### See also

- 108.28 MapView.GetRegionLatitudeSpan 5759
- 108.29 MapView.GetRegionLongitude 5760
- 108.30 MapView.GetRegionLongitudeSpan 5761

Created 14th January 2019, last changed 15th January 2019.

## 108.28 MapView.GetRegionLatitudeSpan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRegionLatitudeSpan"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns value or error.

### Description

#### See also

- 108.27 MapView.GetRegionLatitude 5758
- 108.29 MapView.GetRegionLongitude 5760
- 108.30 MapView.GetRegionLongitudeSpan 5761

Created 14th January 2019, last changed 15th January 2019.

## 108.29 MapView.GetRegionLongitude

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRegionLongitude"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns value or error.

### Description

#### See also

- 108.27 MapView.GetRegionLatitude 5758
- 108.28 MapView.GetRegionLatitudeSpan 5759
- 108.30 MapView.GetRegionLongitudeSpan 5761

Created 14th January 2019, last changed 15th January 2019.

## 108.30 MapView.GetRegionLongitudeSpan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRegionLongitudeSpan"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns value or error.

### Description

#### See also

- 108.27 MapView.GetRegionLatitude 5758
- 108.28 MapView.GetRegionLatitudeSpan 5759
- 108.29 MapView.GetRegionLongitude 5760

Created 14th January 2019, last changed 15th January 2019.

## 108.31 MapView.GetRotateEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetRotateEnabled"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean value indicating whether the map camera's heading information is used.

### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.32 MapView.GetScrollEnabled 5763
- 108.46 MapView.GetZoomEnabled 5777
- 108.75 MapView.SetPitchEnabled 5809
- 108.77 MapView.SetRotateEnabled 5811
- 108.79 MapView.SetScrollEnabled 5814
- 108.91 MapView.SetZoomEnabled 5827

Created 14th January 2019, last changed 15th January 2019.

## 108.32 MapView.GetScrollEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetScrollEnabled"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean value that determines whether the user may scroll around the map.

### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.31 MapView.GetRotateEnabled 5762
- 108.46 MapView.GetZoomEnabled 5777
- 108.77 MapView.SetRotateEnabled 5811
- 108.79 MapView.SetScrollEnabled 5814
- 108.91 MapView.SetZoomEnabled 5827

Created 14th January 2019, last changed 15th January 2019.

## 108.33 MapView.GetShowsBuildings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsBuildings"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean indicating whether the map displays extruded building information.

### See also

- 108.80 MapView.SetShowsBuildings

5815

Created 14th January 2019, last changed 15th January 2019.



## 108.34 MapView.GetShowsCompass

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsCompass"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean indicating whether the map displays a compass control.

### See also

- 108.36 MapView.GetShowsScale 5767
- 108.81 MapView.SetShowsCompass 5816

Created 14th January 2019, last changed 15th January 2019.

## 108.35 MapView.GetShowsPointsOfInterest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsPointsOfInterest"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean indicating whether the map displays point-of-interest information.

### See also

- 108.82 MapView.SetShowsPointsOfInterest

5817

Created 14th January 2019, last changed 15th January 2019.

## 108.36 MapView.GetShowsScale

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsScale"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean indicating whether the map shows scale information.

### See also

- 108.34 MapView.GetShowsCompass 5765
- 108.37 MapView.GetShowsTraffic 5768
- 108.83 MapView.SetShowsScale 5818

Created 14th January 2019, last changed 15th January 2019.

## 108.37 MapView.GetShowsTraffic

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsTraffic"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean value indicating whether the map displays traffic information.

### See also

- 108.36 MapView.GetShowsScale 5767
- 108.84 MapView.SetShowsTraffic 5819

Created 14th January 2019, last changed 15th January 2019.

## 108.38 MapView.GetShowsUserLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetShowsUserLocation"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean value indicating whether the map should try to display the user's location.

### See also

- 108.85 MapView.SetShowsUserLocation

5820

Created 14th January 2019, last changed 15th January 2019.

## 108.39 MapView.GetShowsZoomControls

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	No

MBS( "MapView.GetShowsZoomControls"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean indicating whether the map displays zoom controls.

### See also

- 108.86 MapView.SetShowsZoomControls

5822

Created 14th January 2019, last changed 15th January 2019.

## 108.40 MapView.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetTag"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns the stored tag value or an error.

### Description

#### See also

- 95.7 ImageView.GetTag 5169
- 108.19 MapView.GetLeft 5749
- 108.42 MapView.GetTop 5773
- 108.87 MapView.SetTag 5823
- 168.20 TextView.GetTag 8026

Created 14th January 2019, last changed 15th January 2019.

## 108.41 MapView.GetToolTip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	No

MBS( "MapView.GetToolTip"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns text or error.

### Description

The tooltip is visible on Mac when mouse stays over control. There are no tooltips for iOS.

### See also

- 95.8 [ImageView.GetToolTip](#) 5170
- 95.18 [ImageView.SetToolTip](#) 5180
- 108.42 [MapView.GetTop](#) 5773
- 108.88 [MapView.SetToolTip](#) 5824

Created 14th January 2019, last changed 15th January 2019.



## 108.42 MapView.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetTop"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns y coordinate or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 95.9 ImageView.GetTop 5171
- 108.19 MapView.GetLeft 5749
- 108.40 MapView.GetTag 5771
- 108.41 MapView.GetToolTip 5772
- 108.87 MapView.SetTag 5823
- 168.21 TextView.GetTop 8027

Created 14th January 2019, last changed 15th January 2019.

## 108.43 MapView.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetVisible"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### See also

- 95.10 ImageView.GetVisible 5172
- 95.19 ImageView.SetVisible 5181
- 108.44 MapView.GetVisibleMapRect 5775
- 108.89 MapView.SetVisible 5825
- 168.22 TextView.GetVisible 8028
- 168.42 TextView.SetVisible 8049

Created 14th January 2019, last changed 15th January 2019.

## 108.44 MapView.GetVisibleMapRect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetVisibleMapRect"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns map rect as JSON or error.

### Description

This property represents the same basic information as the region property but specified as a map rectangle instead of a region.

### Examples

Queries map rect:

MBS( "MapView.GetVisibleMapRect"; \$\$MapView )

```
Example result: {
"x" : 140455603.74390683,
"height" : 799234.62509903312,
"y" : 86194618.191567183,
"width" : 1501801.5633610785
}
```

### See also

- 108.43 MapView.GetVisible 5774
- 108.90 MapView.SetVisibleMapRect 5826

Created 14th January 2019, last changed 15th January 2019.

## 108.45 MapView.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetWidth"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns width or error.

### Description

#### See also

- 95.11 [ImageView.GetWidth](#) 5173
- 108.18 [MapView.GetHeight](#) 5748
- 108.19 [MapView.GetLeft](#) 5749
- 168.23 [TextView.GetWidth](#) 8029

Created 14th January 2019, last changed 15th January 2019.

## 108.46 MapView.GetZoomEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.GetZoomEnabled"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns 0, 1 or error.

### Description

A Boolean value that determines whether the user may use pinch gestures to zoom in and out of the map.

### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.75 MapView.SetPitchEnabled 5809
- 108.77 MapView.SetRotateEnabled 5811
- 108.79 MapView.SetScrollEnabled 5814
- 108.91 MapView.SetZoomEnabled 5827

Created 14th January 2019, last changed 15th January 2019.

## 108.47 MapView.GetZoomLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.GetZoomLevel"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns number or error.

### Description

#### See also

- [108.92 MapView.SetZoomLevel](#)

5828

### 108.47.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr8](#)
- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.

## 108.48 MapView.IsUserLocationVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.IsUserLocationVisible"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

This property tells you whether the icon used to represent the user's current location is visible in the map view. When determining whether the current location is visible, this property factors in the horizontal accuracy of the location data. Specifically, if the rectangle represented by the user's current location plus or minus the horizontal accuracy of that location intersects the map's visible rectangle, this property contains the value 1. If that location rectangle does not intersect the map's visible rectangle, this property contains the value 0.

If the user's location cannot be determined, this property contains the value 0.

### See also

- 108.85 MapView.SetShowsUserLocation

5820

Created 14th January 2019, last changed 15th January 2019.

## 108.49 MapView.MouseCoordinate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	No

MBS( "MapView.MouseCoordinate"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns JSON or error.

### Description

Returns JSON with latitude and longitude.

### See also

- [108.67 MapView.SetCoordinate](#)

5801

### 108.49.1 Blog Entries

- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 18th September 2019, last changed 23th September 2019.



## 108.50 MapView.Overlays

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.Overlays"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns list of identifiers or error.

### Description

#### 108.50.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 7th September 2019, last changed 7th September 2019.

## 108.51 MapView.ParseDistance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.2	Yes	No	Yes, macOS only	No	Yes

MBS( "MapView.ParseDistance"; text )

### Parameters

#### text

The text to parse.

"8 km"

**Result** Returns number or error.

### Description

Uses current locale, so may use miles in US and km in Europe.

Returns distance in meters.

### Examples

Parse 8 km:

MBS( "MapView.ParseDistance"; "8 km" )

Example result: 8000

### See also

- 108.10 MapView.FormatDistance

5739

### 108.51.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 17th March 2019, last changed 17th March 2019.

## 108.52 MapView.PlanRoute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.2	Yes	No	Yes, macOS only	No	Yes

MBS( "MapView.PlanRoute"; MapView; SourceAddress; DestinationAddress; Mode { ; TransportType; StartIdentifier; EndIdentifier; StartColor; EndColor } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### SourceAddress

The address where to start.

"Köln"

#### DestinationAddress

The address where to end.

"München"

#### Mode

Various options. Add 1 to show route on map. Add 2 to show alternative routes on the map. Add 4 to show start of route with a pin. Add 8 to show end of route with a pin. Add 16 to zoom map to show whole of the router. Add 32 to return result as JSON. Add 64 to include poly lines in JSON.

1+4+8+16

#### TransportType

Optional

The type of transportation to use. Value can be a combination of 1 for car, 2 for walk. Default is by car.

1

#### StartIdentifier

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The identifier for the pin to use with script trigger. If empty, the plugin assigns a number automatically.

#### EndIdentifier

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The identifier for the pin to use with script trigger. If empty, the plugin assigns a number automatically.

#### StartColor

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The color to use. Can be a color name or hex notation like in HTML.

"# FF0000"

#### EndColor

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The color to use. Can be a color name or hex notation like in HTML.  
”# FF0000”

**Result** Returns result or error.

### Description

The plugin will lookup coordinates for the given addresses and request a route calculation. Then we may add show routes and optionally return JSON with results.

### Examples

Plan a route and store JSON:

```
Set Variable [ $r ; Value: MBS(”MapView.PlanRoute”; $$MapView; ”Köln”; ”München”; 1+2+4+8+16+32;  
1+2+4) ]
```

```
Set Field [ MapView::Route ; $r ]
```

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView](#)

### 108.52.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr2](#)
- [More on MapViews in FileMaker](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Adding route planing for MapView in FileMaker](#)

Created 17th March 2019, last changed 14th October 2019.

## 108.53 MapView.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.Release"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

#### See also

- 95.12 [ImageView.Release](#) 5174
- 108.8 [MapView.CreateWithControl](#) 5735
- 108.9 [MapView.CreateWithSize](#) 5737
- 108.54 [MapView.ReleaseAll](#) 5786
- 168.27 [TextView.Release](#) 8033
- 183.105 [WebView.Release](#) 8549

### Example Databases

- [iOS/MapKit iOS](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Mac and iOS/MapKit/MapView](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.54 MapView.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.ReleaseAll" )

**Result** Returns number of views released.

### Description

### See also

- [95.13 ImageView.ReleaseAll](#) 5175
- [108.53 MapView.Release](#) 5785
- [168.28 TextView.ReleaseAll](#) 8034

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Mac and iOS/MapKit/MapView](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.55 MapView.RemoveAnnotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.RemoveAnnotation"; MapView; Annotation Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation to remove.

"82001"

**Result** Returns OK or error.

### Description

See also MapView.RemoveOverlay for overlays.

### Examples

Remove an annotation:

MBS( "MapView.RemoveAnnotation"; \$MapView; \$AnnotationIdentifier)

### See also

- [108.56 MapView.RemoveAnnotations](#) 5788
- [108.57 MapView.RemoveOverlay](#) 5789
- [108.60 MapView.SelectedAnnotations](#) 5793

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.55.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 7th September 2019, last changed 7th September 2019.

## 108.56 MapView.RemoveAnnotations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.1	Yes	No	No	No	Yes

MBS( "MapView.RemoveAnnotations"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

#### See also

- [108.55 MapView.RemoveAnnotation](#) 5787
- [108.60 MapView.SelectedAnnotations](#) 5793
- [108.94 MapView.ShowAllAnnotations](#) 5831

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Mac and iOS/MapKit/MapView](#)

### 108.56.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)

Created 23th January 2019, last changed 18th June 2019.



## 108.57 MapView.RemoveOverlay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.RemoveOverlay"; MapView; Overlay Identifier )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to remove.

"82001"

**Result** Returns OK or error.

### Description

#### See also

- 108.55 MapView.RemoveAnnotation 5787
- 108.58 MapView.RemoveOverlays 5790

### 108.57.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr6](#)

Created 7th September 2019, last changed 7th September 2019.

## 108.58 MapView.RemoveOverlays

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.1	Yes	No	Yes, macOS only	No	Yes

MBS( "MapView.RemoveOverlays"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

### See also

- [108.57 MapView.RemoveOverlay](#) 5789

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

### 108.58.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)

Created 23th January 2019, last changed 18th June 2019.

## 108.59 MapView.Screenshot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.3	Yes	No	No	No	Yes

MBS( "MapView.Screenshot"; MapView { ; ImageType; Filename } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container or error.

### Description

This includes annotations and overlays as they are visible.

### Examples

Save screenshot to deektop:

```
If [ Length ( $$MapView ) > 0 ]
```

```
Set Variable [ $screenshot ; Value: MBS("MapView.Screenshot"; $$MapView; "PNG") ]
```

```
Set Variable [ $file ; Value: MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "mapview.png" ) ]
```

```
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; $screenshot; $file ) ]
```

```
End If
```

### See also

- 56.35 Container.WriteFile 1694
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 183.113 WebView.Screenshot 8569

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView](#)

### 108.59.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr1](#)

Created 1st June 2019, last changed 1st June 2019.

## 108.60 MapView.SelectedAnnotations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SelectedAnnotations"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns list of identifiers or error.

### Description

### Examples

Queries annotations:

MBS( "MapView.SelectedAnnotations"; 78001 )

### See also

- 108.55 MapView.RemoveAnnotation 5787
- 108.56 MapView.RemoveAnnotations 5788
- 108.94 MapView.ShowAllAnnotations 5831

### 108.60.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 23th September 2019, last changed 23th September 2019.

## 108.61 MapView.SetAnnotationCoordinate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.SetAnnotationCoordinate"; MapView; Annotation Identifier; JSON )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation to remove.

"82001"

#### JSON

The JSON to describe the coordinate. Can include keys longitude and latitude with values or a key address with address string.

" { \"address\": \"Restaurant Waldfrieden, Nickenich\" } "

**Result** Returns OK or error.

### Description

#### Examples

Changes position of Pin:

```
Set Variable [ $json ; Value: " { \"address\": \"Restaurant Waldfrieden, Nickenich\" } " ]
```

```
Set Variable [ $r ; Value: MBS( "MapView.SetAnnotationCoordinate"; $$MapView; "82001"; $JSON ) ]
```

### See also

- 108.11 MapView.GetAnnotationCoordinate 5740
- 108.62 MapView.SetAnnotationDragImage 5795

### 108.61.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 12nd September 2019, last changed 12nd September 2019.

## 108.62 MapView.SetAnnotationDragImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetAnnotationDragImage"; MapView; Annotation Identifier; Image )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Only for point annotations.

### See also

- 108.12 MapView.GetAnnotationDragImage 5741
- 108.13 MapView.GetAnnotationImage 5742
- 108.61 MapView.SetAnnotationCoordinate 5794
- 108.63 MapView.SetAnnotationImage 5796
- 108.64 MapView.SetAnnotationSelectedImage 5797

### 108.62.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 23th September 2019, last changed 23th September 2019.

## 108.63 MapView.SetAnnotationImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetAnnotationImage"; MapView; Annotation Identifier; Image )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Only for point annotations.

### Examples

Update image:

```
Set Variable [ $r ; Value: MBS( "MapView.SetAnnotationImage"; $$MapView; 82001; MapView::Image2; 40; 40 ) ]
```

### See also

- 108.12 MapView.GetAnnotationDragImage 5741
- 108.13 MapView.GetAnnotationImage 5742
- 108.62 MapView.SetAnnotationDragImage 5795

### 108.63.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.



## 108.64 MapView.SetAnnotationSelectedImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetAnnotationSelectedImage"; MapView; Annotation Identifier; Image )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Only for point annotations.

### See also

- 108.14 MapView.GetAnnotationSelectedImage 5743
- 108.62 MapView.SetAnnotationDragImage 5795

### 108.64.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 23th September 2019, last changed 23th September 2019.

## 108.65 MapView.SetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetAutoResizingMask"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting.

4+8

**Result** Returns OK or error.

### Description

This defines whether web viewer changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### Examples

Make mapview resizable:

MBS( "MapView.SetAutoResizingMask"; \$\$MapView; 2+16 )

### See also

- 41.5 AVPlayer.GetAutoResizingMask 1077
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 70.9 DragDrop.GetAutoResizingMask 2536
- 70.38 DragDrop.SetAutoResizingMask 2573

108.65. MAPVIEW.SETAUTORESIZINGMASK	5799
• 108.15 MapView.GetAutoResizingMask	5744
• 168.10 TextView.GetAutoResizingMask	8016
• 168.30 TextView.SetAutoResizingMask	8036
• 183.52 WebView.GetAutoResizingMask	8477
• 183.124 WebView.SetAutoResizingMask	8583

### Example Databases

- [iOS/MapKit iOS](#)

#### 108.65.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr9](#)

Created 16th January 2019, last changed 16th January 2019.

## 108.66 MapView.SetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.4	Yes	No	No	No	Yes

MBS( "MapView.SetColor"; MapView; Annotation Identifier; color )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Annotation Identifier

The identifier for the annotation.

"82001"

#### color

The color to use. Can be a color name or hex notation like in HTML.

"# FF0000"

**Result** Returns OK or error.

### Description

#### Examples

Changes color to blue:

MBS( "MapView.SetColor"; "78001"; "82001"; "# 0000FF" )

Created 7th September 2019, last changed 9th September 2019.

## 108.67 MapView.SetCoordinate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetCoordinate"; MapView; Latitude; Longitude { ; ZoomLevel; Animated } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Latitude

The latitude of the coordinate.

#### Longitude

The longitude of the coordinate.

#### ZoomLevel

Optional

Optional zoom level in range from 0 to 20.

#### Animated

Optional

Whether to animate the change. Default is 1 to animate.

1

**Result** Returns OK or error.

### Description

#### See also

- 108.49 MapView.MouseCoordinate

5780

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

Created 14th January 2019, last changed 28th November 2019.

## 108.68 MapView.SetFrame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetFrame"; MapView; X; Y; Width; Height { ; swap } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### X

The x coordinate.

#### Y

The y coordinate.

#### Width

The width of the control.

#### Height

The height of the control.

#### swap

Optional

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns OK or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 95.14 `ImageView.SetFrame` 5176
- 108.87 `MapView.SetTag` 5823
- 168.32 `TextView.SetFrame` 8039

Created 14th January 2019, last changed 15th January 2019.

## 108.69 MapView.SetFrameWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetFrameWithControl"; MapView; ControlName { ; DX; DY } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move drop area more to left or right.

0

#### DY

Optional

A delta to move drop area more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the drop area back to the new position.

Also useful to switch between different locations on the layout.

### See also

- 41.34 AVPlayer.SetFrameWithControl 1110
- 70.44 DragDrop.SetFrameWithControl 2584
- 95.15 ImageView.SetFrameWithControl 5177
- 108.8 MapView.CreateWithControl 5735
- 168.33 TextView.SetFrameWithControl 8040

### 108.69.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr9](#)

Created 16th January 2019, last changed 16th January 2019.

## 108.70 MapView.SetMapType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetMapType"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new map type. Can be Standard, Satellite, Hybrid, SatelliteFlyover, HybridFlyover or MutedStandard. "Hybrid"

**Result** Returns OK or error.

### Description

### Examples

Switch to hybrid flyover:

MBS( "MapView.SetMapType"; \$\$MapView; "HybridFlyover" )

### See also

- 108.20 MapView.GetMapType

5750

### Example Databases

- [iOS/MapKit iOS](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 14th January 2019, last changed 16th January 2019.



## 108.71 MapView.SetOverlayFillColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetOverlayFillColor"; MapView; Overlay Identifier; color )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

#### color

A color value. This can be a common color name or color in hex notation: # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"# FF0000"

**Result** Returns OK or error.

### Description

### Examples

Change color to red:

MBS( "MapView.SetOverlayFillColor"; \$\$MapView; "82001"; "# FF0000" )

### See also

- 108.21 MapView.GetOverlayFillColor 5751
- 108.24 MapView.GetOverlayStrokeColor 5755
- 108.72 MapView.SetOverlayLineWidth 5806
- 108.74 MapView.SetOverlayStrokeColor 5808

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.71.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.72 MapView.SetOverlayLineWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetOverlayLineWidth"; MapView; Overlay Identifier; LineWidth )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

#### LineWidth

The new line width to use. Zero is default for width of street.

5

**Result** Returns OK or error.

### Description

### Examples

Make a thick line:

```
MBS( "MapView.SetOverlayLineWidth"; $$MapView; "82001"; 10 )
```

### See also

- 108.22 MapView.GetOverlayLineWidth 5752
- 108.71 MapView.SetOverlayFillColor 5805
- 108.73 MapView.SetOverlayPoints 5807

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.72.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.73 MapView.SetOverlayPoints

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetOverlayPoints"; MapView; Overlay Identifier; JSON )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay.

"82001"

#### JSON

The JSON array with points. Can be given with objects for the coordinates. Each entry can contain either longitude & latitude pair, x and y pair or address value.

```
" [ { \"latitude\" : 50.4, \"longitude\" : 7.3 } , { \"latitude\" : 50.5, \"longitude\" : 7.3 } , { \"latitude\" : 50.49, \"longitude\" : 7.4 } , { \"latitude\" : 50.4, \"longitude\" : 7.4 } ] "
```

**Result** Returns OK or error.

### Description

Only for polygon and poly line overlays.

### Examples

Change coordiantes for a polygon:

```
MBS( "MapView.SetOverlayPoints"; $$MapView; 82002; $NewCoordinates )
```

### See also

- 108.23 MapView.GetOverlayPoints 5753
- 108.72 MapView.SetOverlayLineWidth 5806

### Example Databases

- [Mac and iOS/MapKit/MapView Click Polygons](#)

### 108.73.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.

## 108.74 MapView.SetOverlayStrokeColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetOverlayStrokeColor"; MapView; Overlay Identifier; color )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Overlay Identifier

The identifier for the overlay to use.

"82001"

#### color

A color value. This can be a common color name or color in hex notation: # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"# FF0000"

**Result** Returns OK or error.

### Description

### Examples

Change color to transparent blue:

```
MBS( "MapView.SetOverlayStrokeColor"; $$MapView; "82001"; "# 0000FF77" )
```

### See also

- 108.21 MapView.GetOverlayFillColor 5751
- 108.24 MapView.GetOverlayStrokeColor 5755
- 108.71 MapView.SetOverlayFillColor 5805

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.74.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 19th September 2019, last changed 19th September 2019.

## 108.75 MapView.SetPitchEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetPitchEnabled"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean value indicating whether the map camera's pitch information is used.

#### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.31 MapView.GetRotateEnabled 5762
- 108.46 MapView.GetZoomEnabled 5777
- 108.77 MapView.SetRotateEnabled 5811
- 108.79 MapView.SetScrollEnabled 5814
- 108.91 MapView.SetZoomEnabled 5827

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.76 MapView.SetRegion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetRegion"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

An JSON with region details. Can be degree or meter based for span. latitude and longitude to define center coordinate. Add latitudeMeters/longitudeMeters or latitudeDelta/longitudeDelta to define span. If there is an address key, we query coordiantes of the given address string instead of using coordinates.

**Result** Returns OK or error.

### Description

#### Examples

Sets region:

```
MBS( "MapView.SetRegion"; $$MapView; " { \"longitude\" : 9.3726796999999955, \"longitudeDelta\" : 2.0140728459134323, \"latitude\" : 53.6798862999999907, \"latitudeDelta\" : 0.63485953767546732 } ")
```

### See also

- 108.18 MapView.GetHeight 5748
- 108.26 MapView.GetRegion 5757
- 108.78 MapView.SetScript 5812

Created 14th January 2019, last changed 15th January 2019.

## 108.77 MapView.SetRotateEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetRotateEnabled"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean value indicating whether the map camera's heading information is used.

When this property is set to 1 and a valid camera is associated with the map, the camera's heading angle is used to rotate the plane of the map around its center point. When this property is set to false, the camera's heading angle is ignored and the map is always oriented so that true north is situated at the top of the map view.

### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.46 MapView.GetZoomEnabled 5777
- 108.75 MapView.SetPitchEnabled 5809
- 108.79 MapView.SetScrollEnabled 5814
- 108.91 MapView.SetZoomEnabled 5827

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.78 MapView.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.3	Yes	No	No	No	Yes

MBS( "MapView.SetScript"; MapView { ; Filename; ScriptName } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Filename

Optional

The database file name where the script is located.

"test.fmp12"

#### ScriptName

Optional

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Script is called for pins with identifiers when clicked.

With version 9.5, we start passing JSON with various values included. Version 9.3 and 9.4 only pass annotation identifier.

The JSON includes mapViewID, annotationIdentifier, latitude, longitude, mouseInViewX, mouseInViewY, mouseInWindowX, mouseInWindowY, mouseLocationX, mouseLocationY, reason and overlayIdentifiers.

overlayIdentifiers are found by bounding rectangles, so we don't check polygons or circles exactly!

The JSON contains an entry reason for why the script was called including Touch, Click, AnnotationMoved, and AnnotationSelected.

### Examples

Set script:

```
Set Variable [ $$MapView ; Value: MBS("MapView.CreateWithControl"; 0; "Placeholder") ]
Set Variable [ $r ; Value: MBS("MapView.SetScript"; $$MapView; Get(Filename); "PinClicked") ]
```

### See also

- 108.8 MapView.CreateWithControl



108.78. *MAPVIEW.SETSCRIPT*

5813

- 108.76 `MapView.SetRegion`

5810

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView Click Polygons](#)

### 108.78.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr2](#)
- [More on MapViews in FileMaker](#)

Created 6th June 2019, last changed 23th September 2019.

## 108.79 MapView.SetScrollEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetScrollEnabled"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean value that determines whether the user may scroll around the map.

#### See also

- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.46 MapView.GetZoomEnabled 5777
- 108.75 MapView.SetPitchEnabled 5809
- 108.77 MapView.SetRotateEnabled 5811
- 108.91 MapView.SetZoomEnabled 5827

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.80 MapView.SetShowsBuildings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsBuildings"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean indicating whether the map displays extruded building information.

When this property is set to 1 and the camera has a pitch angle greater than zero, the map extrudes buildings so that they extend above the map plane, creating a 3D effect. The mapType property must be set to Standard for extruded buildings to be displayed. The default value of this property is 1.

### See also

- 108.33 MapView.GetShowsBuildings

5764

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.81 MapView.SetShowsCompass

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsCompass"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean indicating whether the map displays a compass control.

Use this property to show or hide a control that lets users change the heading orientation of the map.

### See also

- 108.34 MapView.GetShowsCompass 5765
- 108.83 MapView.SetShowsScale 5818

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.82 MapView.SetShowsPointsOfInterest

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsPointsOfInterest"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean indicating whether the map displays point-of-interest information.

When this property is set to 1, the map displays icons and labels for restaurants, schools, and other relevant points of interest. The mapType property must be set to Standard or Hybrid for points of interest to be displayed. The default value of this property is 1.

### See also

- 108.35 MapView.GetShowsPointsOfInterest

5766

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.83 MapView.SetShowsScale

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsScale"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean indicating whether the map shows scale information.

#### See also

- 108.36 MapView.GetShowsScale 5767
- 108.81 MapView.SetShowsCompass 5816
- 108.84 MapView.SetShowsTraffic 5819

Created 14th January 2019, last changed 15th January 2019.

**108.84 MapView.SetShowsTraffic**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsTraffic"; MapView; Value )

**Parameters****MapView**

The map view reference number.

\$\$MapView

**Value**

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

**Description**

A Boolean value indicating whether the map displays traffic information.

**See also**

- 108.37 MapView.GetShowsTraffic 5768
- 108.83 MapView.SetShowsScale 5818

Created 14th January 2019, last changed 15th January 2019.

## 108.85 MapView.SetShowsUserLocation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetShowsUserLocation"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean value indicating whether the map should try to display the user's location.

This property does not indicate whether the user's position is actually visible on the map, only whether the map view should try to display it. Setting this property to 1 causes the map view to use the Core Location framework to find the current location and try to display it on the map. As long as this property is 1, the map view continues to track the user's location and update it periodically. The default value of this property is 0.

Showing the user's location does not guarantee that the location is visible on the map. The user might have scrolled the map to a different point, causing the current location to be offscreen. To determine whether the user's current location is currently displayed on the map, use the MapView.IsUserLocationVisible function.

### Examples

Create map view and show user location:

```
Set Variable [ $$MapView ; Value: MBS("MapView.CreateWithControl"; 0; "Placeholder") ]
Set Variable [ $r ; Value: MBS( "MapView.SetShowsUserLocation"; $$MapView; 1 ) ]
# may trigger dialog to ask for location permissions
```

### See also

- 108.8 MapView.CreateWithControl 5735
- 108.38 MapView.GetShowsUserLocation 5769
- 108.48 MapView.IsUserLocationVisible 5779

### Example Databases

- [iOS/MapKit iOS](#)



108.85. *MAPVIEW.SETSHOWSUSERLOCATION*

5821

Created 14th January 2019, last changed 2nd January 2020.

## 108.86 MapView.SetShowsZoomControls

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	No

MBS( "MapView.SetShowsZoomControls"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean indicating whether the map displays zoom controls.

#### See also

- 108.39 MapView.GetShowsZoomControls

5770

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.87 MapView.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetTag"; MapView; tag )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### tag

A string you want to associate with the map view.

**Result** Returns OK or error.

### Description

Use the tag to store whatever value you want to associate with the image view. You can later query it using MapView.GetTag.

### See also

- 95.17 ImageView.SetTag 5179
- 108.40 MapView.GetTag 5771
- 108.42 MapView.GetTop 5773
- 108.68 MapView.SetFrame 5802
- 168.41 TextView.SetTag 8048

Created 14th January 2019, last changed 15th January 2019.

## 108.88 MapView.SetToolTip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	No

MBS( "MapView.SetToolTip"; MapView; Tooltip )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Tooltip

The new help text.

"Hello"

**Result** Returns OK or error.

### Description

The tooltip is visible on Mac when mouse stays over control. There are no tooltips for iOS.

### See also

- 95.8 ImageView.GetToolTip 5170
- 95.18 ImageView.SetToolTip 5180
- 108.41 MapView.GetToolTip 5772

Created 14th January 2019, last changed 15th January 2019.

## 108.89 MapView.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetVisible"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new visible state. Can be 1 for visible and 0 for hidden.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### See also

- 95.10 [ImageView.GetVisible](#) 5172
- 95.19 [ImageView.SetVisible](#) 5181
- 108.43 [MapView.GetVisible](#) 5774
- 108.90 [MapView.SetVisibleMapRect](#) 5826
- 168.22 [TextView.GetVisible](#) 8028
- 168.42 [TextView.SetVisible](#) 8049

### Example Databases

- [Mac and iOS/MapKit/MapView Click Polygons](#)
- [Mac and iOS/MapKit/MapView](#)

Created 14th January 2019, last changed 18th June 2019.

## 108.90 MapView.SetVisibleMapRect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetVisibleMapRect"; MapView; Rect )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Rect

The map rectangle. A JSON with x, y, width and height.

**Result** Returns OK or error.

### Description

Changes the currently visible portion of the map and optionally animates the change.

### Examples

Sets visible rect:

```
MBS( "MapView.SetVisibleMapRect"; $$MapView; " { \"x\": 140455603.74390683, \"height\": 799234.62509903312, \"y\": 86194618.191567183, \"width\": 1501801.5633610785 } "
```

### See also

- 108.44 MapView.GetVisibleMapRect 5775
- 108.89 MapView.SetVisible 5825

Created 14th January 2019, last changed 15th January 2019.

## 108.91 MapView.SetZoomEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.SetZoomEnabled"; MapView; Value )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

A Boolean value that determines whether the user may use pinch gestures to zoom in and out of the map.

#### See also

- 108.25 MapView.GetPitchEnabled 5756
- 108.31 MapView.GetRotateEnabled 5762
- 108.32 MapView.GetScrollEnabled 5763
- 108.46 MapView.GetZoomEnabled 5777
- 108.75 MapView.SetPitchEnabled 5809
- 108.77 MapView.SetRotateEnabled 5811
- 108.79 MapView.SetScrollEnabled 5814

### Example Databases

- [iOS/MapKit iOS](#)

Created 14th January 2019, last changed 15th January 2019.

## 108.92 MapView.SetZoomLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.5	Yes	No	No	No	Yes

MBS( "MapView.SetZoomLevel"; MapView; ZoomLevel { ; Animated } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### ZoomLevel

The new zoom level. Range 1 to 20.

5

#### Animated

Optional

Whether to animate. Pass 1 to animate or 0 to not animate. Default is animated.

1

**Result** Returns OK or error.

### Description

#### Examples

Zoom one level in:

```
MBS( "MapView.SetZoomLevel"; $$MapView; MBS( "MapView.GetZoomLevel"; $$MapView ) + 1; 1)
```

Zoom out:

```
MBS( "MapView.SetZoomLevel"; $$MapView; 1; 1)
```

### See also

- 108.47 MapView.GetZoomLevel

5778

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

#### 108.92.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 20th September 2019, last changed 20th September 2019.



## 108.93 MapView.ShowAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	No	No	Yes

MBS( "MapView.ShowAddress"; MapView; Address { ; addPin; Identifier; color } )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

#### Address

The address to lookup.”

”New York”

#### addPin

Optional

Whether to add a pin. Pass 0 to just show the area or 1 to add pin and show the area.

1

#### Identifier

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The identifier for the pin to use with script trigger.

#### color

Optional

Available in MBS FileMaker Plugin 9.3 or newer.

The color to use. Can be a color name or hex notation like in HTML.

”# FF0000”

**Result** Returns OK, identifier or error.

### Description

Asynchronously queries coordinate for given address and shows it.

### Examples

Show pin in New York in green:

```
MBS("MapView.ShowAddress"; $$MapView; "New York"; 1; ""; "# 00FF00")
```

### Example Databases

- [iOS/MapKit iOS](#)
- [Mac and iOS/MapKit/MapView BeeExample](#)
- [Mac and iOS/MapKit/MapView](#)

### 108.93.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)
- [MBS FileMaker Plugin, version 9.4pr6](#)
- [MBS FileMaker Plugin, version 9.3pr4](#)
- [MBS FileMaker Plugin, version 9.3pr2](#)
- [More on MapViews in FileMaker](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)
- [Apple Maps in FileMaker on iOS](#)

Created 14th January 2019, last changed 9th September 2019.

## 108.94 MapView.ShowAllAnnotations

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.1	Yes	No	No	No	Yes

MBS( "MapView.ShowAllAnnotations"; MapView )

### Parameters

#### MapView

The map view reference number.

\$\$MapView

**Result** Returns OK or error.

### Description

#### See also

- 108.56 MapView.RemoveAnnotations 5788
- 108.60 MapView.SelectedAnnotations 5793

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 108.94.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr2](#)

Created 11st February 2019, last changed 11st February 2019.

## 108.95 MapView.Snapshot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
108 MapView	9.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MapView.Snapshot"; Options { ; ImageType; Filename } )

### Parameters

#### Options

The options as JSON block. All values are optional and have default.

```
" { \"width\": 800, \"height\": 600 } "
```

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

Not sure if this works on server!

Keys in the JSON include:

width	The pixel width requested. Default is 256.
height	The pixel height requested. Default is 256.
scale	The scale of the display, defaults to screen scale. Only for iOS.
showsPointsOfInterest	Whether to show points of interests. Pass 1 to enable or 0 to disable.
showsBuildings	Show buildings. Pass 1 to enable or 0 to disable.
mapType	Pass Standard, Satellite, Hybrid, SatelliteFlyover, HybridFlyover or Muted-Standard.
mapRect	An object with x, y, width and height for the map rectangle to show in world coordinates.
region	An object with region details. Can be degree or meter based for span. latitude and longitude to define center coordinate. Add latitudeMeters/longitudeMeters or latitudeDelta/longitudeDelta to define span.
camera	The JSON object for camera specification.
appearance	Which appearance to use for MacOS 10.14. Can be Dark, Light or current. Default is current of Mac.

Camera specification includes center coordinate (latitude and longitude) and can be either looking from eye

point (eyeLatitude, eyeLongitude and altitude) or looking from distance (distance, pitch and heading).

Rendering may take a few seconds, but gets faster over time due to caching.

### Examples

Make a snapshot with all options default:

```
Set Field [ Snapshots::Image ; MBS( "MapView.Snapshot"; " { } " ) ]
```

Snapshot with camera:

```
Set Variable [ $json ; Value: MBS( "JSON.CreateObjectRef" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $json; "width"; 800 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $json; "height"; 600 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddStringToObject"; $json; "mapType"; "HybridFlyover" ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $json; "showsBuildings"; 1 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $json; "showsPointsOfInterest"; 1 ) ]
#
Set Variable [ $camera ; Value: MBS( "JSON.CreateObjectRef" ) ]
# The coordinate point on which the map should be centered.
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $camera; "latitude"; 40.7457172 ) ]
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $camera; "longitude"; -73.9941266 ) ]
#
# The line-of-sight distance from the camera to the center coordinate of the map.
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $camera; "distance"; 3000 ) ]
#
# The viewing angle of the camera, measured in degrees.
# A value of 0 results in a camera pointed straight down at the map. Angles greater than 0 result in a
camera that is pitched toward the horizon by the specified number of degrees. If the map type is satellite or
hybrid, the pitch value is clamped to 0.
# The value in this property may be clamped to a maximum value to maintain map readability. There is
no fixed maximum value, though, because the actual maximum value is dependent on the current altitude
of the camera.
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $camera; "pitch"; 70 ) ]
#
# The heading of the camera (measured in degrees) relative to true north.
# The value 0 means that the top edge of the map view corresponds to true north. The value 90 means the
top of the map is pointing due east. The value 180 means the top of the map points due south, and so on.
Set Variable [ $r ; Value: MBS( "JSON.AddNumberToObject"; $camera; "heading"; 28 ) ]
#
Set Variable [ $r ; Value: MBS( "JSON.AddItemToObject"; $json; "camera"; $camera ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $camera ) ]
#
Set Variable [ $options ; Value: MBS( "JSON.Format"; $json ) ]
Set Variable [ $r ; Value: MBS( "JSON.Release"; $json ) ]
Set Variable [ $image ; Value: MBS("MapView.Snapshot"; $options; "PNG"; "map.png") ]
If [ MBS("isError") ]
Show Custom Dialog [ "Failed to render map" ; $image ]
```

```
Else  
Set Field [ Snapshots::Image ; $image ]  
End If
```

**See also**

- 127.6 IsError 6374
- 102.8 JSON.AddItemToObject 5317
- 102.11 JSON.AddNumberToObject 5324
- 102.13 JSON.AddStringToObject 5328
- 102.27 JSON.CreateObject 5349
- 102.28 JSON.CreateObjectRef 5351
- 102.40 JSON.Format 5368
- 102.67 JSON.Release 5409

**Example Databases**

- [Mac and iOS/MapKit/MapKit Snapshots](#)

**108.95.1 Blog Entries**

- [Apple Maps in FileMaker on iOS](#)
- [MBS FileMaker Plugin, version 9.0pr8](#)

Created 12nd January 2019, last changed 16th January 2019.

# Chapter 109

## Markdown

Convert Markdown code to HTML code.

Using a Markdown library built-in to the plugin. Alternative can be WebViewer functions loading MakeDown library in JavaScript.

### 109.1 Markdown.CSS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
109 Markdown	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Markdown.CSS"; MarkdownRef )

#### Parameters

##### MarkdownRef

The reference to the Markdown object as returned by Markdown.Create function.

\$ref

**Result** Returns text or error.

#### Description

#### See also

- 109.2 Markdown.Create

5836

#### Example Databases

- [Markdown](#)

Created 13th April 2015, last changed 14th April 2015.

## 109.2 Markdown.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
109 Markdown	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Markdown.Create"; MarkdownCode )

### Parameters

#### MarkdownCode

The mark down code to process.

**Result** Returns reference number or error.

### Description

### Examples

Create and query html:

```
Set Variable [ $r ; Value: MBS("Markdown.Create"; "Text attributes italic, bold, 'monospace',
~~strikethrough~~.") ]
```

```
Set Variable [ $html ; Value: MBS("Markdown.HTML"; $r) ]
```

```
Set Variable [ $r ; Value: MBS("Markdown.Release"; $r) ]
```

### See also

- 109.1 Markdown.CSS 5835
- 109.3 Markdown.HTML 5837
- 109.4 Markdown.Release 5838

### Example Databases

- [Markdown](#)

Created 13th April 2015, last changed 4th June 2015.



## 109.3 Markdown.HTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
109 Markdown	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Markdown.HTML"; MarkdownRef )

### Parameters

#### MarkdownRef

The reference to the Markdown object as returned by Markdown.Create function.

\$ref

**Result** Returns text or error.

### Description

#### Examples

Create and query html:

```
Set Variable [ $r ; Value: MBS("Markdown.Create"; "Text attributes italic, bold, 'monospace',
~~strikethrough~~.") ]
```

```
Set Variable [ $html ; Value: MBS("Markdown.HTML"; $r) ]
```

```
Set Variable [ $r ; Value: MBS("Markdown.Release"; $r) ]
```

### See also

- 109.2 Markdown.Create 5836
- 109.4 Markdown.Release 5838

### Example Databases

- [Markdown](#)

Created 13th April 2015, last changed 4th June 2015.

## 109.4 Markdown.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
109 Markdown	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Markdown.Release"; MarkdownRef )

### Parameters

#### MarkdownRef

The reference to the Markdown object as returned by Markdown.Create function.

\$ref

**Result** Returns OK or error.

### Description

#### Examples

Create and query html:

```
Set Variable [ $r ; Value: MBS("Markdown.Create"; "Text attributes italic, bold, 'monospace',
~~strikethrough~~.") ]
```

```
Set Variable [ $html ; Value: MBS("Markdown.HTML"; $r) ]
```

```
Set Variable [ $r ; Value: MBS("Markdown.Release"; $r) ]
```

### See also

- 109.2 Markdown.Create 5836
- 109.3 Markdown.HTML 5837

### Example Databases

- [Markdown](#)

Created 13th April 2015, last changed 4th June 2015.

# Chapter 110

## Math

Math functions.

### 110.1 Math.BitwiseAND

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseAND"; value1; value2 )

#### Parameters

##### value1

The first number.

5

##### value2

The second number.

6

**Result** Returns number.

#### Description

Only for integer numbers. You can pass several values to combine more than 2 values.

Updated to use 64-bit signed integers in version 7.3.

#### Examples

Applies bitwise and for three numbers which gives 16:

```
MBS("Math.BitwiseAND"; 255; 48; 18)
```

**See also**

- [71.213 DynaPDF.GetOCG](#) 2906
- [71.260 DynaPDF.GetUsesTransparency](#) 2963
- [110.2 Math.BitwiseNOT](#) 5841
- [110.3 Math.BitwiseOR](#) 5842
- [110.6 Math.BitwiseXOR](#) 5845
- [129.4 Preferences.GetValue](#) 6484
- [54.14 UnZipFile.ItemFlag](#) 1524

**Example Databases**

- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)
- [Win Only/Receive System Notifications](#)

**110.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.

## 110.2 Math.BitwiseNOT

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseNOT"; value )

### Parameters

#### value

The number to use.

255

**Result** Returns number.

### Description

Only for integer number.

Updated to use 64-bit signed integers in version 7.3.

### Examples

Calculates Bitwise NOT of 255:

MBS( "Math.BitwiseNOT"; 255 )

### See also

- 110.1 Math.BitwiseAND 5839
- 110.3 Math.BitwiseOR 5842
- 110.6 Math.BitwiseXOR 5845

### 110.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.

## 110.3 Math.BitwiseOR

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseOR"; value1; value2 )

### Parameters

#### value1

The first number.

5

#### value2

The second number.

6

**Result** Returns number.

### Description

Only for integer numbers. You can pass several values to combine more than 2 values.

Updated to use 64-bit signed integers in version 7.3.

### Examples

Applies bitwise or for three numbers which gives 23:

```
MBS("Math.BitwiseOR"; 5; 6; 16)
```

### See also

- [71.444 DynaPDF.SetViewerPreferences](#) 3300
- [110.1 Math.BitwiseAND](#) 5839
- [110.2 Math.BitwiseNOT](#) 5841
- [110.6 Math.BitwiseXOR](#) 5845
- [129.8 Preferences.SetValue](#) 6490

### 110.3.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.

## 110.4 Math.BitwiseShiftLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseShiftLeft"; value; steps )

### Parameters

#### value

The number to shift.

2

#### steps

The number of steps to shift.

1

**Result** Returns number.

### Description

Only for integer numbers.

Updated to use 64-bit signed integers in version 7.3.

### Examples

Shifts number. 4 shifted by 2 to left results in 16.

MBS( "Math.BitwiseShiftLeft"; 16; 2 )

### See also

- [110.5 Math.BitwiseShiftRight](#)

5844

### 110.4.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.

## 110.5 Math.BitwiseShiftRight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseShiftRight"; value; steps )

### Parameters

#### value

The number to shift.

2

#### steps

The number of steps to shift.

1

**Result** Returns number.

### Description

Only for integer numbers.

Updated to use 64-bit signed integers in version 7.3.

### Examples

Shifts number. 16 shifted by 2 to right results in 4

MBS( "Math.BitwiseShiftRight"; 16; 2 )

### See also

- [110.4 Math.BitwiseShiftLeft](#)

5843

### Example Databases

- [Win Only/Receive System Notifications](#)

### 110.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.



## 110.6 Math.BitwiseXOR

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.BitwiseXOR"; value1; value2 )

### Parameters

#### value1

The first number.

5

#### value2

The second number.

6

**Result** Returns number.

### Description

Only for integer numbers. You can pass several values to combine more than 2 values.

Updated to use 64-bit signed integers in version 7.3.

### Examples

Applies bitwise or for three numbers which gives 19:

```
MBS("Math.BitwiseXOR"; 5; 6; 16)
```

### See also

- [110.1 Math.BitwiseAND](#) 5839
- [110.2 Math.BitwiseNOT](#) 5841
- [110.3 Math.BitwiseOR](#) 5842

### 110.6.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)
- [MBS Filemaker Plugin, version 4.1pr5](#)

Created 18th August 2014, last changed 14th July 2017.

## 110.7 Math.DecToHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "Math.DecToHex"; number { ; NoLeadingZeros } )

### Parameters

#### number

The number you want to convert to hexadecimal.

1234

#### NoLeadingZeros

Optional

Optional, whether to avoid leading zeros. Default is 0.

0

**Result** Returns the hexadecimal number.

### Description

Works with 32 bit integers.

### Examples

Query number for 65535. Returns 0000FFFF.

MBS( "Math.DecToHex"; 65535 )

Query number without leading zeros for 4096. Returns 1000.

MBS( "Math.DecToHex"; 4096 )

### Example Databases

- [Math/Hexadecimal numbers](#)

### 110.7.1 Blog Entries

- [MBS Filemaker Plugin, version 2.5pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.8 Math.DecodeNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.DecodeNumber"; NumberType; Bits; Text { ; BigEndian } )

### Parameters

#### NumberType

Which type of number to encode. Can be "Float", "Integer" or "UnsignedInteger".  
"Float"

#### Bits

The number of bits. Can be 32 or 64 for float. Can be 8, 16, 24, 32 or 64 for integers.  
32

#### Text

The hex encoded binary data.  
"14EF"

#### BigEndian

Optional  
Pass 1 to encode big endian. Default is 0 for little endian.  
0

**Result** Returns number or error.

### Description

This may be useful for binary protocols with serial ports or sockets.

### Examples

Decodes a 32-bit floating point number:

MBS( "Math.DecodeNumber"; "Float"; 32; "79E9F642" )

Decode a 8-bit integer number:

MBS( "Math.DecodeNumber"; "Integer"; 8; "C8")

Decode a 64-bit unsigned integer:

MBS( "Math.DecodeNumber"; "UnsignedInteger"; 64; "C0BA8A3CD5620400")

Decode big endian 64-bit:

MBS( "Math.DecodeNumber"; "Integer"; 64; "0000000000000001"; 1)

**See also**

- 110.9 Math.EncodeNumber 5849
- 110.20 Math.TextToNumber 5862

### 110.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)
- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 14th July 2016, last changed 1st August 2016.

## 110.9 Math.EncodeNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.EncodeNumber"; NumberType; Bits; Number { ; BigEndian } )

### Parameters

#### NumberType

Which type of number to encode. Can be "Float", "Integer" or "UnsignedInteger".  
"Float"

#### Bits

The number of bits. Can be 32 or 64 for float. Can be 8, 16, 24, 32 or 64 for integers.  
32

#### Number

The number to encode.  
123

#### BigEndian

Optional  
Pass 1 to encode big endian. Default is 0 for little endian.  
0

**Result** Returns hex text or error.

### Description

You can use Math.DecodeNumber to decode it again.

### Examples

Encodes a 32-bit floating point number:

```
MBS( "Math.EncodeNumber"; "Float"; 32; 123.456 )
// 79E9F642
```

Encode 8 bit signed integer:

```
MBS( "Math.EncodeNumber"; "Integer"; 8; -56 )
// C8
```

Encode 64-bit unsigned integer:

```
MBS( "Math.EncodeNumber"; "UnsignedInteger"; 64; 1234567890123456)
// C0BA8A3CD5620400
```

Encodes number with big/little endian:

```
MBS( "Math.EncodeNumber"; "Float"; 32; 123,456; 1 ) & §& MBS( "Math.EncodeNumber"; "Float"; 32;
```

5850

123,456; 0 )

Encode number with big endian and extended to 16 bytes:

```
"000000000000000000000000" & MBS( "Math.EncodeNumber"; "Integer"; 32; 1234567;1 )
```

**See also**

- [110.8 Math.DecodeNumber](#) 5847

**110.9.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr3](#)
- [MBS FileMaker Plugin, version 6.4pr1](#)

Created 14th July 2016, last changed 11st October 2016.

## 110.10 Math.HexToDec

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	2.5	Yes	Yes	Yes	Yes	Yes

MBS( "Math.HexToDec"; hexNumber )

### Parameters

#### hexNumber

The hex number you want to convert to hexadecimal.  
FEDC

**Result** Returns the decimal number.

### Description

Works with 32 bit integers, so hex number has a maximal length of 8 characters.

### Examples

Query number for hex number FFFF (returns 65535)

MBS( "Math.HexToDec"; "FFFF" )

### Example Databases

- [Color Panel](#)
- [Math/Hexadecimal numbers](#)

### 110.10.1 Blog Entries

- [Using Emojis in FileMaker](#)
- [MBS Filemaker Plugin, version 2.5pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.11 Math.InchToPixel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.InchToPixel"; Value; Resolution )

### Parameters

#### Value

The value to convert.

123

#### Resolution

The resolution used in dpi. Default is 72 dpi.

72

**Result** Return value or error.

### Description

The formula is:  $\text{result} = \text{value} * \text{resolution}$ .

### Examples

Convert 3 inches to pixel:

```
MBS( "Math.InchToPixel"; 3 )
```

### 110.11.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr7](#)

Created 18th August 2014, last changed 18th August 2014.



## 110.12 Math.InsidePolygon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	2.2	Yes	Yes	Yes	Yes	Yes

MBS( "Math.InsidePolygon"; X; Y; Values )

### Parameters

#### X

The X coordinate

30

#### Y

The Y coordinate

30

### Values

The list of x and y values. Delimiter is semicolon. Numbers in US format.

"10;20;30;20;30;40;10;40"

### Description

### Examples

Check if point is inside polygon:

```
$result = MBS("Math.InsidePolygon"; 30; 30; "10;20;30;20;30;40;10;40")
```

Check with GPS coordinates:

```
MBS("Math.InsidePolygon"; 45.787; 4.831;
"45.78603562364937;4.830036163330078;
45.788691544176785;4.830873012542725;
45.78536975331141;4.833780527114868;
45.7881753329116;4.834917783737183")
```

### Example Databases

- [Math/Polygon test](#)

### 110.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS Filemaker Plugin, version 2.2pr2](#)

Created 18th August 2014, last changed 24th May 2017.

## 110.13 Math.IsValidCC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Math.IsValidCC"; text )

### Parameters

#### text

The text with the number.

"12345678"

**Result** Returns 1 on success or 0 on failure.

### Description

This function implements the Luhn algorithm. This is a simple checksum formula used to validate a variety of identification numbers, such as credit card numbers, IMEI numbers, National Provider Identifier numbers in US and Canadian Social Insurance Numbers.

If this function returns 0, you can be sure the number is not valid. But if the function returns 1, you may want to check the number online with some database.

### Example Databases

- [Math/Validate CC numbers](#)

### 110.13.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.14 Math.MillimeterToPixel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.MillimeterToPixel"; Value; Resolution )

### Parameters

#### Value

The value to convert.

123

#### Resolution

The resolution used in dpi. Default is 72 dpi.

72

**Result** Return value or error.

### Description

The formula is:  $\text{result} = \text{value} / 25.4 * \text{resolution}$ .

### Examples

Convert 300 millimeter to pixel:

MBS( "Math.MillimeterToPixel"; 300 )

### 110.14.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.15 Math.NumberToText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Math.NumberToText"; value )

### Parameters

#### value

Some numerical value you want to convert.

1234

**Result** Returns text.

### Description

This function always uses english system (dot as decimal separator).

See [Math.TextToNumber](#) for the reverse.

### See also

- [110.20 Math.TextToNumber](#)

5862

### 110.15.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr1](#)

Created 18th August 2014, last changed 8th September 2018.

## 110.16 Math.PixelToInch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.PixelToInch"; Value; Resolution )

### Parameters

#### Value

The value to convert.

123

#### Resolution

The resolution used in dpi. Default is 72 dpi.

72

**Result** Return value or error.

### Description

The formula is:  $\text{result} = \text{value} / \text{resolution}$ .

### Examples

Convert 300 pixel to inch:

MBS( "Math.PixelToInch"; 300 )

### 110.16.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.17 Math.PixelToMillimeter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "Math.PixelToMillimeter"; Value; Resolution )

### Parameters

#### Value

The value to convert.

123

#### Resolution

The resolution used in dpi. Default is 72 dpi.

72

**Result** Return value or error.

### Description

The formula is:  $\text{result} = \text{value} * 25.4 / \text{resolution}$ .

### Examples

Convert 300 pixels to millimeter:

```
MBS("Math.PixelToMillimeter"; 300)
```

Convert 72 pixels at 72 dpi resulting in 25.4 millimeter:

```
MBS("Math.PixelToMillimeter"; 72; 72)
```

### 110.17.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr7](#)

Created 18th August 2014, last changed 18th August 2014.

## 110.18 Math.PolylineDecode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Math.PolylineDecode"; Text )

### Parameters

#### Text

The coordinate value to decode.

"~ps | U"

**Result** Returns number or error.

### Description

We decode the number stored in the given text and return the numeric value.

Precision is just 5 digits after comma.

See

<https://developers.google.com/maps/documentation/utilities/polylinealgorithm>

### Examples

Decode a number:

MBS("Math.PolylineDecode"; "~ps | U")

Example result: -120.20

### See also

- 110.19 Math.PolylineEncode

5860

### 110.18.1 Blog Entries

- [Was gibt es neues bei MBS Version 9.2](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Encoded Polyline Algorithm Format](#)

Created 31st March 2019, last changed 31st March 2019.

## 110.19 Math.PolylineEncode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Math.PolylineEncode"; Value )

### Parameters

#### Value

The value to encode.

40,7

**Result** Returns text or error.

### Description

We take a number (latitude or longitude) and encode it as an ASCII text.

See

<https://developers.google.com/maps/documentation/utilities/polylinealgorithm>

### Examples

Encode number:

```
MBS("Math.PolylineEncode"; 38.5)
```

Example result: `_p~iF`

Encode another value:

```
MBS("Math.PolylineEncode"; -120.2)
```

Example result: `~ps | U`

Encode a polyline with 3 points:

```
// Points: (38.5, -120.2), (40.7, -120.95), (43.252, -126.453)
```

```
MBS("Math.PolylineEncode"; 38.5) & MBS("Math.PolylineEncode"; -120.20) &
```

```
MBS("Math.PolylineEncode"; 40.7 - 38.5) & MBS("Math.PolylineEncode"; -120.95 - -120.2) &
```

```
MBS("Math.PolylineEncode"; 43.252 - 40.7) & MBS("Math.PolylineEncode"; -126.453 - -120.95)
```

Example result: `_p~iF~ps | U_ulLnnqC_mqNvxq'@`

### See also

- 110.18 Math.PolylineDecode

5859

### 110.19.1 Blog Entries

- [Was gibt es neues bei MBS Version 9.2](#)



- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Encoded Polyline Algorithm Format](#)

Created 31st March 2019, last changed 31st March 2019.

## 110.20 Math.TextToNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
110 Math	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Math.TextToNumber"; text { ; detect } )

### Parameters

#### text

Some text value where you want to get the number back.  
"123.456"

#### detect

Optional  
Pass 1 to detect comma vs. dot and interpret number right.  
1

**Result** Returns number.

### Description

This function always uses english system (dot as decimal separator).

### Examples

Detect that number has dot as decimal divider and read number:

```
MBS("Math.TextToNumber"; "123,456.789"; 1)
```

Detect that number has comma as decimal divider and read number:

```
MBS("Math.TextToNumber"; "123.456,789"; 1)
```

### See also

- 71.113 DynaPDF.FindText 2777
- 87.78 GMImage.FontTypeMetrics 4512
- 110.8 Math.DecodeNumber 5847
- 110.15 Math.NumberToText 5856

### Example Databases

- [DynaPDF/Add Weblinks](#)
- [DynaPDF/Form/Form](#)
- [DynaPDF/List Annotations](#)
- [GraphicsMagick/Text Wrap](#)

### 110.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 2.9pr1](#)

Created 18th August 2014, last changed 16th March 2015.



# Chapter 111

## Matrix

Matrix functions

Two dimensionals lists.

### 111.1 Matrix.Add

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Add"; MatrixRef; Value { ; firstRow; lastRow; firstCol; lastCol } )

#### Parameters

##### MatrixRef

The matrix reference number.

\$matrix

##### Value

The value to add to all cells.

123

##### firstRow

Optional

The index of first row. Default is 0.

0

##### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

##### firstCol

Optional

The index of first column. Default is 0.

0

**lastCol**

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

**Result** Returns OK or error.

### Description

We loop over all rows in all columns for the range and add the given value to the numbers.

If the cell doesn't contain a number, it's converted to a number like GetAsNumber().

### Examples

Add one to each cell:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# set values
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 0; "Joe$Miller$New York$123") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 1; "Bob$Jones$Washington$234") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 2; "Jane$Stones$Los Angeles$567") ]
# add one to all
Set Variable [ $r ; Value: MBS("Matrix.Add"; $matrix; 1; 0; 3; 3; 3) ]
# show numbers
Show Custom Dialog [ "Values" ; MBS("Matrix.GetColumn"; $matrix; 3) ]
# free
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

### See also

- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.35 FM.SQL.RowCount 4215
- 111.2 Matrix.AddColumn 5868
- 111.3 Matrix.AddColumns 5869
- 111.4 Matrix.AddRow 5870
- 111.6 Matrix.Avg 5872
- 111.16 Matrix.GetColumn 5884
- 111.38 Matrix.SetRow 5912
- 159.16 SQL.FieldCount 7437

### 111.1.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 2nd April 2020, last changed 2nd April 2020.

## 111.2 Matrix.AddColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.AddColumn"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns OK or error.

### Description

### Examples

Add a column and fill it with values:

```
Set Variable [ $r ; Value: MBS( "Matrix.AddColumn"; $matrix) ]
```

```
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 3; "2$4$12" ) ]
```

### See also

- [111.1 Matrix.Add](#) 5865
- [111.3 Matrix.AddColumns](#) 5869
- [111.11 Matrix.CopyColumn](#) 5878
- [111.16 Matrix.GetColumn](#) 5884
- [111.36 Matrix.SetColumn](#) 5908

### 111.2.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.2.2 FileMaker Magazin

- [Ausgabe 4/2019, Seite 31](#)

Created 8th April 2019, last changed 17th December 2019.



## 111.3 Matrix.AddColumns

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.AddColumns"; MatrixRef { ; Count } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Count

Optional

The number of columns to add. Default is 1.

2

**Result** Returns OK or error.

### Description

### Examples

Add columns and set values:

```
Set Variable [ $r ; Value: MBS( "Matrix.AddColumns"; $matrix ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 3; "2$4$12" ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 4; "6$8$39" ) ]
```

### See also

- 111.1 Matrix.Add 5865
- 111.2 Matrix.AddColumn 5868
- 111.11 Matrix.CopyColumn 5878
- 111.16 Matrix.GetColumn 5884
- 111.36 Matrix.SetColumn 5908

### 111.3.1 Blog Entries

- [Matrix functions for FileMaker](#)

Created 8th April 2019, last changed 17th December 2019.

## 111.4 Matrix.AddRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.AddRow"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns OK or error.

### Description

### Examples

Add row and set values:

```
Set Variable [ $r ; Value: MBS( "Matrix.AddRow";$matrix) ]
```

```
Set Variable [ $r ; Value: MBS( "Matrix.SetRow"; $matrix; 3; "98$43$12$69" ) ]
```

### See also

- 111.1 Matrix.Add 5865
- 111.5 Matrix.AddRows 5871
- 111.19 Matrix.GetRow 5887
- 111.38 Matrix.SetRow 5912

### 111.4.1 Blog Entries

- [Matrix functions for FileMaker](#)

Created 8th April 2019, last changed 17th December 2019.

## 111.5 Matrix.AddRows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.AddRows"; MatrixRef { ; Count } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Count

Optional

The number of rows to add. Default is 1.

2

**Result** Returns OK or error.

### Description

### Examples

Add rows and set values:

```
Set Variable [ $r ; Value: MBS( "Matrix.AddRows";$matrix; 2 ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetRow"; $matrix; 3; "98$43$12$69" ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetRow"; $matrix; 4; "89$466$45$8" ) ]
```

### See also

- 111.1 Matrix.Add 5865
- 111.4 Matrix.AddRow 5870
- 111.38 Matrix.SetRow 5912

### 111.5.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.5.2 FileMaker Magazin

- Ausgabe 4/2019, Seite 31

Created 8th April 2019, last changed 17th December 2019.

## 111.6 Matrix.Avg

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Avg"; MatrixRef; Column { ; firstRow; lastRow } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to add the sum value and later divide by number of values.

### Examples

Calculate average:

Set Variable [ \$r ; Value: MBS( "Matrix.Avg"; \$matrix; 1;2;5 ) ]

### See also

- 81.35 FM.SQL.RowCount 4215
- 111.1 Matrix.Add 5865

Created 8th April 2019, last changed 17th December 2019.

## 111.7 Matrix.CSV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.CSV"; MatrixRef { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is Matrix.Height-1.

5

#### firstCol

Optional

The index of first column. Default is 0.

0

#### lastCol

Optional

The index of last column. Default is Matrix.Width-1.

6

#### rowSeparator

Optional

The row separator. Default is CR.

Char(13)

#### colSeparator

Optional

The column separator. Default is semicolon.

”;"

**Result** Returns text or error.

### Description

You can use this method to quickly get all values in a given area as text.

If needed, we put values in quotes and escape quotes and newlines.

Please use Text.WriteTextFile to write to text file if you need CSV export.

**Examples**

Show matrix in dialog as CSV:

Show Custom Dialog [ “The Matrix” ; MBS( "Matrix.CSV"; \$matrix; 0; 2; 0; 2; Char(13); " " ) ]

**See also**

- 111.24 Matrix.Height 5893
- 111.43 Matrix.Width 5922
- 167.68 Text.WriteTextFile 7999

**111.7.1 Blog Entries**

- [Matrix functions for FileMaker](#)

**111.7.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.8 Matrix.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Clear"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns OK or error.

### Description

Removes all values from it and sets size to 0/0.

### Examples

Clear and check:

```
Set Variable [ $r ; Value: MBS("Matrix.Clear"; $matrix) ]
```

```
// After this step the width and height of the matrix are 0
```

```
Show Custom Dialog [ "Matrix Height"; MBS("Matrix.Height";$matrix) & "=" & MBS("Matrix.width";$matrix) ]
```

### See also

- 111.9 Matrix.ClearValues 5876
- 111.10 Matrix.Clone 5877
- 111.24 Matrix.Height 5893
- 111.43 Matrix.Width 5922

Created 8th April 2019, last changed 17th December 2019.

## 111.9 Matrix.ClearValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.ClearValues"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns OK or error.

### Description

Keeps size of the matrix.

### Examples

Clear values:

```
Set Variable [ $r ; Value: MBS("Matrix.ClearValues";$matrix) ]
```

### See also

- 111.8 Matrix.Clear

5875

Created 8th April 2019, last changed 17th December 2019.



## 111.10 Matrix.Clone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Clone"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns matrix reference number or error.

### Description

Please call Matrix.Free later to free object.

### Examples

Clone matrix:

```
Set Variable [ $CloneMatrix ; Value: MBS("Matrix.Clone"; $Matrix) ]
```

### See also

- 111.8 Matrix.Clear 5875
- 111.15 Matrix.Free 5883

### 111.10.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.10.2 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.11 Matrix.CopyColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.CopyColumn"; Matrix1; Column1; Matrix2; Column2 )

### Parameters

#### Matrix1

The matrix reference number.

\$matrix1

#### Column1

The zero based column number.

2

#### Matrix2

The matrix reference number.

\$matrix2

#### Column2

The zero based column number.

2

**Result** Returns OK or error.

### Description

### Examples

Copy second column to third:

MBS( "Matrix.CopyColumn"; \$matrix; 1; \$matrix; 2 )

### See also

- 111.2 Matrix.AddColumn 5868
- 111.3 Matrix.AddColumns 5869
- 111.16 Matrix.GetColumn 5884
- 111.33 Matrix.RemoveColumn 5905
- 111.36 Matrix.SetColumn 5908

### 111.11.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 16th April 2020, last changed 16th April 2020.

## 111.12 Matrix.CopyRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.CopyRow"; Matrix1; Row1; Matrix2; Row2 )

### Parameters

#### Matrix1

The matrix reference number.

\$matrix1

#### Row1

The zero based row number.

2

#### Matrix2

The matrix reference number.

\$matrix2

#### Row2

The zero based row number.

2

**Result** Returns OK or error.

### Description

#### 111.12.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 16th April 2020, last changed 16th April 2020.

## 111.13 Matrix.DataType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.DataType"; MatrixRef; Row; Column )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The row number from 0 to Archive.Height-1.

\$row

#### Column

The column number from 0 to Archive.Width-1.

\$col

**Result** Returns text or error.

### Description

Returns text, date, number, time, timestamp, boolean, container or invalid.

### Examples

Check data type:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New";3;3) ]
```

```
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 0;"Hello$Time$left" ) ]
```

```
Show Custom Dialog [ "Datatypes" ; "Hello: " & MBS("Matrix.Datatype"; $matrix; 0; 0 ) ]
```

### See also

- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.36 Matrix.SetColumn 5908

Created 8th April 2019, last changed 17th December 2019.

## 111.14 Matrix.Evaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Evaluate"; MatrixRef; Expression { ; firstRow; lastRow; firstCol; lastCol; ReadOnly } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Expression

The expression to evaluate. Can include "row", "column" and "current" as variables.  
"current +1"

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

#### firstCol

Optional

The index of first column. Default is 0.

0

#### lastCol

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

#### ReadOnly

Optional

Pass 1 to ignore results of expressions and not put them back in matrix.

0

**Result** Returns OK or error.

### Description

You can change the value by doing a calculation in FileMaker syntax to change the value.

Reference current value via "current", the current row via "row" and the current column via "column" as variable names.

The result of the evaluate is written to the cell.

May return error if expression is invalid.

### Examples

Try evaluate:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# set values
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 0; "Joe$Miller$New York$123") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 1; "Bob$Jones$Washington$234") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRow"; $matrix; 2; "Jane$Stones$Los Angeles$567") ]

# add one to all by expression
Set Variable [ $r ; Value: MBS("Matrix.Evaluate"; $matrix; "current + 1"; 0; 3; 3; 3) ]

# show numbers
Show Custom Dialog [ "Values" ; MBS("Matrix.GetColumn"; $matrix; 3) ]
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

Set each cell to the value and row/column:

```
Set Variable [ $r ; Value: MBS("Matrix.Evaluate"; $matrix; "current & \" \" & row & \" \" & column"; 0; 3; 3; 3) ]
```

#### See also

- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.35 FM.SQL.RowCount 4215
- 111.15 Matrix.Free 5883
- 111.16 Matrix.GetColumn 5884
- 111.31 Matrix.New 5902
- 111.38 Matrix.SetRow 5912
- 159.16 SQL.FieldCount 7437

#### 111.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr2](#)

Created 2nd April 2020, last changed 16th April 2020.

**111.15 Matrix.Free**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Free"; MatrixRef )

**Parameters****MatrixRef**

The matrix reference number.

\$matrix

**Result** Returns OK or error.

**Description****Examples**

Frees matrix:

Set Variable [ \$r ; Value: MBS("Matrix.Free"; \$matrix) ]

**See also**

- 111.1 Matrix.Add 5865
- 111.14 Matrix.Evaluate 5881
- 111.21 Matrix.GetRowNames 5889
- 111.23 Matrix.GetValue 5891
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.35 Matrix.Resize 5907
- 111.37 Matrix.SetColumnName 5910
- 111.40 Matrix.SetValue 5916
- 111.41 Matrix.Sum 5918

**111.15.1 FileMaker Magazin**

- Ausgabe 4/2019, Seite 31

Created 8th April 2019, last changed 17th December 2019.

## 111.16 Matrix.GetColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetColumn"; MatrixRef; Column )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The zero based column number.

2

**Result** Returns text or error.

### Description

Returns list of values.

### Examples

Queries column:

Set Variable [ \$Column ; Value: MBS("Matrix.getColumn"; \$matrix; 0) ]

### See also

- 111.1 Matrix.Add 5865
- 111.2 Matrix.AddColumn 5868
- 111.3 Matrix.AddColumns 5869
- 111.11 Matrix.CopyColumn 5878
- 111.14 Matrix.Evaluate 5881
- 111.17 Matrix.GetColumnName 5885
- 111.18 Matrix.GetColumnNames 5886
- 111.23 Matrix.GetValue 5891
- 111.36 Matrix.SetColumn 5908
- 111.37 Matrix.SetColumnName 5910

Created 8th April 2019, last changed 17th December 2019.



**111.17 Matrix.GetColumnName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetColumnName"; MatrixRef; Column )

**Parameters****MatrixRef**

The matrix reference number.

\$matrix

**Column**

The zero based column number.

2

**Result** Returns text or error.

**Description****See also**

- 111.16 Matrix.GetColumn 5884
- 111.18 Matrix.GetColumnNames 5886
- 111.20 Matrix.GetRowName 5888
- 111.37 Matrix.SetColumnName 5910

Created 2nd April 2020, last changed 2nd April 2020.

## 111.18 Matrix.GetColumnNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetColumnNames"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns list or error.

### Description

### Examples

Try the column names:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# name columns
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 0; "First Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 1; "Last Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 2; "City") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 3; "Amount") ]
# show names
Show Custom Dialog [ "Column Names" ; MBS("Matrix.GetColumnNames"; $matrix) ]
# free
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

### See also

- 111.15 Matrix.Free 5883
- 111.16 Matrix.GetColumn 5884
- 111.17 Matrix.GetColumnName 5885
- 111.21 Matrix.GetRowNames 5889
- 111.31 Matrix.New 5902
- 111.36 Matrix.SetColumn 5908
- 111.37 Matrix.SetColumnName 5910

Created 2nd April 2020, last changed 2nd April 2020.

**111.19 Matrix.GetRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetRow"; MatrixRef; Row )

**Parameters****MatrixRef**

The matrix reference number.

\$matrix

**Row**

The zero based row number.

2

**Result** Returns text or error.

**Description**

Returns list of values.

**Examples**

Queries row values:

```
Set Variable [ $row ; Value: MBS("Matrix.getRow"; $Matrix;0) ]
```

**See also**

- 111.4 Matrix.AddRow 5870
- 111.21 Matrix.GetRowNames 5889
- 111.38 Matrix.SetRow 5912
- 111.39 Matrix.SetRowName 5914

Created 8th April 2019, last changed 17th December 2019.

## 111.20 Matrix.GetRowName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetRowName"; MatrixRef; Row )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The row you like to get.

1

**Result** Returns text or error.

### Description

#### See also

- 111.17 Matrix.GetColumnName 5885
- 111.21 Matrix.GetRowNames 5889
- 111.39 Matrix.SetRowName 5914

Created 2nd April 2020, last changed 2nd April 2020.

## 111.21 Matrix.GetRowNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetRowNames" )

**Result** Returns list or error.

### Description

### Examples

Try the Row names:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# name Rows
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 0; "First Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 1; "Last Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 2; "City") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 3; "Amount") ]
# show names
Show Custom Dialog [ "Row Names" ; MBS("Matrix.GetRowNames"; $matrix) ]
# free
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

### See also

- 111.15 Matrix.Free 5883
- 111.18 Matrix.GetColumnNames 5886
- 111.19 Matrix.GetRow 5887
- 111.20 Matrix.GetRowName 5888
- 111.31 Matrix.New 5902
- 111.38 Matrix.SetRow 5912
- 111.39 Matrix.SetRowName 5914

Created 2nd April 2020, last changed 2nd April 2020.

## 111.22 Matrix.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetText"; MatrixRef { ; Delimiter } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Delimiter

Optional

The column delimiter. Default is empty text.

Char(9)

**Result** Returns text or error.

### Description

Returns list of row values.

### Examples

Queries text of a column:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New";3;3) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 0;"15§07§92" ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 1;"17§3§60" ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetColumn"; $matrix; 2;"15§1§87" ) ]
Show Custom Dialog [ "Unser Matrix" ; MBS("Matrix.GetText"; $matrix) ]
```

### See also

- 111.31 Matrix.New 5902
- 111.36 Matrix.SetColumn 5908
- 111.42 Matrix.Text 5920

### 111.22.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.22.2 FileMaker Magazin

- Ausgabe 4/2019, Seite 29

Created 8th April 2019, last changed 17th December 2019.

## 111.23 Matrix.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.GetValue"; MatrixRef; Row; Column )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The zero based row number.

2

#### Column

The zero based column number.

2

**Result** Returns value or error.

### Description

Retains original data type.

### Examples

Test setting and getting values:

```
Set Variable [ $matrix ; Value: MBS( "Matrix.New"; 3; 4 ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetValue"; $matrix; 0; 0; "Hello" ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetValue"; $matrix; 1; 0; 123,456 ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetValue"; $matrix; 2; 0; Get(CurrentTimestamp) ) ]
Set Variable [ $t ; Value: MBS( "Matrix.GetValue"; $matrix; 0; 0 ) ]
Set Variable [ $v ; Value: MBS( "Matrix.GetValue"; $matrix; 1; 0 ) ]
Set Variable [ $z ; Value: MBS( "Matrix.GetValue"; $matrix; 2; 0 ) ]
Show Custom Dialog [ "Results" ; $t & $& $v & $& $z ]
Show Custom Dialog [ "Results" ; MBS("FM.DataType"; $t) & $& MBS("FM.DataType"; $v) & $&
MBS("FM.DataType"; $z) ]
Set Variable [ $r ; Value: MBS( "Matrix.Free"; $matrix ) ]
```

### See also

- 80.12 FM.DataType 3952
- 111.15 Matrix.Free 5883
- 111.16 Matrix.GetColumn 5884
- 111.31 Matrix.New 5902

- 111.32 Matrix.NewWithSQL 5904
- 111.40 Matrix.SetValue 5916

### 111.23.1 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 8th April 2019.



## 111.24 Matrix.Height

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Height"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns number or error.

### Description

#### Examples

Check size of matrix:

```
If [ MBS("Matrix.Height"; $matrix) = MBS("Matrix.Width"; $Matrix) ]
Show Custom Dialog [ "The matrix is square" ; "number of rows and columns are equal!" ]
End If
```

### See also

- 111.8 Matrix.Clear 5875
- 111.7 Matrix.CSV 5873
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.35 Matrix.Resize 5907
- 111.43 Matrix.Width 5922

### 111.24.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.24.2 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.25 Matrix.InsertRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

```
MBS( "Matrix.InsertRecords"; MatrixRef; InsertFileName; InsertTableName; FieldNames { ; StartRow; EndRow } )
```

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### StartRow

Optional

The index of the start row in the current recordset. First row is 0.

0

#### EndRow

Optional

The index of the end row in the current recordset. First row is 0. Last Row would be FM.SQL.RowCount-1.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a FileMaker table.

Please provide field names in FileMaker. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert from SQL Connection into FileMaker database, please use SQL.InsertRecords.

111.25. *MATRIX.INSERTRECORDS* 5895

**See also**

- 81.8 FM.ExecuteSQL 4146
- 81.9 FM.ExecuteSQL.LastError 4152
- 81.10 FM.ExecuteSQL.LastErrorMessage 4154
- 81.35 FM.SQL.RowCount 4215
- 111.26 Matrix.InsertRecordsToSQL 5896
- 159.72 SQL.InsertRecords 7519

Created 8th April 2019, last changed 8th April 2019.

## 111.26 Matrix.InsertRecordsToSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.InsertRecordsToSQL"; MatrixRef; Connection; InsertTableName; FieldNames { ; StartRow; EndRow; Replace } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model\$Names"

#### StartRow

Optional

The index of the start row. First row is 0. Pass -1 or nothing for default which is starting with row 0.

-1

#### EndRow

Optional

The index of the end row. First row is 0. Last Row would be FM.SQL.RowCount-1. Pass -1 to use all rows and the plugin will internally use RowCount-1.

-1

#### Replace

Optional

Set to 1 to replace existing entries. Currently available for MySQL and databases with same syntax.

0

**Result** Returns OK or error.

### Description

This function allows to easily copy a lot of records from a query in FileMaker database into a SQL database. Please provide field names in other table. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time

111.26. *MATRIX.INSERTRECORDSTOSQL*

5897

fields will not work, only timestamp fields.

For insert within FileMaker, please use Matrix.InsertRecords.

**See also**

- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 81.35 FM.SQL.RowCount 4215
- 111.25 Matrix.InsertRecords 5894
- 159.83 SQL.NewConnection 7534

Created 8th April 2019, last changed 8th April 2019.

## 111.27 Matrix.JSONRecord

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.JSONRecord"; MatrixRef; Row { ; FieldNames; Flags } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The row you like to get.

1

#### FieldNames

Optional

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in matrix.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query JSON:

```
Set Variable [ $JSON ; Value: MBS( "Matrix.JSONRecord"; $result; 1; "a$b$c" ) ]
```

### See also

- 111.28 Matrix.JSONRecords

5899

Created 8th April 2019, last changed 17th December 2019.

## 111.28 Matrix.JSONRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.JSONRecords"; MatrixRef; FieldNames { ; Flags } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### FieldNames

A list of field names for the JSON.

"Model\$Names"

#### Flags

Optional

The flags for the json creation. Pass 1 to get all values as text. Pass 2 to get all dates, times and timestamps in SQL format.

1+2

**Result** Returns JSON text or error.

### Description

You provide list of field names, which should be in same order as fields in matrix.

Optionally we can return SQL dates, times and timestamps as SQL format.

Containers are returned as Base64 encoded data.

### Examples

Query matrix as JSON:

```
# Matrix as JSON object
```

```
Set Variable [ $JSON ; Value: MBS( "Matrix.JSONRecords"; $result; "a$b$c" ) ]
```

```
Show Custom Dialog [ "Matrix as JSON" ; $JSON ]
```

### See also

- 111.27 Matrix.JSONRecord

5898

### 111.28.1 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.29 Matrix.Max

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Max"; MatrixRef; Column { ; firstRow; lastRow } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to find the maximum value.

### Examples

Calculate max:

Set Variable [ \$Max; Value: MBS( "Matrix.Max"; \$matrix; 1 ) ]

### See also

- 81.35 FM.SQL.RowCount 4215
- 111.30 Matrix.Min 5901

### 111.29.1 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.



## 111.30 Matrix.Min

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Min"; MatrixRef; Column { ; firstRow; lastRow } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to find the minimum value.

### Examples

Calculate minimum:

Set Variable [ \$Min; Value: MBS( "Matrix.Min"; \$matrix; 5; 4; 8 ) ]

### See also

- 81.35 FM.SQL.RowCount 4215
- 111.29 Matrix.Max 5900

### 111.30.1 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.31 Matrix.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.New"; Height; Width )

### Parameters

#### Height

The height of the matrix.

3

#### Width

The width of the matrix.

4

**Result** Returns matrix reference number or error.

### Description

Please call Matrix.Free later to free the matrix object.

Internally we store all data in FileMaker data types, so times, dates, timestamps, numbers and containers are preserved as they are and not converted to texts.

### Examples

Creates a matrix:

```
Set Variable [ $matrix ; Value: MBS( "Matrix.New"; 3; 4 ) ]
Show Custom Dialog [ "Size" ; MBS( "Matrix.Width"; $matrix ) & " x " & MBS( "Matrix.Height"; $matrix ) ]
Set Variable [ $r ; Value: MBS( "Matrix.Free"; $matrix ) ]
```

Create and set columns:

```
Set Variable [ $matrix; Value: MBS("Matrix.New";3;3) ]
# Set the values of the matrix
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 0;"15$07$92" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 1;"17$3$60" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 2;"15$1$87" ) ]
```

### See also

- 111.13 Matrix.DataType 5880
- 111.14 Matrix.Evaluate 5881
- 111.18 Matrix.GetColumnNames 5886

<i>111.31. MATRIX.NEW</i>	5903
• 111.21 Matrix.GetRowNames	5889
• 111.22 Matrix.GetText	5890
• 111.24 Matrix.Height	5893
• 111.35 Matrix.Resize	5907
• 111.36 Matrix.SetColumn	5908
• 111.41 Matrix.Sum	5918
• 111.43 Matrix.Width	5922

### **111.31.1 Blog Entries**

- [Matrix functions for FileMaker](#)

### **111.31.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 30
- Ausgabe 4/2019, Seite 29

Created 8th April 2019, last changed 17th December 2019.

## 111.32 Matrix.NewWithSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.NewWithSQL"; FileName; SQL Statement { ; Params } )

### Parameters

#### FileName

The target database name. Can be empty to not limit query to one database.  
””

#### SQL Statement

SQL Statement as a Text string

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.  
123

**Result** Returns matrix reference number or error.

### Description

Returns a matrix reference number, so you can use functions like Matrix.Height, Matrix.Width, Matrix.GetValue and Matrix.DataType to query result. Don't forget to use Matrix.Free to release the result from memory when you are done with it.

### See also

- 111.13 Matrix.DataType 5880
- 111.15 Matrix.Free 5883
- 111.23 Matrix.GetValue 5891
- 111.24 Matrix.Height 5893
- 111.43 Matrix.Width 5922

Created 8th April 2019, last changed 8th April 2019.

## 111.33 Matrix.RemoveColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.RemoveColumn"; MatrixRef; Column )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The zero based column number.

2

**Result** Returns OK or error.

### Description

### Examples

Remove a column:

Set Variable [ \$r; Value: MBS( "Matrix.RemoveColumn"; \$matrix; 1 ) ]

### See also

- 111.11 Matrix.CopyColumn

## 111.34 Matrix.RemoveRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.RemoveRow"; MatrixRef; Row )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The zero based row number.

2

**Result** Returns OK or error.

### Description

### Examples

Remove a row:

```
Set Variable [ $r; Value: MBS( "Matrix.RemoveRow"; $matrix; 2 ) ]
```

Created 8th April 2019, last changed 17th December 2019.

**111.35 Matrix.Resize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Resize"; MatrixRef; Height; Width )

**Parameters****MatrixRef**

The matrix reference number.

\$matrix

**Height**

The height of the matrix.

3

**Width**

The width of the matrix.

4

**Result** Returns OK or error.

**Description****Examples**

Try resize:

```
Set Variable [ $matrix ; Value: MBS( "Matrix.New"; 3; 4 ) ]
```

```
Set Variable [ $r ; Value: MBS( "Matrix.Resize"; $matrix; 7; 8 ) ]
```

```
Show Custom Dialog [ "Size" ; MBS( "Matrix.Width"; $matrix ) & " x " & MBS( "Matrix.Height"; $matrix ) ]
```

```
Set Variable [ $r ; Value: MBS( "Matrix.Free"; $matrix ) ]
```

Resizes a matrix:

```
Set Variable [ $r; Value: MBS( "Matrix.Resize"; $matrix; 3; 4 ) ]
```

**See also**

- 111.15 Matrix.Free 5883
- 111.24 Matrix.Height 5893
- 111.31 Matrix.New 5902
- 111.43 Matrix.Width 5922

Created 8th April 2019, last changed 17th December 2019.

## 111.36 Matrix.SetColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.SetColumn"; MatrixRef; Column { ; Values } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The zero based column number.

2

#### Values

Optional

The list of values.

"1\$2"

**Result** Returns OK or error.

### Description

If less values are given, the other values in the column are filled with empty values.

### Examples

Creates matrix and sets columns:

```
Set Variable [ $matrix; Value: MBS("Matrix.New";3;3) ]
# Set the values of the matrix
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 0;"15$07$92" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 1;"17$3$60" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 2;"15$1$87" ) ]
```

### See also

- 111.2 Matrix.AddColumn 5868
- 111.3 Matrix.AddColumns 5869
- 111.11 Matrix.CopyColumn 5878
- 111.13 Matrix.DataType 5880
- 111.16 Matrix.GetColumn 5884
- 111.18 Matrix.GetColumnNames 5886
- 111.22 Matrix.GetText 5890



<i>111.36. MATRIX.SETCOLUMN</i>	5909
• 111.31 Matrix.New	5902
• 111.37 Matrix.SetColumnName	5910
• 111.40 Matrix.SetValue	5916

### **111.36.1 Blog Entries**

- [Matrix functions for FileMaker](#)

### **111.36.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 31
- Ausgabe 4/2019, Seite 29

Created 8th April 2019, last changed 17th December 2019.

## 111.37 Matrix.SetColumnName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.SetColumnName"; MatrixRef; Column; Name )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The zero based column number.

2

#### Name

The new name.

"Company Name"

**Result** Returns OK or error.

### Description

This is a value associated with the column. e.g. associate a field name with the column.

Whenever you need to provide column index, you can also pass column name.

### Examples

Try the column names:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# name columns
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 0; "First Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 1; "Last Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 2; "City") ]
Set Variable [ $r ; Value: MBS("Matrix.SetColumnName"; $matrix; 3; "Amount") ]
# show names
Show Custom Dialog [ "Column Names" ; MBS("Matrix.GetColumnNames"; $matrix) ]
# free
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

### See also

- 111.15 Matrix.Free 5883
- 111.16 Matrix.GetColumn 5884
- 111.17 Matrix.GetColumnName 5885
- 111.18 Matrix.GetColumnNames 5886

<i>111.37. MATRIX.SETCOLUMNNAME</i>	5911
• 111.31 Matrix.New	5902
• 111.36 Matrix.SetColumn	5908
• 111.39 Matrix.SetRowName	5914

Created 2nd April 2020, last changed 2nd April 2020.

## 111.38 Matrix.SetRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.SetRow"; MatrixRef; Row { ; Values } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The zero based row number.

2

#### Values

Optional

The list of values.

"1\$2"

**Result** Returns OK or error.

### Description

If less values are given, the other values in the column are filled with empty values.

### Examples

Sets rows:

```
Set Variable [ $r; Value: MBS( "Matrix.SetRow"; $result; 3; "98$43$12$69" ) ]
```

```
Set Variable [ $r; Value: MBS( "Matrix.SetRow"; $result; 4; "89$466$45$8" ) ]
```

### See also

- 111.1 Matrix.Add 5865
- 111.4 Matrix.AddRow 5870
- 111.5 Matrix.AddRows 5871
- 111.14 Matrix.Evaluate 5881
- 111.19 Matrix.GetRow 5887
- 111.21 Matrix.GetRowNames 5889
- 111.39 Matrix.SetRowName 5914

### 111.38.1 Blog Entries

- [Matrix functions for FileMaker](#)

**111.38.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 31

Created 8th April 2019, last changed 17th December 2019.

## 111.39 Matrix.SetRowName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.SetRowName"; MatrixRef; Row; Name )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The row you like to get.

1

#### Name

The new name.

\$uuid

**Result** Returns OK or error.

### Description

This is a value associated with the row. e.g. associate an UUID with the row.

Whenever you need to provide row index, you can also pass row name.

### Examples

Try the Row names:

```
Set Variable [ $matrix ; Value: MBS("Matrix.New"; 5; 6) ]
# name Rows
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 0; "First Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 1; "Last Name") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 2; "City") ]
Set Variable [ $r ; Value: MBS("Matrix.SetRowName"; $matrix; 3; "Amount") ]
# show names
Show Custom Dialog [ "Row Names" ; MBS("Matrix.GetRowNames"; $matrix) ]
# free
Set Variable [ $r ; Value: MBS("Matrix.Free"; $matrix) ]
```

### See also

- 111.15 Matrix.Free 5883
- 111.19 Matrix.GetRow 5887
- 111.20 Matrix.GetRowName 5888
- 111.21 Matrix.GetRowNames 5889

<i>111.39. MATRIX.SETROWNAME</i>	5915
• 111.31 Matrix.New	5902
• 111.37 Matrix.SetColumnName	5910
• 111.38 Matrix.SetRow	5912

Created 2nd April 2020, last changed 2nd April 2020.

## 111.40 Matrix.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.SetValue"; MatrixRef; Row; Column { ; Value } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Row

The zero based row number.

2

#### Column

The zero based column number.

2

#### Value

Optional

The new value.

"Hello"

**Result** Returns OK or error.

### Description

The original data type is retained.

### Examples

Test set and get:

```
Set Variable [ $m ; Value: MBS ( "Matrix.New"; 2; 2 ) ]
Set Variable [ $r ; Value: MBS( "Matrix.SetValue"; $m; 0; 0; Contacts::Company ) ]
Set Field [ Contacts::Job Title ; MBS( "Matrix.GetValue"; $m; 0; 0 ) ]
Set Variable [ $r ; Value: MBS ( "Matrix.Free"; $m ) ]
```

Sets a value:

```
Set Variable [ $r; Value: MBS("Matrix.SetValue"; $matrix;1;1;40) ]
```

### See also

- 111.15 Matrix.Free 5883
- 111.23 Matrix.GetValue 5891
- 111.31 Matrix.New 5902



111.40. *MATRIX.SETVALUE*

5917

- 111.36 Matrix.SetColumn

5908

### **111.40.1 Blog Entries**

- [Matrix functions for FileMaker](#)

### **111.40.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

## 111.41 Matrix.Sum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Sum"; MatrixRef; Column { ; firstRow; lastRow } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### Column

The index of the column. Default is 0.

0

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

**Result** Returns number or error.

### Description

You got a record set in memory and we can walk over a column in a given row range to add the sum value.

### Examples

Sums the values in a matrix:

```
Set Variable [ $matrix; Value: MBS("Matrix.New";3;3) ]
# Set the values of the matrix
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 0;"15$07$92" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 1;"17$3$60" ) ]
Set Variable [ $r; Value: MBS( "Matrix.SetColumn"; $matrix; 2;"15$1$87" ) ]
# Add all numbers in the matrix (3x3)
Set Variable [ $a; Value: MBS( "Matrix.Sum"; $matrix; 0 ) ]
Set Variable [ $b; Value: MBS( "Matrix.Sum"; $matrix; 1 ) ]
Set Variable [ $c; Value: MBS( "Matrix.Sum"; $matrix; 2 ) ]
Set Variable [ $sum; Value: $a+$b+$c ]
```

```
Set Variable [ $r; Value: MBS("Matrix.Free"; $matrix) ]
```

**See also**

<i>111.41. MATRIX.SUM</i>	5919
• 81.35 FM.SQL.RowCount	4215
• 111.15 Matrix.Free	5883
• 111.31 Matrix.New	5902
• 111.36 Matrix.SetColumn	5908

### **111.41.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Matrix functions for FileMaker](#)

### **111.41.2 FileMaker Magazin**

- Ausgabe 4/2019, Seite 31

Created 8th April 2019, last changed 17th December 2019.

## 111.42 Matrix.Text

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Text"; MatrixRef { ; firstRow; lastRow; firstCol; lastCol; rowSeparator; colSeparator } )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

#### firstRow

Optional

The index of first row. Default is 0.

0

#### lastRow

Optional

The index of last row. Default is FM.SQL.RowCount-1.

5

#### firstCol

Optional

The index of first column. Default is 0.

0

#### lastCol

Optional

The index of last column. Default is FM.SQL.FieldCount-1.

6

#### rowSeparator

Optional

The row separator. Default is CR.

Char(13)

#### colSeparator

Optional

The column separator. Default is tab character.

Char(9)

**Result** Returns text or error.

### Description

You can use this method to quickly get all values in a given area as text.

This joins the values and removes text formatting.

**See also**

- 81.27 FM.SQL.Field

<i>111.42. MATRIX.TEXT</i>	5921
• 81.28 FM.SQL.FieldCount	4201
• 81.35 FM.SQL.RowCount	4215
• 111.22 Matrix.GetText	5890
• 159.16 SQL.FieldCount	7437

Created 8th April 2019, last changed 15th November 2019.

## 111.43 Matrix.Width

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
111 Matrix	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Matrix.Width"; MatrixRef )

### Parameters

#### MatrixRef

The matrix reference number.

\$matrix

**Result** Returns number or error.

### Description

### Examples

Check size of matrix:

```
If [ MBS("Matrix.Height"; $matrix) = MBS("Matrix.Width"; $Matrix) ]
Show Custom Dialog [ "The matrix is square" ; "number of rows and columns are equal!" ]
End If
```

### See also

- 111.8 Matrix.Clear 5875
- 111.7 Matrix.CSV 5873
- 111.24 Matrix.Height 5893
- 111.31 Matrix.New 5902
- 111.32 Matrix.NewWithSQL 5904
- 111.35 Matrix.Resize 5907

### 111.43.1 Blog Entries

- [Matrix functions for FileMaker](#)

### 111.43.2 FileMaker Magazin

- Ausgabe 4/2019, Seite 30

Created 8th April 2019, last changed 17th December 2019.

# Chapter 112

## MatrixDongle

Use and work with matrix dongles.

### 112.1 MatrixDongle.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Count" { ; PortNumber } )

#### Parameters

##### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns number or error.

#### Description

#### Examples

Count dongles:

```
Set Field [ MatrixDongle::CountResult; MBS( "MatrixDongle.Count" ) ]
```

#### See also

- 112.2 MatrixDongle.Find

5925

- 112.3 MatrixDongle.GetDriverFlag 5926
- 112.9 MatrixDongle.MemorySize 5933
- 112.10 MatrixDongle.Model 5934
- 112.11 MatrixDongle.ReadHex 5935
- 112.12 MatrixDongle.ReadSerialNumber 5937
- 112.13 MatrixDongle.ReadText 5938
- 112.16 MatrixDongle.Version 5943
- 112.17 MatrixDongle.WriteHex 5944
- 112.18 MatrixDongle.WriteText 5945

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.



## 112.2 MatrixDongle.Find

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Find" )

**Result** Returns number or error.

### Description

The LPT port at which the dongle was found is returned: 1 for LPT1, 2 for LPT 2 or 3 for LPT3 or 85 for USB.

Note: This function only supplies the first port at which a dongle is found, regardless of whether other dongles are available at other LPT or USB interfaces.

Use MatrixDongle.Count function for more details.

### Examples

Find dongles:

```
Set Field [ MatrixDongle::FindResult; MBS( "MatrixDongle.Find" ) ]
```

### See also

- 112.1 MatrixDongle.Count 5923
- 112.10 MatrixDongle.Model 5934

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

### 112.3 MatrixDongle.GetDriverFlag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.GetDriverFlag"; UserCode { ; DongleNumber; PortNumber } )

#### Parameters

##### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

##### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

##### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns number or error.

#### Description

Returns value 1 (HID) or 0 (Driver) is the requested USB operating mode of the dongle.

#### See also

- 112.1 MatrixDongle.Count 5923
- 112.15 MatrixDongle.SetDriverFlag 5941

Created 1st August 2015, last changed 1st August 2015.

## 112.4 MatrixDongle.GetVersionAPI

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.GetVersionAPI" )

**Result** Returns version number or error.

### Description

Format is x.y using major and minor version number.

### Examples

Queries version of API:

Set Field [ MatrixDongle::VersionAPI; MBS( "MatrixDongle.GetVersionAPI" ) ]

### See also

- [112.5 MatrixDongle.GetVersionDRV](#) 5928
- [112.6 MatrixDongle.GetVersionDRV.USB](#) 5929

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.5 MatrixDongle.GetVersionDRV

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.GetVersionDRV" )

**Result** Returns version number or error.

### Description

Format is x.y using major and minor version number.

### See also

- 112.4 MatrixDongle.GetVersionAPI 5927
- 112.6 MatrixDongle.GetVersionDRV.USB 5929

Created 1st August 2015, last changed 1st August 2015.

## 112.6 MatrixDongle.GetVersionDRV.USB

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.GetVersionDRV.USB" )

**Result** Returns version number or error.

### Description

Format is x.y using major and minor version number.

### Examples

Queries driver version:

Set Field [ MatrixDongle::DriverVersion; MBS( "MatrixDongle.GetVersionDrv.USB" ) ]

### See also

- 112.4 MatrixDongle.GetVersionAPI 5927
- 112.5 MatrixDongle.GetVersionDRV 5928

Created 1st August 2015, last changed 1st August 2015.

## 112.7 MatrixDongle.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Initialize"; LibraryPath )

### Parameters

#### LibraryPath

The native file path to the matrix library file.

\$path

**Result** Returns OK or error.

### Description

Loads the library files: matrix64.dll, matrix32.dll or libmxmac260.dylib from disk.

You need to pass the path to the dynapdf library and the plugin loads it.

The matrix dll/dylib files are included with the matrix dongle SDK.

Be sure to use right 32-bit/64-bit driver depending on which bit number FileMaker has!

You can pass just the filename of library and the plugin finds it in the Extensions folder or in FileMaker's application folder.

If you get a crash here on MacOS, please check if crash report says Code Signature Invalid. Then you may need to code sign the dylib yourself to match the code signature of your application.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Initialize dongle functions:

```

If [ MBS( "SystemInfo.isMacOSX" ) = 1 ]
Set Variable [ $path; Value:MatrixDongle::LibraryPathMac ]
Else
Set Variable [ $path; Value:MatrixDongle::LibraryPathWin ]
End If
Set Variable [ $r; Value:MBS("MatrixDongle.Initialize"; $path) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to initialize"; $r ]
Else
Show Custom Dialog [ "Initialize OK"; "The dongle functions are ready to use." ]
End If

```

**See also**

<i>112.7. MATRIXDONGLE.INITIALIZE</i>	5931
• 127.6 IsError	6374
• 112.8 MatrixDongle.Initialized	5932
• 124.2 Path.FileMakerPathToNativePath	6247
• 164.52 SystemInfo.isMacOSX	7834

### **Example Databases**

- [MatrixDongle](#)

Created 1st August 2015, last changed 14th November 2019.

## 112.8 MatrixDongle.Initialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Initialized" )

**Result** Returns 0 to 1.

### Description

Returns 1, if MatrixDongle.Initialize was called successfully.

### See also

- 112.7 MatrixDongle.Initialize

5930

Created 1st August 2015, last changed 1st August 2015.



## 112.9 MatrixDongle.MemorySize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.MemorySize" { ; DongleNumber; PortNumber } )

### Parameters

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns number or error.

### Description

The memory size in bytes is returned. For example, if the ML-60 is connected, the return value is 60. With the ML-12, the return value is 12 etc.

To know the number of data fields, divide the result by 4.

### Examples

Queries memory size:

```
Set Field [ MatrixDongle::MemorySize; MBS( "MatrixDongle.MemorySize" ) ]
```

### See also

- 112.1 MatrixDongle.Count

5923

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.10 MatrixDongle.Model

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Model" { ; DongleNumber; PortNumber } )

### Parameters

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns model number or error.

### Description

### Examples

Queries model:

```
Set Field [ MatrixDongle::Model; MBS( "MatrixDongle.Model" ) ]
```

### See also

- [112.1 MatrixDongle.Count](#) 5923
- [112.2 MatrixDongle.Find](#) 5925
- [112.11 MatrixDongle.ReadHex](#) 5935

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.11 MatrixDongle.ReadHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.ReadHex"; UserCode; Pos; Count { ; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### Pos

The position to write at. This value is in 4 byte data words, so for 12 bytes offset pass 3.

0

#### Count

Number of data words to read. 4 bytes per data word.

1

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns hex encoded data or error.

### Description

Starts reading at the given position and reads count number of data words.

#### See also

- 112.1 MatrixDongle.Count 5923
- 112.10 MatrixDongle.Model 5934
- 112.13 MatrixDongle.ReadText 5938
- 112.14 MatrixDongle.Release 5940
- 112.17 MatrixDongle.WriteHex 5944



## 112.12 MatrixDongle.ReadSerialNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.ReadSerialNumber"; UserCode { ; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns number or error.

### Description

#### See also

- 112.1 MatrixDongle.Count

5923

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.13 MatrixDongle.ReadText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.ReadText"; UserCode; Pos; Count { ; Encoding; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### Pos

The position to write at. This value is in 4 byte data words, so for 12 bytes offset pass 3.

0

#### Count

Number of data words to read. 4 bytes per data word.

1

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

UTF8

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns text or error.

### Description

Starts reading at the given position and reads count number of data words.

### See also

- 112.1 MatrixDongle.Count 5923
- 112.11 MatrixDongle.ReadHex 5935

112.13. *MATRIXDONGLE.READTEXT*

5939

- 112.18 MatrixDongle.WriteText

5945

### **Example Databases**

- [MatrixDongle](#)

Created 1st August 2015, last changed 12nd November 2015.

## 112.14 MatrixDongle.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Release" )

**Result** Returns OK or error.

**Description**

**See also**

- 112.11 MatrixDongle.ReadHex

5935

Created 1st August 2015, last changed 1st August 2015.



## 112.15 MatrixDongle.SetDriverFlag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.SetDriverFlag"; UserCode; Mode { ; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### Mode

Can have the value 0 or 1:0 - "Driver-Mode" - with a proprietary USB driver. 1 - "HID-Mode" - without any proprietary USB driver.

1

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns OK or error.

### Description

#### Examples

Sets HID mode:

```
Set Variable [ $r; Value:MBS( "MatrixDongle.SetDriverFlag"; MatrixDongle::UserCode; 1) ]
```

### See also

- 112.1 MatrixDongle.Count 5923
- 112.3 MatrixDongle.GetDriverFlag 5926

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.16 MatrixDongle.Version

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.Version" { ; DongleNumber; PortNumber } )

### Parameters

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns version number or error.

### Description

Format is x.y using major and minor version number.

### Examples

Queries version:

```
Set Field [ MatrixDongle::Version; MBS( "MatrixDongle.Version" ) ]
```

### See also

- 112.1 MatrixDongle.Count

5923

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 1st August 2015.

## 112.17 MatrixDongle.WriteHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.WriteHex"; UserCode; Text { ; Pos; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### Text

The hex text to write.

"48656C6C6F20576F726C64"

#### Pos

Optional

The position to write at. This value is in 4 byte data words, so for 12 bytes offset pass 3.

0

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns OK or error.

### Description

The plugin decodes the hex bytes and writes them to the dongle as bytes.

### See also

- 112.1 MatrixDongle.Count 5923
- 112.11 MatrixDongle.ReadHex 5935
- 112.18 MatrixDongle.WriteText 5945

Created 1st August 2015, last changed 1st August 2015.

## 112.18 MatrixDongle.WriteText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
112 MatrixDongle	5.2	Yes	Yes	Yes	No	No

MBS( "MatrixDongle.WriteText"; UserCode; Text { ; Encoding; Pos; DongleNumber; PortNumber } )

### Parameters

#### UserCode

This is your personal UserCode and must correspond with the internal UserCode from the dongle.

#### Text

The text to write.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

UTF8

#### Pos

Optional

The position to write at. This value is in 4 byte data words, so for 12 bytes offset pass 3.

0

#### DongleNumber

Optional

This is the dongle number when several dongles are plugged in one after the other. The maximum number of dongles available can be determined via the MatrixDongle.Count function. A maximum of 99 dongles can be connected to the LPT port and a maximum of 127 dongles to the USB connection. The plugin uses 1 if you don't pass this parameter.

1

#### PortNumber

Optional

With LPT dongles, this is the number of the LPT port to which the dongles are connected. With LPT dongles, the port number must be between 1 and 3. Example: 1 for LPT1, 2 for LPT2 or 3 for LPT3. With USB, this parameter must be 85. This variable is ignored with network calls. Default for MBS Plugin is 85 for USB.

85

**Result** Returns OK or error.

### Description

#### See also

- 112.1 MatrixDongle.Count 5923
- 112.13 MatrixDongle.ReadText 5938

- 112.17 MatrixDongle.WriteHex

### Example Databases

- [MatrixDongle](#)

Created 1st August 2015, last changed 12nd November 2015.

# Chapter 113

## MediaLibraryBrowser

The browser panel from Mac OS X 10.9 Mavericks for importing photos, music and videos.

### 113.1 MediaLibraryBrowser.getMediaLibraries

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.getMediaLibraries" )

**Result** Returns value or error.

#### Description

Requires Mac OS X 10.9.

Value is 1 for Audio, 2 for Image or 4 for Video.

#### See also

- 113.4 MediaLibraryBrowser.setMediaLibraries

5950

Created 18th August 2014, last changed 18th August 2014.

## 113.2 MediaLibraryBrowser.setVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.setVisible" )

**Result** Returns value or error.

### Description

Requires Mac OS X 10.9.

### See also

- 113.3 MediaLibraryBrowser.setFrame 5949
- 113.5 MediaLibraryBrowser.setVisible 5951

Created 18th August 2014, last changed 18th August 2014.



**113.3 MediaLibraryBrowser.setFrame**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.setFrame"; x; y; w; h )

**Parameters****x**

New X coordinate.

20

**y**

New Y coordinate.

200

**w**

New width of panel.

300

**h**

New height of panel.

200

**Result** Returns OK or error.

**Description**

Requires Mac OS X 10.9.

Uses bottom up coordinates, so 0/0 is bottom left of main screen.

**See also**

- 113.2 MediaLibraryBrowser.getVisible 5948
- 113.5 MediaLibraryBrowser.setVisible 5951

Created 18th August 2014, last changed 18th August 2014.

## 113.4 MediaLibraryBrowser.setMediaLibraries

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.setMediaLibraries"; value )

### Parameters

#### value

The new media library selection.

1

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9. Currently only one type of media is supported.

Value is 1 for Audio, 2 for Image or 4 for Video.

### See also

- 113.1 MediaLibraryBrowser.getMediaLibraries 5947

### Example Databases

- [Mac only/MediaLibraryBrowser](#)

Created 18th August 2014, last changed 18th August 2014.

## 113.5 MediaLibraryBrowser.setVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.setVisible"; value )

### Parameters

#### value

the new visible state. Can be 1 for visible and 0 for invisible.

1

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9.

### See also

- [113.2 MediaLibraryBrowser.getVisible](#) 5948
- [113.3 MediaLibraryBrowser.setFrame](#) 5949

### Example Databases

- [Mac only/MediaLibraryBrowser](#)

Created 18th August 2014, last changed 18th August 2014.

## 113.6 MediaLibraryBrowser.togglePanel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
113 MediaLibraryBrowser	3.5	Yes	No	No	No	No

MBS( "MediaLibraryBrowser.togglePanel" )

**Result** Returns OK or error.

### Description

Shows or hides the panel depending on current state.

Requires Mac OS X 10.9.

Created 18th August 2014, last changed 18th August 2014.

# Chapter 114

## Menu

Functions to create menus and show them as popup menu.

### 114.1 Menu.AddItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

```
MBS( "Menu.AddItem"; menu; item )
```

#### Parameters

##### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

##### **item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

#### Description

Thus, the receiver does not accept the menu item if it already belongs to another menu. After adding the menu item, the receiver updates itself.

#### Examples

Show a context menu based on a table with menu entries:

```
# go to layout with menu entries  
Go to Layout [ "REP" (REP Reports) ]  
# this script can be called with various groups
```

```

Set Variable [ $type ; Value: Get(ScriptParameter) ]
# make a new menu
Set Variable [ $menu ; Value: MBS( "Menu.CreateMenu" ) ]
# loop over records
Go to Record/Request/Page [ First ]
Loop
# if group matches
If [ REP Reports::Group = $type ]
# add new menu item with title from table
Set Variable [ $item ; Value: MBS( "MenuItem.CreateMenuItem"; REP Reports::LabelReport) ]
# define which script to call if menu item is selected
Set Variable [ $r ; Value: MBS( "MenuItem.SetScriptAction"; $item; Get(FileName); REP Reports::Script
) ]
# add item to menu
Set Variable [ $r ; Value: MBS( "Menu.AddItem"; $menu; $item ) ]
End If
# next record?
Go to Record/Request/Page [ Next ; Exit after last ]
End Loop
# switch layout back
Go to Layout [ original layout ]
# Show menu
Set Variable [ $r ; Value: MBS( "Menu.PopUp"; $menu; "mouse" ) ]
# Cleanup memory
Set Variable [ $r ; Value: MBS( "Menu.Release"; $menu) ]

```

### See also

- 114.2 Menu.AddItem 5956
- 114.84 MenuItem.SetEnabled 6054
- 114.86 MenuItem.SetFontColor 6056
- 114.87 MenuItem.SetFontName 6058
- 114.91 MenuItem.SetImage 6064
- 114.94 MenuItem.SetKeyEquivalentModifierMask 6070
- 114.104 MenuItem.SetState 6082
- 114.105 MenuItem.SetStrikeOut 6084
- 114.109 MenuItem.SetToolTip 6088
- 114.111 MenuItem.SetUnderline 6090

### Example Databases

- [Menu/Popup Menu](#)

### 114.1.1 Blog Entries

- [Tip of the day: Build contextual menu in FileMaker from a table](#)
- [Colors for Menus in FileMaker](#)

Created 18th August 2014, last changed 11st September 2015.

## 114.2 Menu.AddItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.AddItems"; menu; titles { ; tags } )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### titles

The list of titles for new menu items.

"Hello"

#### tags

Optional

The tags for the entries.

**Result** Returns OK or error.

### Description

If the list of titles includes a line with "-" the plugin version 4.5 and newer will use a separator for this item.

### Examples

Add two items

```
MBS( "Menu.AddItems"; $menu; "Hello$World" )
```

Add two items with tags

```
MBS( "Menu.AddItems"; $menu; "Hello$World"; "11$12" )
```

QuickMenu custom function:

```
/* Parameters: Items */
Let ( [
/* Create a menu */
menu = MBS( "Menu.CreateMenu" );
/* add items from our parameter */
m2 = MBS( "Menu.AddItems"; menu; Items );
/* show menu at mouse position */
m3 = MBS( "Menu.PopUp"; menu; "mouse"; 0; 0 );
/* query selected item */
selectedItem = MBS( "Menu.SelectedItem"; menu );
/* if something is selected, query its text */
result = If( Length(selectedItem) > 0; MBS( "MenuItem.GetTitle"; selectedItem ); "" );
/* Cleanup menu */
```



```
m5 = MBS( "Menu.Release"; menu; 1 )
```

```
];
```

```
/* return selection */
result )
```

QuickMenu custom function with tags

```
/* Parameters: Items, Tags */
```

```
Let ( [
```

```
/* Create a menu */
```

```
menu = MBS( "Menu.CreateMenu" );
```

```
/* add items from our parameter */
```

```
m2 = MBS( "Menu.AddItem"; menu; Items; Tags );
```

```
/* show menu at mouse position */
```

```
m3 = MBS( "Menu.PopUp"; menu; "mouse"; 0; 0 );
```

```
/* query selected item */
```

```
selectedItem = MBS( "Menu.SelectedItem"; menu );
```

```
/* if something is selected, query its text */
```

```
result = If( Length(selectedItem )>0; MBS( "MenuItem.GetTag"; selectedItem ); "" );
```

```
/* Cleanup menu */
```

```
m5 = MBS( "Menu.Release"; menu; 1 )
```

```
];
```

```
/* return selected tag */
result )
```

### See also

- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959
- 114.22 Menu.PopUp 5982
- 114.23 Menu.Release 5986
- 114.28 Menu.SelectedItem 5992
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039

### Example Databases

- [Menu/Popup Menu](#)

### 114.2.1 Blog Entries

- [QuickMenu function](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 18th August 2014, last changed 1st December 2014.

## 114.3 Menu.CreateMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.CreateMenu" { ; title } )

### Parameters

#### title

Optional

The title for the menu.

"Hello"

**Result** Return menu reference or error.

### Description

You need to later release it with Menu.Release function.

Menu reference numbers are starting at 10000 and counting up for each new menu.

### Examples

Show a context menu based on a table with menu entries:

```
# go to layout with menu entries
Go to Layout [ "REP" (REP Reports) ]
# this script can be called with various groups
Set Variable [ $type ; Value: Get(ScriptParameter) ]
# make a new menu
Set Variable [ $menu ; Value: MBS( "Menu.CreateMenu" ) ]
# loop over records
Go to Record/Request/Page [ First ]
Loop
# if group matches
If [ REP Reports::Group = $type ]
# add new menu item with title from table
Set Variable [ $item ; Value: MBS( "MenuItem.CreateMenuItem"; REP Reports::LabelReport) ]
# define which script to call if menu item is selected
Set Variable [ $r ; Value: MBS( "MenuItem.SetScriptAction"; $item; Get(FileName); REP Reports::Script
) ]
# add item to menu
Set Variable [ $r ; Value: MBS( "Menu.AddItem"; $menu; $item ) ]
End If
# next record?
Go to Record/Request/Page [ Next ; Exit after last ]
End Loop
# switch layout back
Go to Layout [ original layout ]
# Show menu
Set Variable [ $r ; Value: MBS( "Menu.PopUp"; $menu; "mouse" ) ]
```

```
# Cleanup memory  
Set Variable [ $r ; Value: MBS( "Menu.Release"; $menu) ]
```

**See also**

- 114.2 Menu.AddItem 5956
- 114.22 Menu.PopUp 5982
- 114.27 Menu.RemoveItemAtIndex 5991
- 114.33 Menu.SetShowsStateColumn 5999
- 114.35 Menu.SetTitle 6001
- 114.36 Menu.SetURL 6002
- 114.70 MenuItem.GetTag 6037
- 114.92 MenuItem.SetItalic 6066
- 114.102 MenuItem.SetScriptAction 6079
- 114.106 MenuItem.SetSubMenu 6085

**Example Databases**

- [Menu/Popup Menu](#)

**114.3.1 Blog Entries**

- [Tip of the day: Build contextual menu in FileMaker from a table](#)
- [Colors for Menus in FileMaker](#)
- [QuickMenu function](#)

Created 18th August 2014, last changed 11st September 2015.

## 114.4 Menu.DefineQuickMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "Menu.DefineQuickMenu"; Name; Definition )

### Parameters

#### Name

The title of the new menu.

"MainMenu"

#### Definition

The menu definition.

"Red;1\$Blue;2\$Yellow;3"

**Result** Returns menu reference or error.

### Description

This function allows you to easily create a menu with a definition. The first two parameters are required. The "Name" parameter is the name of the menu.

The "Definition" parameter is a return-delimited list of menu items for this menu. Each line represents one item on the menu. You can specify a tag value for a menu item by appending a semi-colon and the value onto the end of the item name. For example, if you had "Blue;0000FF" on a line, your menu would have an item with the title "Blue" and when a user selected that item, the tag value "0000FF" could be used for your script. For sub-menus, specify the name of the sub-menu, followed by a greater-than sign (>) followed by the next sub-menu name or menu item. For example, if you had "Colors>Red" on a line, your menu would have a sub-menu named "Colors" with an item inside named "Red". Every sub-menu and menu item can be preceded with one or more special "meta tags" to specify different styles and marks for the sub-menu or item name as explained below:

You can specify more than one of the above for any item to set multiple attributes at once, with the exception of the check mark, bullet mark, and diamond mark. You can only have one mark defined for a menu item. For example, if you had "!# % Delete Record" on a line, your menu would have an item with the name "Delete Record" that appeared disabled, bold, and italicized. If you need to display a menu item that starts with one of these "meta tags", you can use the equals ("=") meta tag to skip the meta tag processing for the item. For example, if you had "=\$4.00" on a line, your menu would have an item with the name "\$4.00" instead of a menu named "4.00" that required you to press the shift key in order to make the item visible.

Not all features available on Windows!

With 5.2 plugin the name of the menu also defines the identifier to use. You can leave name empty to use reference number provided by plugin.

### Examples

Define a menu:

!	The item will appear disabled.
\$	The item will require the shift key to be pressed in order to show up.
^	The item will require the control key to be pressed in order to show up.
~	The item will require the alt/option key to be pressed in order to show up. (this is the tilde character, which is shifted version of the key to the left of the 1 on English keyboards) (only available on Mac)
@	The item will require the command key to be pressed in order to show up. (only available on Mac)
#	The item will appear bold.
%	The item will appear italicized.
_	The item will appear underlined.
' or √	The item will appear with a check mark. (this is the backtick character, which is the key to the left of the 1 on English keyboards) (on Mac, you can also use opt-v to type an actual check mark)
* or •	The item will appear with a bullet mark. (On Mac, you can also use opt-8 to type an actual bullet mark)
+ or	The item will appear with a diamond mark. (On Mac, you can also use shift-opt-v to type an actual diamond mark)
=	disable the meta tag processing for the rest of the sub-menu or item name.
-	The item is a separator.

```
MBS( "Menu.DefineQuickMenu"; "ColorsMenu" ; "Red;1$Blue;2$Yellow;3" )
```

Define a menu with submenus:

```
MBS( "Menu.DefineQuickMenu"; "ColorsMenu"; "Warm colors>Red$Warm colors>Yellow$Warm colors>Orange$Cool colors>Blue$Cool colors>Green$Cool colors>Purple")
```

Define a menu with checkmark:

```
MBS( "Menu.DefineQuickMenu"; "Current Fruit"; "Banana;Cherry;'Grape;Orange" )
```

Choose from menu with one Let statement:

```
// show menu with one let statement
Let ( [
// some list of menu entries
valuelist = "xxx$yyy$zzz" ;
// create menu from definition
menu = MBS ( "Menu.DefineQuickmenu"; "x" ; valuelist ) ;
// show menu near mouse
result = MBS ( "Menu.popup" ; menu ; "mouse" ) ;
```

#### 114.4. MENU.DEFINEQUICKMENU

5963

```
// query selected item number
item = IF ( result = 1 ; MBS("Menu.SelectedItem"; menu) ) ;
// query title for that item
title = IF ( Length ( item >0 ) ; MBS ( "MenuItem.GetTitle" ; item ) ) ;
// release memory
r = MBS ( "Menu.Release"; menu ) ] ;
// return the selected title
title )
```

#### See also

- [114.5 Menu.DefineQuickMenuXML](#) 5964
- [114.22 Menu.PopUp](#) 5982
- [114.23 Menu.Release](#) 5986
- [114.28 Menu.SelectedItem](#) 5992
- [114.71 MenuItem.GetTitle](#) 6039

#### Example Databases

- [Menu/DefineQuickMenu](#)

#### 114.4.1 Blog Entries

- [MBS FileMaker Plugin IDs](#)
- [MBS FileMaker Plugin, version 6.3pr3](#)
- [MBS FileMaker Plugin, version 5.2pr6](#)
- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 18th June 2016.

## 114.5 Menu.DefineQuickMenuXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.2	Yes	Yes	No	No	No

MBS( "Menu.DefineQuickMenuXML"; XML )

### Parameters

#### XML

The description XML.

**Result** Returns menu reference or error.

### Description

The xml has a root entry called "menu". Each menu entry can have attributes title, tag, groupID, scriptname, filename and modifierkeys. A menu can have subnodes of name menu or item. The item can have attributes title, tag, scriptname, filename, tag, enabled, selectable, Separator, mark, style, GroupID or modifierkeys.

Modifierkeys can include shift, control, option or command.

Mark can include mixed, bullet, diamond or checked.

Style can include bold, italic or underline.

If an item has name "-" or Separator=1 attribute, the plugin will mark it as being a separator.

If the root menu entry has a name, we can use that name as menu reference.

Added FontColor and BackColor in version 9.4.

### Examples

Defines a quick menu with XML:

```
MBS( "Menu.DefineQuickMenuXML"; "<menu name=\"menue\">
<menuitem name=\"Red\" value=\"1\" />
<menuitem name=\"Blue\" value=\"2\" />
<menuitem name=\"Yellow\" value=\"3\" />
</menu>" )
```

Define a menu with submenus:

```
MBS( "Menu.DefineQuickMenuXML"; "<menu name=\"menue\">
<submenu name=\"Warm Colors\">
<menuitem name=\"Red\" value=\"1\" />
<menuitem name=\"Blue\" value=\"2\" />
<menuitem name=\"Yellow\" value=\"3\" />
</submenu>
<submenu name=\"Cool Colors\">
<menuitem name=\"Blue\" value=\"4\" />
<menuitem name=\"Green\" value=\"5\" />
<menuitem name=\"Purple\" value=\"6\" />
</submenu>
</menu>" )
```



## 114.5. MENU.DEFINEQUICKMENUXML

5965

```
</submenu>  
</menu>\”)” )
```

### See also

- 114.4 Menu.DefineQuickMenu

5961

### Example Databases

- [Menu/DefineQuickMenu with XML](#)

### 114.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr1](#)
- [MBS FileMaker Plugin, version 5.2pr3](#)
- [MBS FileMaker Plugin, version 5.2pr2](#)

Created 6th June 2015, last changed 24th July 2019.

## 114.6 Menu.FindItemWithTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "Menu.FindItemWithTag"; menu; Tag )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.  
\$menu

#### Tag

The tag text to search.

**Result** Returns reference number or error.

### Description

See also MenuItem.GetTag and MenuItem.SetTag.

### Examples

Find an item:

```
MBS("Menu.FindItemWithTag"; $menu; "Test")
```

### See also

- 114.3 Menu.CreateMenu 5959
- 114.7 Menu.FindItemWithTitle 5967
- 114.70 MenuItem.GetTag 6037
- 114.107 MenuItem.SetTag 6086

### 114.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr7](#)

Created 29th April 2015, last changed 29th April 2015.

## 114.7 Menu.FindItemWithTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "Menu.FindItemWithTitle"; menu; Title )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.  
\$menu

#### Title

The title text to search.

**Result** Returns reference number or error.

### Description

See also MenuItem.GetTittle and MenuItem.SetTitle.

### Examples

Find an item:

```
MBS("Menu.FindItemWithTitle"; $menu; "Test")
```

### See also

- 114.3 Menu.CreateMenu 5959
- 114.6 Menu.FindItemWithTag 5966
- 114.108 MenuItem.SetTitle 6087

### 114.7.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr7](#)

Created 29th April 2015, last changed 29th April 2015.

## 114.8 Menu.GetAllowsContextMenuPlugIns

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.GetAllowsContextMenuPlugIns"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns 1, 0 or error.

### Description

See also Menu.SetAllowsContextMenuPlugIns.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.29 Menu.SetAllowsContextMenuPlugIns 5994

Created 18th August 2014, last changed 18th August 2014.

## 114.9 Menu.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.1	Yes	Yes	No	No	No

MBS( "Menu.GetEvaluate"; menu )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns OK or error.

### Description

#### See also

- 114.3 Menu.CreateMenu 5959
- 114.30 Menu.SetEvaluate 5995
- 114.44 MenuItem.GetEvaluate 6011

### 114.9.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 114.10 Menu.GetMinimumWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.GetMinimumWidth"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns value or error.

### Description

Available in OS X v10.6 and later.

The minimum width of the menu in screen coordinates.

See also Menu.SetMinimumWidth.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.31 Menu.SetMinimumWidth 5996

Created 18th August 2014, last changed 18th August 2014.

## 114.11 Menu.GetScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.GetScriptFileName"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns file name or error.

### Description

#### See also

- 90.10 HotKey.GetScriptFileName 4904
- 114.3 Menu.CreateMenu 5959
- 114.12 Menu.GetScriptName 5972
- 114.32 Menu.SetScriptAction 5997
- 114.64 MenuItem.GetScriptFileName 6031

Created 18th August 2014, last changed 31st August 2014.

## 114.12 Menu.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.GetScriptName"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns script name or error.

### Description

### See also

- 114.3 Menu.CreateMenu 5959
- 114.11 Menu.GetScriptFileName 5971
- 114.32 Menu.SetScriptAction 5997
- 114.65 MenuItem.GetScriptName 6032

Created 18th August 2014, last changed 31st August 2014.



## 114.13 Menu.GetShowsStateColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.GetShowsStateColumn"; menu )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns 0, 1 or error.

### Description

Available in OS X v10.5 and later.

See also Menu.SetShowsStateColumn.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.33 Menu.SetShowsStateColumn 5999

Created 18th August 2014, last changed 18th August 2014.

## 114.14 Menu.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.GetTag"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns value or error.

### Description

See also Menu.SetTag.

With the tag, we allow you to associate a text with the menu item, for example a record ID.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.16 Menu.GetURL 5976
- 114.34 Menu.SetTag 6000
- 114.107 MenuItem.SetTag 6086

Created 18th August 2014, last changed 31st August 2014.

## 114.15 Menu.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.GetTitle"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns title or error.

### Description

See also Menu.SetTitle.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.35 Menu.SetTitle 6001

Created 18th August 2014, last changed 31st August 2014.

## 114.16 Menu.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "Menu.GetURL"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns text or error.

### Description

#### See also

- 114.3 Menu.CreateMenu 5959
- 114.14 Menu.GetTag 5974
- 114.36 Menu.SetURL 6002

### 114.16.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 114.17 Menu.InsertItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.InsertItem"; menu; item; index )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### index

An integer index identifying the location of the menu item in the menu.

0

**Result** Returns OK or error.

### Description

#### See also

- 114.3 Menu.CreateMenu 5959
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005

### 114.17.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 31st August 2014.

## 114.18 Menu.ItemAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.0	Yes	Yes	No	No	No

MBS( "Menu.ItemAtIndex"; menu; Index )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### Index

The index of the menu item to query.

0

**Result** Returns OK or error.

### Description

Index is zero based and ranges from 0 to Menu.NumberOfItems-1.

#### See also

- 114.3 Menu.CreateMenu 5959
- 114.21 Menu.NumberOfItems 5981

### 114.18.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 1st December 2014, last changed 1st December 2014.

## 114.19 Menu.Items

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.0	Yes	Yes	No	No	No

MBS( "Menu.Items"; menu )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns list of IDs or error.

### Description

#### See also

- 114.3 Menu.CreateMenu

5959

### 114.19.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 1st December 2014, last changed 20th August 2015.

## 114.20 Menu.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	10.1	Yes	Yes	No	No	No

MBS( "Menu.List" )

**Result** Returns list or error.

**Description**

### 114.20.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)

Created 5th March 2020, last changed 5th March 2020.



**114.21 Menu.NumberOfItems**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.NumberOfItems"; menu )

**Parameters****menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns number or error.

**Description****See also**

- 114.3 Menu.CreateMenu 5959
- 114.18 Menu.ItemAtIndex 5978
- 114.27 Menu.RemoveItemAtIndex 5991

Created 18th August 2014, last changed 31st August 2014.

## 114.22 Menu.PopUp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.PopUp"; menu; mode { ; x; y; window; item; objectName } )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### **mode**

The mode to use. Can be "mouse", "screen" or "window". Default is mouse for leaving away the parameter or passing empty text. Version 8.3 adds mode "content" to make it relative to the content part of the window, below toolbars.

"mouse"

#### **x**

Optional

The relative x coordinates for the position relative to the mouse, screen or window.

0

#### **y**

Optional

The relative y coordinates for the position relative to the mouse, screen or window.

0

#### **window**

Optional

The window reference for the showing menu relative to a window.

\$window

#### **item**

Optional

The menu item to be positioned at the specified location in the view.

\$item

#### **objectName**

Optional

The object name for mode=object.

"web"

**Result** Returns 1, 0 or error.

### Description

The top left corner of the specified item (if specified, item must be present in the receiver) is positioned at the specified location in the specified view, interpreted in the view's own coordinate system.

If you call this on the server for webdirect, the menu will show on the server, not in the browser.

Returns 1 if item was selected or 0 if not.

If you like to show a context menu only when user did a right mouse click, you can use the EventMonitor.LastMouseClickedButton function to check mouse state.

### Examples

Show a context menu based on a table with menu entries:

```
# go to layout with menu entries
Go to Layout [ "REP" (REP Reports) ]
# this script can be called with various groups
Set Variable [ $type ; Value: Get(ScriptParameter) ]
# make a new menu
Set Variable [ $menu ; Value: MBS( "Menu.CreateMenu" ) ]
# loop over records
Go to Record/Request/Page [ First ]
Loop
# if group matches
If [ REP Reports::Group = $type ]
# add new menu item with title from table
Set Variable [ $item ; Value: MBS( "MenuItem.CreateMenuItem"; REP Reports::LabelReport) ]
# define which script to call if menu item is selected
Set Variable [ $r ; Value: MBS( "MenuItem.SetScriptAction"; $item; Get(FileName); REP Reports::Script
) ]
# add item to menu
Set Variable [ $r ; Value: MBS( "Menu.AddItem"; $menu; $item ) ]
End If
# next record?
Go to Record/Request/Page [ Next ; Exit after last ]
End Loop
# switch layout back
Go to Layout [ original layout ]
# Show menu
Set Variable [ $r ; Value: MBS( "Menu.PopUp"; $menu; "mouse" ) ]
# Cleanup memory
Set Variable [ $r ; Value: MBS( "Menu.Release"; $menu) ]
```

Show menu and show selection:

```
Set Variable [ $menu; Value:MBS("Menu.CreateMenu" ) ]
# create menu items...
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World" ) ]
Set Variable [ $r; Value:MBS("MenuItem.SetTag"; $item; "secret value" ) ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
#
# show menu
Set Variable [ $m; Value:MBS("Menu.PopUp"; $Menu; "mouse" ) ]
#
# you selected something?
If [ $m = 1 ]
```

```

Set Variable [ $selectedItem; Value:MBS("Menu.SelectedItem"; $menu) ]
Set Variable [ $selectedTitle; Value:MBS("MenuItem.GetTitle"; $selectedItem) ]
Set Variable [ $selectedTag; Value:MBS("MenuItem.GetTag"; $selectedItem) ]
#
Show Custom Dialog [ "Auswahl"; $selectedItem & §& $selectedTitle & §& $selectedTag ]
End If
Set Variable [ $m; Value:MBS("Menu.Release"; $Menu; 1) ]

```

Choose from menu with one Let statement:

```

// show menu with one let statement
Let ( [
// some list of menu entries
valuelist = "xxx$yyy$zzz" ;
// create menu from definition
menu = MBS ( "Menu.DefineQuickmenu"; "x" ; valuelist ) ;
// show menu near mouse
result = MBS ( "Menu.popup" ; menu ; "mouse" ) ;
// query selected item number
item = IF ( result = 1 ; MBS("Menu.SelectedItem"; menu) ) ;
// query title for that item
title = IF ( Length ( item >0 ) ; MBS ( "MenuItem.GetTitle" ; item ) ) ;
// release memory
r = MBS ( "Menu.Release"; menu ) ] ;
// return the selected title
title )

```

Run menu at logo object:

```
MBS("Menu.PopUp"; $Menu; "object"; 0; 0; Get(WindowName); "" ; "logo")
```

### See also

- 76.5 EventMonitor.LastMouseClickedButton 3551
- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959
- 114.4 Menu.DefineQuickMenu 5961
- 114.28 Menu.SelectedItem 5992
- 114.37 MenuItem.CreateMenuItem 6003
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.102 MenuItem.SetScriptAction 6079

## 114.22. MENU.POPUP

5985

- 114.107 MenuItem.SetTag

6086

### Example Databases

- [Menu/DefineQuickMenu with XML](#)
- [Menu/DefineQuickMenu](#)
- [Menu/Popup Menu](#)

### 114.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Tip of the day: Build contextual menu in FileMaker from a table](#)
- [QuickMenu function](#)
- [MBS Filemaker Plugin, version 4.1pr4](#)

Created 18th August 2014, last changed 7th April 2019.

## 114.23 Menu.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.Release"; menu { ; children } )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.  
\$menu

#### children

Optional

If 1, releases all child menu items and child menus.  
0

**Result** Returns OK or error.

### Description

You need to release menus after you finished using it to avoid running out of memory.

### See also

- 114.1 Menu.AddItem 5953
- 114.2 Menu.AddItems 5956
- 114.3 Menu.CreateMenu 5959
- 114.4 Menu.DefineQuickMenu 5961
- 114.22 Menu.PopUp 5982
- 114.24 Menu.ReleaseAll 5988
- 114.28 Menu.SelectedItem 5992
- 114.37 MenuItem.CreateMenuItem 6003
- 114.70 MenuItem.GetTag 6037

### Example Databases

- [Menu/DefineQuickMenu with XML](#)
- [Menu/DefineQuickMenu](#)
- [Menu/Popup Menu](#)

### 114.23.1 Blog Entries

- [Tip of the day: Build contextual menu in FileMaker from a table](#)
- [QuickMenu function](#)

Created 18th August 2014, last changed 31st August 2014.

## 114.24 Menu.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.ReleaseAll" )

**Result** Returns OK or error.

### Description

You can call this method to release all previously created menus or menuitems before you build a new one.

### See also

- 62.150 CURL.ReleaseAll 2013
- 99.11 Java.ReleaseAll 5246
- 102.68 JSON.ReleaseAll 5411
- 114.23 Menu.Release 5986
- 166.29 TAPI.ReleaseAll 7884
- 194.31 XML.ReleaseAll 9455

### Example Databases

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 31st August 2014.



## 114.25 Menu.RemoveAllItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.RemoveAllItems"; menu )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns OK or error.

### Description

This function is more efficient than removing menu items individually.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.26 Menu.RemoveItem 5990

Created 18th August 2014, last changed 31st August 2014.

## 114.26 Menu.RemoveItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.RemoveItem"; menu; item )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### item

The reference to the menu item to be removed.

\$item

**Result** Returns OK or error.

### Description

Please use Menu.RemoveItemAtIndex if you have the index and not the reference number.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.25 Menu.RemoveAllItems 5989
- 114.27 Menu.RemoveItemAtIndex 5991

Created 18th August 2014, last changed 29th April 2015.

## 114.27 Menu.RemoveItemAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.RemoveItemAtIndex"; menu; index )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### index

An integer index identifying the menu item. Index must be between 0 and Menu.NumberOfItems-1.

0

**Result** Returns OK or error.

### Description

Please use Menu.RemoveItem if you have the reference number and not the index.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.21 Menu.NumberOfItems 5981
- 114.26 Menu.RemoveItem 5990

### 114.27.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)

Created 18th August 2014, last changed 29th April 2015.

## 114.28 Menu.SelectedItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.SelectedItem"; menu )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

**Result** Returns reference number or error.

### Description

### Examples

Show menu and show selection:

```
Set Variable [ $menu; Value:MBS("Menu.CreateMenu") ]
# create menu items...
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetTag"; $item; "secret value") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
#
# show menu
Set Variable [ $m; Value:MBS("Menu.PopUp"; $Menu; "mouse") ]
#
# you selected something?
If [ $m = 1 ]
Set Variable [ $selectedItem; Value:MBS("Menu.SelectedItem"; $menu) ]
Set Variable [ $selectedTitle; Value:MBS("MenuItem.GetTitle"; $selectedItem) ]
Set Variable [ $selectedTag; Value:MBS("MenuItem.GetTag"; $selectedItem) ]
#
Show Custom Dialog [ "Auswahl"; $selectedItem & $& $selectedTitle & $& $selectedTag ]
End If
Set Variable [ $m; Value:MBS("Menu.Release"; $Menu; 1) ]
```

Choose from menu with one Let statement:

```
// show menu with one let statement
Let ( [
// some list of menu entries
valuelist = "xxx$yyy$zzz" ;
// create menu from definition
menu = MBS ( "Menu.DefineQuickmenu"; "x" ; valuelist ) ;
// show menu near mouse
result = MBS ( "Menu.popup" ; menu ; "mouse" ) ;
```

## 114.28. MENU.SELECTEDITEM

5993

```
// query selected item number
item = IF ( result = 1 ; MBS("Menu.SelectedItem"; menu ) ) ;
// query title for that item
title = IF ( Length ( item >0 ) ; MBS ( "MenuItem.GetTitle" ; item ) ) ;
// release memory
r = MBS ( "Menu.Release"; menu ) ] ;
// return the selected title
title )
```

### See also

- 114.1 Menu.AddItem 5953
- 114.2 Menu.AddItems 5956
- 114.3 Menu.CreateMenu 5959
- 114.4 Menu.DefineQuickMenu 5961
- 114.22 Menu.PopUp 5982
- 114.23 Menu.Release 5986
- 114.37 MenuItem.CreateMenuItem 6003
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.107 MenuItem.SetTag 6086

### Example Databases

- [Menu/DefineQuickMenu with XML](#)
- [Menu/DefineQuickMenu](#)

#### 114.28.1 Blog Entries

- [QuickMenu function](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 18th August 2014, last changed 18th June 2016.

## 114.29 Menu.SetAllowsContextMenuPlugIns

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.SetAllowsContextMenuPlugIns"; menu; value )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### value

1 if the popup menu should allow context menu plugin items to be appending, otherwise 0.

1

**Result** Returns OK or error.

### Description

Contextual menu plugins are system-wide services provided by other applications. For example, a contextual menu plugin might provide an "Open URL..." service. By enabling context menu plugins your application's contextual menu will display the appropriate items for the currently selected data type.

See also Menu.GetAllowsContextMenuPlugIns.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.8 Menu.GetAllowsContextMenuPlugIns 5968

Created 18th August 2014, last changed 18th August 2014.

## 114.30 Menu.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.1	Yes	Yes	No	No	No

MBS( "Menu.SetEvaluate"; menu; Expression )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the hotkey reference, so you can pass it to other functions if needed.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.9 Menu.GetEvaluate 5969
- 114.85 MenuItem.SetEvaluate 6055

### 114.30.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)
- [Evaluate vs. Script Trigger](#)

Created 4th March 2016, last changed 4th April 2018.

## 114.31 Menu.SetMinimumWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.SetMinimumWidth"; menu; width )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### width

The minimum width of the menu in screen coordinates.

0

**Result** Returns OK or error.

### Description

The menu will not draw smaller than its minimum width, but may draw larger if it needs more space. The default value is 0.

See also Menu.GetMinimumWidth.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.10 Menu.GetMinimumWidth 5970

Created 18th August 2014, last changed 18th August 2014.



## 114.32 Menu.SetScriptAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.SetScriptAction"; menu; FileName; ScriptName { ; ScriptParameter } )

### Parameters

#### **menu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### **FileName**

The filename of file which contains the script.

"Menus.fmp12"

#### **ScriptName**

The name of the script.

"MenuScript"

#### **ScriptParameter**

Optional

If you want a specific script parameter. Default is to leave empty and get the ID fo the menu item.

**Result** Returns OK or error.

### Description

You can use MenuItem.SetScriptAction to associate a script with individual items or use this function for a whole menu.

See also Menu.GetScriptFileName and Menu.GetScriptName.

The script parameter is the MenuItem reference, so you can use functions like MenuItem.GetTitle to get the title or MenuItem.GetTag to get an associated value.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.11 Menu.GetScriptFileName 5971
- 114.12 Menu.GetScriptName 5972
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.102 MenuItem.SetScriptAction 6079

**Example Databases**

- [Menu/Popup Menu](#)

**114.32.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.5pr4](#)

Created 18th August 2014, last changed 27th January 2016.

## 114.33 Menu.SetShowsStateColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "Menu.SetShowsStateColumn"; menu; value )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### value

Pass 1 to show or 0 to hide the state column.

1

**Result** Returns OK or error.

### Description

Available in OS X v10.5 and later.

See also Menu.GetShowsStateColumn.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.13 Menu.GetShowsStateColumn 5973

Created 18th August 2014, last changed 18th August 2014.

## 114.34 Menu.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.SetTag"; menu; value )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### value

The new tag value.

Get(RecordID)

**Result** Returns OK or error.

### Description

See also Menu.GetTag.

With the tag, we allow you to associate a text with the menu item, for example a record ID.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.14 Menu.GetTag 5974
- 114.36 Menu.SetURL 6002
- 114.70 MenuItem.GetTag 6037

Created 18th August 2014, last changed 31st August 2014.

## 114.35 Menu.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "Menu.SetTitle"; menu; value )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### value

The new title.

"Hello"

**Result** Returns OK or error.

### Description

See also Menu.GetTitle.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.15 Menu.GetTitle 5975

Created 18th August 2014, last changed 31st August 2014.

## 114.36 Menu.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "Menu.SetURL"; menu; URL )

### Parameters

#### menu

The reference to the menu. Please create one with Menu.CreateMenu.

\$menu

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with menu ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

### See also

- 114.3 Menu.CreateMenu 5959
- 114.16 Menu.GetURL 5976
- 114.34 Menu.SetTag 6000

### 114.36.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 114.37 MenuItem.CreateMenuItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.CreateMenuItem" { ; Title; keyEquivalent } )

### Parameters

#### Title

Optional

The title of the menu item.

"Hello World"

#### keyEquivalent

Optional

Optional, a string representing a keyboard key to be used as the key equivalent.

"T"

**Result** Returns menu item reference number or error.

### Description

You later need to release it with MenuItem.Release.

Menu item reference numbers are starting at 11000 and counting up for each new menu item.

### Examples

Show a context menu based on a table with menu entries:

```
# go to layout with menu entries
Go to Layout [ "REP" (REP Reports) ]
# this script can be called with various groups
Set Variable [ $type ; Value: Get(ScriptParameter) ]
# make a new menu
Set Variable [ $menu ; Value: MBS( "Menu.CreateMenu" ) ]
# loop over records
Go to Record/Request/Page [ First ]
Loop
# if group matches
If [ REP Reports::Group = $type ]
# add new menu item with title from table
Set Variable [ $item ; Value: MBS( "MenuItem.CreateMenuItem"; REP Reports::LabelReport) ]
# define which script to call if menu item is selected
Set Variable [ $r ; Value: MBS( "MenuItem.SetScriptAction"; $item; Get(FileName); REP Reports::Script
) ]
# add item to menu
Set Variable [ $r ; Value: MBS( "Menu.AddItem"; $menu; $item ) ]
End If
# next record?
Go to Record/Request/Page [ Next ; Exit after last ]
End Loop
```

```
# switch layout back
Go to Layout [ original layout ]
# Show menu
Set Variable [ $r ; Value: MBS( "Menu.PopUp"; $menu; "mouse" ) ]
# Cleanup memory
Set Variable [ $r ; Value: MBS( "Menu.Release"; $menu) ]
```

### See also

- 114.83 MenuItem.SetBold 6052
- 114.86 MenuItem.SetFontColor 6056
- 114.87 MenuItem.SetFontName 6058
- 114.93 MenuItem.SetKeyEquivalent 6068
- 114.94 MenuItem.SetKeyEquivalentModifierMask 6070
- 114.101 MenuItem.SetRequireShift 6078
- 114.106 MenuItem.SetSubMenu 6085
- 114.109 MenuItem.SetToolTip 6088
- 114.111 MenuItem.SetUnderline 6090
- 114.110 MenuItem.SetURL 6089

### Example Databases

- [Menu/Popup Menu](#)

#### 114.37.1 Blog Entries

- [Tip of the day: Build contextual menu in FileMaker from a table](#)
- [Colors for Menus in FileMaker](#)

Created 18th August 2014, last changed 11st September 2015.



## 114.38 MenuItem.CreateSeparator

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.CreateSeparator" )

**Result** Returns menu item reference or error.

### Description

You later need to release it with MenuItem.Release.

Menu item reference numbers are starting at 11000 and counting up for each new menu item.

### Examples

Add a separator to a menu:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateSeparator") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.94 MenuItem.SetKeyEquivalentModifierMask 6070
- 114.97 MenuItem.SetOnStateImage 6074
- 114.98 MenuItem.SetRequireCommand 6075
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078
- 114.102 MenuItem.SetScriptAction 6079
- 114.103 MenuItem.SetSelectable 6081
- 114.105 MenuItem.SetStrikeOut 6084
- 114.109 MenuItem.SetToolTip 6088
- 114.110 MenuItem.SetURL 6089

### Example Databases

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 15th April 2015.

## 114.39 MenuItem.GetAlternate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetAlternate"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

See also MenuItem.SetAlternate.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.67 MenuItem.GetState 6034
- 114.74 MenuItem.GetUnderline 6042
- 114.80 MenuItem.SetAlternate 6048

Created 18th August 2014, last changed 18th August 2014.

**114.40 MenuItem.GetAttributedTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetAttributedTitle"; item )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns styled text or error.

**Description**

See also MenuItem.SetAttributedTitle.

**See also**

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.81 MenuItem.SetAttributedTitle 6049

Created 18th August 2014, last changed 18th August 2014.

## 114.41 MenuItem.GetBackColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	No	Yes	No	No	No

MBS( "MenuItem.GetBackColor"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

Color is return as # encoded hex number, e.g. # FF0000 for red.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.45 MenuItem.GetFontColor 6012
- 114.82 MenuItem.SetBackColor 6050
- 114.86 MenuItem.SetFontColor 6056

### 114.41.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 18th March 2017.

## 114.42 MenuItem.GetBold

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetBold"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.59 MenuItem.GetPath 6026
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.73 MenuItem.GetURL 6041
- 114.83 MenuItem.SetBold 6052

### 114.42.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.43 MenuItem.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetEnabled"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns 0, 1 or error.

### Description

See also MenuItem.SetEnabled.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.50 MenuItem.GetImage 6017
- 114.51 MenuItem.GetItalic 6018
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.84 MenuItem.SetEnabled 6054

Created 18th August 2014, last changed 9th January 2015.

## 114.44 MenuItem.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetEvaluate"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

#### See also

- 114.9 Menu.GetEvaluate 5969
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.67 MenuItem.GetState 6034
- 114.85 MenuItem.SetEvaluate 6055

### 114.44.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr5](#)

Created 4th March 2016, last changed 4th March 2016.

## 114.45 MenuItem.GetFontColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.GetFontColor"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

Color is return as # encoded hex number, e.g. # FF0000 for red.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.41 MenuItem.GetBackColor 6008
- 114.46 MenuItem.GetFontName 6013
- 114.47 MenuItem.GetFontSize 6014
- 114.82 MenuItem.SetBackColor 6050
- 114.86 MenuItem.SetFontColor 6056

### 114.45.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 1st October 2016.



## 114.46 MenuItem.GetFontName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetFontName"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns font name or error.

### Description

Empty means system font.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.45 MenuItem.GetFontColor 6012
- 114.47 MenuItem.GetFontSize 6014
- 114.65 MenuItem.GetScriptName 6032
- 114.67 MenuItem.GetState 6034
- 114.87 MenuItem.SetFontName 6058
- 114.88 MenuItem.SetFontSize 6060

### 114.46.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.47 MenuItem.GetFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetFontSize"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns font size or error.

### Description

Font size 0 is to use system default size.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.45 MenuItem.GetFontColor 6012
- 114.46 MenuItem.GetFontName 6013
- 114.87 MenuItem.SetFontName 6058
- 114.88 MenuItem.SetFontSize 6060

### 114.47.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.48 MenuItem.GetGroupID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.2	Yes	Yes	No	No	No

MBS( "MenuItem.GetGroupID"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

If several menu items have the same group id, the plugin only shows the first one fulfilling all requirements like key modifiers.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.89 MenuItem.SetGroupID 6062

Created 6th June 2015, last changed 8th June 2015.

## 114.49 MenuItem.GetHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetHidden"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns 0, 1 or error.

### Description

1 if the menu item is hidden, otherwise 0.

Available in OS X v10.5 and later.

See also MenuItem.SetHidden.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.50 MenuItem.GetImage 6017
- 114.67 MenuItem.GetState 6034
- 114.69 MenuItem.GetSubMenu 6036
- 114.71 MenuItem.GetTitle 6039
- 114.90 MenuItem.SetHidden 6063
- 114.108 MenuItem.SetTitle 6087

Created 18th August 2014, last changed 31st August 2014.

## 114.50 MenuItem.GetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetImage"; item { ; ImageType; Filename } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

See also MenuItem.SetImage.

Please call GImage.Release later to free memory for this image.

### See also

- 87.214 GImage.Release 4674
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.51 MenuItem.GetItalic 6018
- 114.59 MenuItem.GetPath 6026
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.91 MenuItem.SetImage 6064
- 114.104 MenuItem.SetState 6082
- 114.107 MenuItem.SetTag 6086

Created 18th August 2014, last changed 31st July 2019.

## 114.51 MenuItem.GetItalic

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetItalic"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.43 MenuItem.GetEnabled 6010
- 114.50 MenuItem.GetImage 6017
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.72 MenuItem.GetToolTip 6040
- 114.91 MenuItem.SetImage 6064
- 114.92 MenuItem.SetItalic 6066
- 114.104 MenuItem.SetState 6082

### 114.51.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.52 MenuItem.GetKeyEquivalent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetKeyEquivalent"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

The menuItem's unmodified keyboard equivalent, or the empty string if one hasn't been defined. Use MenuItem.GetKeyEquivalentModifierMask to determine the modifier mask for the key equivalent. See also MenuItem.SetKeyEquivalent.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.53 MenuItem.GetKeyEquivalentModifierMask 6020
- 114.75 MenuItem.GetUserKeyEquivalent 6043
- 114.93 MenuItem.SetKeyEquivalent 6068

Created 18th August 2014, last changed 18th August 2014.

## 114.53 MenuItem.GetKeyEquivalentModifierMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetKeyEquivalentModifierMask"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns mask value or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.52 MenuItem.GetKeyEquivalent 6019
- 114.94 MenuItem.SetKeyEquivalentModifierMask 6070

Created 18th August 2014, last changed 18th August 2014.



## 114.54 MenuItem.GetMixedStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetMixedStateImage"; item { ; ImageType; Filename } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

A mixed state is useful for indicating a mix of "off" and "on" attribute values in a group of selected objects, such as a selection of text containing boldface and plain (non-boldface) words. By default this is a horizontal line.

Please call GImage.Release later to free memory for this image.

### See also

- 87.214 GImage.Release 4674
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.55 MenuItem.GetOffStateImage 6022
- 114.56 MenuItem.GetOnStateImage 6023
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.96 MenuItem.SetOffStateImage 6073
- 114.97 MenuItem.SetOnStateImage 6074

Created 18th August 2014, last changed 31st July 2019.

## 114.55 MenuItem.GetOffStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetOffStateImage"; item { ; ImageType; Filename } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.  
"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

**Result** Returns image or error.

### Description

The image used to depict the receiver's off state, or empty if the image has not been set. Please call GImage.Release later to free memory for this image.

### See also

- 87.214 GImage.Release 4674
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.56 MenuItem.GetOnStateImage 6023
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.96 MenuItem.SetOffStateImage 6073
- 114.97 MenuItem.SetOnStateImage 6074

Created 18th August 2014, last changed 31st July 2019.

## 114.56 MenuItem.GetOnStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetOnStateImage"; item { ; ImageType; Filename } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

The image used to depict the receiver's "on" state, or empty if the image has not been set.

Please call GImage.Release later to free memory for this image.

### See also

- 87.214 GImage.Release 4674
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.55 MenuItem.GetOffStateImage 6022
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.96 MenuItem.SetOffStateImage 6073
- 114.97 MenuItem.SetOnStateImage 6074

Created 18th August 2014, last changed 31st July 2019.

## 114.57 MenuItem.GetParentItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetParentItem"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns reference number or error.

### Description

The parent menu item, or empty text if the receiver does not have a parent item.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.58 MenuItem.GetParentMenu 6025

Created 18th August 2014, last changed 31st August 2014.

## 114.58 MenuItem.GetParentMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.3	Yes	Yes	No	No	No

MBS( "MenuItem.GetParentMenu"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

The parent menu, or empty text if the item does not have a parent item.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.57 MenuItem.GetParentItem 6024

Created 2nd September 2014, last changed 5th September 2014.

## 114.59 MenuItem.GetPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.2	Yes	Yes	No	No	No

MBS( "MenuItem.GetPath"; item; Mode { ; Delimiter } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Mode

Can be Title, Tag or ID and defines which value to use.

"Title"

#### Delimiter

Optional

Which delimiter to use. Default is newline.

"/"

**Result** Returns text or error.

### Description

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.42 MenuItem.GetBold 6009
- 114.50 MenuItem.GetImage 6017
- 114.67 MenuItem.GetState 6034
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.73 MenuItem.GetURL 6041
- 114.104 MenuItem.SetState 6082
- 114.107 MenuItem.SetTag 6086

Created 8th July 2015, last changed 1st August 2015.

## 114.60 MenuItem.GetRequireCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetRequireCommand"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.63 MenuItem.GetRequireShift 6030
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077

### 114.60.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.61 MenuItem.GetRequireControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetRequireControl"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.62 MenuItem.GetRequireOption 6029
- 114.63 MenuItem.GetRequireShift 6030
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077

### 114.61.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 11st May 2015.



## 114.62 MenuItem.GetRequireOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetRequireOption"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.63 MenuItem.GetRequireShift 6030
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078

### 114.62.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.63 MenuItem.GetRequireShift

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetRequireShift"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078

### 114.63.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.64 MenuItem.GetScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetScriptFileName"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns file name or error.

### Description

#### See also

- 90.10 HotKey.GetScriptFileName 4904
- 114.11 Menu.GetScriptFileName 5971
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.65 MenuItem.GetScriptName 6032
- 114.102 MenuItem.SetScriptAction 6079

Created 18th August 2014, last changed 31st August 2014.

## 114.65 MenuItem.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetScriptName"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns script name or error.

### Description

### See also

- 114.12 Menu.GetScriptName 5972
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.46 MenuItem.GetFontName 6013
- 114.64 MenuItem.GetScriptFileName 6031
- 114.102 MenuItem.SetScriptAction 6079

Created 18th August 2014, last changed 31st August 2014.

## 114.66 MenuItem.GetSelectable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.3	Yes	Yes	No	No	No

MBS( "MenuItem.GetSelectable"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns 0, 1 or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.103 MenuItem.SetSelectable 6081

### 114.66.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 17th June 2016, last changed 17th June 2016.

## 114.67 MenuItem.GetState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetState"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns on, off, mixed or error message.

### Description

See also MenuItem.SetState.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.50 MenuItem.GetImage 6017
- 114.51 MenuItem.GetItalic 6018
- 114.59 MenuItem.GetPath 6026
- 114.69 MenuItem.GetSubMenu 6036
- 114.70 MenuItem.GetTag 6037
- 114.71 MenuItem.GetTitle 6039
- 114.91 MenuItem.SetImage 6064
- 114.92 MenuItem.SetItalic 6066
- 114.104 MenuItem.SetState 6082

Created 18th August 2014, last changed 31st August 2014.

## 114.68 MenuItem.GetStrikeOut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.GetStrikeOut"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.105 MenuItem.SetStrikeOut 6084

### 114.68.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 1st October 2016.

## 114.69 MenuItem.GetSubMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetSubMenu"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns menu reference number or error.

### Description

Returns empty text if no submenu is associated with it.  
See also MenuItem.SetSubMenu.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.49 MenuItem.GetHidden 6016
- 114.67 MenuItem.GetState 6034
- 114.76 MenuItem.HasSubMenu 6044
- 114.106 MenuItem.SetSubMenu 6085

Created 18th August 2014, last changed 31st August 2014.



## 114.70 MenuItem.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetTag"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

See also Menu.SetTag.

With the tag, we allow you to associate a text with the menu item, for example a record ID.

### Examples

Show menu and show selection:

```
Set Variable [ $menu; Value:MBS("Menu.CreateMenu") ]
# create menu items...
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetTag"; $item; "secret value") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
#
# show menu
Set Variable [ $m; Value:MBS("Menu.PopUp"; $Menu; "mouse") ]
#
# you selected something?
If [ $m = 1 ]
Set Variable [ $selectedItem; Value:MBS("Menu.SelectedItem"; $menu) ]
Set Variable [ $selectedTitle; Value:MBS("MenuItem.GetTitle"; $selectedItem) ]
Set Variable [ $selectedTag; Value:MBS("MenuItem.GetTag"; $selectedItem) ]
#
Show Custom Dialog [ "Auswahl"; $selectedItem & §& $selectedTitle & §& $selectedTag ]
End If
Set Variable [ $m; Value:MBS("Menu.Release"; $Menu; 1) ]
```

### See also

- 114.22 Menu.PopUp 5982
- 114.23 Menu.Release 5986
- 114.28 Menu.SelectedItem 5992

- 114.34 Menu.SetTag 6000
- 114.37 MenuItem.CreateMenuItem 6003
- 114.50 MenuItem.GetImage 6017
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.91 MenuItem.SetImage 6064
- 114.110 MenuItem.SetURL 6089

### Example Databases

- [Menu/DefineQuickMenu with XML](#)
- [Menu/DefineQuickMenu](#)

Created 18th August 2014, last changed 7th April 2016.

## 114.71 MenuItem.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetTitle"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

See also See also MenuItem.SetTitle.

### See also

- 114.4 Menu.DefineQuickMenu 5961
- 114.22 Menu.PopUp 5982
- 114.28 Menu.SelectedItem 5992
- 114.32 Menu.SetScriptAction 5997
- 114.38 MenuItem.CreateSeparator 6005
- 114.59 MenuItem.GetPath 6026
- 114.67 MenuItem.GetState 6034
- 114.90 MenuItem.SetHidden 6063
- 114.91 MenuItem.SetImage 6064
- 114.104 MenuItem.SetState 6082

### Example Databases

- [Menu/DefineQuickMenu with XML](#)
- [Menu/DefineQuickMenu](#)
- [Menu/Popup Menu](#)

#### 114.71.1 Blog Entries

- [QuickMenu function](#)

Created 18th August 2014, last changed 31st August 2014.

## 114.72 MenuItem.GetToolTip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetToolTip"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

See also MenuItem.SetToolTip.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.51 MenuItem.GetItalic 6018
- 114.71 MenuItem.GetTitle 6039
- 114.109 MenuItem.SetToolTip 6088

Created 18th August 2014, last changed 31st August 2014.

## 114.73 MenuItem.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.GetURL"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.42 MenuItem.GetBold 6009
- 114.59 MenuItem.GetPath 6026
- 114.70 MenuItem.GetTag 6037
- 114.107 MenuItem.SetTag 6086
- 114.110 MenuItem.SetURL 6089

### 114.73.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 15th October 2016.

## 114.74 MenuItem.GetUnderline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.GetUnderline"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns value or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.39 MenuItem.GetAlternate 6006
- 114.111 MenuItem.SetUnderline 6090

### 114.74.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)

Created 11st May 2015, last changed 1st October 2016.

**114.75 MenuItem.GetUserKeyEquivalent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.GetUserKeyEquivalent"; item )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns text or error.

**Description****See also**

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.52 MenuItem.GetKeyEquivalent 6019
- 114.93 MenuItem.SetKeyEquivalent 6068

Created 18th August 2014, last changed 18th August 2014.

## 114.76 MenuItem.HasSubmenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.HasSubmenu"; item )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns 1, 0 or error.

### Description

Value is 1 if there is a submenu.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.69 MenuItem.GetSubMenu 6036
- 114.106 MenuItem.SetSubMenu 6085

Created 18th August 2014, last changed 31st August 2014.



**114.77 MenuItem.IsSeparatorItem**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.IsSeparatorItem"; item )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**Result** Returns 1, 0 or error.

**Description**

1 if the menu item is a separator item (that is, a menu item used to visually segregate related menu items), otherwise 0.

**See also**

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005

Created 18th August 2014, last changed 31st August 2014.

## 114.78 MenuItem.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	10.1	Yes	Yes	No	No	No

MBS( "MenuItem.List" )

**Result** Returns list or error.

### Description

You may use the list to loop over the entries and apply some styles to all.

### 114.78.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)

Created 5th March 2020, last changed 5th March 2020.

**114.79 MenuItem.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.Release"; item { ; children } )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**children**

Optional

If 1, releases all child menu items and child menus.

0

**Result** Returns OK or error.

**Description**

You need to release menu items after you finished using it to avoid running out of memory.

**See also**

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005

Created 18th August 2014, last changed 31st August 2014.

## 114.80 MenuItem.SetAlternate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.SetAlternate"; item; value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### value

1 if the receiver is an alternate to the previous menu item, 0 otherwise.

1

**Result** Returns OK or error.

### Description

If the receiver has the same key equivalent as the previous item, but has different key equivalent modifiers, the items are folded into a single visible item and the appropriate item shows while tracking the menu, depending on what modifier key (if any) is pressed. The menu items may also have no key equivalent as long as the key equivalent modifiers are different.

See also MenuItem.GetAlternate.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.39 MenuItem.GetAlternate 6006
- 114.104 MenuItem.SetState 6082
- 114.111 MenuItem.SetUnderline 6090

Created 18th August 2014, last changed 18th August 2014.

## 114.81 MenuItem.SetAttributedTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.SetAttributedTitle"; item; text )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### text

The text with styles.

\$text

**Result** Returns OK or error.

### Description

Supported styles are bold, italic, font name, font size, underline and colors.

See also MenuItem.GetAttributedTitle.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.40 MenuItem.GetAttributedTitle 6007

### Example Databases

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 18th August 2014.

## 114.82 MenuItem.SetBackColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	No	Yes	No	No	No

MBS( "MenuItem.SetBackColor"; item; Color )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 255. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red. "RGB 1 0 0"

**Result** Returns OK or error.

### Description

Currently only used on Windows.

On Mac it would only color the area where the text is and not the whole menu item, so this feature is disabled for Mac.

### Examples

Creates a menu item for background color:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Red Color") ]
Set Variable [ $r; Value:MBS("MenuItem.SetBackColor"; $item; "# FF0000") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.41 MenuItem.GetBackColor 6008
- 114.45 MenuItem.GetFontColor 6012
- 114.86 MenuItem.SetFontColor 6056

### 114.82.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 18th March 2017.

## 114.83 MenuItem.SetBold

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetBold"; item; flag )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### flag

The bold state. Pass 1 to use bold font or 0 to disable.

1

**Result** Returns OK or error.

### Description

### Examples

Create bold menu item:

```
# create menu
Set Variable [ $menu ; Value: MBS("Menu.CreateMenu") ]
# create menu item...
Set Variable [ $item ; Value: MBS("MenuItem.CreateMenuItem"; "Bold item") ]
Set Variable [ $r ; Value: MBS("MenuItem.SetBold"; $item; 1) ]
Set Variable [ $r ; Value: MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.42 MenuItem.GetBold 6009
- 114.107 MenuItem.SetTag 6086
- 114.108 MenuItem.SetTitle 6087
- 114.110 MenuItem.SetURL 6089

### Example Databases

- [Menu/Popup Menu](#)



### 114.83.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 25th November 2019.

## 114.84 MenuItem.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetEnabled"; item; flag )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### flag

The enabled state. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

See also MenuItem.GetEnabled.

### Examples

Add a disabled menu item:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetEnabled"; $item; 0) ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.43 MenuItem.GetEnabled 6010
- 114.91 MenuItem.SetImage 6064
- 114.92 MenuItem.SetItalic 6066
- 114.104 MenuItem.SetState 6082
- 114.108 MenuItem.SetTitle 6087

### Example Databases

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 15th April 2015.

## 114.85 MenuItem.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetEvaluate"; item; Expression )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the hotkey reference, so you can pass it to other functions if needed.

### See also

- 114.30 Menu.SetEvaluate 5995
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.44 MenuItem.GetEvaluate 6011
- 114.104 MenuItem.SetState 6082

### 114.85.1 Blog Entries

- [Formatting and error checking expressions in FileMaker](#)
- [MBS FileMaker Plugin, version 6.1pr5](#)
- [Evaluate vs. Script Trigger](#)

Created 4th March 2016, last changed 4th April 2018.

## 114.86 MenuItem.SetFontColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.SetFontColor"; item; Color )

(old name: MenuItem.ApplyColor)

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 255. Starting with version 5.4 of our plugin, you can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red. "RGB 1 0 0"

**Result** Returns OK or error.

### Description

On Windows, a few features are not compatible with having a custom color.

### Examples

Create menu item with font color:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Red Color") ]
Set Variable [ $r; Value:MBS("MenuItem.SetFontColor"; $item; "# FF0000") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.41 MenuItem.GetBackColor 6008
- 114.45 MenuItem.GetFontColor 6012
- 114.82 MenuItem.SetBackColor 6050
- 114.87 MenuItem.SetFontName 6058
- 114.88 MenuItem.SetFontSize 6060

### 114.86.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 1st October 2016.

## 114.87 MenuItem.SetFontName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetFontName"; item; FontName { ; FontSize } )

(old name: MenuItem.ApplyFont)

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### FontName

The font name to use.

"Arial"

#### FontSize

Optional

The font size to use. Use 0 for default system font size.

9

**Result** Returns OK or error.

### Description

Leave empty for system font.

### Examples

Create a menu entry with specific font:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "With Comic Sans Font") ]
```

```
Set Variable [ $r; Value:MBS("MenuItem.SetFontName"; $item; "Comic Sans MS"; 13) ]
```

```
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.46 MenuItem.GetFontName 6013
- 114.47 MenuItem.GetFontSize 6014
- 114.86 MenuItem.SetFontColor 6056
- 114.88 MenuItem.SetFontSize 6060

114.87. *MENUITEM.SETFONTNAME*

6059

- 114.104 MenuItem.SetState

6082

### 114.87.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.88 MenuItem.SetFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetFontSize"; item; FontSize )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### FontSize

The font size to use. Use 0 for default system font size.

9

**Result** Returns OK or error.

### Description

### Examples

Creates a menu item with a font size:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Font Size 20") ]
```

```
Set Variable [ $r; Value:MBS("MenuItem.SetFontSize"; $item; 20) ]
```

```
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.46 MenuItem.GetFontName 6013
- 114.47 MenuItem.GetFontSize 6014
- 114.86 MenuItem.SetFontColor 6056
- 114.87 MenuItem.SetFontName 6058

### Example Databases

- [Menu/Popup Menu](#)



### 114.88.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 1st October 2016.

## 114.89 MenuItem.SetGroupID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.2	Yes	Yes	No	No	No

MBS( "MenuItem.SetGroupID"; item; GroupID )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### GroupID

Any string to identify your groups.

"123"

**Result** Returns OK or error.

### Description

If several menu items have the same group id, the plugin only shows the first one fulfilling all requirements like key modifiers.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.48 MenuItem.GetGroupID 6015

Created 6th June 2015, last changed 8th June 2015.

## 114.90 MenuItem.SetHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetHidden"; item; value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### value

1 if the menu item is to be hidden, otherwise 0.

1

**Result** Returns OK or error.

### Description

Hidden menu items (or items with a hidden superitem) do not appear in a menu and do not participate in command key matching.

See also MenuItem.GetHidden.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.49 MenuItem.GetHidden 6016
- 114.71 MenuItem.GetTitle 6039
- 114.91 MenuItem.SetImage 6064
- 114.104 MenuItem.SetState 6082
- 114.106 MenuItem.SetSubMenu 6085
- 114.108 MenuItem.SetTitle 6087

Created 18th August 2014, last changed 31st August 2014.

## 114.91 MenuItem.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetImage"; item; Image )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

See also MenuItem.GetImage.

Transparency is not supported on Windows.

### Examples

Add a menu item with image:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetImage"; $item; MyTable::MyImage ) ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.50 MenuItem.GetImage 6017
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.84 MenuItem.SetEnabled 6054
- 114.90 MenuItem.SetHidden 6063
- 114.92 MenuItem.SetItalic 6066
- 114.107 MenuItem.SetTag 6086

**Example Databases**

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 10th September 2019.

## 114.92 MenuItem.SetItalic

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetItalic"; item; flag )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### flag

The italic state. Pass 1 to use italic font or 0 to disable.

1

**Result** Returns OK or error.

### Description

### Examples

Creates a menu item with italic font:

```
# create menu
Set Variable [ $menu ; Value: MBS("Menu.CreateMenu") ]
# create menu item...
Set Variable [ $item ; Value: MBS("MenuItem.CreateMenuItem"; "Italic item") ]
Set Variable [ $r ; Value: MBS("MenuItem.SetItalic"; $item; 1) ]
Set Variable [ $r ; Value: MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.51 MenuItem.GetItalic 6018
- 114.67 MenuItem.GetState 6034
- 114.84 MenuItem.SetEnabled 6054
- 114.91 MenuItem.SetImage 6064
- 114.108 MenuItem.SetTitle 6087
- 114.109 MenuItem.SetToolTip 6088

### 114.92.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 25th November 2019.

## 114.93 MenuItem.SetKeyEquivalent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.SetKeyEquivalent"; item; text )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### text

A string containing a character code representing a keyboard key. If you want to remove the key equivalent from a menu item, pass an empty string.

"T"

**Result** Returns OK or error.

### Description

This method considers the case of the letter passed to determine if it has a Shift modifier added. That is, "w" sets the key equivalent to Command-w, while "W" is Command-Shift-w. You use MenuItem.SetKeyEquivalentModifierMask to set the appropriate mask for the modifier keys for the key equivalent.

### Examples

Add menu item with key T:

```
# set useful constants:
```

```
Set Variable [ $ShiftKeyMask; Value:131072 ]
```

```
Set Variable [ $ControlKeyMask; Value:262144 ]
```

```
Set Variable [ $AlternateKeyMask; Value:524288 ]
```

```
Set Variable [ $CommandKeyMask; Value:1048576 ]
```

```
# now make menu entry
```

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "With Key Equivalent") ]
```

```
Set Variable [ $r; Value:MBS("MenuItem.SetKeyEquivalent"; $item; "T") ]
```

```
Set Variable [ $r; Value:MBS("MenuItem.SetKeyEquivalentModifierMask"; $item; $ShiftKeyMask + $CommandKeyMask) ]
```

```
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005



<i>114.93. MENUITEM.SETKEYEQUIVALENT</i>	6069
• 114.52 MenuItem.GetKeyEquivalent	6019
• 114.75 MenuItem.GetUserKeyEquivalent	6043
• 114.94 MenuItem.SetKeyEquivalentModifierMask	6070

### **Example Databases**

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 15th April 2015.

## 114.94 MenuItem.SetKeyEquivalentModifierMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.SetKeyEquivalentModifierMask"; item; mask )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### mask

The key masks indicate modifiers such as the Shift or Option keys. mask is a number and you can add the constants below.

524288

**Result** Returns OK or error.

### Description

In general, you are strongly encouraged to always set NSCommandKeyMask in mask, although there may be some conventions where this is not required. For example, in an application that plays media, the Play command may be mapped to just " " (space), without the command key.

NSShiftKeyMask is a valid modifier for any key equivalent in mask. This allows you to specify key-equivalents such as Command-Shift-1 that are consistent across all keyboards. However, with a few exceptions (such as the German "ß" character), a lowercase character with NSShiftKeyMask is interpreted the same as the uppercase character without that mask. For example, Command-Shift-c and Command-C are considered to be identical key equivalents.

NSShiftKeyMask	131072	Shift Key
NSControlKeyMask	262144	Control Key
NSAlternateKeyMask	524288	Alternate/Option Key
NSCommandKeyMask	1048576	Command Key

### Examples

Add menu item with key T:

```
# set useful constants:
```

```
Set Variable [ $ShiftKeyMask; Value:131072 ]
```

```
Set Variable [ $ControlKeyMask; Value:262144 ]
```

```
Set Variable [ $AlternateKeyMask; Value:524288 ]
```

```
Set Variable [ $CommandKeyMask; Value:1048576 ]
```

```
# now make menu entry
```

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "With Key Equivalent") ]
```

114.94. *MENUITEM.SETKEYEQUIVALENTMODIFIERMASK*

6071

Set Variable [ \$r; Value:MBS("MenuItem.SetKeyEquivalent"; \$item; "T") ]

Set Variable [ \$r; Value:MBS("MenuItem.SetKeyEquivalentModifierMask"; \$item; \$ShiftKeyMask + \$CommandKeyMask) ]

Set Variable [ \$r; Value:MBS("Menu.AddItem"; \$menu; \$item) ]

**See also**

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.53 MenuItem.GetKeyEquivalentModifierMask 6020
- 114.93 MenuItem.SetKeyEquivalent 6068

**Example Databases**

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 15th April 2015.

## 114.95 MenuItem.SetMixedStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetMixedStateImage"; item; Image )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Image

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Transparency is not supported on Windows.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.55 MenuItem.GetOffStateImage 6022
- 114.56 MenuItem.GetOnStateImage 6023
- 114.96 MenuItem.SetOffStateImage 6073
- 114.97 MenuItem.SetOnStateImage 6074

Created 18th August 2014, last changed 31st August 2014.

## 114.96 MenuItem.SetOffStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetOffStateImage"; item; Image )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Image

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Transparency is not supported on Windows.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.55 MenuItem.GetOffStateImage 6022
- 114.56 MenuItem.GetOnStateImage 6023
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.97 MenuItem.SetOnStateImage 6074

Created 18th August 2014, last changed 31st August 2014.

## 114.97 MenuItem.SetOnStateImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetOnStateImage"; item; Image )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Image

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Transparency is not supported on Windows.

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.54 MenuItem.GetMixedStateImage 6021
- 114.55 MenuItem.GetOffStateImage 6022
- 114.56 MenuItem.GetOnStateImage 6023
- 114.95 MenuItem.SetMixedStateImage 6072
- 114.96 MenuItem.SetOffStateImage 6073

Created 18th August 2014, last changed 31st August 2014.

## 114.98 MenuItem.SetRequireCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetRequireCommand"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting. Pass 1 to require command key or 0 to not require it.

1

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078

### 114.98.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.99 MenuItem.SetRequireControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetRequireControl"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting. Pass 1 to require control key or 0 to not require it.

1

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.98 MenuItem.SetRequireCommand 6075
- 114.100 MenuItem.SetRequireOption 6077
- 114.101 MenuItem.SetRequireShift 6078

### 114.99.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 11st May 2015.



## 114.100 MenuItem.SetRequireOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetRequireOption"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting. Pass 1 to require option/alt key or 0 to not require it.

1

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.60 MenuItem.GetRequireCommand 6027
- 114.61 MenuItem.GetRequireControl 6028
- 114.62 MenuItem.GetRequireOption 6029
- 114.63 MenuItem.GetRequireShift 6030
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.101 MenuItem.SetRequireShift 6078

### 114.100.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.101 MenuItem.SetRequireShift

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetRequireShift"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting. Pass 1 to require shift key or 0 to not require it.

1

**Result** Returns OK or error.

### Description

#### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.62 MenuItem.GetRequireOption 6029
- 114.63 MenuItem.GetRequireShift 6030
- 114.98 MenuItem.SetRequireCommand 6075
- 114.99 MenuItem.SetRequireControl 6076
- 114.100 MenuItem.SetRequireOption 6077

### 114.101.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 11st May 2015.

## 114.102 MenuItem.SetScriptAction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetScriptAction"; item; FileName; ScriptName { ; ScriptParameter } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### FileName

The filename of file which contains the script.

"Menus.fmp12"

#### ScriptName

The name of the script.

"MenuScript"

#### ScriptParameter

Optional

If you want a specific script parameter. Default is to leave empty and get the ID fo the menu item. You can store a value with the menu item via MenuItem.SetTag.

**Result** Returns OK or error.

### Description

You can use MenuItem.SetScriptAction to associate a script with individual items or use this function for a whole menu.

See also MenuItem.GetScriptFileName and MenuItem.GetScriptName.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Add menu item with script to be called:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetScriptAction"; $item; Get(FileName); "MenuScript") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959

- 114.22 Menu.PopUp 5982
- 114.32 Menu.SetScriptAction 5997
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.64 MenuItem.GetScriptFileName 6031
- 114.65 MenuItem.GetScriptName 6032
- 114.107 MenuItem.SetTag 6086

### Example Databases

- [Menu/Popup Menu](#)

### 114.102.1 Blog Entries

- [MBS FileMaker Plugin, version 5.5pr4](#)
- [Tip of the day: Build contextual menu in FileMaker from a table](#)

Created 18th August 2014, last changed 2nd December 2016.

## 114.103 MenuItem.SetSelectable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.3	Yes	Yes	No	No	No

MBS( "MenuItem.SetSelectable"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting. Pass 1 to make menu item selectable or 0 to disable selection.

0

**Result** Returns OK or error.

### Description

By default on Mac you can select submenu's parent menu item. This function can be used to disable this behavior.

For the plugin all menu items are created selectable = true by default.

Currently this flag has no effect on Windows.

### Examples

Disable selecting menuitem:

```
MBS("MenuItem.SetSelectable"; $item; 0)
```

### See also

- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.66 MenuItem.GetSelectable 6033

### 114.103.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 17th June 2016, last changed 17th June 2016.

## 114.104 MenuItem.SetState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetState"; item; itemState )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### itemState

The new state; it should be one of Off, on or mixed.

"mixed"

**Result** Returns OK or error.

### Description

The image associated with the new state is displayed to the left of the menu item.

See also MenuItem.GetState.

Mixed state is not supported on Windows.

On Mac the special values "bullet" and "diamond" sets state to on and switch to use bullet/diamond images.

### Examples

Create menu item with mixed state:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "With State Mixed") ]
Set Variable [ $r; Value:MBS("MenuItem.SetState"; $item; "mixed") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

Create menu item with on state:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "With State On") ]
Set Variable [ $r; Value:MBS("MenuItem.SetState"; $item; "on") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.67 MenuItem.GetState 6034
- 114.87 MenuItem.SetFontName 6058

<i>114.104. MENUITEM.SETSTATE</i>	6083
• 114.90 MenuItem.SetHidden	6063
• 114.92 MenuItem.SetItalic	6066
• 114.106 MenuItem.SetSubMenu	6085
• 114.107 MenuItem.SetTag	6086
• 114.108 MenuItem.SetTitle	6087

### **Example Databases**

- [Menu/Popup Menu](#)

#### **114.104.1 Blog Entries**

- [More menu commands for FileMaker](#)

Created 18th August 2014, last changed 11st May 2015.

## 114.105 MenuItem.SetStrikeOut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.SetStrikeOut"; item; Value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

The text will be down stroked out.

### Examples

Creates a menu item with stroked out text:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Striked out") ]
Set Variable [ $r; Value:MBS("MenuItem.SetStrikeOut"; $item; 1) ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.68 MenuItem.GetStrikeOut 6035

### 114.105.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 1st October 2016.



**114.106 MenuItem.SetSubMenu**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetSubMenu"; item; submenu )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**submenu**

The reference to the menu. Please create one with Menu.CreateMenu.

\$submenu

**Result** Returns OK or error.

**Description**

See also MenuItem.GetSubMenu.

**See also**

- 114.3 Menu.CreateMenu 5959
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.69 MenuItem.GetSubMenu 6036
- 114.76 MenuItem.HasSubMenu 6044
- 114.90 MenuItem.SetHidden 6063
- 114.104 MenuItem.SetState 6082

Created 18th August 2014, last changed 31st August 2014.

## 114.107 MenuItem.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetTag"; item; value )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### value

The new tag value.

Get(RecordID)

**Result** Returns OK or error.

### Description

See also Menu.GetTag.

With the tag, we allow you to associate a text with the menu item, for example a record ID.

### See also

- 114.6 Menu.FindItemWithTag 5966
- 114.28 Menu.SelectedItem 5992
- 114.38 MenuItem.CreateSeparator 6005
- 114.50 MenuItem.GetImage 6017
- 114.59 MenuItem.GetPath 6026
- 114.73 MenuItem.GetURL 6041
- 114.91 MenuItem.SetImage 6064
- 114.104 MenuItem.SetState 6082
- 114.108 MenuItem.SetTitle 6087
- 114.110 MenuItem.SetURL 6089

Created 18th August 2014, last changed 31st August 2014.

**114.108 MenuItem.SetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetTitle"; item; text )

**Parameters****item**

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

**text**

The new title of the menu item. If you do not want a title, use an empty string.  
"Hello"

**Result** Returns OK or error.

**Description**

See also See also MenuItem.GetTitle.

**See also**

- 114.7 Menu.FindItemWithTitle 5967
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.67 MenuItem.GetState 6034
- 114.71 MenuItem.GetTitle 6039
- 114.90 MenuItem.SetHidden 6063
- 114.91 MenuItem.SetImage 6064
- 114.92 MenuItem.SetItalic 6066
- 114.104 MenuItem.SetState 6082
- 114.109 MenuItem.SetToolTip 6088

Created 18th August 2014, last changed 31st August 2014.

## 114.109 MenuItem.SetToolTip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	4.1	Yes	No	No	No	No

MBS( "MenuItem.SetToolTip"; item { ; text } )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### text

Optional

Optional, a short string that describes the menu item.  
"Print document"

**Result** Returns OK or error.

### Description

See also MenuItem.GetToolTip.

### Examples

Add a menu item with tooltip:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Hello World") ]
Set Variable [ $r; Value:MBS("MenuItem.SetToolTip"; $item; "This is sample tooltip.") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.72 MenuItem.GetToolTip 6040
- 114.92 MenuItem.SetItalic 6066
- 114.108 MenuItem.SetTitle 6087

### Example Databases

- [Menu/Popup Menu](#)

Created 18th August 2014, last changed 15th April 2015.

## 114.110 MenuItem.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	6.5	Yes	Yes	No	No	No

MBS( "MenuItem.SetURL"; item; URL )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with menu ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

### Examples

Create menu to open email application:

```
Set Variable [ $item; Value:MBS("MenuItem.CreateMenuItem"; "Send Email to Support") ]
Set Variable [ $r; Value:MBS("MenuItem.SetURL"; $item; "mailto:support@monkeybreadsoftware.test") ]
Set Variable [ $r; Value:MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.70 MenuItem.GetTag 6037
- 114.73 MenuItem.GetURL 6041
- 114.83 MenuItem.SetBold 6052
- 114.107 MenuItem.SetTag 6086

### 114.110.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 15th October 2016.

## 114.111 MenuItem.SetUnderline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
114 Menu	5.1	Yes	Yes	No	No	No

MBS( "MenuItem.SetUnderline"; item; flag )

### Parameters

#### item

The reference to the menu item. Please create one with MenuItem.CreateMenuItem or MenuItem.CreateSeparator.

\$item

#### flag

The underline state. Pass 1 to use underline font or 0 to disable.

1

**Result** Returns OK or error.

### Description

### Examples

Creates a menu item with underlined font:

```
# create menu
Set Variable [ $menu ; Value: MBS("Menu.CreateMenu") ]
# create menu item...
Set Variable [ $item ; Value: MBS("MenuItem.CreateMenuItem"; "Italic item") ]
Set Variable [ $r ; Value: MBS("MenuItem.SetUnderline"; $item; 1) ]
Set Variable [ $r ; Value: MBS("Menu.AddItem"; $menu; $item) ]
```

### See also

- 114.1 Menu.AddItem 5953
- 114.3 Menu.CreateMenu 5959
- 114.37 MenuItem.CreateMenuItem 6003
- 114.38 MenuItem.CreateSeparator 6005
- 114.74 MenuItem.GetUnderline 6042
- 114.80 MenuItem.SetAlternate 6048

### Example Databases

- [Menu/Popup Menu](#)

### 114.111.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr8](#)
- [More menu commands for FileMaker](#)

Created 11st May 2015, last changed 25th November 2019.





# Chapter 115

## Menubar

Functions to modify the FileMaker menu.

### 115.1 Menubar.HasMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	5.0	Yes	Yes	No	No	No

MBS( "Menubar.HasMenuCommand"; Path )

#### Parameters

##### Path

The ID or path to the menu entry. Use Menubar.ListMenuCommands to find out the IDs and names.  
49297

**Result** Returns 1 or error.

#### Description

#### Examples

Check if select all command is there in German:

```
MBS("FM.HasMenuCommand"; "Bearbeiten§Alles auswählen")
```

Do we have the New Database command?

```
MBS("Menubar.HasMenuCommand"; 57600)
```

#### See also

- 115.2 Menubar.IsMenuCommandChecked

6095

- 115.3 Menubar.ListMenuCommands 6097
- 115.4 Menubar.RemoveMenuCommand 6098
- 115.5 Menubar.RunMenuCommand 6099

### 115.1.1 Blog Entries

- [Tip of the day: Show debugger in FileMaker from within a script](#)

Created 15th November 2014, last changed 15th November 2014.

## 115.2 Menubar.IsMenuCommandChecked

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	6.3	Yes	Yes	No	No	No

MBS( "Menubar.IsMenuCommandChecked"; Path )

### Parameters

#### Path

The ID or path to the menu entry. Use `Menubar.ListMenuCommands` to find out the IDs and names.  
49297

**Result** Returns 0, 1 or error.

### Description

Returns 1 if the menubar has a checkmark.

### Examples

Checks if debugger is visible:

```
MBS( "Menubar.IsMenuCommandChecked"; 49260)
```

Show debugger from within a script:

```
# The menu command as we got it from Menubar.ListMenuCommands
Set Variable [ $DebuggerMenuID; Value:49260 ]
If [ MBS( "Menubar.HasMenuCommand"; $DebuggerMenuID ) = 1 ]
If [ MBS( "Menubar.IsMenuCommandChecked"; $DebuggerMenuID ) = 1 ]
# debugger already visible
Else
# show debugger
Set Variable [ $r; Value:MBS( "Menubar.RunMenuCommand"; $DebuggerMenuID ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End If
Else
Show Custom Dialog [ "Debugger missing in Menubar?" ]
End If
# now follows your script that should always run in debugger
```

### See also

- 115.1 `Menubar.HasMenuCommand` 6093
- 115.3 `Menubar.ListMenuCommands` 6097
- 115.5 `Menubar.RunMenuCommand` 6099

### 115.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)
- [Tip of the day: Show debugger in FileMaker from within a script](#)

Created 17th June 2016, last changed 17th June 2016.

## 115.3 Menubar.ListMenuCommands

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	5.0	Yes	Yes	No	No	No

MBS( "Menubar.ListMenuCommands" )

**Result** Returns list or error.

### Description

The result is a list with a line for each menu entry. The data is separated with tab character. First in each row is the command ID followed by the menu item names for the path to the item.

Works well in FileMaker 12 or newer, but not in FileMaker 11.

### Examples

List menu commands:

```
MBS("Menubar.ListMenuCommands")
```

Write commands to disk:

```
MBS("Text.WriteTextFile"; MBS( "Menubar.ListMenuCommands" ); "/Users/cs/Desktop/menu.txt")
```

### See also

- 115.1 Menubar.HasMenuCommand 6093
- 115.2 Menubar.IsMenuCommandChecked 6095
- 115.4 Menubar.RemoveMenuCommand 6098
- 115.5 Menubar.RunMenuCommand 6099
- 115.6 Menubar.SetMenuCommandShortcut 6102
- 115.7 Menubar.SetMenuCommandTitle 6103
- 115.8 Menubar.SetMenuCommandVisible 6104
- 167.68 Text.WriteTextFile 7999

### 115.3.1 Blog Entries

- [Tip of the day: Show debugger in FileMaker from within a script](#)

Created 15th November 2014, last changed 15th September 2016.

## 115.4 Menubar.RemoveMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	6.2	Yes	Yes	No	No	No

MBS( "Menubar.RemoveMenuCommand"; Path )

### Parameters

#### Path

The ID or path to the menu entry. Use Menubar.ListMenuCommands to find out the IDs and names.  
49297

**Result** Returns OK or error.

### Description

FileMaker may restore menu later.

### Examples

Remove tools menu:

```
MBS("Menubar.RemoveMenuCommand"; "Tools")
```

### See also

- [115.1 Menubar.HasMenuCommand](#) 6093
- [115.3 Menubar.ListMenuCommands](#) 6097
- [115.5 Menubar.RunMenuCommand](#) 6099

### 115.4.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 14th May 2016, last changed 14th May 2016.

## 115.5 Menubar.RunMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	5.0	Yes	Yes	No	No	No

MBS( "Menubar.RunMenuCommand"; Path )

### Parameters

#### Path

The ID or path to the menu entry. Use `Menubar.ListMenuCommands` to find out the IDs and names.  
49297

**Result** Returns OK or error.

### Description

The plugin searches menu command and invokes it.

For Windows, the command is run asynchronously, so the function returns before the command runs. You may need to make a script pause to run the command.

For a couple of menu commands you may need to use `Schedule.EvaluateAfterDelay` to make sure the plugin invokes the menu after the script finished running.

### Examples

Run command to select all:

```
MBS("FM.RunMenuCommand"; "Bearbeiten$Alles auswählen")
```

Show debugger:

```
MBS("Menubar.RunMenuCommand"; "Werkzeuge$Script-Debugger")
```

Show debugger from within a script:

```
# The menu command as we got it from Menubar.ListMenuCommands
Set Variable [ $DebuggerMenuID; Value:49260 ]
If [ MBS( "Menubar.HasMenuCommand"; $DebuggerMenuID ) = 1 ]
If [ MBS( "Menubar.IsMenuCommandChecked"; $DebuggerMenuID ) = 1 ]
# debugger already visible
Else
# show debugger
Set Variable [ $r; Value:MBS( "Menubar.RunMenuCommand"; $DebuggerMenuID ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End If
Else
Show Custom Dialog [ "Debugger missing in Menubar?" ]
End If
# now follows your script that should always run in debugger
```

Show/Hide format bar in German:

```
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; ,1; "MBS( \ "Menubar.RunMenuCommand\"; Liste(\ "Ansicht\"; \ "Formatierungsleiste\") )" ) ]
```

Make snapshot link with F5 hotkey:

```
Set Variable [ $$Hotkey ; Value: MBS("Hotkey.Register"; "F5"; "") ]
Set Variable [ $r ; Value: MBS( "HotKey.SetEvaluate"; $$Hotkey; "MBS( \ "Menubar.RunMenuCommand\"; 50285 )" ) ]
```

Enter layout mode in a second:

```
Set Variable [ $r ; Value: MBS ( "Schedule.EvaluateAfterDelay" ; 1 ; "MBS ( \ "Menubar.RunMenuCommand\"; 49156 )" ) ]
```

### See also

- 90.15 HotKey.Register 4909
- 90.17 HotKey.SetEvaluate 4914
- 115.1 Menubar.HasMenuCommand 6093
- 115.3 Menubar.ListMenuCommands 6097
- 115.4 Menubar.RemoveMenuCommand 6098
- 130.4 PageSetupDialog.Enable 6496
- 130.12 PageSetupDialog.Install 6505
- 143.4 Schedule.EvaluateAfterDelay 6902
- 162.1 SyntaxColoring.AddContextMenuCommand 7679
- 171.2 TouchBar.AddButton 8088

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)
- [Mac only/TouchBar](#)



### **115.5.1 Blog Entries**

- [Define hot keys for functions in the FileMaker development](#)
- [Add a search and replace command for FileMaker Script Workspace](#)
- [Custom context menu commands for FileMaker ScriptWorkspace](#)
- [Page Setup Dialog example](#)
- [Tip of the day: Show debugger in FileMaker from within a script](#)

Created 15th November 2014, last changed 18th April 2020.

## 115.6 Menubar.SetMenuCommandShortcut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	5.0	Yes	No	No	No	No

MBS( "Menubar.SetMenuCommandShortcut"; Path; Key; Modifiers )

### Parameters

#### Path

The ID or path to the menu entry. Use Menubar.ListMenuCommands to find out the IDs and names.  
49297

#### Key

Which key to use.  
"D"

#### Modifiers

Which modifiers to use. can include command, option, shift or control.  
"command shift"

**Result** Returns OK or error.

### Description

#### Examples

Set Shortcut to "D" for the Data Viewer by ID:

```
MBS("Menubar.SetMenuCommandShortcut"; 49297; "D"; "shift command")
```

Set Shortcut to "D" for the Data Viewer by name in German:

```
MBS("FM.SetMenuCommandShortcut"; "Werkzeuge$Datenanzeige"; "D"; "command shift")
```

### See also

- 115.3 Menubar.ListMenuCommands 6097
- 115.7 Menubar.SetMenuCommandTitle 6103
- 115.8 Menubar.SetMenuCommandVisible 6104

Created 15th November 2014, last changed 15th November 2014.

## 115.7 Menubar.SetMenuCommandTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	6.1	Yes	Yes	No	No	No

MBS( "Menubar.SetMenuCommandTitle"; Path; Title )

### Parameters

#### Path

The ID or path to the menu entry. Use `Menubar.ListMenuCommands` to find out the IDs and names.  
49297

#### Title

The new menu item title.  
"Hello"

**Result** Returns OK or error.

### Description

#### Examples

Rename menu entry on Mac:

```
MBS("Menubar.SetMenuCommandTitle"; "FileMaker Pro Advanced$FileMaker Pro Advanced ausblenden";
"Hello")
```

Sets a menu entry on Windows:

```
MBS("Menubar.SetMenuCommandTitle"; "Datei$Verwalten"; "Hello")
```

### See also

- [115.3 Menubar.ListMenuCommands](#) 6097
- [115.6 Menubar.SetMenuCommandShortcut](#) 6102
- [115.8 Menubar.SetMenuCommandVisible](#) 6104

### 115.7.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr2](#)

Created 7th February 2016, last changed 7th February 2016.

## 115.8 Menubar.SetMenuCommandVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
115 Menubar	5.0	Yes	Yes	No	No	No

MBS( "Menubar.SetMenuCommandVisible"; Path; Visible )

### Parameters

#### Path

The ID or path to the menu entry. Use `Menubar.ListMenuCommands` to find out the IDs and names.  
49297

#### Visible

The new visible state. Pass 1 to make visible and 0 to hide.  
1

**Result** Returns OK or error.

### Description

This allows you to remove menu entries by path/ID from the FileMaker menu, so user cannot longer use it. The change is not permanent and whenever FileMaker rebuilds the menu, all menu entries are back.

### Examples

Hide preferences menu command:

```
MBS("Menubar.SetMenuCommandVisible"; 49153; 0)
```

Hide service menu in FileMaker Pro Advanced in German:

```
MBS("Menubar.SetMenuCommandVisible"; "FileMaker Pro Advanced$Dienste"; 0)
```

### See also

- [115.3 Menubar.ListMenuCommands](#) 6097
- [115.6 Menubar.SetMenuCommandShortcut](#) 6102
- [115.7 Menubar.SetMenuCommandTitle](#) 6103

### 115.8.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 15th November 2014, last changed 17th June 2018.

# Chapter 116

## MessageComposer

A panel for iOS to edit and send an messages.

You can send text messages or iMessage with text and attachments.

See also MailComposer functions for creating emails.

### 116.1 MessageComposer.AddAttachmentContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

```
MBS( "MessageComposer.AddAttachmentContainer"; Container; Name { ; MimeType } )
```

#### Parameters

##### Container

The container to attach to email.

Attachment::Container

##### Name

The name for the attachment.

"sample.pdf"

##### MimeType

Optional

The UTI, file extension or mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".

"application/octet-stream"

**Result** Returns OK or error.

#### Description

You can use `Text.FileExtensionToMimeType` to find the mime type for a file extension.

You can use `AddAttachment` several times to add several attachments.

### Examples

Adds an attachment:

```
Set Variable [ $FieldName ; Value: Get(ScriptParameter) ]
Set Variable [ $Container ; Value: GetField ( $FieldName) ]
If [ IsEmpty ( $container ) = 0 ]
Set Variable [ $path ; Value: GetAsText ( $Container ) ]
Set Variable [ $name ; Value: MBS( "Path.LastPathComponent"; $path) ]
Set Variable [ $extension ; Value: MBS( "Files.FileExtension"; $name ) ]
Set Variable [ $mimeType ; Value: MBS( "Text.FileExtensionToMimeType"; $extension ) ]
#
Set Variable [ $r ; Value: MBS( "MessageComposer.AddAttachmentContainer"; $container; $name; $mimeType) ]
End If
```

### See also

- 79.20 `Files.FileExtension` 3857
- 107.1 `MailComposer.AddAttachmentContainer` 5693
- 116.2 `MessageComposer.AddAttachmentFile` 6107
- 116.3 `MessageComposer.AttachmentCount` 6108
- 124.5 `Path.LastPathComponent` 6252
- 167.37 `Text.FileExtensionToMimeType` 7956

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 116.2 MessageComposer.AddAttachmentFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.AddAttachmentFile"; Path; Name { ; MimeType } )

### Parameters

#### Path

The native file path to the file to include as attachment.

"/Users/cs/Desktop/sample.pdf"

#### Name

The name for the attachment.

"sample.pdf"

#### MimeType

Optional

The UTI, file extension or mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".

"application/octet-stream"

**Result** Returns OK or error.

### Description

Attachments over 100 MB are not supported.

You can use `Text.FileExtensionToMimeType` to find the mime type for a file extension.

You can use `AddAttachment` several times to add several attachments.

### See also

- 107.2 MailComposer.AddAttachmentFile 5695
- 116.1 MessageComposer.AddAttachmentContainer 6105
- 116.3 MessageComposer.AttachmentCount 6108
- 167.37 Text.FileExtensionToMimeType 7956

Created 10th June 2017, last changed 10th June 2017.

### 116.3 MessageComposer.AttachmentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.AttachmentCount" )

**Result** Returns count or error.

**Description**

**See also**

- 116.1 MessageComposer.AddAttachmentContainer 6105
- 116.2 MessageComposer.AddAttachmentFile 6107

Created 11st June 2017, last changed 11st June 2017.



## 116.4 MessageComposer.CanSendAttachments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.CanSendAttachments" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the user has set up the device for including attachments in messages.

This function can be called before having a composer initialized.

### See also

- 116.23 MessageComposer.disableUserAttachments

6130

Created 10th June 2017, last changed 17th June 2018.

## 116.5 MessageComposer.CanSendSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.CanSendSubject" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the user has set up the device for including subjects in messages.

This function can be called before having a composer initialized.

### See also

- 116.6 MessageComposer.CanSendText 6111
- 116.13 MessageComposer.GetSubject 6118
- 116.22 MessageComposer.SetSubject 6129

Created 10th June 2017, last changed 17th June 2018.

## 116.6 MessageComposer.CanSendText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.CanSendText" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the user has set up the device for sending text only messages.

If the return value is 1, the client can set the recipients and body of the message.

If the return value is 0, the client may notify the user of the failure, or the client may open an SMS URL via open URL command.

This function can be called before having a composer initialized.

### Examples

Check whether message can be send:

```
Set Variable [ $r ; Value: MBS( "MessageComposer.CanSendText" ) ]
```

```
If [ $r = 1 ]
```

```
Show Custom Dialog [ "Can't send emails." ; "This iOS device is not configured to send text messages." ]
```

```
Exit Script [ Text Result: "failed" ]
```

```
End If
```

### See also

- 116.5 MessageComposer.CanSendSubject 6110
- 116.16 MessageComposer.Present 6121

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 17th June 2018.

## 116.7 MessageComposer.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.Dismiss" )

**Result** Returns OK or error.

### Description

Something you can call in a script to cancel the message creation.

### See also

- 107.5 MailComposer.Dismiss 5698
- 116.17 MessageComposer.Result 6123
- 156.4 SocialComposer.Dismiss 7279

Created 10th June 2017, last changed 10th June 2017.

## 116.8 MessageComposer.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetEvaluate" )

**Result** Returns expression or error.

### Description

### See also

- 107.9 MailComposer.GetEvaluate 5702
- 107.21 MailComposer.SetEvaluate 5715
- 116.9 MessageComposer.GetFileName 6114
- 116.12 MessageComposer.GetScriptName 6117
- 116.13 MessageComposer.GetSubject 6118
- 116.18 MessageComposer.SetEvaluate 6124
- 156.5 SocialComposer.GetEvaluate 7280
- 156.18 SocialComposer.SetEvaluate 7295

Created 10th June 2017, last changed 10th June 2017.

## 116.9 MessageComposer.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetFileName" )

**Result** Returns text or error.

### Description

### See also

- 107.10 MailComposer.GetFileName 5703
- 116.8 MessageComposer.GetEvaluate 6113
- 116.12 MessageComposer.GetScriptName 6117
- 116.18 MessageComposer.SetEvaluate 6124
- 156.6 SocialComposer.GetFileName 7281

Created 10th June 2017, last changed 10th June 2017.

## 116.10 MessageComposer.GetMessageBody

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetMessageBody" )

**Result** Returns text or error.

### Description

### See also

- 107.11 MailComposer.GetMessageBody 5704
- 107.22 MailComposer.SetMessageBody 5716
- 116.19 MessageComposer.SetMessageBody 6125

Created 11st June 2017, last changed 11st June 2017.

## 116.11 MessageComposer.GetRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetRecipients" )

**Result** Returns text or error.

### Description

### See also

- 107.7 MailComposer.GetBCCRecipients 5700
- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.12 MessageComposer.GetScriptName 6117
- 116.20 MessageComposer.SetRecipients 6126

Created 11st June 2017, last changed 11st June 2017.



**116.12 MessageComposer.GetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetScriptName" )

**Result** Returns text or error.

**Description****See also**

- 107.12 MailComposer.GetScriptName 5705
- 116.8 MessageComposer.GetEvaluate 6113
- 116.9 MessageComposer.GetFileName 6114
- 116.11 MessageComposer.GetRecipients 6116
- 116.21 MessageComposer.SetScript 6127
- 156.8 SocialComposer.GetScriptName 7283

Created 10th June 2017, last changed 10th June 2017.

## 116.13 MessageComposer.GetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.GetSubject" )

**Result** Returns text or error.

### Description

### See also

- 107.13 MailComposer.GetSubject 5706
- 107.24 MailComposer.SetSubject 5719
- 116.5 MessageComposer.CanSendSubject 6110
- 116.8 MessageComposer.GetEvaluate 6113
- 116.21 MessageComposer.SetScript 6127
- 116.22 MessageComposer.SetSubject 6129

Created 11st June 2017, last changed 11st June 2017.

## 116.14 MessageComposer.IsPresented

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.IsPresented" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if not.

### See also

- 107.15 MailComposer.IsPresented 5708
- 116.16 MessageComposer.Present 6121
- 156.11 SocialComposer.IsPresented 7286

Created 10th June 2017, last changed 10th June 2017.

## 116.15 MessageComposer.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.New" )

**Result** Returns OK or error.

### Description

Resets last error and clears last message content.

There is only one message composer at all times, so starting a new one will clear last one.

### Examples

Starts a new message:

```
Set Variable [ $r ; Value: MBS( "MessageComposer.New" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MessageComposer.SetSubject"; Placeholder::Subject ) ]
```

### See also

- 116.16 MessageComposer.Present 6121
- 116.17 MessageComposer.Result 6123
- 116.22 MessageComposer.SetSubject 6129

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 11st June 2017.

## 116.16 MessageComposer.Present

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.Present" )

**Result** Returns OK or error.

### Description

This will show the user interface and start the process.

Your script may call this in a script and than wait for the script trigger.

### Examples

Send a message with options:

```
Set Variable [ $r ; Value: MBS( "MessageComposer.CanSendText" ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't send emails." ; "This iOS device is not configured to send text messages." ]
Exit Script [ Text Result: "failed" ]
End If
Set Variable [ $r ; Value: MBS( "MessageComposer.New" ) ]
If [ Length ( Placeholder::Subject ) >0 ]
Set Variable [ $r ; Value: MBS( "MessageComposer.SetSubject"; Placeholder::Subject ) ]
End If
Set Variable [ $r ; Value: MBS( "MessageComposer.SetScript"; Get(FileName); "Sent" ) ]
If [ Length ( Placeholder::Body ) >0 ]
Set Variable [ $r ; Value: MBS( "MessageComposer.SetMessageBody"; Placeholder::Body ) ]
End If
If [ Length ( Placeholder::Recipients ) >0 ]
Set Variable [ $r ; Value: MBS( "MessageComposer.SetRecipients"; Placeholder::Recipients ) ]
End If
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment1 ) ]
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment2 ) ]
Perform Script [ "AddAttachment" ; Parameter: GetFieldName ( Placeholder::Attachment3 ) ]
Set Variable [ $r ; Value: MBS( "MessageComposer.Present" ) ]
```

### See also

- 107.17 MailComposer.Present 5710
- 116.6 MessageComposer.CanSendText 6111
- 116.14 MessageComposer.IsPresented 6119
- 116.15 MessageComposer.New 6120
- 116.17 MessageComposer.Result 6123
- 116.19 MessageComposer.SetMessageBody 6125

- 116.20 MessageComposer.SetRecipients 6126
- 116.21 MessageComposer.SetScript 6127
- 116.22 MessageComposer.SetSubject 6129
- 156.13 SocialComposer.Present 7289

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 116.17 MessageComposer.Result

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.Result" )

**Result** Returns value or error.

### Description

If email composer is not yet finished, the result is empty.  
Status can be Cancelled, Sent, Failed.

### Examples

Check status:

```
Set Variable [ $result ; Value: MBS( "MessageComposer.Result" ) ]
Set Field [ Placeholder::Result ; $result ]
```

### See also

- 107.18 MailComposer.Result 5712
- 116.7 MessageComposer.Dismiss 6112
- 116.15 MessageComposer.New 6120
- 116.16 MessageComposer.Present 6121
- 116.18 MessageComposer.SetEvaluate 6124
- 116.21 MessageComposer.SetScript 6127
- 156.16 SocialComposer.Result 7293

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 116.18 MessageComposer.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.SetEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

### Description

In the script you can check with MessageComposer.Result what happened.

#### See also

- 107.9 MailComposer.GetEvaluate 5702
- 107.21 MailComposer.SetEvaluate 5715
- 116.8 MessageComposer.GetEvaluate 6113
- 116.9 MessageComposer.GetFileName 6114
- 116.17 MessageComposer.Result 6123
- 116.21 MessageComposer.SetScript 6127
- 116.22 MessageComposer.SetSubject 6129
- 156.5 SocialComposer.GetEvaluate 7280
- 156.18 SocialComposer.SetEvaluate 7295

Created 10th June 2017, last changed 4th April 2018.



## 116.19 MessageComposer.SetMessageBody

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.SetMessageBody"; Body )

### Parameters

#### Body

The text containing the body contents of the email message.

**Result** Returns OK or error.

### Description

This method will set the body of the email message. This should be called prior to display. The user's signature, if specified, will be added after the body content.

### Examples

Set the message text:

MBS( "MessageComposer.SetMessageBody"; "Hello World" )

### See also

- 107.11 MailComposer.GetMessageBody 5704
- 107.22 MailComposer.SetMessageBody 5716
- 116.10 MessageComposer.GetMessageBody 6115
- 116.16 MessageComposer.Present 6121

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 6th March 2020.

## 116.20 MessageComposer.SetRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.SetRecipients"; Recipients )

### Parameters

#### Recipients

List of recipients.

**Result** Returns OK or error.

### Description

Sets the initial value of the To field for the message to the specified addresses.

### Examples

Send to two emails:

MBS( "MessageComposer.SetRecipients"; \$Email1 & \$& \$Email2 )

### See also

- 107.8 MailComposer.GetCCRecipients 5701
- 107.14 MailComposer.GetTORecipients 5707
- 107.19 MailComposer.SetBCCRecipients 5713
- 107.20 MailComposer.SetCCRecipients 5714
- 107.25 MailComposer.SetTORecipients 5720
- 116.11 MessageComposer.GetRecipients 6116
- 116.16 MessageComposer.Present 6121
- 116.21 MessageComposer.SetScript 6127

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 6th March 2020.

## 116.21 MessageComposer.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.SetScript"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The file name for the script to trigger.

"test.fmp12"

#### ScriptName

The script name of the script to launch.

"EmailComposerFinished"

#### Parameter

Optional

The parameter to pass to the script.

**Result** Returns OK or error.

### Description

In the script you can check with MessageComposer.Result what happened.

### Examples

Sets script:

```
Set Variable [ $r ; Value: MBS( "MessageComposer.SetScript"; Get(FileName); "Sent" ) ]
```

### See also

- 107.23 MailComposer.SetScript 5717
- 116.12 MessageComposer.GetScriptName 6117
- 116.13 MessageComposer.GetSubject 6118
- 116.16 MessageComposer.Present 6121
- 116.17 MessageComposer.Result 6123
- 116.18 MessageComposer.SetEvaluate 6124
- 116.20 MessageComposer.SetRecipients 6126
- 116.22 MessageComposer.SetSubject 6129
- 156.20 SocialComposer.SetScript 7297

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 116.22 MessageComposer.SetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.SetSubject"; Subject )

### Parameters

#### Subject

The new subject.  
"Hello World"

**Result** Returns OK or error.

### Description

This method will set the Subject header for the message. This should be called prior to display. Newlines are removed from the parameter. After the view has been presented to the user, this method will no longer change the value.

#### See also

- 107.13 MailComposer.GetSubject 5706
- 107.24 MailComposer.SetSubject 5719
- 116.5 MessageComposer.CanSendSubject 6110
- 116.13 MessageComposer.GetSubject 6118
- 116.15 MessageComposer.New 6120
- 116.16 MessageComposer.Present 6121
- 116.18 MessageComposer.SetEvaluate 6124
- 116.21 MessageComposer.SetScript 6127

### Example Databases

- [iOS/iOS Message Sending](#)

Created 10th June 2017, last changed 10th June 2017.

## 116.23 MessageComposer.disableUserAttachments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
116 MessageComposer	7.3	No	No	No	No	Yes

MBS( "MessageComposer.disableUserAttachments" )

**Result** Returns OK or error.

### Description

Calling this method will disable the camera/attachment button in the view controller. After the controller has been presented, this call will have no effect. The camera / attachment button is visible by default.

### See also

- 116.4 MessageComposer.CanSendAttachments

6109

Created 10th June 2017, last changed 10th June 2017.

# Chapter 117

## MetaDataQuery

Spotlight search for macOS and iOS.

Find files & folders on the computer based on metadata properties, content or file names.

### 117.1 MetaDataQuery.AttributesForFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	No

MBS( "MetaDataQuery.AttributesForFile"; Path )

#### Parameters

##### Path

The native file path to the file to check.

"/Users/cs/Desktop/sample.pdf"

**Result** Returns JSON or error.

#### Description

Returns JSON block with attributes.

This provides information Spotlight knows about the file.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

#### Examples

Query download URL of file:

```
Set Variable [ $path ; Value: "/Users/cs/Downloads/test.html" ]
```

```
Set Variable [ $json ; Value: MBS( "MetaDataQuery.AttributesForFile"; $path) ]
Set Variable [ $link ; Value: MBS("JSON.GetPathItem"; $json; "kMDItemWhereFroms$0") ]
Show Custom Dialog [ "Link" ; $link ]
```

Query song details:

```
MBS( "MetaDataQuery.AttributesForFile"; "/Users/cs/Music/iTunes/iTunes Music/ABBA/ABBA_ Gold  
- Greatest Hits/16 One of Us.m4p" )
```

### See also

- 102.53 JSON.GetPathItem 5387
- 124.2 Path.FileMakerPathToNativePath 6247

### 117.1.1 Blog Entries

- [Query URL from downloaded file](#)

Created 21st December 2017, last changed 11st August 2018.



## 117.2 MetaDataQuery.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.Close"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns OK or error.

### Description

### Examples

Close search:

Set Variable [ \$r ; Value: MBS( "MetaDataQuery.Close"; \$Query ) ]

### See also

- [117.3 MetaDataQuery.Create](#) 6134
- [117.11 MetaDataQuery.Paths](#) 6143

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 117.2.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.3 MetaDataQuery.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.Create" )

**Result** Returns reference number or error.

### Description

Please call later MetaDataQuery.Close to free the object.

### See also

- [117.2 MetaDataQuery.Close](#) 6133
- [117.11 MetaDataQuery.Paths](#) 6143
- [117.18 MetaDataQuery.SetQueryString](#) 6150
- [117.21 MetaDataQuery.StartQuery](#) 6155

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 117.3.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.4 MetaDataQuery.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.GetEvaluate"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

#### See also

- 117.17 MetaDataQuery.SetEvaluate

6149

Created 16th December 2017, last changed 16th December 2017.

## 117.5 MetaDataQuery.GetScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.GetScriptFileName"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns file name or error.

### Description

### See also

- 117.6 MetaDataQuery.GetScriptName

6137

Created 16th December 2017, last changed 16th December 2017.

**117.6 MetaDataQuery.GetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.GetScriptName"; ShellRef )

**Parameters****ShellRef**

The reference number from the shell.

\$shell

**Result** Returns script name or error.

**Description****See also**

- 117.5 MetaDataQuery.GetScriptFileName 6136
- 117.19 MetaDataQuery.SetScript 6152

Created 16th December 2017, last changed 16th December 2017.

## 117.7 MetaDataQuery.IsGathering

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.IsGathering"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns 1, 0 or error.

### Description

A Boolean value that indicates whether the receiver is in the initial gathering phase of the query.

### Examples

Wait for the search to finish:

Loop

Pause/Resume Script [ Duration (seconds): ,2 ]

Exit Loop If [ MBS( "MetaDataQuery.IsGathering"; \$Query ) = 0 ]

End Loop

### See also

- [117.12 MetaDataQuery.QueryString](#)

6144

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 117.7.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

**117.8 MetaDataQuery.IsStarted**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.IsStarted"; Query )

**Parameters****Query**

The reference number of the query.

\$query

**Result** Returns 1, 0 or error.

**Description**

A Boolean value that indicates whether the query has started.

**See also**

- 117.9 MetaDataQuery.IsStopped 6140
- 117.21 MetaDataQuery.StartQuery 6155

Created 16th December 2017, last changed 16th December 2017.

## 117.9 MetaDataQuery.IsStopped

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.IsStopped"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns 1, 0 or error.

### Description

A Boolean value that indicates whether the query has stopped.

### See also

- 117.8 MetaDataQuery.IsStarted 6139
- 117.22 MetaDataQuery.StopQuery 6156

Created 16th December 2017, last changed 16th December 2017.



## 117.10 MetaDataQuery.PathAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.PathAtIndex"; Query; Index )

### Parameters

#### Query

The reference number of the query.

\$query

#### Index

The index of the item. Range from 0 to MetaDataQuery.ResultCount-1.

0

**Result** Returns OK or error.

### Description

### Examples

Put paths in records:

```
Set Variable [ $index ; Value: 0 ]
```

```
Loop
```

```
New Record/Request
```

```
Set Variable [ $path ; Value: MBS( "MetaDataQuery.PathAtIndex"; $Query; $Index ) ]
```

```
Set Field [ Search Applications::FilePath ; $path ]
```

```
Commit Records/Requests [ With dialog: Off ]
```

```
# next
```

```
Set Variable [ $index ; Value: $index + 1 ]
```

```
Exit Loop If [ $index = $count ]
```

```
End Loop
```

### See also

- [117.13 MetaDataQuery.ResultAtIndex](#) 6145
- [117.14 MetaDataQuery.ResultCount](#) 6146

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 117.10.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

**117.11 MetaDataQuery.Paths**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.Paths"; Query )

**Parameters****Query**

The reference number of the query.

\$query

**Result** Returns list or error.

**Description**

The plugin will check results and return a list of all file paths.

**See also**

- 117.2 MetaDataQuery.Close 6133
- 117.3 MetaDataQuery.Create 6134

Created 16th December 2017, last changed 16th December 2017.

**117.12 MetaDataQuery.QueryString**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.QueryString"; Query )

**Parameters****Query**

The reference number of the query.

\$query

**Result** Returns text or error.

**Description****See also**

- 117.7 MetaDataQuery.IsGathering 6138
- 117.18 MetaDataQuery.SetQueryString 6150

Created 16th December 2017, last changed 16th December 2017.

## 117.13 MetaDataQuery.ResultAtIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.ResultAtIndex"; Query; Index )

### Parameters

#### Query

The reference number of the query.

\$query

#### Index

The index of the item. Range from 0 to MetaDataQuery.ResultCount-1.

0

**Result** Returns OK or error.

### Description

#### See also

- [117.10 MetaDataQuery.PathAtIndex](#) 6141
- [117.14 MetaDataQuery.ResultCount](#) 6146

### Example Databases

- [Mac only/MetaDataQuery/Search Applications](#)

### 117.13.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr8](#)
- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.14 MetaDataQuery.ResultCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.ResultCount"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns number or error.

### Description

#### Examples

Store result count:

Set Variable [ \$Count ; Value: MBS( "MetaDataQuery.ResultCount"; \$Query ) ]

Set Field [ Search Applications::ResultCount ; \$Count ]

### See also

- [117.10 MetaDataQuery.PathAtIndex](#) 6141
- [117.13 MetaDataQuery.ResultAtIndex](#) 6145
- [117.15 MetaDataQuery.Results](#) 6147

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

#### 117.14.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.15 MetaDataQuery.Results

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.Results"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns JSON Text or error.

### Description

Returns all items with all attributes as one big JSON block.

### Examples

Save all results as JSON in field:

Set Field [ Search Applications::All Results JSON ; MBS( "MetaDataQuery.Results"; \$Query ) ]

### See also

- [117.14 MetaDataQuery.ResultCount](#)

6146

### Example Databases

- [Mac only/MetaDataQuery/Search Applications](#)

### 117.15.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.16 MetaDataQuery.SearchScopes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.SearchScopes"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns OK or error.

### Description

Returns a list with file paths and special keywords used to specify specific locations:

Key	Description
UserHomeScope	Search the user's home directory.
LocalComputerScope	Search all local mounted volumes, including the user home directory. The user's home directory is searched even if it is a remote volume.
NetworkScope	Search all user-mounted remote volumes.
UbiquitousDocumentsScope	Search all files in the Documents directories of the app's iCloud container directories.
UbiquitousDataScope	Search all files not in the Documents directories of the app's iCloud container directories.
AccessibleUbiquitousExternalDocumentsScope	Search for documents outside the app's container. This search can locate iCloud documents that the user previously opened using a document picker view controller. This lets your app access the documents again without requiring direct user interaction.
IndexedLocalComputerScope	Search all indexed local mounted volumes including the current user's home directory (even if the home directory is remote).
IndexedNetworkScope	Search all indexed user-mounted remote volumes.

### See also

- 117.20 MetaDataQuery.SetSearchScopes

6153

Created 16th December 2017, last changed 16th December 2017.



**117.17 MetaDataQuery.SetEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.SetEvaluate"; ShellRef; Expression )

**Parameters****ShellRef**

The reference number from the shell.

\$shell

**Expression**

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

**Description****See also**

- 117.4 MetaDataQuery.GetEvaluate

6135

Created 16th December 2017, last changed 4th April 2018.

## 117.18 MetadataQuery.SetQueryString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetadataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetadataQuery.SetQueryString"; Query; QueryString )

### Parameters

#### Query

The reference number of the query.

\$query

#### QueryString

The query string.

"kMDItemContentType=\"com.apple.application-bundle\""

**Result** Returns OK or error.

### Description

The plugin will build the predicate with the given query string.

Setting this property while a query is running stops the query and discards the current results. The receiver immediately starts a new query.

See list of metadata keys here:

[https://developer.apple.com/documentation/coreservices/file\\_metadata/mditem/common\\_metadata\\_attribute\\_keys](https://developer.apple.com/documentation/coreservices/file_metadata/mditem/common_metadata_attribute_keys)

### Examples

Search for applications

MBS( "MetadataQuery.SetQueryString"; \$Query; "kMDItemContentType=\"com.apple.application-bundle\"" )

Start a query:

```
Set Variable [ $query ; Value: MBS( "MetadataQuery.Create" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MetadataQuery.SetQueryString"; $Query; "kMDItemContentType=\"com.apple.application-bundle\"" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MetadataQuery.StartQuery"; $Query) ]
```

### See also

- 117.3 MetadataQuery.Create 6134
- 117.12 MetadataQuery.QueryString 6144
- 117.21 MetadataQuery.StartQuery 6155

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### **117.18.1 Blog Entries**

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 4th March 2019.

## 117.19 MetaDataQuery.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetaDataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetaDataQuery.SetScript"; ShellRef; Filename; ScriptName )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

### See also

- [117.6 MetaDataQuery.GetScriptName](#)

6137

### Example Databases

- [Mac only/MetaDataQuery/Find FileMaker Databases](#)
- [Mac only/MetaDataQuery/Search Applications](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.20 MetadataQuery.SetSearchScopes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetadataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetadataQuery.SetSearchScopes"; Query; SearchScopes )

### Parameters

#### Query

The reference number of the query.

\$query

#### SearchScopes

The list of search scopes.

"LocalComputerScope"

**Result** Returns OK or error.

### Description

Please pass a list with file paths and special keywords used to specify specific locations:

Key	Description
UserHomeScope	Search the user's home directory.
LocalComputerScope	Search all local mounted volumes, including the user home directory. The user's home directory is searched even if it is a remote volume.
NetworkScope	Search all user-mounted remote volumes.
UbiquitousDocumentsScope	Search all files in the Documents directories of the app's iCloud container directories.
UbiquitousDataScope	Search all files not in the Documents directories of the app's iCloud container directories.
AccessibleUbiquitousExternalDocumentsScope	Search for documents outside the app's container. This search can locate iCloud documents that the user previously opened using a document picker view controller. This lets your app access the documents again without requiring direct user interaction.
IndexedLocalComputerScope	Search all indexed local mounted volumes including the current user's home directory (even if the home directory is remote).
IndexedNetworkScope	Search all indexed user-mounted remote volumes.

### Examples

Search home folder:

MBS( "MetadataQuery.SetSearchScopes"; \$Query; "UserHomeScope" )

Search application folder:

MBS( "MetadataQuery.SetSearchScopes"; \$Query; "/"Applications" )

### See also

- 117.16 MetaDataQuery.SearchScopes

Created 16th December 2017, last changed 16th December 2017.

## 117.21 MetadataQuery.StartQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetadataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetadataQuery.StartQuery"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns OK or error.

### Description

Returns OK when successful; otherwise, Failed.

A query may fail to start if it does not specify a predicate, or if the query has already been started.

### Examples

Start a query:

```
Set Variable [ $query ; Value: MBS( "MetadataQuery.Create" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MetadataQuery.SetQueryString"; $Query; "kMDItemContentType=\"com.apple.application-bundle\"" ) ]
```

```
Set Variable [ $r ; Value: MBS( "MetadataQuery.StartQuery"; $Query ) ]
```

### See also

- [117.3 MetadataQuery.Create](#) 6134
- [117.8 MetadataQuery.IsStarted](#) 6139
- [117.18 MetadataQuery.SetQueryString](#) 6150
- [117.22 MetadataQuery.StopQuery](#) 6156

### Example Databases

- [Mac only/MetadataQuery/Find FileMaker Databases](#)
- [Mac only/MetadataQuery/Search Applications](#)

### 117.21.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.

## 117.22 MetadataQuery.StopQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
117 MetadataQuery	8.0	Yes	No	Yes, macOS only	No	Yes

MBS( "MetadataQuery.StopQuery"; Query )

### Parameters

#### Query

The reference number of the query.

\$query

**Result** Returns OK or error.

### Description

The receiver first completes gathering any unprocessed results.

You call this function to stop a query that is generating too many results to be useful but you still want to access the available results. If the receiver is sent a startQuery message after performing this method, the existing results are discarded.

### See also

- [117.9 MetadataQuery.IsStopped](#) 6140
- [117.21 MetadataQuery.StartQuery](#) 6155

### Example Databases

- [Mac only/MetadataQuery/Find FileMaker Databases](#)
- [Mac only/MetadataQuery/Search Applications](#)

### 117.22.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)

Created 16th December 2017, last changed 16th December 2017.



# Chapter 118

## MovieView

Control the movieplayer for playing video in a container on Mac. (FileMaker 11 to 13 only)

See AVPlayer for newer FileMaker versions.

### 118.1 MovieView.AreStepButtonsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.AreStepButtonsVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

#### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

#### Description

#### See also

- 118.2 MovieView.AreZoomButtonsVisible 6159
- 118.9 MovieView.IsBackButtonVisible 6166
- 118.11 MovieView.IsCustomButtonVisible 6168
- 118.12 MovieView.IsHotSpotButtonVisible 6169

- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.2 `MovieView.AreZoomButtonsVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.AreZoomButtonsVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.1 `MovieView.AreStepButtonsVisible` 6157
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.26 `MovieView.SetVolumeButtonVisible` 6183
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.3 `MovieView.CurrentFrameImage`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 <code>MovieView</code>	3.0	Yes	No	No	No	No

MBS( "MovieView.CurrentFrameImage"; `MovieViewReference` { ; `ImageType`; `Filename` } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.

"movie"

#### **ImageType**

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### **Filename**

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns container value with image or error.

### Description

### See also

- 136.2 `QTMovie.CurrentFrameImage`

6693

Created 18th August 2014, last changed 18th August 2014.

## 118.4 MovieView.CurrentTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	4.0	Yes	No	No	No	No

MBS( "MovieView.CurrentTime"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns value or error.

### Description

Value is in seconds.

### See also

- 118.21 MovieView.SetCurrentTime 6178
- 136.5 QTMovie.GetCurrentTime 6696
- 136.26 QTMovie.SetCurrentTime 6721

Created 18th August 2014, last changed 18th August 2014.

## 118.5 MovieView.Duration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	4.0	Yes	No	No	No	No

MBS( "MovieView.Duration"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns value or error.

### Description

Value is in seconds.

Created 18th August 2014, last changed 18th August 2014.

## 118.6 MovieView.GotoBeginning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.GotoBeginning"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

This action method sets the current movie time to the beginning of the movie. If the movie is playing, the movie continues playing from the new position.

### See also

- 136.13 QTMovie.GotoBeginning

6704

Created 18th August 2014, last changed 18th August 2014.

## 118.7 `MovieView.GotoEnd`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.GotoEnd"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.

"movie"

**Result** Returns OK on success.

### Description

This action method sets the current movie time to the end of the movie. If the movie is playing in one of the looping modes, the movie continues playing accordingly; otherwise, play stops.

Created 18th August 2014, last changed 18th August 2014.



## 118.8 MovieView.GotoPosterFrame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.GotoPosterFrame"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 118.9 `MovieView.IsBackButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.IsBackButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.1 `MovieView.AreStepButtonsVisible` 6157
- 118.2 `MovieView.AreZoomButtonsVisible` 6159
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.13 `MovieView.IsTranslateButtonVisible` 6170
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.10 MovieView.IsControllerVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.IsControllerVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

Using the MovieView.setControllerVisible method, the client tells QTMovieView whether or not to display a user interface for controlling the movie within its bounds. Using the isControllerVisible method, the client can determine whether a QTMovieView has been configured to display such an interface. By using the controllerBarHeight method, you can determine the height of the portion of the QTMovieView that is required to display that interface. Note that some types of QuickTime content are authored to display their own user interface; for those types of content it is possible for the ControllerBarHeight method to return 0 even when the MovieView.IsControllerVisible method returns 1.

### See also

- 118.20 MovieView.SetControllerVisible

6177

Created 18th August 2014, last changed 18th August 2014.

## 118.11 `MovieView.IsCustomButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 <code>MovieView</code>	3.0	Yes	No	No	No	No

MBS( "MovieView.IsCustomButtonVisible"; `MovieViewReference` )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.9 `MovieView.IsBackButtonVisible` 6166
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.13 `MovieView.IsTranslateButtonVisible` 6170
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.26 `MovieView.SetVolumeButtonVisible` 6183
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.12 MovieView.IsHotSpotButtonVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.IsHotSpotButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.9 MovieView.IsBackButtonVisible 6166
- 118.11 MovieView.IsCustomButtonVisible 6168
- 118.13 MovieView.IsTranslateButtonVisible 6170
- 118.14 MovieView.IsVolumeButtonVisible 6171
- 118.19 MovieView.SetBackButtonVisible 6176
- 118.22 MovieView.SetCustomButtonVisible 6179
- 118.23 MovieView.SetHotSpotButtonVisible 6180
- 118.24 MovieView.SetStepButtonsVisible 6181
- 118.26 MovieView.SetVolumeButtonVisible 6183
- 118.27 MovieView.SetZoomButtonsVisible 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.13 `MovieView.IsTranslateButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.IsTranslateButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.9 `MovieView.IsBackButtonVisible` 6166
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.25 `MovieView.SetTranslateButtonVisible` 6182
- 118.26 `MovieView.SetVolumeButtonVisible` 6183

Created 18th August 2014, last changed 18th August 2014.

## 118.14 MovieView.IsVolumeButtonVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.IsVolumeButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 if visible and 0 if not.

### Description

#### See also

- 118.9 MovieView.IsBackButtonVisible 6166
- 118.11 MovieView.IsCustomButtonVisible 6168
- 118.12 MovieView.IsHotSpotButtonVisible 6169
- 118.13 MovieView.IsTranslateButtonVisible 6170
- 118.19 MovieView.SetBackButtonVisible 6176
- 118.22 MovieView.SetCustomButtonVisible 6179
- 118.23 MovieView.SetHotSpotButtonVisible 6180
- 118.24 MovieView.SetStepButtonsVisible 6181
- 118.26 MovieView.SetVolumeButtonVisible 6183
- 118.27 MovieView.SetZoomButtonsVisible 6184

Created 18th August 2014, last changed 18th August 2014.

## 118.15 MovieView.Movie

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	4.0	Yes	No	No	No	No

MBS( "MovieView.Movie"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns movie reference or error.

### Description

The movie reference must be released with QTMovie.Release function later.

### See also

- 118.16 MovieView.Pause 6173
- 118.30 MovieView.Valid 6187
- 136.18 QTMovie.OpenContainer 6709
- 136.24 QTMovie.Release 6719

Created 18th August 2014, last changed 18th August 2014.



## 118.16 MovieView.Pause

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.Pause"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

This action method pauses the movie playback. This method does nothing if the movie is already paused.

#### See also

- 118.15 MovieView.Movie 6172
- 118.18 MovieView.Play 6175
- 118.30 MovieView.Valid 6187

Created 18th August 2014, last changed 18th August 2014.

## 118.17 MovieView.PauseDelayed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	5.0	Yes	No	No	No	No

MBS( "MovieView.PauseDelayed"; MovieViewReference; Delay )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

#### Delay

The time in seconds to wait for performing pause operation.  
5

**Result** Returns OK or error.

### Description

You can start a video in a script and in next step run the pause command with a delay to play only a portion of the video.

### 118.17.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 15th December 2014, last changed 15th December 2014.

## 118.18 MovieView.Play

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.Play"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

This action method starts the movie playing at its current location. This method does nothing if the movie is already playing.

### See also

- 118.16 MovieView.Pause 6173
- 118.30 MovieView.Valid 6187

Created 18th August 2014, last changed 18th August 2014.

## 118.19 `MovieView.SetBackButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetBackButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### See also

- 118.9 `MovieView.IsBackButtonVisible` 6166
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.25 `MovieView.SetTranslateButtonVisible` 6182
- 118.26 `MovieView.SetVolumeButtonVisible` 6183
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 31st July 2015.

## 118.20 MovieView.SetControllerVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetControllerVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

### See also

- 118.10 MovieView.IsControllerVisible

6167

Created 18th August 2014, last changed 31st July 2015.

## 118.21 `MovieView.SetCurrentTime`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	5.0	Yes	No	No	No	No

MBS( "MovieView.SetCurrentTime"; MovieViewReference; Time )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

#### **Time**

The new time value in seconds.  
1.5

**Result** Returns OK or error.

### Description

Value is in seconds.

### See also

- [118.4 MovieView.CurrentTime](#) 6161
- [136.26 QTMovie.SetCurrentTime](#) 6721

### 118.21.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 10th December 2014, last changed 10th December 2014.

## 118.22 MovieView.SetCustomButtonVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetCustomButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.

"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### See also

- 118.2 MovieView.AreZoomButtonsVisible 6159
- 118.11 MovieView.IsCustomButtonVisible 6168
- 118.12 MovieView.IsHotSpotButtonVisible 6169
- 118.14 MovieView.IsVolumeButtonVisible 6171
- 118.19 MovieView.SetBackButtonVisible 6176
- 118.23 MovieView.SetHotSpotButtonVisible 6180
- 118.24 MovieView.SetStepButtonsVisible 6181
- 118.25 MovieView.SetTranslateButtonVisible 6182
- 118.26 MovieView.SetVolumeButtonVisible 6183
- 118.27 MovieView.SetZoomButtonsVisible 6184

Created 18th August 2014, last changed 31st July 2015.

## 118.23 `MovieView.SetHotSpotButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetHotSpotButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### See also

- 118.2 `MovieView.AreZoomButtonsVisible` 6159
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.25 `MovieView.SetTranslateButtonVisible` 6182
- 118.26 `MovieView.SetVolumeButtonVisible` 6183
- 118.27 `MovieView.SetZoomButtonsVisible` 6184

Created 18th August 2014, last changed 31st July 2015.



## 118.24 **MovieView.SetStepButtonsVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetStepButtonsVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### See also

- 118.1 MovieView.AreStepButtonsVisible 6157
- 118.11 MovieView.IsCustomButtonVisible 6168
- 118.12 MovieView.IsHotSpotButtonVisible 6169
- 118.14 MovieView.IsVolumeButtonVisible 6171
- 118.19 MovieView.SetBackButtonVisible 6176
- 118.22 MovieView.SetCustomButtonVisible 6179
- 118.23 MovieView.SetHotSpotButtonVisible 6180
- 118.25 MovieView.SetTranslateButtonVisible 6182
- 118.26 MovieView.SetVolumeButtonVisible 6183
- 118.27 MovieView.SetZoomButtonsVisible 6184

Created 18th August 2014, last changed 31st July 2015.

## 118.25 `MovieView.SetTranslateButtonVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetTranslateButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

### See also

- 118.13 `MovieView.IsTranslateButtonVisible` 6170
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.26 `MovieView.SetVolumeButtonVisible` 6183

Created 18th August 2014, last changed 31st July 2015.

## 118.26 **MovieView.SetVolumeButtonVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetVolumeButtonVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### **See also**

- 118.11 [MovieView.IsCustomButtonVisible](#) 6168
- 118.12 [MovieView.IsHotSpotButtonVisible](#) 6169
- 118.13 [MovieView.IsTranslateButtonVisible](#) 6170
- 118.14 [MovieView.IsVolumeButtonVisible](#) 6171
- 118.19 [MovieView.SetBackButtonVisible](#) 6176
- 118.22 [MovieView.SetCustomButtonVisible](#) 6179
- 118.23 [MovieView.SetHotSpotButtonVisible](#) 6180
- 118.24 [MovieView.SetStepButtonsVisible](#) 6181
- 118.25 [MovieView.SetTranslateButtonVisible](#) 6182
- 118.27 [MovieView.SetZoomButtonsVisible](#) 6184

Created 18th August 2014, last changed 31st July 2015.

## 118.27 `MovieView.SetZoomButtonsVisible`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.SetZoomButtonsVisible"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

Be aware that it is possible that FileMaker can reset this setting.

#### See also

- 118.2 `MovieView.AreZoomButtonsVisible` 6159
- 118.9 `MovieView.IsBackButtonVisible` 6166
- 118.11 `MovieView.IsCustomButtonVisible` 6168
- 118.12 `MovieView.IsHotSpotButtonVisible` 6169
- 118.14 `MovieView.IsVolumeButtonVisible` 6171
- 118.19 `MovieView.SetBackButtonVisible` 6176
- 118.22 `MovieView.SetCustomButtonVisible` 6179
- 118.23 `MovieView.SetHotSpotButtonVisible` 6180
- 118.24 `MovieView.SetStepButtonsVisible` 6181
- 118.26 `MovieView.SetVolumeButtonVisible` 6183

Created 18th August 2014, last changed 31st July 2015.

## 118.28 MovieView.StepBackward

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.StepBackward"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

#### See also

- 118.29 MovieView.StepForward

6186

Created 18th August 2014, last changed 18th August 2014.

## 118.29 `MovieView.StepForward`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.StepForward"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### **MovieViewReference**

The name of the container where to look for a movie view.  
"movie"

**Result** Returns OK on success.

### Description

#### See also

- 118.28 `MovieView.StepBackward`

6185

Created 18th August 2014, last changed 18th August 2014.

## 118.30 MovieView.Valid

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
118 MovieView	3.0	Yes	No	No	No	No

MBS( "MovieView.Valid"; MovieViewReference )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### MovieViewReference

The name of the container where to look for a movie view.  
"movie"

**Result** Returns 1 on success and 0 or error on failure.

### Description

With FileMaker 11, 12 and 13, you need to click on a container first to have it load a movie view with the movie. And only if container is set to picture (not the newer interactive mode). FileMaker 14 uses different control (a webviewer), so this function doesn't work.

### See also

- 118.15 MovieView.Movie 6172
- 118.16 MovieView.Pause 6173
- 118.18 MovieView.Play 6175

Created 18th August 2014, last changed 28th April 2016.





# Chapter 119

## Mutex

Functions for named mutexes.

Allows synchronization of file/memory/device access by two FileMaker processes, e.g. client and server running on same computer.

### 119.1 Mutex.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.Create"; Name )

#### Parameters

##### Name

The name to use for the mutex. Name should be a simple text, but unique, so we recommend reverse domain notation. The name should not contain a slash.

"test"

**Result** Returns OK or error.

#### Description

If mutex exists already, we open it. The mutex lives until the last application closed it.

Please call Mutex.Free later.

If name matches the name of an existing event, semaphore, waitable timer, job, or file-mapping object, the function fails.

You can open the same mutex twice and get different reference numbers from the plugin.

#### Examples

Create a mutex

```
MBS( "Mutex.Create"; "com.monkeybreadsoftware.test" )
```

Create the mutex and use it:

```
# create a mutex
Set Variable [ $mutex ; Value: MBS( "Mutex.Create"; "de.monkeybreadsoftware.test" ) ]
# lock it
Set Variable [ $r ; Value: MBS( "Mutex.TryLock"; $Mutex ) ]
If [ $r = 1 ]
# do something
#
# finally unlock
Set Variable [ $r ; Value: MBS( "Mutex.Unlock"; $Mutex ) ]
End If
# free it mutex
Set Variable [ $r ; Value: MBS( "Mutex.Free"; $Mutex ) ]
```

### See also

- 119.2 Mutex.Free 6191
- 119.6 Mutex.TryLock 6195
- 119.7 Mutex.Unlock 6196

Created 5th April 2020, last changed 5th April 2020.

## 119.2 Mutex.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.Free"; Mutex )

### Parameters

#### Mutex

The reference number of the mutex.

\$mutex

**Result** Returns OK or error.

### Description

Releases memory needed for mutex.

### See also

- 119.1 Mutex.Create

6189

Created 5th April 2020, last changed 5th April 2020.

### 119.3 Mutex.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.List" )

**Result** Returns list or error.

**Description**

Created 5th April 2020, last changed 5th April 2020.

## 119.4 Mutex.Lock

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.Lock"; Mutex )

### Parameters

#### Mutex

The reference number of the mutex.

\$mutex

**Result** Returns OK or error.

### Description

Only one application can lock the mutex.

Please call Mutex.Unlock later to unlock the mutex.

To avoid you looking up the FileMaker app, we limit locking to one minute. After that you get a timeout error.

### Examples

Lock a mutex:

```
MBS( "Mutex.Lock"; $Mutex )
```

Lock and unlock:

```
# lock it
Set Variable [ $r ; Value: MBS( "Mutex.Lock"; $Mutex ) ]
# do something
#
# finally unlock
Set Variable [ $r ; Value: MBS( "Mutex.Unlock"; $Mutex ) ]
```

### See also

- 119.7 Mutex.Unlock

## 119.5 Mutex.Name

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.Name"; Mutex )

### Parameters

#### Mutex

The reference number of the mutex.

\$mutex

**Result** Returns text or error.

### Description

Created 5th April 2020, last changed 5th April 2020.

## 119.6 Mutex.TryLock

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.TryLock"; Mutex )

### Parameters

#### Mutex

The reference number of the mutex.

\$mutex

**Result** Returns 1, 0 or error.

### Description

If the mutex is locked, this function returns 0, otherwise it returns 1 or an error.

Please call Mutex.Unlock later to unlock the mutex.

### Examples

Try lock and unlock:

```
# lock it
Set Variable [ $r ; Value: MBS( "Mutex.TryLock"; $Mutex ) ]
If [ $r = 1 ]
# do something
#
# finally unlock
Set Variable [ $r ; Value: MBS( "Mutex.Unlock"; $Mutex ) ]
End If
```

### See also

- 119.1 Mutex.Create 6189
- 119.7 Mutex.Unlock 6196

Created 5th April 2020, last changed 5th April 2020.

## 119.7 Mutex.Unlock

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
119 Mutex	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "Mutex.Unlock"; Mutex )

### Parameters

#### Mutex

The reference number of the mutex.

\$mutex

**Result** Returns OK or error.

### Description

### Examples

Lock and unlock:

```
# lock it
Set Variable [ $r ; Value: MBS( "Mutex.Lock"; $Mutex ) ]
# do something
#
# finally unlock
Set Variable [ $r ; Value: MBS( "Mutex.Unlock"; $Mutex ) ]
```

### See also

- 119.1 Mutex.Create 6189
- 119.4 Mutex.Lock 6193
- 119.6 Mutex.TryLock 6195

Created 5th April 2020, last changed 5th April 2020.



# Chapter 120

## NetworkInterfaces

Query Network interfaces on Mac.

### 120.1 NetworkInterfaces.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
120 NetworkInterfaces	4.3	Yes	No	Yes	Yes	Yes

MBS( "NetworkInterfaces.Count" )

**Result** Returns number or error.

#### Description

If called first without a call to NetworkInterfaces.Update, the plugin will internally call NetworkInterfaces.Update.

#### See also

- [120.2 NetworkInterfaces.Default](#) 6198
- [120.3 NetworkInterfaces.JSON](#) 6199
- [120.4 NetworkInterfaces.Update](#) 6200
- [120.5 NetworkInterfaces.Value](#) 6201

#### Example Databases

- [Mac only/Network Interfaces](#)

Created 18th August 2014, last changed 19th March 2017.

## 120.2 NetworkInterfaces.Default

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
120 NetworkInterfaces	5.2	Yes	No	Yes	Yes	Yes

MBS( "NetworkInterfaces.Default"; Selector )

### Parameters

#### Selector

What value to return. Default is name. Mode can be IP, IPv4, IPv6, Index, InterfaceIndex, Name or MAC. "IP"

**Result** Returns value or error.

#### Description

Can be used to find IP, name or MAC of the default interface. Default is the first connected interface.

#### Examples

Queries name of default network interface:

```
MBS( "NetworkInterfaces.Default"; "Name" )
```

Queries IP of default connection:

```
MBS( "NetworkInterfaces.Default"; "IP" )
```

#### See also

- [120.1 NetworkInterfaces.Count](#) 6197
- [120.4 NetworkInterfaces.Update](#) 6200
- [120.5 NetworkInterfaces.Value](#) 6201

### 120.2.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 8th July 2015, last changed 19th March 2017.

## 120.3 NetworkInterfaces.JSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
120 NetworkInterfaces	8.4	Yes	No	Yes	Yes	Yes

MBS( "NetworkInterfaces.JSON" )

**Result** Returns JSON or error.

### Description

If called first without a call to NetworkInterfaces.Update, the plugin will internally call NetworkInterfaces.Update.

### See also

- [120.1 NetworkInterfaces.Count](#) 6197
- [120.4 NetworkInterfaces.Update](#) 6200
- [120.5 NetworkInterfaces.Value](#) 6201

### 120.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 27th July 2018, last changed 27th July 2018.

## 120.4 NetworkInterfaces.Update

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
120 NetworkInterfaces	4.3	Yes	No	Yes	Yes	Yes

MBS( "NetworkInterfaces.Update" )

**Result** Returns OK or error.

### Description

Normally you call NetworkInterfaces.Update function. Than you call NetworkInterfaces.Count to query number of network interfaces and finally for each value the NetworkInterfaces.Value function.

### See also

- 120.1 NetworkInterfaces.Count 6197
- 120.2 NetworkInterfaces.Default 6198
- 120.3 NetworkInterfaces.JSON 6199
- 120.5 NetworkInterfaces.Value 6201

### Example Databases

- [Mac only/Network Interfaces](#)

Created 18th August 2014, last changed 19th March 2017.

## 120.5 NetworkInterfaces.Value

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
120 NetworkInterfaces	4.3	Yes	No	Yes	Yes	Yes

MBS( "NetworkInterfaces.Value"; Index; Selector )

### Parameters

#### Index

The index from 0 to NetworkInterfaces.Count-1.

0

#### Selector

Which value to query: Name, IPv4, IPv6, IP, MAC, Destination, Broadcast, Netmask, NetmaskIPv4, NetmaskIPv6, InterfaceIndex, Multicast, HasBroadcast, HasDestination, Up, Loopback, IPv4s, IPv6s, IPv4Count or IPv6Count.

"Name"

**Result** Returns value or error.

### Description

### See also

- 120.1 NetworkInterfaces.Count 6197
- 120.2 NetworkInterfaces.Default 6198
- 120.3 NetworkInterfaces.JSON 6199
- 120.4 NetworkInterfaces.Update 6200

### Example Databases

- [Mac only/Network Interfaces](#)

Created 18th August 2014, last changed 19th March 2017.



# Chapter 121

## Notification

Send or receive notifications.

Those notifications are between applications and not to show to user. See UNNotification functions for Mac/iOS and WindowsUserNotification functions for Windows to show notifications to user.

### 121.1 Notification.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	3.3	Yes	Yes	Yes	No	No

MBS( "Notification.List" )

**Result** Returns list of names.

#### Description

#### See also

- [121.2 Notification.Listen](#) 6205
- [121.3 Notification.Send](#) 6207
- [121.5 Notification.Unlisten](#) 6209

#### Example Databases

- [Utility functions/Notifications/Notifications](#)

#### 121.1.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

6204

*CHAPTER 121. NOTIFICATION*

Created 18th August 2014, last changed 21st September 2015.



## 121.2 Notification.Listen

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	2.6	Yes	Yes	No	No	No

MBS( "Notification.Listen"; NotificationName; FileName; ScriptName )

### Parameters

#### NotificationName

The name of the notification.

"de.mbsplugins.MyTestNotification"

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run

**Result** Returns "OK" or error message.

### Description

Specify a filename and script name to have this script being called when a notification is received. The script parameter will be the notification name plus parameters.

Although the notification name can be any text, you probably want to use reverse dns notation to avoid conflicts.

This is implemented with Distributed Notifications on Mac and named messages on Windows. You can use our NSDistributedNotificationCenterMBS and WinNotificationMBS classes in the Real Studio plugins to send/receive these notifications.

Version 7.2 and newer pass parameters to the script call. On Windows you get both parameters (WParam and LParam).

For version 7.3 you can receive a payload in json as script parameter to the script call after the name of notification.

If you need to trigger scripts on other computers, please check UDPsocket or ServerSocket functions.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers script event:

```
MBS( "Notification.Listen"; "de.mbsplugins.MyTestNotification"; Get ( FileName ); "GotTestNotification"
```

Listen for device change event on Windows:

```
MBS( "Notification.Listen"; 537; Get ( FileName ); "DeviceChanged")
```

// Notifies an application of a change to the hardware configuration of a device or the computer.

Listen for System time change event on Windows:

```
MBS( "Notification.Listen"; 31; Get ( FileName ); "TimeChangedTrigger")
```

Listen for display change on Windows:

```
MBS( "Notification.Listen"; 126; Get ( FileName ); "DisplayChangedTrigger")
```

// The WM\_DISPLAYCHANGE message is sent to all windows when the display resolution has changed.

#### See also

- [121.1 Notification.List](#) 6203
- [121.3 Notification.Send](#) 6207
- [121.5 Notification.Unlisten](#) 6209

#### Example Databases

- [CURL/WebServices/eID Auto/eID Auto v2](#)
- [Utility functions/Notifications/Notifications](#)
- [Win Only/Receive System Notifications](#)

#### 121.2.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 19th March 2020.

## 121.3 Notification.Send

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	2.6	Yes	Yes	Yes	No	No

MBS( "Notification.Send"; NotificationName { ; Param1; Param2 } )

### Parameters

#### NotificationName

The name of the notification.

"de.mbsplugins.MyTestNotification"

#### Param1

Optional

Available in MBS FileMaker Plugin 7.2 or newer.

A number to pass on Windows. For Mac in 7.3 plugins you can pass JSON here.

#### Param2

Optional

A number to pass on Windows.

**Result** Returns "OK" or error message.

### Description

This notification is delivered to all applications on the computer which register for receiving it.

### Examples

Send notification on Mac with JSON payload:

```
MBS("Notification.Send"; "MyNotification"; " { \"recordID\":5 } ")
```

### See also

- [121.1 Notification.List](#) 6203
- [121.2 Notification.Listen](#) 6205
- [173.15 UNNotification.New](#) 8208

### Example Databases

- [Utility functions/Notifications/Notifications](#)

#### 121.3.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr7](#)

Created 18th August 2014, last changed 14th May 2017.

## 121.4 Notification.SendDirect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	5.2	Yes	Yes	Yes	No	No

MBS( "Notification.SendDirect"; NotificationName { ; Parameter } )

### Parameters

#### NotificationName

The name of the notification.

"de.mbsplugins.MyTestNotification"

#### Parameter

Optional

The script parameter. If you don't specify, we pass name of notification as usual. By passing your own parameter, you can include several values like a list of values including record IDs or reference numbers.

**Result** Returns number or error.

### Description

This notification is delivered to all listening scripts within the FileMaker instance. For debugging.

### 121.4.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)

Created 4th July 2015, last changed 19th March 2017.

## 121.5 Notification.Unlisten

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	3.3	Yes	Yes	Yes	No	No

MBS( "Notification.Unlisten"; NotificationName )

### Parameters

#### NotificationName

The name of the notification.

"de.mbsplugins.MyTestNotification"

**Result** Returns OK or error message.

### Description

#### See also

- [121.1 Notification.List](#) 6203
- [121.2 Notification.Listen](#) 6205
- [121.6 Notification.UnlistenAll](#) 6210

### 121.5.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 121.6 Notification.UnlistenAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
121 Notification	7.2	Yes	Yes	Yes	No	No

MBS( "Notification.UnlistenAll" )

**Result** Returns OK or error.

**Description**

**See also**

- 121.5 Notification.Unlisten

6209

**Example Databases**

- [CURL/WebServices/eID Auto/eID Auto v2](#)
- [Win Only/Receive System Notifications](#)

### 121.6.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr5](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 19th March 2017, last changed 19th March 2017.

# Chapter 122

## NSEventFilter

Filter Cocoa events to block e.g. scrollwheel on Mac.

### 122.1 NSEventFilter.DisableEvents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
122 NSEventFilter	2.9	Yes	No	No	No	No

MBS( "NSEventFilter.DisableEvents"; eventMask )

#### Parameters

##### eventMask

Which events to disable.

0

**Result** Returns OK on success.

#### Description

Event filtering requires Mac OS X 10.6 or newer.

#### Examples

Disable scroll wheel events:

MBS( "NSEventFilter.DisableEvents"; 4194304 )

Disable all right mouse events:

MBS( "NSEventFilter.DisableEvents"; 8+16+128 )

**See also**

- 122.2 NSEventFilter.EnableAllEvents 6213
- 122.3 NSEventFilter.EnableEvents 6214

### 122.1.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 18th August 2014.



## 122.2 NSEventFilter.EnableAllEvents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
122 NSEventFilter	2.9	Yes	No	No	No	No

MBS( "NSEventFilter.EnableAllEvents" )

**Result** Returns OK on success.

### Description

Event filtering requires Mac OS X 10.6 or newer.

### Examples

Enable all events

MBS( "NSEventFilter.EnableAllEvents" )

### See also

- [122.1 NSEventFilter.DisableEvents](#) 6211
- [122.3 NSEventFilter.EnableEvents](#) 6214

### 122.2.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 122.3 NSEventFilter.EnableEvents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
122 NSEventFilter	2.9	Yes	No	No	No	No

MBS( "NSEventFilter.EnableEvents"; eventMask )

### Parameters

#### eventMask

Which events to enable.

0

**Result** Returns OK on success.

### Description

Event filtering requires Mac OS X 10.6 or newer.

Possible values for the events:

NSLeftMouseDownMask	2
NSLeftMouseUpMask	4
NSRightMouseDownMask	8
NSRightMouseUpMask	16
NSMouseMovedMask	32
NSLeftMouseDraggedMask	64
NSRightMouseDraggedMask	128
NSKeyDownMask	1024
NSKeyUpMask	2048
NSFlagsChangedMask	4096
NSScrollWheelMask	4194304
NSTabletPointMask	8388608
NSTabletProximityMask	16777216
NSOtherMouseDownMask	33554432
NSOtherMouseUpMask	67108864
NSOtherMouseDraggedMask	134217728

You can add several mask values.

### Examples

Enable scroll wheel events:

MBS( "NSEventFilter.DisableEvents"; 4194304 )

Enable all right mouse events:

MBS( "NSEventFilter.DisableEvents"; 8+16+128 )

### 122.3. *NSEVENTFILTER.ENABLEEVENTS*

6215

#### See also

- 122.1 `NSEventFilter.DisableEvents` 6211
- 122.2 `NSEventFilter.EnableAllEvents` 6213

#### 122.3.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 18th August 2014.



# Chapter 123

## OCR

Recognize text on images.

### 123.1 OCR.Cleanup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.Cleanup" )

**Result** Returns OK on success.

#### Description

This is optional. You can initialize the engine when your solution starts and keep it running all time.

#### Examples

Cleanup:

MBS( "OCR.Cleanup" )

#### See also

- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224

Created 18th August 2014, last changed 18th August 2014.

## 123.2 OCR.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.Clear" )

**Result** Returns OK on success.

### Description

Afterwards, you must call SetImage or TesseractRect before doing any Recognize or Get\* operation.

### Examples

Clear:

MBS( "OCR.Clear" )

Created 18th August 2014, last changed 18th August 2014.

**123.3 OCR.GetBoxText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

```
MBS( "OCR.GetBoxText" { ; page } )
```

**Parameters****page**

Optional

The page index you want to use in html. Default value is 0.

0

**Result** Returns the text.**Description**

Constructs coordinates in the original image - not just the rectangle. Page is a 0-based page index that will appear in the box file.

**Examples**

Queries text of first page:

```
$text = MBS( "OCR.GetBoxText"; 0 )
```

**See also**

- 123.4 *OCR.GetHOCText* 6220
- 123.6 *OCR.GetText* 6222

Created 18th August 2014, last changed 2nd November 2017.

## 123.4 OCR.GetHOCText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

```
MBS( "OCR.GetHOCText" { ; page } )
```

### Parameters

#### page

Optional

The page index you want to use in html. Default value is 0.

0

**Result** Returns the text.

### Description

Page is 0-based but will appear in the output as 1-based.

### Examples

Queries text of first page:

```
$text = MBS( "OCR.GetHOCText"; 0 )
```

### See also

- 123.3 OCR.GetBoxText

6219

Created 18th August 2014, last changed 18th August 2014.



## 123.5 OCR.GetPageSegMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.GetPageSegMode" )

**Result** Returns the page set mode.

### Description

See also OCR.SetPageSegMode.

### Examples

Set single block mode and query value:

```
$r = MBS( "OCR.SetPageSegMode"; "SingleBlock" )
$pageMode = MBS( "OCR.GetPageSegMode" )
```

### See also

- 123.15 OCR.SetPageSegMode

6235

Created 18th August 2014, last changed 18th August 2014.

## 123.6 OCR.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.GetText" )

**Result** Returns the text.

### Description

Calls Recognize if needed internally.

### Examples

Query text:

```
$text = MBS( "OCR.GetText" )
```

Custom function to read image and return text:

```
/*
MBS-OCR ( language; Image)
```

Requires tessdata resources [ MIT © ]

language: deu ('deu.traineddata'), fra, eng, etc.

Image: Container Fieldname ('MyTable::MyField') in Quotes

path: FM/Extensions - put 'tessdata' Folder into FM Extensions Folder

Benjamin Fehr, EfficientBizz GmbH

<http://www.efficientbizz.com>

/

```
Let (
```

```
[
```

```
// init OCR
```

```
$path = MBS( "Path.FilemakerPathToNativePath"; Get(FileMakerPath)& "Extensions/" ) ;
```

```
initialize = MBS( "OCR.Initialize"; $path; language ) ; $Error = initialize ;
```

```
SegMode = MBS( "OCR.SetPageSegMode"; "Auto" );
```

```
// Process Image
```

```
$img = MBS( "GMImage.NewFromContainer"; Image );
```

```
set = MBS( "OCR.SetImage"; $img ) ;
```

```
$result = MBS( "OCR.GetText" ) ;
```

```
// Cleanup
```

```
$clean = MBS( "OCR.CleanUp" ) ;
```

```
$destroy = MBS( "GMImage.Release"; $img)
```

```
]
; "" )
```

**See also**

- 87.191 *GUIImage.New* 4642
- 87.193 *GUIImage.NewFromContainer* 4646
- 87.214 *GUIImage.Release* 4674
- 123.1 *OCR.Cleanup* 6217
- 123.3 *OCR.GetBoxText* 6219
- 123.7 *OCR.GetTextWithCoordinates* 6224
- 123.9 *OCR.Initialize* 6227
- 123.14 *OCR.SetImage* 6233
- 123.15 *OCR.SetPageSegMode* 6235
- 124.2 *Path.FileMakerPathToNativePath* 6247

**Example Databases**

- [OCR/OCR with DynaPDF](#)

Created 18th August 2014, last changed 21st December 2018.

## 123.7 OCR.GetTextWithCoordinates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.GetTextWithCoordinates" )

**Result** Returns list or error.

### Description

Please call OCR.Recognize or OCR.GetText or another function first to trigger recognition.

Returns a list with tab separated values. First 4 values define the pixel coordinates. Than followed by style and font size. Finally the word.

Columns: left, top, right, bottom, isBold, isItalic, isUnderlined, isMonospace, isSerif, isSmallCaps, Pointsize, Text.

e.g.

left	top	right	bottom	isBold	isItalic	isUnderlined	isMonospace	isSerif	isSmallCaps	Pointsize	Text
36	194	91	218	0	0	0	0	0	0	7	The
102	194	177	224	0	0	0	0	0	0	7	quick
189	194	274	218	0	0	0	0	0	0	7	brown
287	194	339	225	0	0	0	0	0	0	7	dog
348	194	456	225	0	0	0	0	0	0	7	jumped
468	200	531	218	0	0	0	0	0	0	7	over
540	194	585	218	0	0	0	0	0	0	7	the
37	228	92	259	0	0	0	0	0	0	7	lazy
103	228	153	252	0	0	0	0	0	0	7	fox.

### Examples

Recognize:

```
# Init OCR
Set Variable [ $r; Value:MBS( "OCR.Initialize"; "/Users/cs/Documents"; "eng" ) ]
Set Variable [ $rr; Value:MBS( "OCR.SetPageSegMode"; "Auto" ) ]
# Process Image
Set Variable [ $img; Value:MBS("GMImage.NewFromContainer"; OCR::Image) ]
Set Variable [ $r; Value:MBS( "OCR.SetImage"; $img ) ]
Set Variable [ $rr; Value:MBS( "OCR.Recognize" ) ]
Set Field [ OCR::Text; MBS("OCR.GetTextWithCoordinates" ) ]
# Cleanup
Set Variable [ $r; Value:MBS( "OCR.CleanUp" ) ]
Set Variable [ $r; Value:MBS( "GMImage.Release"; $img ) ]
```

**See also**

<i>123.7. OCR.GETTEXTWITHCOORDINATES</i>	6225
• 87.191 GImage.New	4642
• 87.193 GImage.NewFromContainer	4646
• 87.214 GImage.Release	4674
• 123.1 OCR.Cleanup	6217
• 123.6 OCR.GetText	6222
• 123.9 OCR.Initialize	6227
• 123.13 OCR.Recognize	6232
• 123.14 OCR.SetImage	6233
• 123.15 OCR.SetPageSegMode	6235

Created 30th September 2016, last changed 21st December 2018.

## 123.8 OCR.GetVariable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.GetVariable"; Name )

### Parameters

#### Name

The name of the variable.

"test"

**Result** Returns value or error.

### Description

#### See also

- [123.18 OCR.SetVariable](#) 6239
- [126.5 PHP.GetVariable](#) 6360
- [126.10 PHP.SetVariable](#) 6366

### 123.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr6](#)

Created 2nd November 2017, last changed 2nd November 2017.

## 123.9 OCR.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.Initialize"; Path; Lang )

### Parameters

#### Path

The path to the folder where to find tessdata folder.

\$path

#### Lang

The language to use.

"eng"

**Result** Returns OK on success.

### Description

Pass path to parent folder of tessdata folder and language you need.

The language is (usually) an ISO 639-3 string.

To use multiple languages, please concat them with plus sign: e.g. "eng+deu"

You find our language files archive here:

<http://www.monkeybreadsoftware.de/xojo/download/plugin/Libs/Tesseract/>

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Initialize with tessdata folder in same folder as database for english:

```
set variable $databasePath to Get(FilePath)
set variable $databasePath to MBS("Path.FilemakerPathToNativePath"; $databasePath)
set variable $databasePath to Substitute ( $databasePath ; ".fp7" ; ".fmp12")
set variable $databaseName to Get(FileName) & ".fmp12"
set variable $path to Substitute ( $databasePath ; $databaseName ; "" )
set variable $r to MBS( "OCR.Initialize"; $path; "eng")
```

Initialize on Server with tessdata in Server folder:

```
MBS( "OCR.Initialize"; "/Library/FileMaker Server/"; "eng")
```

Initialize on demand:

```
If [ MBS("OCR.IsInitialized") = 1 ]
```

```
Set Variable [ $r; Value:MBS( "OCR.Initialize"; "/Library/FileMaker Server/"; "eng" ) ]  
End If
```

**See also**

- 99.6 Java.Initialize 5238
- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224
- 123.10 OCR.IsInitialized 6229
- 124.2 Path.FileMakerPathToNativePath 6247
- 134.2 Proj.Initialize 6659
- 166.21 TAPI.Initialize 7876
- 184.12 WIA.Initialize 8647
- 193.117 XL.Initialize 9145

**Example Databases**

- [OCR/OCR with DynaPDF](#)
- [OCR/OCR](#)

Created 18th August 2014, last changed 10th May 2018.



## 123.10 OCR.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.IsInitialized" )

**Result** Returns 1 or 0.

### Description

If value is 1, everything is okay.

If value is zero, the library is not initialized and you need to call `OCR.Initialize` function.

On a hosted database this function is better than using a global variable, as the variable can't see if initialization was made on server or client side.

### Examples

Initialize on demand:

```
If [ MBS("OCR.IsInitialized") 1 ]
Set Variable [ $r; Value:MBS( "OCR.Initialize"; "/Library/FileMaker Server/"; "eng") ]
End If
```

### See also

- [123.9 OCR.Initialize](#) 6227
- [126.7 PHP.IsInitialized](#) 6363
- [134.3 Proj.IsInitialized](#) 6660
- [166.22 TAPI.IsInitialized](#) 7877
- [172.39 Twain.IsInitialized](#) 8156
- [193.118 XL.IsInitialized](#) 9148

### 123.10.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr6](#)

Created 18th August 2014, last changed 7th July 2016.

## 123.11 OCR.Language

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.Language" )

**Result** Returns the language name. e.g. "eng"

### Description

### Examples

Queries language:

```
$lang = MBS( "OCR.Language" )
```

Created 18th August 2014, last changed 18th August 2014.

## 123.12 OCR.MeanTextConf

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.MeanTextConf" )

**Result** Returns mean confidence.

### Description

### Examples

Query mean text confidence:

```
$r = MBS( "OCR.MeanTextConf" )
```

Created 18th August 2014, last changed 18th August 2014.

## 123.13 OCR.Recognize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.Recognize" )

**Result** Returns OK on success.

### Description

Optional. The Get\*Text functions will call Recognize if needed. After Recognize, the output is kept internally until the next SetImage.

### Examples

Start recognition process:

```
$r = MBS( "OCR.Recognize" )
```

### See also

- 123.7 OCR.GetTextWithCoordinates

6224

Created 18th August 2014, last changed 18th August 2014.

## 123.14 OCR.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.SetImage"; imageRef )

### Parameters

#### imageRef

The image reference. Use functions like `GUIImage.NewFromContainer` to get an image reference.  
\$img

**Result** Returns OK on success.

### Description

The plugin makes a copy of the image.

Please do not pass PDF files. For PDF you either need to extract image (for scans) or raster PDF pages as images. Our functions `PDFKit.GetPDFPageImage` or `DynaPDF.RenderPage` can help here. If the PDF file contains real text, please use `PDFKit.GetPDFText`, `PDFKit.GetPDFPageText`, `DynaPDF.ExtractText`, `DynaPDF.ExtractPageText` or `DynaPDF.ExtractPageRectText`. This will not do OCR, but extract the text directly.

### Examples

Set image reference:

```
MBS( "OCR.SetImage"; $img )
```

### See also

- 42.5 `AVRecorder.CaptureStillPhoto` 1130
- 42.31 `AVRecorder.StartQRCodeDetection` 1161
- 71.101 `DynaPDF.ExtractPageRectText` 2757
- 71.102 `DynaPDF.ExtractPageText` 2759
- 71.103 `DynaPDF.ExtractText` 2761
- 123.6 `OCR.GetText` 6222
- 123.7 `OCR.GetTextWithCoordinates` 6224
- 125.15 `PDFKit.GetPDFPageImage` 6285
- 125.19 `PDFKit.GetPDFPageText` 6292
- 125.23 `PDFKit.GetPDFText` 6299

**Example Databases**

- [OCR/OCR with DynaPDF](#)
- [OCR/OCR](#)

**123.14.1 Blog Entries**

- [Live barcode reading for FileMaker on MacOS and iOS](#)
- [MBS Filemaker Plugin, version 3.0pr5](#)

Created 18th August 2014, last changed 9th September 2016.

**123.15 OCR.SetPageSegMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.SetPageSegMode"; mode )

**Parameters****mode**

The new page segmentation mode.

"auto"

**Result** Returns OK on success.

**Description**

Possible values:

OSDOnly	Orientation and script detection only.
AutoOSD	Automatic page segmentation with orientation and script detection. (OSD)
AutoOnly	Automatic page segmentation, but no OSD, or OCR.
Auto	Fully automatic page segmentation, but no OSD.
SingleColumn	Assume a single column of text of variable sizes.
SingleBlockVertText	Assume a single uniform block of vertically.
SingleBlock	Assume a single uniform block of text. (Default)
SingleLine	Treat the image as a single text line.
SingleWord	Treat the image as a single word.
CircleWord	Treat the image as a single word in a circle.
SingleChar	Treat the image as a single character.

**Examples**

Set auto detection mode:

MBS( "OCR.SetPageSegMode"; "AutoOSD" )

Set single block mode:

MBS( "OCR.SetPageSegMode"; "SingleBlock" )

**See also**

- 123.5 OCR.GetPageSegMode 6221
- 123.6 OCR.GetText 6222
- 123.7 OCR.GetTextWithCoordinates 6224

**Example Databases**

- [OCR/OCR with DynaPDF](#)
- [OCR/OCR](#)

Created 18th August 2014, last changed 18th August 2014.



## 123.16 OCR.SetRectangle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.SetRectangle"; x; y; width; height )

### Parameters

#### **x**

The x coordinate.

0

#### **y**

The y coordinate.

0

#### **width**

The width of the rectangle.

100

#### **height**

The height of the rectangle.

100

**Result** Returns OK on success.

### Description

Call after SetImage. Each SetRectangle clears the recognition results so multiple rectangles can be recognized with the same image.

### Examples

Set Rectangle to 800x600:

MBS( "OCR.SetRectangle"; 0; 0; 800; 600 )

Created 18th August 2014, last changed 20th January 2020.

## 123.17 OCR.SetResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.SetResolution"; Resolution )

### Parameters

#### Resolution

The new resolution value in pixel per inch.

72

**Result** Returns OK or error.

### Description

This helps to calculate font size information in results.

Call this after OCR.SetImage.

### See also

- 123.14 OCR.SetImage

6233

### 123.17.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 21st April 2015, last changed 22nd April 2015.

## 123.18 OCR.SetVariable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.SetVariable"; Name; Value )

### Parameters

#### Name

The name of the variable.

"test"

#### Value

The text value for this variable.

"123"

**Result** Returns OK or error.

### Description

#### Examples

Set variable for white list characters:

```
MBS( "OCR.SetVariable"; "tessedit_char_whitelist"; "0123456789" )
```

Set variable for black list characters:

```
MBS( "OCR.SetVariable"; "tessedit_char_blacklist"; "xyz" )
```

### See also

- [123.8 OCR.GetVariable](#) 6226
- [126.5 PHP.GetVariable](#) 6360
- [126.10 PHP.SetVariable](#) 6366
- [194.34 XML.SetVariables](#) 9460

### 123.18.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr6](#)

Created 2nd November 2017, last changed 2nd November 2017.

## 123.19 OCR.WriteToPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
123 OCR	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "OCR.WriteToPDF"; PosX; PosY; Width; Height )

### Parameters

#### PosX

X-Coordinate of image.

\$x

#### PosY

Y-Coordinate of image.

\$y

#### Width

Width of the image.

\$w

#### Height

Height of the image.

\$h

**Result** Returns OK or error message.

### Description

This function is good to overlay an OCR'd image with text, so you can copy/search the text. Please set a default font before calling this function.

Be aware that if the font loaded in pdf page is wider than scanned font, the words can overlap. Plugin version 7.5 or newer will reduce font size if needed to fit word length to fix this.

### Examples

Insert image and write text over it:

```
MBS("DynaPDF.InsertImage"; OCR::Image; $x; $y; $w; $h)
```

```
MBS( "OCR.WriteToPDF"; $x; $y; $w; $h)
```

### See also

- 71.280 DynaPDF.InsertImage

3003

### Example Databases

- [OCR/OCR with DynaPDF](#)

### 123.19.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr9](#)
- [MBS FileMaker Plugin, version 6.5pr1](#)
- [MBS Filemaker Plugin, version 3.1pr11](#)

Created 18th August 2014, last changed 21st November 2017.



# Chapter 124

## Path

Convert paths from native to FileMaker and back.

### 124.1 Path.AddPathComponent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.AddPathComponent"; Path; Component { ; More Components } )

#### Parameters

##### Path

The native file path.

"/Users/cs/Desktop"

##### Component

The new path component.

"Hello"

##### More Components

Optional

Pass more components, each in its own parameter.

**Result** Returns path or error.

#### Description

The path provided as parameter does not need to end with a slash or backslash.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Adds a path component to a path:

```
MBS( "Path.AddPathComponent"; "/Users/cs/Desktop"; "Hello" )
```

Adds a file name:

```
MBS( "Path.AddPathComponent"; "/Users/cs/Desktop/"; "test.txt" )
```

Adds a file path on Windows:

```
MBS( "Path.AddPathComponent"; "c:\\Test"; "test.txt" )
```

Get file name from container and add to folder path:

```
Set Variable [ $name; Value:GetAsText ( Container Batch Export::Test1 ) ]
Set Variable [ $name; Value:GetValue($name; 1) ]
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $name ) ]
Set Variable [ $dpath; Value:MBS( "Path.AddPathComponent"; $FolderPath; $name ) ]
```

Create folder on Desktop:

```
Set Variable [ $folder; Value:MBS( "Folders.UserDesktop" ) ]
If [ IsEmpty(Container Export::Name) ]
Set Field [ Container Export::Name; "Record " & Get(RecordID) ]
End If
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; Container Export::Name ) ]
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
```

Write container to temp file and launch:

```
# get temp folder
Set Variable [ $TempFolder; Value:MBS( "Folders.SystemTemporary" ) ]
# and file name from container
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; test::myContainer ) ]
# add name to folder path
Set Variable [ $TempPath; Value:MBS( "Path.AddPathComponent"; $TempFolder; $name ) ]
# now write temp file
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::myContainer; $TempPath) ]
# and launch file
Set Variable [ $r; Value:MBS( "Files.LaunchFile"; $TempPath) ]
```

Add multiple path componennts:

```
MBS( "Path.AddPathComponent"; "/Users/cs/Desktop"; "Hello"; "World"; "test" )
```



Example result: /Users/cs/Desktop/Hello/World/test

Export a container to desktop:

```
# get path stored in the container field
Set Variable [ $ContainerPath ; Value: GetAsText ( Contacts::Photo Container ) ]
# get the file name portion
Set Variable [ $ContainerName ; Value: MBS( "Path.LastPathComponent"; $ContainerPath ) ]
# take a folder on the computer, e.g. desktop
Set Variable [ $DesktopFolder ; Value: MBS( "Folders.UserDesktop" ) ]
# build path with file name on that folder
Set Variable [ $FilePath ; Value: MBS( "Path.AddPathComponent"; $DesktopFolder; $ContainerName ) ]
# and export the content of container to that path
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Contacts::Photo Container; $FilePath ) ]
```

### See also

- [124.5 Path.LastPathComponent](#) 6252
- [141.9 RichText.ReadContainer](#) 6836
- [141.27 RichText.WritePDF](#) 6864
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [167.49 Text.ReadTextFile](#) 7971
- [127.52 Trace](#) 6434
- [183.104 WebView.PrintToFile](#) 8547
- [192.3 WordFile.AppendTableRow](#) 8954
- [193.9 XL.Book.DeleteSheet](#) 9002
- [193.253 XL.Sheet.RemoveRow](#) 9337

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/FTP/CURL FTP Download all Files in Directory](#)
- [CURL/WebServices/WeatherBit.io test](#)
- [DynaPDF/Signature Appearance](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Mac only/Movies/AVAsset Export Session](#)
- [SQL in FileMaker/ImageGallery](#)

- [Third Party/FileMaker Snippet Storage](#)
- [WordFile/WordFile Image](#)
- [XML/XML Import](#)

### 124.1.1 Blog Entries

- [Define hot keys for functions in the FileMaker development](#)
- [MBS FileMaker Plugin, version 9.4pr1](#)
- [Storing files for download on FileMaker Server with download URLs](#)
- [Parsing VCard file](#)

### 124.1.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 31](#)
- [Ausgabe 6/2018, Seite 30](#)

Created 30th November 2015, last changed 22nd November 2019.

## 124.2 Path.FileMakerPathToNativePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Path.FileMakerPathToNativePath"; path )

### Parameters

#### path

The FileMaker file path.

"/Macintosh HD/Users/test/Desktop/picture.jpg"

**Result** Returns the native path.

### Description

The difference between a native path and a FileMaker path on Mac is, that FileMaker expects to have the Disk Name in front followed by the rest of the path. Mac OS X functions require paths from the root disk to start without volume name. Other disks have paths starting with "/Volumes/name".

This function does not work for relative paths.

### Examples

Convert path to native path:

MBS( "Path.FilemakerPathToNativePath"; "/Macintosh HD/Users/test/Desktop/picture.jpg")

### See also

- 187.12 WindowsUserNotification.SetImagePath 8863
- 192.13 WordFile.OpenFile 8966
- 49.28 X509.ReadFromFile 1409
- 193.5 XL.Book.AddPictureFile 8997
- 193.117 XL.Initialize 9145
- 193.119 XL.LoadBook 9150
- 194.38 XML.ValidateFile 9468
- 54.35 ZipFile.CompressFiles 1547
- 54.33 ZipFile.CRCFile 1545
- 54.41 ZipFile.WriteFile 1557

### Example Databases

- [DynaPDF/Form/Form](#)

- [Files/FileMakerPath to NativePath](#)
- [Network/ServerSocket/ServerSocket from Webviewer/ServerSocket from Webviewer](#)
- [WebViewer/Calendar/Calendar](#)
- [WebViewer/Javascript calls Filemaker Script/ServerSocket from Webviewer/ServerSocket from Webviewer](#)
- [WebViewer/MethodDraw SVG Editor/MethodDraw](#)

### 124.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr1](#)
- [MBS FileMaker Plugin, version 7.5pr8](#)
- [Restart FileMaker with same database](#)
- [MBS Filemaker Plugin, version 4.4pr9](#)
- [MBS Filemaker Plugin, version 3.3pr5](#)
- [MBS Filemaker Plugin, version 3.0pr1](#)
- [MBS Filemaker Plugin, version 2.8pr8](#)
- [MBS Filemaker Plugin, version 2.8pr1](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

### 124.2.2 FileMaker Magazin

- [Ausgabe 6/2016, Seite 25](#)
- [Ausgabe 5/2013, Seite 21](#)

Created 18th August 2014, last changed 28th April 2016.

## 124.3 Path.FilePathToFileURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.FilePathToFileURL"; Path )

### Parameters

#### Path

The absolute file path to convert to URL.

"/Users/cs/Desktop/test.html"

**Result** Returns URL or error.

### Description

### Examples

Converts a path to a file URL

```
/* shows: file://localhost/Users/cs/Desktop/test.html */
MBS( "Path.FilePathToFileURL"; "/Users/cs/Desktop/test.html" )
```

Converts a Windows path to file URL:

```
MBS( "Path.FilePathToFileURL"; "C:\Users\Christian\Desktop\test.html" )
```

Write a HTML file and an image file to load in web viewer:

```
Set Variable [ $folder ; Value: MBS( "Folders.UserTemporary" ) ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.jpg" ) ]
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Images::Image; $path ) ]
#
Set Variable [ $html ; Value: "<html><body><p>Hello World</p><img src=test.jpg width=300></body></html>" ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.html" ) ]
Set Variable [ $r ; Value: MBS( "Text.WriteTextFile"; $html; $path ) ]
#
Set Variable [ $URL ; Value: MBS( "Path.FilePathToFileURL"; $Path ) ]
Set Web Viewer [ Object Name: "web" ; URL: $URL ]
```

### See also

- 56.35 Container.WriteFile 1694
- 82.16 Folders.UserTemporary 4245
- 124.1 Path.AddPathComponent 6243

- 167.68 Text.WriteTextFile 7999
- 190.1 WMFP.Create 8905

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)
- [Network/ServerSocket/ServerSocket from Webviewer/ServerSocket from Webviewer](#)
- [WebViewer/Calendar/Calendar](#)
- [WebViewer/Javascript calls Filemaker Script/ServerSocket from Webviewer/ServerSocket from Webviewer](#)
- [WebViewer/MethodDraw SVG Editor/MethodDraw](#)
- [WebViewer/WebViewer Markdown/WebViewer Markdown](#)
- [Win Only/Windows Player](#)

#### 124.3.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)
- [FileMaker and WebViewer communication](#)
- [MBS FileMaker Plugin, version 5.0pr9](#)

Created 30th January 2015, last changed 23th February 2020.

## 124.4 Path.FileURLToFilePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.FileURLToFilePath"; URL )

### Parameters

#### URL

The file URL to convert.

"file://localhost/Users/cs/Desktop/test.html"

**Result** Returns path or error.

### Description

#### Examples

Converts a path URL:

```
/* returns /Users/cs/Desktop/test.html */
MBS( "Path.FileURLToFilePath"; "file://localhost/Users/cs/Desktop/test.html" )
```

Example result: "/Users/cs/Desktop/test.html"

Converts file URL on Windows to path:

```
MBS( "Path.FileURLToFilePath"; "file://C:/Users/Christian/Desktop/test.html"
```

Example result: "/Users/Christian/Desktop/test.html"

### 124.4.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr9](#)

Created 30th January 2015, last changed 11st December 2016.

## 124.5 Path.LastPathComponent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.LastPathComponent"; Path )

### Parameters

#### Path

The native file path.  
"/Users/cs/Desktop"

**Result** Returns path or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Queries file name:

```
MBS( "Path.LastPathComponent"; "c:\\test.txt" )
```

Get file name from container and add to folder path:

```
Set Variable [ $name; Value:GetAsText ( Container Batch Export::Test1 ) ]
Set Variable [ $name; Value:GetValue($name; 1) ]
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; $name ) ]
Set Variable [ $dpath; Value:MBS( "Path.AddPathComponent"; $FolderPath; $name ) ]
```

Write container to temp file and launch:

```
# get temp folder
Set Variable [ $TempFolder; Value:MBS( "Folders.SystemTemporary" ) ]
# and file name from container
Set Variable [ $name; Value:MBS( "Path.LastPathComponent"; test::myContainer ) ]
# add name to folder path
Set Variable [ $TempPath; Value:MBS( "Path.AddPathComponent"; $TempFolder; $name ) ]
# now write temp file
Set Variable [ $r; Value:MBS( "Files.WriteFile"; test::myContainer; $TempPath) ]
# and launch file
Set Variable [ $r; Value:MBS( "Files.LaunchFile"; $TempPath) ]
```

### See also

- 78.30 FileDialog.SelectFolderDialog



124.5. <i>PATH.LASTPATHCOMPONENT</i>	6253
• 79.35 Files.Launch	3877
• 79.36 Files.LaunchFile	3880
• 82.7 Folders.SystemTemporary	4233
• 107.1 MailComposer.AddAttachmentContainer	5693
• 116.1 MessageComposer.AddAttachmentContainer	6105
• 124.8 Path.RemoveLastPathComponent	6257
• 146.2 SendMail.AddAttachmentFile	6992
• 184.8 WIA.Image	8641
• 184.9 WIA.ImageCount	8643

### Example Databases

- [Containers/Container Batch Export](#)
- [CURL/Amazon S3 Upload File](#)
- [Drag and Drop/DragTest Popover](#)
- [Drag and Drop/DragTest](#)
- [DynaPDF/Merge PDFs](#)
- [DynaPDF/Shrink PDF pages](#)
- [iOS/iOS Email Sending](#)
- [iOS/iOS Message Sending](#)
- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [Win Only/WIA Scan](#)

#### 124.5.1 Blog Entries

- [Storing files for download on FileMaker Server with download URLs](#)

#### 124.5.2 FileMaker Magazin

- Ausgabe 6/2018, Seite 31
- Ausgabe 6/2018, Seite 30

Created 30th November 2015, last changed 18th March 2016.

## 124.6 Path.LongPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.LongPath"; Path )

### Parameters

#### Path

The native file path.

"C:\Users\Christian Schmitz\Dokumente"

**Result** Returns OK or error.

### Description

For your convenience this function returns same path on iOS, Mac and Linux.

If the specified path is already in its long form and conversion is not needed, the function simply returns the input path.

### Examples

Convert to long path:

MBS( "Path.LongPath"; "C:\PROGRA~1\FILEMA~1\FILEMA~1" )

Example result: "C:\Program Files\FileMaker\FileMaker Pro 17 Advanced"

### See also

- [124.9 Path.ShortPath](#)

6259

### 124.6.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 17th December 2018, last changed 17th December 2018.

## 124.7 Path.NativePathToFileMakerPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Path.NativePathToFileMakerPath"; path )

### Parameters

#### path

The native file path.

"/Users/test/Desktop/picture.jpg"

**Result** Returns the FileMaker path.

### Description

The difference between a native path and a FileMaker path on Mac is, that FileMaker expects to have the Disk Name in front followed by the rest of the path. Mac OS X functions require paths from the root disk to start without volume name. Other disks have paths starting with "/Volumes/name".

This function does not work for relative paths.

### Examples

Convert path to FileMaker path:

```
MBS( "Path.NativePathToFilemakerPath"; "/Users/test/Desktop/picture.jpg")
```

Build temp path:

```
"imagemac:" & MBS( "Path.NativePathToFileMakerPath"; MBS("Path.AddPathComponent"; MBS("Folders.UserTemporary"); "test.jpg") )
```

### See also

- 82.4 Folders.SharedDocuments 4230
- 82.5 Folders.System 4231
- 82.6 Folders.SystemFonts 4232
- 82.8 Folders.UserDesktop 4235
- 82.9 Folders.UserDocuments 4237
- 82.11 Folders.UserFonts 4240
- 82.14 Folders.UserPictures 4243
- 82.18 Folders.UserVideo 4248
- 82.19 Folders.Windows 4249

- [124.1 Path.AddPathComponent](#)

### Example Databases

- [Files/FileMakerPath to NativePath](#)
- [Mac only/Services for Mac OS X/ServiceProvider test](#)

### 124.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)
- [MBS FileMaker Plugin, version 5.1pr9](#)
- [MBS Filemaker Plugin, version 3.0pr1](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 124.7.2 FileMaker Magazin

- [Ausgabe 4/2018, Seite 16](#)
- [Ausgabe 1/2017, Seite 10](#)
- [Ausgabe 3/2012, Seite 31](#)

Created 18th August 2014, last changed 8th May 2017.

## 124.8 Path.RemoveLastPathComponent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	6.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.RemoveLastPathComponent"; Path )

### Parameters

#### Path

The native file path.  
"/Users/cs/Desktop"

**Result** Returns path or error.

### Description

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Removes last path component on Windows:

```
MBS( "Path.RemoveLastPathComponent"; "c:\\test.txt" )
```

Get app folder path:

```
MBS( "Path.RemoveLastPathComponent"; MBS( "App.GetProcessPath" ) )
```

Query plugin folder:

```
MBS( "Path.RemoveLastPathComponent"; MBS( "Plugin.Path" ) )
```

Example result: "/Applications/FileMaker Pro 18 Advanced/Extensions"

### See also

- 35.8 `App.GetProcessPath` 928
- 71.277 `DynaPDF.Initialize` 2992
- 79.62 `Files.WriteFile` 3925
- 124.2 `Path.FileMakerPathToNativePath` 6247
- 124.5 `Path.LastPathComponent` 6252
- 127.35 `Plugin.Path` 6410

### Example Databases

- [WebView/Calendar/Calendar](#)

### 124.8.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 30th November 2015, last changed 28th August 2019.

## 124.9 Path.ShortPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
124 Path	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Path.ShortPath"; Path )

### Parameters

#### Path

The native file path.

"C:\Users\Christian Schmitz\Dokumente"

**Result** Returns OK or error.

### Description

For your convenience this function returns same path on iOS, Mac and Linux.

If the specified path is already in its short form and conversion is not needed, the function simply returns the input path.

Use Path.LongPath function to reverse to long path.

### Examples

Convert FileMaker path:

MBS( "Path.ShortPath"; "C:\Program Files\FileMaker\FileMaker Pro 17 Advanced" )

Example result: "C:\PROGRA~1\FILEMA~1\FILEMA~1"

### See also

- 124.6 Path.LongPath

6254

### 124.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 17th December 2018, last changed 17th December 2018.





# Chapter 125

## PDFKit

PDF functions for Mac.

### 125.1 PDFKit.AddEmptyPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	5.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.AddEmptyPage"; PDF { ; Width; Height } )

#### Parameters

##### PDF

A PDF reference number from PDFKit.Open.

\$ref

##### Width

Optional

The width for the new PDF page.

600

##### Height

Optional

The height of the new PDF page.

800

**Result** Returns OK or error.

#### Description

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

#### Examples

Create PDF from images:

```
# Start new document
Set Variable [ $doc; Value:MBS("PDFKit.NewPDFDocument") ]
# Add image in full size as new page
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image) ]
# Add empty page in default size
Set Variable [ $r; Value:MBS("PDFKit.AddEmptyPage"; $doc) ]
# Add image in given size as new page:
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image; 400; 300) ]
# get PDF document and store in container:
Set Field [ test::test; MBS("PDFKit.GetPDFDocument"; $doc) ]
# release memory
Set Variable [ $r; Value:MBS("PDFKit.Release"; $doc) ]
```

### See also

- 125.3 PDFKit.AddImagePage 6265
- 125.11 PDFKit.GetPDFDocument 6279
- 125.27 PDFKit.NewPDFDocument 6304
- 125.28 PDFKit.Open 6306
- 125.34 PDFKit.Release 6317
- 125.46 PDFKit.WriteToPath 6341

### 125.1.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr12](#)

Created 16th February 2015, last changed 25th April 2016.

## 125.2 PDFKit.AddImageFilePage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	7.2	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.AddImageFilePage"; PDF; FilePath { ; Width; Height } )

### Parameters

#### PDF

A PDF reference number from PDFKit.Open.

\$ref

#### FilePath

The file path to the image file to use.

"/Users/cs/Desktop/test.png"

#### Width

Optional

The width for the new PDF page.

600

#### Height

Optional

The height of the new PDF page.

800

**Result** Returns OK or error.

### Description

If you need more control about details, you may want to check DynaPDF functions.

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Create PDF from image file:

```
Set Variable [ $ref; Value:MBS("PDFKit.NewPDFDocument") ]
```

```
Set Variable [ $r; Value:MBS("PDFKit.AddImageFilePage"; $ref; "/Users/cs/Desktop/test.jpg"; 640; 480) ]
```

```
Set Variable [ $r; Value:MBS("PDFKit.WriteToPath"; $ref; "/Users/cs/Desktop/test.pdf") ]
```

```
Set Variable [ $result; Value:MBS("PDFKit.Release"; $ref) ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 125.3 PDFKit.AddImagePage 6265
- 125.11 PDFKit.GetPDFDocument 6279
- 125.27 PDFKit.NewPDFDocument 6304
- 125.28 PDFKit.Open 6306
- 125.34 PDFKit.Release 6317
- 125.46 PDFKit.WriteToPath 6341

### 125.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr6](#)

Created 9th May 2017, last changed 9th May 2017.

## 125.3 PDFKit.AddImagePage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	5.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.AddImagePage"; PDF; Image { ; Width; Height } )

### Parameters

#### PDF

A PDF reference number from PDFKit.Open.

\$ref

#### Image

The image to use. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

#### Width

Optional

The width for the new PDF page.

600

#### Height

Optional

The height of the new PDF page.

800

**Result** Returns OK or error.

### Description

If you need more control about details, you may want to check DynaPDF functions.

Please use PDFKit.AddImageFilePage to add image file on disk.

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### Examples

Create PDF from images:

```
# Start new document
Set Variable [ $doc; Value:MBS("PDFKit.NewPDFDocument") ]
# Add image in full size as new page
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image) ]
# Add empty page in default size
Set Variable [ $r; Value:MBS("PDFKit.AddEmptyPage"; $doc) ]
# Add image in given size as new page:
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image; 400; 300) ]
# get PDF document and store in container:
Set Field [ test::test; MBS("PDFKit.GetPDFDocument"; $doc) ]
# release memory
```

Set Variable [ \$r; Value:MBS("PDFKit.Release"; \$doc) ]

### See also

- [125.1 PDFKit.AddEmptyPage](#) 6261
- [125.2 PDFKit.AddImageFilePage](#) 6263
- [125.11 PDFKit.GetPDFDocument](#) 6279
- [125.27 PDFKit.NewPDFDocument](#) 6304
- [125.28 PDFKit.Open](#) 6306
- [125.34 PDFKit.Release](#) 6317
- [125.46 PDFKit.WriteToPath](#) 6341

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)

### 125.3.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr6](#)
- [MBS FileMaker Plugin, version 5.0pr12](#)

Created 16th February 2015, last changed 9th May 2017.

## 125.4 PDFKit.AppendPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	3.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.AppendPages"; PDFRef; OtherPDFs )

### Parameters

#### PDFRef

The PDF Reference where pages are added.

\$ref

#### OtherPDFs

Several PDF references. A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

\$PDF

**Result** Returns OK on success or error on failure.

### Description

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### Examples

Merge two PDFs:

```
Set Variable [ $pdf ; Value: MBS("PDFKit.OpenContainer"; MyTable::InputPDF) ]
Set Variable [ $r ; Value: MBS( "PDFKit.AppendPages"; $pdf; MyTable::OtherPDF ) ]
Set Field [ MyTable::OutputPDF ; MBS( "PDFKit.GetPDFDocument"; $PDF ) ]
Set Variable [ $r ; Value: MBS( "PDFKit.Release"; $pdf ) ]
```

### See also

- 125.11 PDFKit.GetPDFDocument 6279
- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.34 PDFKit.Release 6317
- 125.46 PDFKit.WriteToPath 6341

### 125.4.1 Blog Entries

- [PDFKit on iOS for MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 3.1pr8](#)

Created 18th August 2014, last changed 30th November 2017.

## 125.5 PDFKit.Combine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.Combine"; Name; PDFs )

### Parameters

#### Name

A text with the file name to include with the PDF.

"test.pdf"

#### PDFs

Several PDF references. A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open. The function will fail if one of those is an image file.

**Result** Returns the PDF container value.

### Description

You can pass container values, URLs or PDF references. You can pass one PDF reference to save to a new PDF.

Please note the difference between PDFKit.Combine and PDFKit.CombineRef. Combine returns a new container value with the new PDF. CombineRef returns the new PDF reference for further processing.

If on combining one of the PDF parameters is not a valid PDF, the function returns an error. You can use PDFKit.SetIgnoreCombineErrors to disable that and ignore all PDFs which fail to open. For example if you write code which takes 4 container values and not all of them contain PDF files.

Starting with version 6.0, the PDFs parameters can also be lists of paths or reference numbers.

### Examples

Combine two PDF files form two media fields into a new PDF

```
MBS("PDFKit.Combine"; "test.pdf"; mytable::test1; mytable::test2)
```

Merge PDFs:

```
# Start with blank list
Set Variable [ $list; Value:"" ]
# Load PDF from container
Go to Record/Request/Page [ First ]
Set Variable [ $destPage; Value:1 ]
Loop
Set Variable [ $r; Value:MBS("PDFKit.OpenContainer"; Merge PDFs::InputPDF) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $list; Value:$list & $r & $]
End If
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
```



## 125.5. PDFKIT.COMBINE

6269

Set Field [ Merge PDFs::FinalPDF; MBS("PDFKit.Combine"; "merge.pdf"; \$list) ]

Set Variable [ \$r; Value:MBS("PDFKit.Release"; \$list) ]

### See also

- [127.6 IsError](#) 6374
- [125.6 PDFKit.CombineRef](#) 6270
- [125.28 PDFKit.Open](#) 6306
- [125.29 PDFKit.OpenContainer](#) 6308
- [125.34 PDFKit.Release](#) 6317
- [125.38 PDFKit.SetCurrentFilter](#) 6322
- [125.39 PDFKit.SetIgnoreCombineErrors](#) 6324

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Compress PDF](#)
- [Mac and iOS/PDFKit/Merge PDF](#)

### 125.5.1 Blog Entries

- [FileMaker and PDF Containers](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)
- [Compressing PDFs with PDFKit in FileMaker](#)

### 125.5.2 FileMaker Magazin

- [Ausgabe 5/2014, Seite 24](#)

Created 18th August 2014, last changed 7th March 2016.

## 125.6 PDFKit.CombineRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.CombineRef"; Name; PDFs )

### Parameters

#### Name

A text with the file name to include with the PDF.  
"test.pdf"

#### PDFs

Several PDF references. A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns the PDF reference.

### Description

You can pass container values, URLs or PDF references. You can pass one PDF reference to save to a new PDF.

Please note the difference between PDFKit.Combine and PDFKit.CombineRef. Combine returns a new container value with the new PDF. CombineRef returns the new PDF reference for further processing.

If on combining one of the PDF parameters is not a valid PDF, the function returns an error. You can use PDFKit.SetIgnoreCombineErrors to disable that and ignore all PDFs which fail to open. For example if you write code which takes 4 container values and not all of them contain PDF files.

Starting with version 6.0, the PDFs parameters can also be lists of paths or reference numbers.

### Examples

Combine the PDF files in the three PDF references into a new PDF reference:

```
MBS("PDFKit.CombineRef"; "" ; $ref1; $ref2; $ref3)
```

### See also

- 125.5 PDFKit.Combine 6268
- 125.28 PDFKit.Open 6306
- 125.39 PDFKit.SetIgnoreCombineErrors 6324

### 125.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.5pr1](#)

## 125.6.2 FileMaker Magazin

- Ausgabe 6/2017, Seite 26

Created 18th August 2014, last changed 1st January 2016.

## 125.7 PDFKit.GeneratePreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	7.5	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GeneratePreview"; Container )

### Parameters

#### Container

A media value containing PDF data.

**Result** Returns OK or error.

### Description

For Windows or Linux, please use DynaPDF.GeneratePreview.

### Examples

Generate preview:

```
Set Field [ Merge PDFs::FinalPDF ; MBS("PDFKit.GeneratePreview"; Merge PDFs::InputPDF) ]
```

Add a preview to PDF container if needed:

```
# get a PDF somewhere
Set Variable [ $PDF ; Value: MBS( "Files.ReadFile"; "C:\Users\Christian\Desktop\test.pdf"; "auto" ) ]
# Does have PDF and no image?
Set Variable [ $types ; Value: MBS( "Container.GetTypes"; $PDF ) ]
# PDF included?
If [ Position ( $types ; "PDF " ; 1 ; 1 ) >0 ]
# Image preview missing?
If [ Position ( $types ; "JPEG" ; 1 ; 1 ) <1 and Position ( $types ; "PNGf" ; 1 ; 1 ) <1 ]
# Use DynaPDF if initialized, we can use it
If [ MBS( "DynaPDF.IsInitialized" ) ]
Set Variable [ $PDF2 ; Value: MBS( "DynaPDF.GeneratePreview"; $PDF ) ]
If [ MBS("IsError") = 0 ]
# Success, so use the new PDF
Set Variable [ $PDF ; Value: $PDF2 ]
End If
Else If [ MBS( "IsMacOSX" ) = 1 ]
# On Mac use PDFKit
Set Variable [ $PDF2 ; Value: MBS( "PDFKit.GeneratePreview"; $PDF ) ]
If [ MBS("IsError") = 0 ]
# Success, so use the new PDF
Set Variable [ $PDF ; Value: $PDF2 ]
End If
End If
End If
End If
```

## 125.7. *PDFKIT.GENERATEPREVIEW*

6273

```
# Store PDF with preview  
Set Field [ test::Image ; $PDF ]
```

### See also

- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 71.120 DynaPDF.GeneratePreview 2790
- 71.286 DynaPDF.IsInitialized 3017
- 79.45 Files.ReadFile 3898
- 127.6 IsError 6374

### 125.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 17th October 2017, last changed 11st February 2018.

## 125.8 PDFKit.GetCurrentFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.3	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.GetCurrentFilter" )

**Result** Returns name or error.

**Description**

**See also**

- 125.38 PDFKit.SetCurrentFilter 6322

### 125.8.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 125.9 PDFKit.GetIgnoreCombineErrors

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.4	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetIgnoreCombineErrors" )

**Result** Returns the current value of the ignore combine error status.

### Description

Returns true if errors should be ignored or false if not.

### See also

- 125.39 PDFKit.SetIgnoreCombineErrors

6324

### 125.9.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 125.10 PDFKit.GetPDFAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFAttribute"; PDF; Key )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### Key

Which information to query. This can be one of the following: Title, Subject, Author, Creator, Producer, Keywords, CreationDate or ModificationDate.

"Title"

**Result** Returns the text or date value requested.

### Description

New keys in v5.4: OwnerPassword, UserPassword, EncryptionKeyLength, AllowsPrinting and AllowsCopying.

If you need more control about encryption, restrictions or metadata, you may want to checkout our DynaPDF functions in the plugin.

### Examples

Get all the information values for a PDF in a container:

```
"Title: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Title") & "§" &
"Subject: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Subject") & "§" &
"Author: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Author") & "§" &
"Creator: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Creator") & "§" &
"Producer: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Producer") & "§" &
"Keywords: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "Keywords") & "§" &
"CreationDate: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "CreationDate") & "§" &
"ModificationDate: " & MBS("PDFKit.GetPDFAttribute"; combine pdf::test1; "ModificationDate")
```

### See also

- 125.28 PDFKit.Open 6306
- 125.40 PDFKit.SetPDFAttribute 6325

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)



### 125.10.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.4pr2](#)
- [MBS Filemaker Plugin, version 3.2pr8](#)

Created 18th August 2014, last changed 17th December 2018.

Key	Description
Title	The document's title. Optional; if present, the value of this key must be a text.
Author	The name of the person who created this document. Optional; if present, the value of this key must be a text.
Subject	The subject of a document. Optional; if present, the value of this key must be a text.
Keywords	The keywords for this document. This key is optional. Must be the keywords with comma separated.
Creator	The name of the application that created the original data used to create this document. Optional; if present, the value of this key must be a text.
OwnerPassword	The "owner password" of the PDF document. If this key is specified, the document will be encrypted using the value as the owner password; otherwise, the document will not be encrypted. The value of this key must be a text which can be represented in ASCII encoding; only the first 32 bytes will be used for the password. There is no default value for this key. If the value of this key cannot be represented in ASCII, the document will not be created and the creation function will fail.
UserPassword	The "user password" of the PDF document. If the document is encrypted, then the value of this key will be the user password for the document; if unspecified, the user password will be the empty string. The value of this key must be a text which can be represented in ASCII encoding; only the first 32 bytes will be used for the password. If the value of this key cannot be represented in ASCII, the document will not be created and the creation function will fail.
EncryptionKeyLength	Specifies the encryption key length in bits; see Table 3.18 "Entries common to all encryption dictionaries", PDF Reference: Adobe PDF version 1.5 (4th ed.) for more info. Optional; if present, the value of this key must be a number with value which is a multiple of 8 between 40 and 128, inclusive. If this key is absent or invalid, the encryption key length defaults to 40 bits.
AllowsPrinting	Used to specify whether the document allows printing when unlocked with the user password. The value of this key must be a boolean. The default value of this key is 1 (true).
AllowsCopying	Used to specify whether the document allows copying when unlocked with the user password. The value of this key must be a boolean. The default value of this key is 1 (true).
CreationDate	The creation date of PDF.
ModificationDate	The modification date of PDF.

## 125.11 PDFKit.GetPDFDocument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.2	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFDocument"; PDF { ; Filename } )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### Filename

Optional

Optionally, the file name to use for the container value.

"output.pdf"

**Result** Returns a container with a PDF document. The plugin adds a JPEG picture for preview as well as a file name. You can store it in a media field.

### Description

Filename is optional. When you use an URL for the PDF, you can basically load a new PDF from a server.

### Examples

Save a PDF in a PDF reference into a container value:

```
MBS( "PDFKit.GetPDFDocument"; $ref; "test.pdf" )
```

Create PDF from images:

```
# Start new document
Set Variable [ $doc; Value:MBS("PDFKit.NewPDFDocument") ]
# Add image in full size as new page
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image) ]
# Add empty page in default size
Set Variable [ $r; Value:MBS("PDFKit.AddEmptyPage"; $doc) ]
# Add image in given size as new page:
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image; 400; 300) ]
# get PDF document and store in container:
Set Field [ test::test; MBS("PDFKit.GetPDFDocument"; $doc) ]
# release memory
Set Variable [ $r; Value:MBS("PDFKit.Release"; $doc) ]
```

### See also

- 125.1 PDFKit.AddEmptyPage 6261
- 125.3 PDFKit.AddImagePage 6265

- 125.4 PDFKit.AppendPages 6267
- 125.19 PDFKit.GetPDFPageText 6292
- 125.27 PDFKit.NewPDFDocument 6304
- 125.28 PDFKit.Open 6306
- 125.34 PDFKit.Release 6317
- 125.40 PDFKit.SetPDFAttribute 6325
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328
- 125.45 PDFKit.Watermark 6338

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Encrypt PDF](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Mac and iOS/PDFKit/Watermark PDF Page](#)

### 125.11.1 Blog Entries

- [PDFKit on iOS for MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 16th February 2015.

## 125.12 PDFKit.GetPDFPageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageCount"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** The number of the page count.

### Description

### Examples

Query the page count from this PDF file:

MBS( "PDFKit.GetPDFPageCount"; mytable::pdfField )

### See also

- 125.13 PDFKit.GetPDFPageDisplayAnnotation 6283
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.20 PDFKit.GetPDFPageValue 6294
- 125.32 PDFKit.PageBounds 6313
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328
- 125.42 PDFKit.SetPDFPageRotation 6330

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Extract PDF Pages](#)
- [Mac and iOS/PDFKit/Split](#)

### 125.12.1 Blog Entries

- [MBS Filemaker Plugin, version 2.1pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**125.13 PDFKit.GetPDFPageDisplayAnnotation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	6.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageDisplayAnnotation"; PDF; index )

**Parameters****PDF**

The PDF reference number.

\$pdf

**index**

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

**Result** Returns OK or error.

**Description****See also**

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328

Created 30th November 2015, last changed 30th November 2015.

## 125.14 PDFKit.GetPDFPageFormattedText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageFormattedText"; PDF; index )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

5

**Result** The styled text of the PDF page as far as PDFKit knows it and the plugin can translate it.

### Description

Our plugin translates the styled text from PDFKit to FileMaker. It should work with font size and styles like bold, underline and italic.

### Examples

Extract styled text of page 6 in this PDF

```
MBS( "PDFKit.GetPDFPageFormattedText"; $ref; 5 )
```

### See also

- [125.12 PDFKit.GetPDFPageCount](#) 6281
- [125.28 PDFKit.Open](#) 6306

### Example Databases

- [Mac and iOS/PDFKit/Extract PDF Pages](#)

#### 125.14.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr1](#)

Created 18th August 2014, last changed 16th February 2015.



## 125.15 PDFKit.GetPDFPageImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.1	Yes	No	Yes, macOS only	No	Yes

```
MBS( "PDFKit.GetPDFPageImage"; PDF; index { ; ImageType; Filename; DPI; box; ClearBackground }
)
```

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

#### DPI

Optional

The DPI to use for the resolution of the image. Default is 72.

72

#### box

Optional

The PDF box to use. Can be Media Box = 0, Crop Box = 1, Bleed Box = 2, TrimBox = 3 or ArtBox = 4.

If the box is not defined, we fall back to the media box. Default is 0.

1

#### ClearBackground

Optional

Optionally, whether to have a transparent background (1) vs. a white background (0). Default is 0 for white.

For JPEG, you can't pass 1.

0

**Result** Returns a container with a JPEG picture of the PDF page. You can store it in a media field.

### Description

With plugin version 2.4 you can specify format with ImageType parameter.

Due to bugs in Apple's PDFKit you may see memory leaks with JPEG data from PDF pages (seen in macOS 10.12).

For Windows, Linux or iOS, please check `DynaPDF.RenderPage` or `DynaPDF.GeneratePreview` function.

### Examples

Render page 2 of a PDF into a picture

```
MBS( "PDFKit.GetPDFPageImage"; $ref; 1; "jpeg"; "test.jpg"; 300; 1 )
```

Render first page of a PDF in a container:

```
MBS( "PDFKit.GetPDFPageImage"; TableName::ContainerFieldName; 0; "jpeg"; "image.jpg" )
```

### See also

- [56.6 Container.Export](#) 1649
- [56.8 Container.GetBase64](#) 1653
- [71.120 DynaPDF.GeneratePreview](#) 2790
- [71.320 DynaPDF.RenderPage](#) 3093
- [123.14 OCR.SetImage](#) 6233
- [125.17 PDFKit.GetPDFPagePDFRef](#) 6290
- [125.21 PDFKit.GetPDFPagesPDF](#) 6296
- [125.22 PDFKit.GetPDFPagesPDFRef](#) 6298
- [125.19 PDFKit.GetPDFPageText](#) 6292
- [125.41 PDFKit.SetPDFPageDisplayAnnotation](#) 6328

### Example Databases

- [Mac and iOS/PDFKit/Extract PDF Pages](#)

#### 125.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr2](#)
- [JPEG rendering in MacOS Mojave](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr2](#)
- [MBS Filemaker Plugin, version 2.4pr1](#)

- [MBS Filemaker Plugin, version 2.1pr5](#)

Created 18th August 2014, last changed 18th November 2018.

## 125.16 PDFKit.GetPDFPagePDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.2	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPagePDF"; PDF; index { ; Filename; DontRenderPreview } )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### Filename

Optional

Optionally, the file name to use for the container value.

"output.pdf"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns a container with a PDF document. The plugin adds a JPEG picture for preview as well as a file name. You can store it in a media field.

### Description

Filename is optional.

### Examples

Extract page 6 into a new PDF:

MBS( "PDFKit.GetPDFPagePDF"; \$ref; 5; "newpdf.pdf" )

### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.19 PDFKit.GetPDFPageText 6292

125.16. <i>PDFKIT.GETPDFPAGEPDF</i>	6289
• 125.20 PDFKit.GetPDFPageValue	6294
• 125.28 PDFKit.Open	6306
• 125.38 PDFKit.SetCurrentFilter	6322

### **Example Databases**

- [Mac and iOS/PDFKit/Combine PDFs](#)

### **125.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [Compressing PDFs with PDFKit in FileMaker](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 9th March 2015.

## 125.17 PDFKit.GetPDFPagePDFRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPagePDFRef"; PDF; index )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

myTable::myMedia

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

**Result** Returns a PDF reference for the new PDF document.

### Description

#### Examples

Extract the PDF page with the given number:

```
MBS( "PDFKit.GetPDFPagePDFRef"; $ref; 5 )
```

### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.19 PDFKit.GetPDFPageText 6292
- 125.20 PDFKit.GetPDFPageValue 6294
- 125.28 PDFKit.Open 6306

### Example Databases

- [Mac and iOS/PDFKit/Split](#)

Created 18th August 2014, last changed 16th February 2015.

## 125.18 PDFKit.GetPDFPageRotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageRotation"; PDF; index )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

**Result** Returns rotation in degrees.

### Description

The rotation is a positive multiple of 90: 0, 90, 180, or 270. The rotation of pages with negative rotation is converted to a corresponding positive rotation.

#### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.28 PDFKit.Open 6306
- 125.42 PDFKit.SetPDFPageRotation 6330

Created 18th August 2014, last changed 16th February 2015.

## 125.19 PDFKit.GetPDFPageText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageText"; PDF; index )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

5

**Result** The text of the PDF page as far as PDFKit knows it.

### Description

If you need text from all pages, please use PDFKit.GetPDFText.

For solutions on Windows, Linux or iOS, please use DynaPDF.ExtractPageText.

You may need to use Text.ConvertUnicodeToCharacterComposition if text is coming back in decomposed unicode characters.

### Examples

Extract text of page 6 in this PDF

MBS( "PDFKit.GetPDFPageText"; \$ref; 5 )

### See also

- 123.14 OCR.SetImage 6233
- 125.11 PDFKit.GetPDFDocument 6279
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.20 PDFKit.GetPDFPageValue 6294
- 125.23 PDFKit.GetPDFText 6299
- 125.28 PDFKit.Open 6306



125.19. *PDFKIT.GETPDFPAGE*TEXT

6293

- 167.9 Text.ConvertUnicodeToCharacterComposition

7918

### **Example Databases**

- [Mac and iOS/PDFKit/Extract PDF Pages](#)

### **125.19.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.1pr5](#)

Created 18th August 2014, last changed 16th January 2017.

## 125.20 PDFKit.GetPDFPageValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	5.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPageValue"; PDF; index; Selector; Parameter { ; DontRenderPreview } )

### Parameters

#### PDF

A PDF reference number from PDFKit.Open.

\$ref

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### Selector

Which value to pick.

"label"

#### Parameter

For dataRepresentation the filename. For width/height/x/y the index of the box: 0 = media box, 1 = crop box, 2 = bleed box, 3 = trim box, 4 = art box.

#### DontRenderPreview

Optional

Optional for dataRepresentation. Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns OK or error.

### Description

label	The page label. Usually "1" for the first page, "2" for the second, etc.
rotation	Rotation on a page.
numberOfCharacters	Number of characters on the page (including linefeeds and spaces inserted).
string	String (with linefeeds and in some cases spaces inserted) representing the text on the page.
attributedString	Same as string, but with formatting.
displaysAnnotations	Whether to display annotations if page is drawn.
dataRepresentation	The page as a PDF document. Pass as parameter the file name to use for the container value.
width	The width of page.
height	The height of page.
X	The x offset of page bounds.
Y	The y offset of page bounds.

For X/Y/Width/Height you can specify which box to use in the parameter.

125.20. *PDFKIT.GETPDFPAGEVALUE* 6295

**See also**

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.19 PDFKit.GetPDFPageText 6292
- 125.28 PDFKit.Open 6306

**125.20.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 16th February 2015, last changed 9th March 2015.

## 125.21 PDFKit.GetPDFPagesPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.2	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPagesPDF"; PDF; Indexes { ; Filename; DontRenderPreview } )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### Indexes

The index of the page. From zero to PDFKit.GetPDFPageCount-1. You can use several numbers separated with comma and ranges with minus.

"0-2,4,6-9,19"

#### Filename

Optional

Optionally, the file name to use for the container value.

"output.pdf"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns a container with a PDF document. The plugin adds a JPEG picture of the first page for preview as well as a file name. You can store it in a media field.

### Description

Filename is optional.

### Examples

Extract a few pages into a new PDF

MBS( "PDFKit.GetPDFPagesPDF"; \$ref; "1,2,5,6"; "newpdf.pdf" )

### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.19 PDFKit.GetPDFPageText 6292

<i>125.21. PDFKIT.GETPDFPAGESPDF</i>	6297
• 125.20 PDFKit.GetPDFPageValue	6294
• 125.28 PDFKit.Open	6306
• 125.38 PDFKit.SetCurrentFilter	6322

### **125.21.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [Compressing PDFs with PDFKit in FileMaker](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 27th October 2015.

## 125.22 PDFKit.GetPDFPagesPDFRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFPagesPDFRef"; PDF; Indexes )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

\$ref

#### Indexes

The index of the page. From zero to PDFKit.GetPDFPageCount-1. You can use several numbers separated with comma and ranges with minus.

"1,2,6-9,19"

**Result** Returns a PDF reference for the new PDF document.

### Description

### Examples

Get the PDF pages with the given page numbers into a new PDF

MBS( "PDFKit.GetPDFPagesPDFRef"; \$ref; "1,2,5,6" )

### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.16 PDFKit.GetPDFPagePDF 6288
- 125.17 PDFKit.GetPDFPagePDFRef 6290
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.20 PDFKit.GetPDFPageValue 6294
- 125.28 PDFKit.Open 6306

### 125.22.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 18th August 2014, last changed 16th February 2015.

## 125.23 PDFKit.GetPDFText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.GetPDFText"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** The text of the PDF Document as far as PDFKit knows it.

### Description

If you need only text for a given page, please use PDFKit.GetPDFPageText.

For solutions on Windows, Linux or iOS, please use DynaPDF.ExtractText.

### Examples

Extract all the text from the given PDF reference:

```
MBS( "PDFKit.GetPDFText"; $ref )
```

### See also

- [71.99 DynaPDF.ExtractDocumentText](#) 2753
- [71.103 DynaPDF.ExtractText](#) 2761
- [123.14 OCR.SetImage](#) 6233
- [125.19 PDFKit.GetPDFPageText](#) 6292
- [125.28 PDFKit.Open](#) 6306

### Example Databases

- [Mac and iOS/PDFKit/Extract PDF Pages](#)

### 125.23.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS Filemaker Plugin, version 2.1pr5](#)

Created 18th August 2014, last changed 9th September 2016.

## 125.24 PDFKit.GetPrintLastSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	9.2	Yes	No	No	No	No

MBS( "PDFKit.GetPrintLastSettings" )

**Result** Returns text or error.

### Description

For user to read. To save settings, you can use PDFKit.SetPrintSetting and PDFKit.GetPrintLastSettings.

Since version 10.1 we return settings as JSON instead of XML and includes print parameter.

### Examples

Queries last print settings:

```
Set Variable [ $v ; Value: MBS( "PDFKit.GetPrintLastSettings" ) ]
If [ MBS("IsError") ]
Set Field [ PDFKit Print::Result ; $v ]
Else
Set Field [ PDFKit Print::Settings ; $v ]
Set Field [ PDFKit Print::Result ; "OK" ]
End If
```

### See also

- [127.6 IsError](#) 6374
- [125.26 PDFKit.GetPrintSetting](#) 6302
- [125.35 PDFKit.ResetPrintSettings](#) 6319
- [125.44 PDFKit.SetPrintSetting](#) 6334

### Example Databases

- [Mac and iOS/PDFKit/Print PDF](#)

#### 125.24.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 13th March 2019, last changed 21st February 2020.



## 125.25 PDFKit.GetPrintOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	9.2	Yes	No	No	No	No

MBS( "PDFKit.GetPrintOption"; Key )

### Parameters

#### Key

The key to use.

"com\_apple\_print\_PrintSettings\_PMCopies"

**Result** Returns value or error.

### Description

You can use PDFKit.SetOption to set options. Use PDFKit.GetPrintSetting for regular options.

#### See also

- 125.26 PDFKit.GetPrintSetting 6302
- 125.43 PDFKit.SetPrintOption 6332
- 125.44 PDFKit.SetPrintSetting 6334

### 125.25.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 12nd March 2019, last changed 12nd March 2019.

## 125.26 PDFKit.GetPrintSetting

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.GetPrintSetting"; Selector )

### Parameters

#### Selector

Which value to query.  
"FaxNumber"

**Result** Returns value or error.

### Description

See also PDFKit.Print function.  
See also PDFKit.SetPrintSetting where options are described.

You can query default printer name using "DefaultPrinter" as selector.  
New in 8.1 you can use selector LastSettings to query last settings as XML and discover what options are set by using the dialog, e.g. the tray names.

### Examples

Query printer:

```
MBS( "PDFKit.GetPrintSetting"; "printer" )
```

Query default printer:

```
MBS( "PDFKit.GetPrintSetting"; "DefaultPrinter" )
```

Query last settings as xml:

```
MBS( "PDFKit.GetPrintSetting"; "LastSettings" )
```

### See also

- 125.24 PDFKit.GetPrintLastSettings 6300
- 125.25 PDFKit.GetPrintOption 6301
- 125.33 PDFKit.Print 6315
- 125.35 PDFKit.ResetPrintSettings 6319
- 125.36 PDFKit.RestorePrintSettings 6320
- 125.37 PDFKit.SavePrintSettings 6321

125.26. <i>PDFKIT.GETPRINTSETTING</i>	6303
• 125.43 PDFKit.SetPrintOption	6332
• 125.44 PDFKit.SetPrintSetting	6334

### **Example Databases**

- [Mac and iOS/PDFKit/PDFKit Print](#)

### **125.26.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.1pr1](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 2nd February 2018.

## 125.27 PDFKit.NewPDFDocument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	5.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.NewPDFDocument" )

**Result** Returns a number for the PDF. Use PDFKit.Release later to free the memory.

### Description

This value can be used in other PDFKit calls to work on the same PDF.

See also PDFKit.Open.

PDF Document reference numbers are starting at 30000 and counting up for each new document.

### Examples

Create PDF from images:

```
# Start new document
Set Variable [ $doc; Value:MBS("PDFKit.NewPDFDocument") ]
# Add image in full size as new page
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image) ]
# Add empty page in default size
Set Variable [ $r; Value:MBS("PDFKit.AddEmptyPage"; $doc) ]
# Add image in given size as new page:
Set Variable [ $r; Value:MBS("PDFKit.AddImagePage"; $doc; test::image; 400; 300) ]
# get PDF document and store in container:
Set Field [ test::test; MBS("PDFKit.GetPDFDocument"; $doc) ]
# release memory
Set Variable [ $r; Value:MBS("PDFKit.Release"; $doc) ]
```

### See also

- [125.1 PDFKit.AddEmptyPage](#) 6261
- [125.2 PDFKit.AddImageFilePage](#) 6263
- [125.3 PDFKit.AddImagePage](#) 6265
- [125.11 PDFKit.GetPDFDocument](#) 6279
- [125.28 PDFKit.Open](#) 6306
- [125.34 PDFKit.Release](#) 6317

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)

### 125.27.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr12](#)

Created 16th February 2015, last changed 16th February 2015.

## 125.28 PDFKit.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.2	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.Open"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL.

**Result** Returns a number for the PDF. Use PDFKit.Release later to free the memory.

### Description

This value can be used in other PDFKit calls to work on the same PDF.

See also PDFKit.OpenContainer, PDFKit.OpenPath and PDFKit.OpenURL.

PDF Document reference numbers are starting at 30000 and counting up for each new document.

If you need to open a PDF file in the PDF Viewer, please use Files.LaunchFile with the path to the PDF file instead.

### Examples

Open the PDF from the container value:

```
MBS("PDFKit.Open"; myTable::myMediaField)
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.21 PDFKit.GetPDFPagesPDF 6296
- 125.22 PDFKit.GetPDFPagesPDFRef 6298
- 125.49 PDFKit.isEncrypted 6347
- 125.27 PDFKit.NewPDFDocument 6304
- 125.31 PDFKit.OpenURL 6312
- 125.42 PDFKit.SetPDFPageRotation 6330
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341

### 125.28.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 13th May 2019.

## 125.29 PDFKit.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.OpenContainer"; Container )

### Parameters

#### Container

A media value containing PDF data.

**Result** Returns a number for the PDF.

### Description

This value can be used in other PDFKit calls to work on the same PDF.

See also PDFKit.OpenPath and PDFKit.OpenURL.

PDF Document reference numbers are starting at 30000 and counting up for each new document.

Use PDFKit.Release later to free the memory.

### Examples

Open the PDF in the container:

```
MBS("PDFKit.OpenContainer"; myTable::myMediaField)
```

Rotate page and set title:

```
# open PDF from container
Set Variable [ $ref; Value:MBS("PDFKit.OpenContainer"; combine pdf::result) ]
# Set title for PDF
Set Variable [ $result; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "Title"; combine pdf::title) ]
# Rotate first page by 90°
Set Variable [ $result; Value:MBS("PDFKit.SetPDFPageRotation"; $ref; 0; 90) ]
# save document to container
Set Field [ combine pdf::result; MBS("PDFKit.GetPDFDocument"; $ref; "result.pdf") ]
# free memory
Set Variable [ $result; Value:MBS("PDFKit.Release"; $ref) ]
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.4 PDFKit.AppendPages 6267
- 125.11 PDFKit.GetPDFDocument 6279



125.29. PDFKIT.OPENCONTAINER	6309
• 125.49 PDFKit.isEncrypted	6347
• 125.28 PDFKit.Open	6306
• 125.30 PDFKit.OpenPath	6310
• 125.34 PDFKit.Release	6317
• 125.40 PDFKit.SetPDFAttribute	6325
• 125.42 PDFKit.SetPDFPageRotation	6330

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Encrypt PDF](#)
- [Mac and iOS/PDFKit/Merge PDF](#)
- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Watermark PDF Page](#)

### 125.29.1 Blog Entries

- [PDFKit on iOS for MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 29th September 2017.

## 125.30 PDFKit.OpenPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.OpenPath"; Path )

### Parameters

#### Path

A text with a file path.

**Result** Returns a number for the PDF.

### Description

This value can be used in other PDFKit calls to work on the same PDF.

See also PDFKit.OpenContainer and PDFKit.OpenURL.

PDF Document reference numbers are starting at 30000 and counting up for each new document.

Use PDFKit.Release later to free the memory.

### Examples

Open the PDF with the given path:

```
MBS("PDFKit.OpenPath"; "/data/test.pdf")
```

### See also

- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.31 PDFKit.OpenURL 6312
- 125.34 PDFKit.Release 6317
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341

### Example Databases

- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Split](#)

#### 125.30.1 FileMaker Magazin

- Ausgabe 6/2017, Seite 26



## 125.31 PDFKit.OpenURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.OpenURL"; URL )

### Parameters

#### URL

A text with an URL.

**Result** Returns a number for the PDF.

### Description

This value can be used in other PDFKit calls to work on the same PDF.

See also PDFKit.OpenPath and PDFKit.OpenContainer.

PDF Document reference numbers are starting at 30000 and counting up for each new document.

Use PDFKit.Release later to free the memory.

Seems to work for HTTP protocol, too. The Apple frameworks transparently handle this out of the control of the plugin. With HTTPS after redirect from HTTP is also possible. For more control, please use CURL functions.

### Examples

Open the PDF with the given URL:

```
MBS("PDFKit.OpenURL"; "http://www.somedomain.invalid/somepath/test.pdf")
```

### See also

- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.30 PDFKit.OpenPath 6310
- 125.34 PDFKit.Release 6317
- 125.45 PDFKit.Watermark 6338

Created 18th August 2014, last changed 9th February 2018.

## 125.32 PDFKit.PageBounds

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.PageBounds"; PDF; index { ; box; mm } )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### box

Optional

Optionally, the PDF box to use. Can be Media Box = 0, Crop Box = 1, Bleed Box = 2, TrimBox = 3 or ArtBox = 4. If the box is not defined, we fall back to the media box. Default is 0.

1

#### mm

Optional

Optionally. If you pass 1, we convert the rectangle to millimeters. Else we return points where 72 points are one inch. Default is 0.

0

**Result** Returns four values separated with new line containing x, y, width and height.

### Description

Note that only the media box is required for a PDF. If you request the bounds for the crop box, but the PDF does not include a crop box, the bounds for the media box are returned instead. If you request the bounds for other box types, and the PDF does not includes these types, the bounds for the crop box are returned instead.

The coordinates for the box are in page space, so you might need to transform the points if the page has a rotation on it. Also, note that the bounds boundsForBox returns are intersected with the page's media box.

### Examples

Get media box of third page in a PDF in a container field:

```
MBS("PDFKit.PageBounds"; test::data; 2; 0)
```

Get crop box of sixth page in millimeters in a PDF with reference:

```
MBS("PDFKit.PageBounds"; $ref; 5; 1; 1)
```

### See also

- 125.12 PDFKit.GetPDFPageCount 6281
- 125.28 PDFKit.Open 6306

Created 18th August 2014, last changed 16th February 2015.

## 125.33 PDFKit.Print

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

```
MBS( "PDFKit.Print"; PDF )
```

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns OK or error.

### Description

Optionally if you have a fax printer, you can also pass fax number to send a fax.

Please use PDFKit.ResetPrintSettings and then call PDFKit.SetPrintSetting for all the settings you need.

Please use DynaPDF.Print for Windows.

Printing may fail on Server if no printer selected or printer is not turned on.

### Examples

Print a PDF container:

```
MBS( "PDFKit.Print"; MyTable::MyDocumentContainer )
```

Fax a PDF container:

```
MBS( "PDFKit.ResetPrintSettings" )
MBS( "PDFKit.SetPrintSetting"; "FaxNumber"; "+123456" )
MBS( "PDFKit.Print"; MyTable::MyDocumentContainer )
```

Print page 2 to 10 and make 3 copies:

```
MBS( "PDFKit.ResetPrintSettings" )
MBS( "PDFKit.SetPrintSetting"; "FirstPage"; 2 )
MBS( "PDFKit.SetPrintSetting"; "LastPage"; 10 )
MBS( "PDFKit.SetPrintSetting"; "Copies"; 3 )
MBS( "PDFKit.Print" )
```

Print with options:

```
# print pdf
Set Variable [ $print3; Value:MBS( "PDFKit.ResetPrintSettings" ) ]
Set Variable [ $print4; Value:MBS( "PDFKit.SetPrintSetting"; "Printer"; "Cliques Xerox" ) ]
Set Variable [ $print5; Value:MBS( "PDFKit.SetPrintSetting"; "FirstPage"; PDF::PrintPageFrom ) ]
Set Variable [ $print6; Value:MBS( "PDFKit.SetPrintSetting"; "LastPage"; PDF::PrintPageTo ) ]
```

```

Set Variable [ $print7; Value:MBS( "PDFKit.SetPrintSetting"; "Copies"; 1 ) ]
Set Variable [ $print8; Value:MBS( "PDFKit.SetPrintSetting"; "scalingMode"; "DownToFit" ) ]
Set Variable [ $print8; Value:MBS( "PDFKit.SetPrintSetting"; "DuplexMode"; "DuplexNoTumble" ) ]
Set Variable [ $print9; Value:MBS( "PDFKit.Print"; PDF::Annotated PDF ) ]

```

**See also**

- [71.307 DynaPDF.Print](#) 3070
- [125.26 PDFKit.GetPrintSetting](#) 6302
- [125.28 PDFKit.Open](#) 6306
- [125.35 PDFKit.ResetPrintSettings](#) 6319
- [125.44 PDFKit.SetPrintSetting](#) 6334

**Example Databases**

- [Mac and iOS/PDFKit/Extract PDF Pages](#)
- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Print PDF](#)

**125.33.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr5](#)
- [PDF Printing in FileMaker on Windows without PDF Reader](#)
- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS FileMaker Plugin 4.0 for OS X/Windows - More than 2200 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 17th December 2019.



## 125.34 PDFKit.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.Release"; PDFReference )

### Parameters

#### PDFReference

A number referencing a PDF you opened before.

**Result** Returns OK on success. Do no longer use the reference number after this call as the object has been freed and accessing it again can crash your application.

### Description

#### Examples

Release the PDF reference in variable ref

```
MBS("PDFKit.Release"; $ref)
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.5 PDFKit.Combine 6268
- 125.50 PDFKit.isLocked 6349
- 125.27 PDFKit.NewPDFDocument 6304
- 125.31 PDFKit.OpenURL 6312
- 125.40 PDFKit.SetPDFAttribute 6325
- 125.41 PDFKit.SetPDFPageDisplayAnnotation 6328
- 125.42 PDFKit.SetPDFPageRotation 6330
- 125.45 PDFKit.Watermark 6338
- 125.46 PDFKit.WriteToPath 6341

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Encrypt PDF](#)
- [Mac and iOS/PDFKit/Merge PDF](#)

- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Mac and iOS/PDFKit/Split](#)
- [Mac and iOS/PDFKit/Watermark PDF Page](#)

### 125.34.1 Blog Entries

- [PDFKit on iOS for MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 5.5pr1](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

### 125.34.2 FileMaker Magazin

- [Ausgabe 6/2017, Seite 26](#)

Created 18th August 2014, last changed 18th August 2014.

## 125.35 PDFKit.ResetPrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.ResetPrintSettings" )

**Result** Returns OK or error.

### Description

Default is what is setup in the shared print settings for the application.

### See also

- 125.24 PDFKit.GetPrintLastSettings 6300
- 125.26 PDFKit.GetPrintSetting 6302
- 125.33 PDFKit.Print 6315
- 125.36 PDFKit.RestorePrintSettings 6320
- 125.37 PDFKit.SavePrintSettings 6321
- 125.44 PDFKit.SetPrintSetting 6334

### Example Databases

- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Print PDF](#)

### 125.35.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

Created 18th August 2014, last changed 11st February 2020.

## 125.36 PDFKit.RestorePrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.RestorePrintSettings"; Container )

### Parameters

#### Container

The container value with printer settings.  
MyTable::PrinterSettingsContainer

**Result** Returns OK or error.

### Description

#### See also

- 125.26 PDFKit.GetPrintSetting 6302
- 125.35 PDFKit.ResetPrintSettings 6319
- 125.37 PDFKit.SavePrintSettings 6321
- 125.44 PDFKit.SetPrintSetting 6334

### Example Databases

- [Mac and iOS/PDFKit/PDFKit Print](#)

Created 18th August 2014, last changed 18th August 2014.

## 125.37 PDFKit.SavePrintSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.SavePrintSettings" { ; FileName } )

### Parameters

#### FileName

Optional

The filename to use in the container value.

"Printer Settings.dat"

**Result** Returns container value with print settings or error.

### Description

Print settings are wrapped in a container value.

You can store them in a container and later restore them with PDFKit.RestorePrintSettings or PrintDialog.SetConfiguration function.

### See also

- 125.26 PDFKit.GetPrintSetting 6302
- 125.35 PDFKit.ResetPrintSettings 6319
- 125.36 PDFKit.RestorePrintSettings 6320
- 125.44 PDFKit.SetPrintSetting 6334
- 130.24 PrintDialog.GetConfiguration 6519
- 130.42 PrintDialog.SetConfiguration 6539

### Example Databases

- [Mac and iOS/PDFKit/PDFKit Print](#)

Created 18th August 2014, last changed 16th March 2019.

## 125.38 PDFKit.SetCurrentFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.3	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.SetCurrentFilter"; name )

### Parameters

#### name

The name of the filter. Use QuartzFilterManager.Filters to get list of filters. If Filter name is empty or missing, the filter is removed.

"Compress Pictures"

**Result** Returns OK or error.

### Description

You can use the Quartz Filter Manager panel to create a panel.

This is for all PDF saving in MBS Plugin with PDFKit functions.

Applied to PDF in PDFKit.GetPDFPagesPDF, PDFKit.GetPDFPagePDF, PDFKit.Combine, PDFKit.WriteToPath and other functions writing PDFs.

### Examples

Set a filter:

```
MBS("PDFKit.SetCurrentFilter"; "Compress Pictures")
```

### See also

- [125.5 PDFKit.Combine](#) 6268
- [125.8 PDFKit.GetCurrentFilter](#) 6274
- [125.16 PDFKit.GetPDFPagePDF](#) 6288
- [125.21 PDFKit.GetPDFPagesPDF](#) 6296
- [125.46 PDFKit.WriteToPath](#) 6341
- [125.51 QuartzFilterManager.Filters](#) 6351

### Example Databases

- [Mac and iOS/PDFKit/Compress PDF](#)

### 125.38.1 Blog Entries

- [Compressing PDFs with PDFKit in FileMaker](#)
- [MBS Filemaker Plugin, version 4.3pr6](#)

## **125.38.2 FileMaker Magazin**

- Ausgabe 5/2014, Seite 24
- Ausgabe 5/2014, Seite 23

Created 18th August 2014, last changed 3th June 2019.

## 125.39 PDFKit.SetIgnoreCombineErrors

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.4	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.SetIgnoreCombineErrors" )

**Result** Returns "OK" or error message.

### Description

If you call PDFKit.Combine or PDFKit.CombineRef and you pass several container values, those functions normally stop if one of the parameters is not a PDF reference of any kind. If you set errors to be ignored, you can still combine other PDFs.

### Examples

Ignore errors on Combine

```
MBS( "PDFKit.SetIgnoreCombineErrors"; 1 )
```

### See also

- [125.5 PDFKit.Combine](#) 6268
- [125.6 PDFKit.CombineRef](#) 6270
- [125.9 PDFKit.GetIgnoreCombineErrors](#) 6275

### 125.39.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr5](#)

Created 18th August 2014, last changed 18th August 2014.



## 125.40 PDFKit.SetPDFAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.3	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.SetPDFAttribute"; PDF; Key; Value )

### Parameters

#### PDF

A PDF reference from PDFKit.Open or other functions.

\$ref

#### Key

Which information to set. This can be one of the following: Title, Subject, Author, Creator, Producer, Keywords, CreationDate or ModificationDate.

"Title"

#### Value

The new value for this key. Either a text for text value or a timestamp for a date.

"new value"

**Result** Returns "OK" on success or an error message.

### Description

While you can pass here a container value or an URL to a PDF file, you should really pass a reference value. Because once you changed the PDF attribute, you want to save the PDF with a call to PDFKit.GetDocument.

New keys in v5.4: OwnerPassword, UserPassword, EncryptionKeyLength, AllowsPrinting and AllowsCopying.

If you need more control about encryption, restrictions or metadata, you may want to checkout our DynaPDF functions in the plugin.

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### Examples

Set title to a PDF:

```
MBS("PDFKit.SetPDFAttribute"; $ref; "title"; "The new title for this PDF file." )
```

Rotate page and set title:

```
# open PDF from container
Set Variable [ $ref; Value:MBS("PDFKit.OpenContainer"; combine pdf::result) ]
# Set title for PDF
Set Variable [ $result; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "Title"; combine pdf::title) ]
# Rotate first page by 90°
```

```

Set Variable [ $result; Value:MBS("PDFKit.SetPDFPageRotation"; $ref; 0; 90) ]
# save document to container
Set Field [ combine pdf::result; MBS("PDFKit.GetPDFDocument"; $ref; "result.pdf") ]
# free memory
Set Variable [ $result; Value:MBS("PDFKit.Release"; $ref) ]

```

Create PDF with passwords:

```

Set Variable [ $ref; Value:MBS("PDFKit.OpenContainer"; combine pdf::test1) ]
Set Variable [ $r; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "OwnerPassword"; "owner") ]
Set Variable [ $r; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "UserPassword"; "test") ]
Set Variable [ $r; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "EncryptionKeyLength"; 128) ]
Set Variable [ $r; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "AllowsPrinting"; 0) ]
Set Variable [ $r; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "AllowsCopying"; 0) ]
Set Field [ combine pdf::result; MBS("PDFKit.GetPDFDocument"; $ref; "result.pdf") ]
Set Variable [ $result; Value:MBS("PDFKit.Release"; $ref) ]

```

### See also

- [125.10 PDFKit.GetPDFAttribute](#) 6276
- [125.11 PDFKit.GetPDFDocument](#) 6279
- [125.28 PDFKit.Open](#) 6306
- [125.29 PDFKit.OpenContainer](#) 6308
- [125.34 PDFKit.Release](#) 6317
- [125.42 PDFKit.SetPDFPageRotation](#) 6330
- [125.46 PDFKit.WriteToPath](#) 6341

### Example Databases

- [Mac and iOS/PDFKit/Combine PDFs](#)
- [Mac and iOS/PDFKit/Encrypt PDF](#)

#### 125.40.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr2](#)

Created 18th August 2014, last changed 17th December 2018.

Key	Description
Title	The document's title. Optional; if present, the value of this key must be a text.
Author	The name of the person who created this document. Optional; if present, the value of this key must be a text.
Subject	The subject of a document. Optional; if present, the value of this key must be a text.
Keywords	The keywords for this document. This key is optional. Must be the keywords with comma separated.
Creator	The name of the application that created the original data used to create this document. Optional; if present, the value of this key must be a text.
OwnerPassword	The "owner password" of the PDF document. If this key is specified, the document will be encrypted using the value as the owner password; otherwise, the document will not be encrypted. The value of this key must be a text which can be represented in ASCII encoding; only the first 32 bytes will be used for the password. There is no default value for this key. If the value of this key cannot be represented in ASCII, the document will not be created and the creation function will fail.
UserPassword	The "user password" of the PDF document. If the document is encrypted, then the value of this key will be the user password for the document; if unspecified, the user password will be the empty string. The value of this key must be a text which can be represented in ASCII encoding; only the first 32 bytes will be used for the password. If the value of this key cannot be represented in ASCII, the document will not be created and the creation function will fail.
EncryptionKeyLength	Specifies the encryption key length in bits; see Table 3.18 "Entries common to all encryption dictionaries", PDF Reference: Adobe PDF version 1.5 (4th ed.) for more info. Optional; if present, the value of this key must be a number with value which is a multiple of 8 between 40 and 128, inclusive. If this key is absent or invalid, the encryption key length defaults to 40 bits.
AllowsPrinting	Used to specify whether the document allows printing when unlocked with the user password. The value of this key must be a boolean. The default value of this key is 1 (true).
AllowsCopying	Used to specify whether the document allows copying when unlocked with the user password. The value of this key must be a boolean. The default value of this key is 1 (true).
CreationDate	The creation date of PDF.
ModificationDate	The modification date of PDF.

## 125.41 PDFKit.SetPDFPageDisplayAnnotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	6.0	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.SetPDFPageDisplayAnnotation"; PDF; index; Value )

### Parameters

#### PDF

The PDF reference number.

\$pdf

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### Value

The new value for whether to display annotations. Can be 0 or 1.

1

**Result** Returns OK or error.

### Description

Function to turn on or off the display of annotations when the page is drawn.

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### Examples

Render with or without image:

```
Set Variable [ $pdf; Value:MBS( "PDFKit.OpenContainer"; PDFKit Rendering::PDF ) ]
Set Variable [ $r; Value:MBS( "PDFKit.SetPDFPageDisplayAnnotation"; $pdf; 0; 0 ) ]
Set Field [ PDFKit Rendering::Image1; MBS( "PDFKit.GetPDFPageImage"; $pdf; 0 ) ]
Set Variable [ $r; Value:MBS( "PDFKit.SetPDFPageDisplayAnnotation"; $pdf; 0; 1 ) ]
Set Field [ PDFKit Rendering::Image2; MBS( "PDFKit.GetPDFPageImage"; $pdf; 0 ) ]
Set Variable [ $r; Value:MBS("PDFKit.release"; $pdf) ]
```

### See also

- 125.11 PDFKit.GetPDFDocument 6279
- 125.12 PDFKit.GetPDFPageCount 6281
- 125.13 PDFKit.GetPDFPageDisplayAnnotation 6283
- 125.15 PDFKit.GetPDFPageImage 6285
- 125.28 PDFKit.Open 6306

<i>125.41. PDFKIT.SETPDFPAGEDISPLAYANNOTATION</i>	6329
• 125.29 PDFKit.OpenContainer	6308
• 125.34 PDFKit.Release	6317
• 125.46 PDFKit.WriteToPath	6341

Created 30th November 2015, last changed 25th April 2016.

## 125.42 PDFKit.SetPDFPageRotation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.SetPDFPageRotation"; PDF; index; rotation )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### index

The index of the page. From zero to PDFKit.GetPDFPageCount-1.

1

#### rotation

The new rotation value.

90

**Result** Returns OK on success.

### Description

The rotation must be a positive or negative multiple of 90 (negative angles are converted to their positive equivalents; for example, -90 is changed to 270).

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### Examples

Rotate page and set title:

```
# open PDF from container
Set Variable [ $ref; Value:MBS("PDFKit.OpenContainer"; combine pdf::result) ]
# Set title for PDF
Set Variable [ $result; Value:MBS("PDFKit.SetPDFAttribute"; $ref; "Title"; combine pdf::title) ]
# Rotate first page by 90°
Set Variable [ $result; Value:MBS("PDFKit.SetPDFPageRotation"; $ref; 0; 90) ]
# save document to container
Set Field [ combine pdf::result; MBS("PDFKit.GetPDFDocument"; $ref; "result.pdf") ]
# free memory
Set Variable [ $result; Value:MBS("PDFKit.Release"; $ref) ]
```

### See also

- 125.11 PDFKit.GetPDFDocument 6279
- 125.12 PDFKit.GetPDFPageCount 6281

<i>125.42. PDFKIT.SETPDFPAGEROTATION</i>	6331
• 125.18 PDFKit.GetPDFPageRotation	6291
• 125.28 PDFKit.Open	6306
• 125.29 PDFKit.OpenContainer	6308
• 125.34 PDFKit.Release	6317
• 125.40 PDFKit.SetPDFAttribute	6325
• 125.46 PDFKit.WriteToPath	6341

Created 18th August 2014, last changed 25th April 2016.

## 125.43 PDFKit.SetPrintOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	9.2	Yes	No	No	No	No

MBS( "PDFKit.SetPrintOption"; Key; Value { ; Type } )

### Parameters

#### Key

The key to use.

"com\_apple\_print\_PrintSettings\_PMCopies"

#### Value

The value to use. Depending on data type, the plugin will pass a number or a text.

3

#### Type

Optional

Available in MBS FileMaker Plugin 9.2 or newer.

The type of data to add. Default is empty to use type of value passed. So text or number type would be picked automatically. Valid values for type are boolean, text, number, integer and text. Integer is for integer numbers while number is for floating numbers.

**Result** Returns OK or error.

### Description

For regular options, please use PDFKit.SetPrintSetting.

### Examples

Sets a custom option:

```
MBS( "PDFKit.SetPrintOption"; "xxx"; 123 )
```

Sets a custom boolean option:

```
MBS( "PDFKit.SetPrintOption"; "xxx"; 1; "boolean" )
```

Asks for 4 pages per page:

```
Set Variable [ $r ; Value: MBS( "PDFKit.SetPrintOption"; "NSPagesAcross"; 2; "Integer" ) ]
```

```
Set Variable [ $r ; Value: MBS( "PDFKit.SetPrintOption"; "NSPagesDown"; 2; "Integer" ) ]
```

### See also

- 125.25 PDFKit.GetPrintOption 6301
- 125.26 PDFKit.GetPrintSetting 6302
- 125.44 PDFKit.SetPrintSetting 6334



## Example Databases

- [Mac and iOS/PDFKit/Print PDF](#)

### 125.43.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 12nd March 2019, last changed 14th December 2019.

## 125.44 PDFKit.SetPrintSetting

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.0	Yes	No	Yes, macOS only	No	No

MBS( "PDFKit.SetPrintSetting"; Selector; Value )

### Parameters

#### Selector

Which value to set.

"FaxNumber"

#### Value

The value for the setting.

"+123456"

**Result** Returns OK or error.

### Description

See also PDFKit.Print function.

All settings are optional and if not set will use default setting.

Possible settings:

You can use PDFKit.SetPrintOption to set custom print options like with PrintDialog.SetOption function.

### Examples

Set a fax number:

```
MBS( "PDFKit.SetPrintSetting"; "FaxNumber"; "+123456" )
```

Print page 2 to 10 and make 3 copies:

```
MBS( "PDFKit.ResetPrintSettings" )
MBS( "PDFKit.SetPrintSetting"; "FirstPage"; 2 )
MBS( "PDFKit.SetPrintSetting"; "LastPage"; 10 )
MBS( "PDFKit.SetPrintSetting"; "Copies"; 3 )
MBS( "PDFKit.Print" )
```

Set a duplex:

```
MBS( "PDFKit.SetPrintSetting"; "DuplexMode"; "DuplexNoTumble" )
```

Horizontal and vertical fit:

```
$r = MBS( "PDFKit.SetPrintSetting"; "HorizontalPagination"; "fit" )
$r = MBS( "PDFKit.SetPrintSetting"; "VerticalPagination"; "fit" )
```

Set paper tray:

```
MBS("PDFKit.SetPrintSetting"; "Tray"; "Tray-2")
```

Enable print dialog:

```
MBS( "PDFKit.SetPrintSetting"; "ShowsPrintPanel"; 1 )
```

Enable progress dialog:

```
MBS( "PDFKit.SetPrintSetting"; "ShowsProgressPanel"; 1 )
```

#### See also

- 125.24 PDFKit.GetPrintLastSettings 6300
- 125.25 PDFKit.GetPrintOption 6301
- 125.26 PDFKit.GetPrintSetting 6302
- 125.33 PDFKit.Print 6315
- 125.35 PDFKit.ResetPrintSettings 6319
- 125.36 PDFKit.RestorePrintSettings 6320
- 125.37 PDFKit.SavePrintSettings 6321
- 125.43 PDFKit.SetPrintOption 6332
- 130.39 PrintDialog.GetTray 6535
- 130.49 PrintDialog.SetOption 6548

#### Example Databases

- [Mac and iOS/PDFKit/PDFKit Print](#)
- [Mac and iOS/PDFKit/Print PDF](#)

#### 125.44.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 8.0pr8](#)
- [MBS Filemaker Plugin, version 4.0pr5](#)

## 125.44.2 FileMaker Magazin

- Ausgabe 6/2017, Seite 26

Created 18th August 2014, last changed 28th November 2019.

jobTitle	The title of the printing job.
faxNumber	A fax number for fax printers. This text is passed through and must match the format your driver expects.
PaperName	The name of the paper to use.
Printer	The name of the printer to use.
FirstPage	The number of the first page to print.
LastPage	The number of the last page to print.
Copies	The number of copies to print. Default is 1.
ReversePageOrder	Whether to reverse the page order. Pass 1 to reverse or 0 to not reverse. Default is not reverse.
MustCollate	Whether to collate or not. Pass 1 to collate or 0 to not collate. Default is 0.
AutoRotate	Whether to automatically rotate to match the PDF page format. Default is 1 (on).
ShowsPrintPanel	Whether to show the print panel. Default is 0 to not show it. Pass 1 for value to show dialog.
ShowsProgressPanel	Whether to show the progress panel. Default is 0 to not show it. Pass 1 for value to show progress.
DuplexMode	Whether to use duplex mode. Can be None (Print only on one side of sheet of paper), DuplexNoTumble (Print on both sides of the paper, with no tumbling), DuplexTumble (Print on both sides of the paper, tumbling on) or SimplexTumble (Print on only one side of the paper, but tumble the images while printing).
DetailedErrorReporting	Whether to enable detailed error reporting. If 1, produce detailed reports when an error occurs.
PagesAcross	Number of logical pages to be placed across a physical sheet.
PagesDown	Number of logical pages to be placed down a physical sheet.
TopMargin	The top margin. Default 0.
BottomMargin	The bottom margin. Default 0.
LeftMargin	The left margin. Default 0.
RightMargin	The right margin. Default 0.
HorizontalPagination	The horizontal pagination. Can be auto, clip or fit. Default is fit.
VerticalPagination	The vertical pagination. Can be auto, clip or fit. Default is fit.
scalingMode	The scaling mode to use. Default is None, but can also be DownToFit or ToFit.
Tray	The name of the paper tray. See <code>PrintDialog.GetTray</code> to find the name of the tray. (New in 8.0)

## 125.45 PDFKit.Watermark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.7	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.Watermark"; PDF; PageNumber; Image; Transparency; X; Y { ; W; H; Background; DeltaX; DeltaY } )

### Parameters

#### PDF

A PDF reference from PDFKit.Open.

\$pdf

#### PageNumber

The page number of the page to modify.

0

#### Image

The image to be used for watermark. Should be a PNG with mask for best results. Pass a container value.

\$image

#### Transparency

The transparency level. From 0.0 (opaque) to 1.0 (full transparency).

0.5

#### X

X coordinate. If zero, the plugin will center the image. If negative, this value is the distance from right side.

0

#### Y

Y coordinate. As with all PDF coordinates, the 0 coordinate is on the bottom of the page. If zero, the plugin will center the image. If negative, this value is the distance from top side.

0

#### W

Optional

Desired width. If value is zero or not provided, the plugin will use the image width.

0

#### H

Optional

Desired height. If value is zero or not provided, the plugin will use the image height.

0

#### Background

Optional

Whether to put image in foreground or background. Default is foreground. Can be 1 for background or 0 for foreground. Does not work if existing page clears background with background color!

0

#### DeltaX

Optional

Additional positioning offset to be added after the calculations for above are done.

0

### **DeltaY**

Optional

Additional positioning offset to be added after the calculations for above are done.

0

**Result** Returns OK or error message.

### **Description**

This modifies an in memory PDF Document which you can create by opening one using PDFKit.Open, PDFKit.OpenContainer, PDFKit.OpenPath or PDFKit.OpenURL.

You can watermark several pages by calling this function in a loop.

Don't forget to use PDFKit.Release to later release memory.

You can do similar with DynaPDF with insert image command (DynaPDF.InsertImage) and alpha set (DynaPDF.SetAlpha).

Your changes are only done in memory, so please remember to write modified pdf back to disk, e.g. by using PDFKit.WriteToPath. Or use PDFKit.GetPDFDocument to get a PDF for storing in a container.

### **Examples**

Watermark with an image over full page:

```
MBS("PDFKit.Watermark"; $pdf; 0; Watermark PDF Page::WatermarkImage; 0; 0; 0; 0; 0)
```

### **See also**

- 71.280 DynaPDF.InsertImage 3003
- 71.335 DynaPDF.SetAlpha 3128
- 125.11 PDFKit.GetPDFDocument 6279
- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.30 PDFKit.OpenPath 6310
- 125.31 PDFKit.OpenURL 6312
- 125.34 PDFKit.Release 6317
- 125.46 PDFKit.WriteToPath 6341

### **Example Databases**

- [Mac and iOS/PDFKit/Watermark PDF Page](#)

### 125.45.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)
- [MBS FileMaker Plugin, version 7.6pr4](#)
- [MBS Filemaker Plugin, version 4.2pr10](#)
- [MBS Filemaker Plugin, version 4.2pr7](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

Created 18th August 2014, last changed 28th November 2019.



## 125.46 PDFKit.WriteToPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	3.1	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.WriteToPath"; PDF; Path )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

#### Path

A valid native file path.

"/Users/test/Desktop/test.pdf"

**Result** Returns OK or error message.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Load PDF, Write PDF and release it.

```
$h = MBS("PDFKit.OpenPath"; "/Users/cs/Desktop/test.pdf")
$r = MBS("PDFKit.WriteToPath"; $h; "/Users/cs/Desktop/output.pdf")
$r = MBS("PDFKit.Release"; $h)
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 125.1 PDFKit.AddEmptyPage 6261
- 125.3 PDFKit.AddImagePage 6265
- 125.28 PDFKit.Open 6306
- 125.30 PDFKit.OpenPath 6310
- 125.34 PDFKit.Release 6317
- 125.38 PDFKit.SetCurrentFilter 6322
- 125.40 PDFKit.SetPDFAttribute 6325
- 125.42 PDFKit.SetPDFPageRotation 6330
- 125.45 PDFKit.Watermark 6338

**Example Databases**

- [Mac and iOS/PDFKit/Split](#)

**125.46.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr2](#)
- [MBS FileMaker Plugin, version 7.4pr3](#)
- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 5th September 2014.

## 125.47 PDFKit.allowsCopying

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.allowsCopying"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns 1 if copying is allowed and 0 else.

### Description

The ability to copy content from a PDF document is an attribute unrelated to whether the document is locked or unlocked. It depends on the PDF permissions set by the document's author.

This method only determines the desired permissions setting in the PDF document; it is up to the application to enforce (or ignore) the permissions.

This method always returns 1 if the document is not encrypted. Note that in many cases an encrypted document may still be readable by all users due to the standard empty string password. For more details about user and owner passwords, see the Adobe PDF specification.

### Examples

Check directly if a PDF in a container allows copying:

```
MBS( "PDFKit.allowsCopying"; Test::Document )
```

Shows some properties:

```
# Load PDF from container
Set Variable [ $pdf ; Value: MBS( "PDFKit.OpenContainer"; Popup Menu::logo ) ]
# Check some properties
Set Variable [ $allowsCopying ; Value: MBS( "PDFKit.allowsCopying"; $PDF ) ]
Set Variable [ $allowsPrinting ; Value: MBS( "PDFKit.allowsPrinting"; $PDF ) ]
Set Variable [ $isEncrypted ; Value: MBS( "PDFKit.isEncrypted"; $PDF ) ]
Set Variable [ $isLocked ; Value: MBS( "PDFKit.isLocked"; $PDF ) ]
# show in dialog
Show Custom Dialog [ "PDF Details" ; "allows copying: " & If($allowsCopying; "yes"; "no") & $&
"allows printing: " & If($allowsPrinting; "yes"; "no") & $&
"is encrypted: " & If($isEncrypted; "yes"; "no") & $&
"is locked: " & If($isLocked; "yes"; "no") ]
# release PDF
Set Variable [ $r ; Value: MBS("PDFKit.Release"; $pdf) ]
```

**See also**

- 125.48 PDFKit.allowsPrinting 6345
- 125.49 PDFKit.isEncrypted 6347
- 125.50 PDFKit.isLocked 6349
- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.34 PDFKit.Release 6317

Created 18th August 2014, last changed 25th November 2019.

## 125.48 PDFKit.allowsPrinting

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.allowsPrinting"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns 1 if printing is allowed and 0 else.

### Description

The ability to print a PDF document is an attribute unrelated to whether the document is locked or unlocked. It depends on the PDF permissions set by the document's author.

This method only determines the desired permissions setting in the PDF document; it is up to the application to enforce (or ignore) the permissions.

This method always returns 1 if the document is not encrypted. Note that in many cases an encrypted document may still be readable by all users due to the standard empty string password. For more details about user and owner passwords, see the Adobe PDF specification.

### Examples

Shows some properties:

```
# Load PDF from container
Set Variable [ $pdf ; Value: MBS( "PDFKit.OpenContainer"; Popup Menu::logo ) ]
# Check some properties
Set Variable [ $allowsCopying ; Value: MBS( "PDFKit.allowsCopying"; $PDF ) ]
Set Variable [ $allowsPrinting ; Value: MBS( "PDFKit.allowsPrinting"; $PDF ) ]
Set Variable [ $isEncrypted ; Value: MBS( "PDFKit.isEncrypted"; $PDF ) ]
Set Variable [ $isLocked ; Value: MBS( "PDFKit.isLocked"; $PDF ) ]
# show in dialog
Show Custom Dialog [ "PDF Details" ; "allows copying: " & If($allowsCopying; "yes"; "no") & §&
"allows printing: " & If($allowsPrinting; "yes"; "no") & §&
"is encrypted: " & If($isEncrypted; "yes"; "no") & §&
"is locked: " & If($isLocked; "yes"; "no") ]
# release PDF
Set Variable [ $r ; Value: MBS("PDFKit.Release"; $pdf) ]
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.49 PDFKit.isEncrypted 6347
- 125.50 PDFKit.isLocked 6349

- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308
- 125.34 PDFKit.Release 6317

Created 18th August 2014, last changed 25th November 2019.

## 125.49 PDFKit.isEncrypted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.isEncrypted"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns 1 if encrypted.

### Description

If encrypted, reading the document requires a password.

Encrypted documents whose password is the empty string are unlocked automatically upon opening, because PDF Kit tries the empty string as a password if none is supplied.

### Examples

Shows some properties:

```
# Load PDF from container
Set Variable [ $pdf ; Value: MBS( "PDFKit.OpenContainer"; Popup Menu::logo ) ]
# Check some properties
Set Variable [ $allowsCopying ; Value: MBS( "PDFKit.allowsCopying"; $PDF ) ]
Set Variable [ $allowsPrinting ; Value: MBS( "PDFKit.allowsPrinting"; $PDF ) ]
Set Variable [ $isEncrypted ; Value: MBS( "PDFKit.isEncrypted"; $PDF ) ]
Set Variable [ $isLocked ; Value: MBS( "PDFKit.isLocked"; $PDF ) ]
# show in dialog
Show Custom Dialog [ "PDF Details" ; "allows copying: " & If($allowsCopying; "yes"; "no") & $&
"allows printing: " & If($allowsPrinting; "yes"; "no") & $&
"is encrypted: " & If($isEncrypted; "yes"; "no") & $&
"is locked: " & If($isLocked; "yes"; "no") ]
# release PDF
Set Variable [ $r ; Value: MBS("PDFKit.Release"; $pdf) ]
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.50 PDFKit.isLocked 6349
- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308

- 125.34 PDFKit.Release

Created 18th August 2014, last changed 25th November 2019.



## 125.50 PDFKit.isLocked

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	2.9	Yes	No	Yes, macOS only	No	Yes

MBS( "PDFKit.isLocked"; PDF )

### Parameters

#### PDF

A container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

**Result** Returns 1 if PDF is locked.

### Description

Only encrypted documents can be locked. Encrypted documents whose password is the empty string are unlocked automatically upon opening, because PDF Kit tries the empty string as a password if none is supplied.

### Examples

Shows some properties:

```
# Load PDF from container
Set Variable [ $pdf ; Value: MBS( "PDFKit.OpenContainer"; Popup Menu::logo ) ]
# Check some properties
Set Variable [ $allowsCopying ; Value: MBS( "PDFKit.allowsCopying"; $PDF ) ]
Set Variable [ $allowsPrinting ; Value: MBS( "PDFKit.allowsPrinting"; $PDF ) ]
Set Variable [ $isEncrypted ; Value: MBS( "PDFKit.isEncrypted"; $PDF ) ]
Set Variable [ $isLocked ; Value: MBS( "PDFKit.isLocked"; $PDF ) ]
# show in dialog
Show Custom Dialog [ "PDF Details" ; "allows copying: " & If($allowsCopying; "yes"; "no") & $&
"allows printing: " & If($allowsPrinting; "yes"; "no") & $&
"is encrypted: " & If($isEncrypted; "yes"; "no") & $&
"is locked: " & If($isLocked; "yes"; "no") ]
# release PDF
Set Variable [ $r ; Value: MBS("PDFKit.Release"; $pdf) ]
```

### See also

- 125.47 PDFKit.allowsCopying 6343
- 125.48 PDFKit.allowsPrinting 6345
- 125.49 PDFKit.isEncrypted 6347
- 125.28 PDFKit.Open 6306
- 125.29 PDFKit.OpenContainer 6308

- 125.34 PDFKit.Release

Created 18th August 2014, last changed 25th November 2019.

## 125.51 QuartzFilterManager.Filters

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.3	Yes	No	No	No	No

MBS( "QuartzFilterManager.Filters" )

**Result** Returns list or error.

### Description

This gives list of filters as localized names.

This includes by default: Black & White, Blue Tone, Create Generic PDFX-3 Document, Gray Tone, Lightness Decrease, Lightness Increase, Reduce File Size and Sepia Tone.

### Examples

Queries list of filters:

MBS( "QuartzFilterManager.Filters" )

### See also

- [125.38 PDFKit.SetCurrentFilter](#) 6322
- [125.52 QuartzFilterManager.HidePanel](#) 6352

### Example Databases

- [Mac and iOS/PDFKit/Compress PDF](#)

#### 125.51.1 Blog Entries

- [Compressing PDFs with PDFKit in FileMaker](#)
- [MBS Filemaker Plugin, version 4.3pr6](#)

#### 125.51.2 FileMaker Magazin

- [Ausgabe 5/2014, Seite 23](#)

Created 18th August 2014, last changed 25th August 2014.

## 125.52 QuartzFilterManager.HidePanel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.3	Yes	No	No	No	No

MBS( "QuartzFilterManager.HidePanel" )

**Result** Returns OK or error.

### Description

### Examples

Show the panel:

```
MBS( "QuartzFilterManager.ShowPanel" )
```

Hide the panel:

```
MBS( "QuartzFilterManager.HidePanel" )
```

### See also

- [125.51 QuartzFilterManager.Filters](#) 6351
- [125.53 QuartzFilterManager.ShowPanel](#) 6353

### 125.52.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr6](#)

Created 18th August 2014, last changed 25th August 2014.

## 125.53 QuartzFilterManager.ShowPanel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
125 PDFKit	4.3	Yes	No	No	No	No

MBS( "QuartzFilterManager.ShowPanel" )

**Result** Returns OK or error.

### Description

This gives your users the possibility to create a filter and later use it with PDFKit functions. e.g. if you create a filter to compress images as JPEG, you can get smaller PDFs.

### Examples

Show the panel:

MBS( "QuartzFilterManager.ShowPanel" )

Hide the panel:

MBS( "QuartzFilterManager.HidePanel" )

### See also

- [125.52 QuartzFilterManager.HidePanel](#)

6352

### Example Databases

- [Mac and iOS/PDFKit/Compress PDF](#)

#### 125.53.1 Blog Entries

- [Compressing PDFs with PDFKit in FileMaker](#)
- [MBS Filemaker Plugin, version 4.3pr6](#)

#### 125.53.2 FileMaker Magazin

- [Ausgabe 5/2014, Seite 23](#)

Created 18th August 2014, last changed 25th August 2014.



# Chapter 126

## PHP

Run PHP scripts and get/set variables.

### 126.1 PHP.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.Execute"; phpCode )

#### Parameters

##### phpCode

the source code of the script you are executing

\$code

**Result** The string returned from the PHP function or error message.

#### Description

Same as calling PHP.Run and PHP.GetResultString, but returns the result directly.

#### Examples

Run test code and get result:

```
$r = MBS( "PHP.Execute"; "echo 'ok';" )
```

#### See also

- 126.3 PHP.GetResultContainer 6358
- 126.4 PHP.GetResultString 6359

- 126.9 PHP.Run 6365
- 159.10 SQL.Execute 7425
- 160.5 SSH.Execute 7611

### 126.1.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 18th August 2014, last changed 18th August 2014.



## 126.2 PHP.ExistsVariable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

```
MBS( "PHP.ExistsVariable"; VariableName )
```

### Parameters

#### VariableName

the name of the variable.

\$name

**Result** Returns true if the variable exists, false if it does not.

### Description

### Examples

Check if variable FilePath exists:

```
$r = MBS( "PHP.ExistsVariable"; "FilePath" )
```

Check if the PHP variable with the name in the FileMaker variable FilePath exists:

```
$r = MBS( "PHP.ExistsVariable"; $FilePath )
```

Created 18th August 2014, last changed 18th August 2014.

## 126.3 PHP.GetResultContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	6.4	Yes	Yes	Yes	Yes	No

MBS( "PHP.GetResultContainer"; FileName )

### Parameters

#### FileName

The file name for the container.

"test.jpg"

**Result** Returns container or error.

### Description

Used to retrieve the results back into to FileMaker after script is run with PHP.Run or PHP.Execute. Please provide a file name to auto detect the content type.

### See also

- 62.112 CURL.GetResultAsContainer 1944
- 126.1 PHP.Execute 6355
- 126.9 PHP.Run 6365

### 126.3.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr2](#)

Created 25th July 2016, last changed 25th July 2016.

## 126.4 PHP.GetResultString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.GetResultString" )

**Result** Returns the result text.

### Description

Used to retrieve the results back into to FileMaker after script is run with PHP.Run or PHP.Execute.

### Examples

Run test code and get result:

```
$r = MBS( "PHP.Run"; "echo 'ok';" )
$t = MBS( "PHP.GetResultString" )
```

### See also

- [126.1 PHP.Execute](#) 6355
- [126.5 PHP.GetVariable](#) 6360
- [126.9 PHP.Run](#) 6365
- [126.10 PHP.SetVariable](#) 6366

### Example Databases

- [PHP/Simple\\_php](#)

Created 18th August 2014, last changed 18th August 2014.

## 126.5 PHP.GetVariable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.GetVariable"; VariableName )

### Parameters

#### VariableName

the name of the variable to return

\$name

### Description

### Examples

Set and query variable:

```
Set Variable [ $result ; Value: MBS( "PHP.SetVariable"; "c"; 5 ) ]
```

```
Set Variable [ $result ; Value: MBS("PHP.Run"; "$c = $c + 1; echo $c;") ]
```

```
Show Custom Dialog [ "c: " & MBS( "PHP.GetVariable";... ; "Result: " & MBS("PHP.GetResultString") ]
```

### See also

- 123.8 OCR.GetVariable 6226
- 123.18 OCR.SetVariable 6239
- 126.4 PHP.GetResultString 6359
- 126.9 PHP.Run 6365
- 126.10 PHP.SetVariable 6366

Created 18th August 2014, last changed 1st April 2019.

## 126.6 PHP.Init

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.Init" )

**Result** Returns Ok on success.

### Description

This must be called at least once before you execute any PHP code. You must call this after PHP.Load.

May work on server. Be sure to use right bit number to match server, not client!

Windows error 193 means that 64-bit FileMaker tried to load 32-bit library or 32-bit FileMaker tried to load 64-bit library. The bit level must match between app and library. For Mac OS X the error message will tell you about wrong architecture.

You can set PHP runtime configuration path via shell variable on Windows, e.g. like this:

```
MBS( "EnvironmentVariables.SetValue"; "PHPRC"; "C:\Users\Christian\Desktop\php-5.6.12-Win32-VC11-x64\\" )
```

### Examples

Init PHP on Windows:

```
Set Variable [ $r; Value:MBS( "EnvironmentVariables.SetValue"; "PHPRC"; "C:\Users\Christian\Desktop\php-5.6.12-Win32-VC11-x64\\" ) ]
Set Variable [ $result; Value:MBS("PHP.Load"; "C:\Users\Christian\Desktop\php-5.6.12-Win32-VC11-x64\php5ts.dll") ]
If [ $result <>"OK" ]
Show Custom Dialog [ "php DLL was not found!"; "Please enter the path the php DLL in the field provided and try again." ]
Exit Script [ ]
End If
Set Variable [ $result; Value:MBS("PHP.Init") ]
If [ $result = "OK" ]
Show Custom Dialog [ "Success!"; "php is ready to go." ]
Else
Show Custom Dialog [ "Error!"; "php couldn't be started" ]
End If
```

### See also

- 75.5 EnvironmentVariables.SetValue 3544
- 126.8 PHP.Load 6364

- 126.11 PHP.ShutDown

### Example Databases

- [PHP/Simple\\_php](#)

Created 18th August 2014, last changed 31st July 2016.

## 126.7 PHP.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	7.3	Yes	Yes	Yes	Yes	No

MBS( "PHP.IsInitialized" )

**Result** Returns 0, 1 or error.

### Description

Returns 1 if initialized.

### See also

- 123.10 OCR.IsInitialized 6229
- 134.3 Proj.IsInitialized 6660
- 166.22 TAPI.IsInitialized 7877
- 172.39 Twain.IsInitialized 8156
- 193.118 XL.IsInitialized 9148

### 126.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 15th May 2017, last changed 15th May 2017.

## 126.8 PHP.Load

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.Load"; Path )

### Parameters

#### Path

The path to the dll (Windows) or dynamic library (Mac OS X)

\$path

**Result** Returns OK on success.

### Description

Pass the path to the php5ts.dll file on windows or the libphp5.dylib file on Mac OS X.

If you get a crash here on MacOS, please check if crash report says Code Signature Invalid. Then you may need to code sign the dylib yourself to match the code signature of your runtime application.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Load PHP:

```
MBS( "PHP.Load"; "/Library/FileMaker Server/PHP/libphp5.dylib" )
```

### See also

- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [126.6 PHP.Init](#) 6361

### Example Databases

- [PHP/Simple\\_php](#)

Created 18th August 2014, last changed 14th November 2019.



## 126.9 PHP.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.Run"; PHPCode )

### Parameters

#### PHPCode

The source code of the script you are executing

\$code

**Result** Returns OK on success.

### Description

The result can be obtained with "PHP.GetResultString"

### Examples

Run test code:

MBS( "PHP.Run"; "echo 'ok';" )

### See also

- [126.1 PHP.Execute](#) 6355
- [126.3 PHP.GetResultContainer](#) 6358
- [126.4 PHP.GetResultString](#) 6359
- [126.5 PHP.GetVariable](#) 6360
- [126.10 PHP.SetVariable](#) 6366

### Example Databases

- [PHP/Simple\\_php](#)

### 126.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 126.10 PHP.SetVariable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.SetVariable"; VariableName; TextValue )

### Parameters

#### VariableName

the name of the variable

#### Text Value

the value of the variable

**Result** Returns OK on success.

### Description

This is one way to get data into php from FileMaker.

### Examples

Set varibale and output it:

```
Set Variable [ $result ; Value: MBS( "PHP.SetVariable"; "c"; 5 ) ]
Set Variable [ $result ; Value: MBS("PHP.Run"; "echo $c;") ]
Set Field [ Simple_php::result ; MBS("PHP.GetResultString") ]
```

### See also

- 123.8 OCR.GetVariable 6226
- 123.18 OCR.SetVariable 6239
- 126.4 PHP.GetResultString 6359
- 126.5 PHP.GetVariable 6360
- 126.9 PHP.Run 6365
- 194.34 XML.SetVariables 9460

Created 18th August 2014, last changed 1st April 2019.

## 126.11 PHP.ShutDown

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
126 PHP	2.9	Yes	Yes	Yes	Yes	No

MBS( "PHP.ShutDown" )

### Description

You can't execute any PHP script once this function has been called. If you want to start php again use PHP.Init.

### See also

- [126.6 PHP.Init](#)

6361

### Example Databases

- [PHP/Simple\\_php](#)

Created 18th August 2014, last changed 18th August 2014.



# Chapter 127

## Plugin

Central plugin management functions.

### 127.1 ClearRegistration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "ClearRegistration" )

**Result** Returns OK on success.

#### Description

Added Windows support in plugin version 4.4.

#### Examples

Clears registration:

```
$r = MBS( "ClearRegistration" )
```

#### See also

- [127.51 StoreRegistration](#)

6432

#### 127.1.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr9](#)

Created 18th August 2014, last changed 21st October 2017.

## 127.2 CompileDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "CompileDate" )

**Result** The date as text.

### Description

Useful for determining if when the currently installed plug-in was released.  
See Plugin.CompileDate to get a FileMaker date instead of a text.

Format of this text is "mmm DD YYYY" with month as three letter text in English.

### Examples

Get the Compile Date

```
$r = MBS("CompileDate")
```

### See also

- [127.3 CompileTime](#) 6371
- [127.21 Plugin.CompileDate](#) 6394

### 127.2.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)
- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 18th August 2014, last changed 24th December 2019.

## 127.3 CompileTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "CompileTime" )

### Description

### Examples

Get the time of day that the plug-in was compiled

```
$r = MBS("CompileTime")
```

### See also

- 127.2 CompileDate

6370

Created 18th August 2014, last changed 21st October 2017.

## 127.4 Is64bit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Is64bit" )

**Result** Returns 1 or 0.

### Description

Returns 1 for 64bit (e.g. FileMaker Server 13) or 0 for 32 bit (FileMaker Pro 13)

Returns 1 on FileMaker Cloud as this uses a 64-bit Linux.

See SystemInfo.Is64bitWindows to check if you are 32-bit Windows app on a 64-bit Windows OS.

### See also

- 164.11 SystemInfo.Is64bitWindows

7790

### 127.4.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 21st October 2017.



## 127.5 IsClient

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "IsClient" )

**Result** Returns 1 on client or 0 elsewhere.

### Description

Returns 0 if running on a server.

See also IsRegistered, IsRuntime and IsServer.

### Examples

Run on client:

```
If [ MBS( "IsClient" ) ]
# runs on client
Else
# runs on server or where no plugin is installed
End If
```

### See also

- [71.277 DynaPDF.Initialize](#) 2992
- [127.13 IsRegistered](#) 6382
- [127.49 Register](#) 6428

### 127.5.1 Blog Entries

- [Properly register MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 21st October 2017.

## 127.6 IsError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "IsError" )

**Result** Returns 1 or 0.

### Description

Returns 1 if last function returned an error.

Or returns 0 if no error happened.

This makes it easier to detect if the result text is an error message vs. a real result.

### Examples

Cause an error and handle it:

```
Set Variable [ $r; Value:MBS( "ZipFile.Open"; "" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ Title: "Error"; Message: $r; Buttons: "OK", "Abbrechen" ]
Exit Script [ ]
End If
```

### See also

- 49.27 X509.ReadFromContainer 1408
- 49.28 X509.ReadFromFile 1409
- 49.32 X509.SubjectName 1413
- 193.4 XL.Book.AddPictureContainer 8995
- 193.253 XL.Sheet.RemoveRow 9337
- 193.279 XL.Sheet.SetPictureWithSize 9376
- 194.8 XML.ExtractText 9420
- 194.13 XML.Import 9428
- 194.22 XML.Import.Work 9440
- 194.35 XML.SubTree 9462

### 127.6.1 Blog Entries

- [Query FileMaker records as JSON](#)
- [Merge PDF with table of contents](#)

- [Core Location Geocoder with JSON](#)
- [Create Barcodes on Server from FileMaker Go](#)
- [Our JavaScript engine for FileMaker](#)
- [Read HEIC or HEIF image files in FileMaker](#)
- [Run fmsadmin from script](#)
- [Read patient name from Swiss Health Card](#)
- [Login in FileMaker web viewer if needed](#)
- [Correct Image Orientation in FileMaker](#)

### **127.6.2 FileMaker Magazin**

- [Ausgabe 2/2020, Seite 38](#)
- [Ausgabe 6/2019, Seite 37](#)
- [Ausgabe 6/2019, Seite 36](#)
- [Ausgabe 6/2018, Seite 31](#)
- [Ausgabe 6/2018, Seite 30](#)
- [Ausgabe 5/2018, Seite 29](#)
- [Ausgabe 5/2018, Seite 26](#)
- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 6/2016, Seite 38](#)
- [Ausgabe 6/2016, Seite 24](#)

Created 18th August 2014, last changed 21st October 2017.

## 127.7 IsIOS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "IsIOS" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if running on iOS and 0 if not.  
For FileMaker 14 and older this is definitive always 0.

If someday we get a plugin SDK for iOS, we can already have the function to return this.

### See also

- [62.182 CURL.SetOptionCAINFO](#)

2063

### 127.7.1 Blog Entries

- [Use root certificates included with FileMaker](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 21st October 2017.

## 127.8 IsIOSDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "IsIOSDevice" )

**Result** Returns 1 or 0.

### Description

Returns 0 in simulator or on macOS, Windows and Linux.

### Examples

Distinguish between device and simulator:

```
If [ MBS( "IsIOSDevice" ) = 1 ]
# iOS specific things for device
Else If [ MBS("IsIOSSimulator") = 1 ]
# iOS specific things for simulator
Else
# other cases
End If
```

### See also

- [127.9 IsIOSSimulator](#)

6378

### 127.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 9th December 2017, last changed 11st December 2017.

## 127.9 IsIOSSimulator

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "IsIOSSimulator" )

**Result** Returns 1 or 0.

### Description

Returns 0 on iOS Device or on macOS, Windows and Linux.

### Examples

Distinguish between device and simulator:

```
If [ MBS( "IsIOSDevice" ) = 1 ]
# iOS specific things for device
Else If [ MBS("IsIOSSimulator") = 1 ]
# iOS specific things for simulator
Else
# other cases
End If
```

### See also

- 127.8 IsIOSDevice

6377

### 127.9.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 9th December 2017, last changed 11st December 2017.

## 127.10 IsLinux

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "IsLinux" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if running on Linux and 0 if not.  
For FileMaker 14 and older this is definitive always 0.

Returns 1 on FileMaker Cloud as this uses a 64-bit Linux.

### See also

- 62.182 [CURL.SetOptionCAINFO](#)

2063

### 127.10.1 Blog Entries

- [Use root certificates included with FileMaker](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 21st October 2017.

## 127.11 IsMacOS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "IsMacOS" )

(old name: IsMacOSX)

**Result** Returns 1, 0 or error.

### Description

Returns 1 if running on Mac OS X and 0 if not.

See also IsWindows, IsLinux and IsIOS.

### 127.11.1 Blog Entries

- [Formatting and error checking expressions in FileMaker](#)

Created 2nd March 2016, last changed 5th November 2018.



## 127.12 IsMobile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "IsMobile" )

**Result** Returns 0 or 1.

### Description

Value is 1 if running in iOS SDK app.

### See also

- 127.13 IsRegistered 6382
- 127.49 Register 6428

Created 18th March 2017, last changed 21st October 2017.

## 127.13 IsRegistered

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "IsRegistered" { ; Component } )
```

### Parameters

#### Component

Optional

Which part you want to check.

"webview"

**Result** Returns 1 if the plugin is registered or 0 if not.

### Description

See also Register, IsRuntime, IsServer and isClient.

### Examples

Check if plugin is registered:

```
$v = MBS("IsRegistered")
```

Register only when needed:

```
If [ MBS("IsRegistered") = 1 ]
If [ MBS("IsRuntime") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Runtime"; 123; 123) ]
Else If [ MBS("IsMobile") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "iOS"; 123; 123) ]
Else If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Server"; 123; 123) ]
Else
Set Variable [ $r; Value:MBS("Register"; "test"; "5 seats"; 123; 123) ]
End If
End If
```

Register with Startup script for server and client:

Startup Script:

```
# Register for client
Perform Script [ "InitMBS" ]
# Register for server. Will be ignored if no server or no plugin installed on server
Perform Script on Server [ "InitMBS" ]
```

InitMBS script:

```

# Enable debug logging. Shows messages in DebugView/Console.app
Set Variable [ $r; Value:MBS("Trace") ]
# Register if needed for right platform
If [ MBS("IsRegistered") = 0 ]
If [ MBS("IsRuntime") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Runtime"; 123; 123) ]
Else If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Server"; 123; 123) ]
Else If [ MBS("IsClient") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "5 Seats"; 123; 123) ]
Else
Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If
# May initialize other stuff
# like dynapdf with library in extensions folder
If [ MBS("DynaPDF.IsInitialized") = 0 ]
Set Variable [ $DynaPDFLicense; Value:"1003637-16022016-3-8-12-685C57F..." ]
If [ MBS("IsWindows") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dll"; $DynaPDFLicense) ]
Else If [ MBS("IsMacOSX") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dylib"; $DynaPDFLicense) ]
Else
Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If

```

Script to report back status of MBS Plugin:

```

# Script to trigger somewhere to report back details about MBS Plugin
Set Variable [ $version ; Value: GetAsText(MBS("Version")) ]
Set Variable [ $platform ; Value: MBS( "Platform" ) ]
Set Variable [ $buildNumber ; Value: MBS( "Plugin.BuildNumber" ) ]
Set Variable [ $path ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $IsRegistered ; Value: MBS( "IsRegistered" ) ]
Set Variable [ $Name ; Value: MBS( "Plugin.LicenseeName" ) ]
Set Variable [ $Debug ; Value: MBS( "Plugin.isDebug" ) ]
If [ $version = "?" ]
Set Variable [ $text ; Value: "MBS Plugin not installed. " & Get ( ApplicationVersion ) ]

```

```

Else
Set Variable [ $l1 ; Value: "MBS Plugin " & $version & ", build " & $buildNumber & " installed in " & Get
( ApplicationVersion ) ]
Set Variable [ $l2 ; Value: "$Platform: " & $Platform & "$Path: " & $path ]
Set Variable [ $l3 ; Value: If($IsRegistered; "$Licensed for: " & $Name ; "$No license set.") ]
Set Variable [ $l4 ; Value: "$Debug: " & If($debug; "yes"; "no") ]
Set Variable [ $text ; Value: $l1 & $l2 & $l3 ]
End If
Exit Script [ Text Result: $text ]

```

**See also**

- [71.286 DynaPDF.IsInitialized](#) 3017
- [127.5 IsClient](#) 6373
- [127.12 IsMobile](#) 6381
- [127.15 IsServer](#) 6386
- [127.17 Platform](#) 6389
- [127.18 Plugin.BuildNumber](#) 6391
- [127.48 Plugin.isDebug](#) 6426
- [127.49 Register](#) 6428
- [127.52 Trace](#) 6434
- [127.62 Version](#) 6446

**127.13.1 Blog Entries**

- [MBS FileMaker Plugin registration dialogs](#)
- [Print WebViewer on macOS in FileMaker](#)
- [Properly register MBS FileMaker Plugin](#)
- [4000 functions in 10 years](#)
- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 3.0pr9](#)

Created 18th August 2014, last changed 26th June 2018.

## 127.14 IsRuntime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "IsRuntime" )

**Result** Returns 1 on runtime or 0 elsewhere.

### Description

Returns 0 if running on FileMaker Pro or Server.

See also IsRegistered, IsServer and isClient functions.

### Examples

Run something only in runtime:

```
If [ MBS( "IsRuntime" ) ]
# runs on runtime
Else
# runs on non runtime or where no plugin is installed
End If
```

### See also

- 71.277 DynaPDF.Initialize 2992
- 127.13 IsRegistered 6382
- 127.49 Register 6428
- 175.3 URLScheme.SetDefaultHandler 8272

### 127.14.1 Blog Entries

- [Properly register MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 23th January 2020.

## 127.15 IsServer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "IsServer" )

**Result** Returns 1 on server or 0 elsewhere.

### Description

So if you see 0 returned, your script or calculation is not performed on a server, but on a client. Should return 1 always for scheduled server scripts or web direct scripts.

See also IsRegistered, IsClient and IsRuntime.

### Examples

Run a script on server:

```

If [ MBS("IsServer") ]
# We run on server already
Else
# Call this script on server
Perform Script on Server [ Wait for completion; "Your Script"; Parameter: Get(ScriptParameter) ]
If [ Get(LastError) = 0 ]
# Can't run on server, e.g. too many connections.
End If
End If

```

Perform Script on Server:

```

# are we on Server?
If [ MBS("IsServer") = 0 ]
# perform same script on server and pass parameter
Perform Script on Server [ Wait for completion; "Do Something on Server"; Parameter: Get ( ScriptParameter ) ]
# check error and result
Set Variable [ $LastError; Value:Get ( LastError ) ]
# Maybe handle here error code if server is too busy and decide what to do, e.g. run script locally?
If [ $LastError = 0 ]
# run locally by fall through
# alternative: Exit script here and return error to caller
Else
Set Variable [ $ScriptResult; Value:Get ( ScriptResult ) ]
# Return result back to caller
Exit Script [ Result: $ScriptResult ]
End If
End If
# This now performs on Server or on Client if Server is too busy

```

### 127.15. *ISSERVER*

6387

```
Go to Layout [ "Test" ]  
New Record/Request  
Set Field [ perform::First; 1 ]  
Set Field [ perform::Last; 2 ]  
Commit Records/Requests [ No dialog ]  
# end of script
```

#### See also

- [71.277 DynaPDF.Initialize](#) 2992
- [127.13 IsRegistered](#) 6382
- [127.40 Plugin.SetFunctions](#) 6417
- [127.49 Register](#) 6428

#### 127.15.1 **Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Properly register MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 5.1pr5](#)
- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 21st October 2017.

## 127.16 IsWindows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "IsWindows" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if running on Windows and 0 if not.

See also IsMacOSX, IsLinux and IsIOS.

### See also

- 62.182 [CURL.SetOptionCAINFO](#) 2063
- 71.277 [DynaPDF.Initialize](#) 2992
- 127.13 [IsRegistered](#) 6382
- 127.49 [Register](#) 6428

### 127.16.1 Blog Entries

- [Use root certificates included with FileMaker](#)
- [Properly register MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 21st October 2017.



## 127.17 Platform

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Platform" )

(old name: Plattform)

**Result** Returns platform name.

### Description

Value can be FileMaker Pro Advanced, FileMaker Pro, Runtime, Server, Web Direct, Mobile, XDBC, Server-Scripting or InstantWebPublishing.

Older versions may return "Developer" or "Pro" for FileMaker Pro.

For FileMaker 17 or newer, MBS Plugin detects the status of whether Advanced Tools are enabled. Returns Developer if enabled and Pro if not enabled.

### Examples

Query the current platform:

```
$r = MBS( "Platform" )
```

Script to report back status of MBS Plugin:

```
# Script to trigger somewhere to report back details about MBS Plugin
Set Variable [ $version ; Value: GetAsText(MBS("Version")) ]
Set Variable [ $platform ; Value: MBS( "Platform" ) ]
Set Variable [ $buildNumber ; Value: MBS( "Plugin.BuildNumber" ) ]
Set Variable [ $path ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $IsRegistered ; Value: MBS( "IsRegistered" ) ]
Set Variable [ $Name ; Value: MBS( "Plugin.LicenseeName" ) ]
Set Variable [ $Debug ; Value: MBS( "Plugin.isDebug" ) ]
If [ $version = "?" ]
Set Variable [ $text ; Value: "MBS Plugin not installed. " & Get ( ApplicationVersion ) ]
Else
Set Variable [ $l1 ; Value: "MBS Plugin " & $version & ", build " & $buildNumber & " installed in " & Get ( ApplicationVersion ) ]
Set Variable [ $l2 ; Value: "$Platform: " & $Platform & "$Path: " & $path ]
Set Variable [ $l3 ; Value: If($IsRegistered; "$Licensed for: " & $Name ; "$No license set.") ]
Set Variable [ $l4 ; Value: "$Debug: " & If($debug; "yes"; "no") ]
Set Variable [ $text ; Value: $l1 & $l2 & $l3 ]
End If
Exit Script [ Text Result: $text ]
```

Check for WebDirect:

```
$r = (MBS("Platform") = "Web")
```

**See also**

- 71.277 DynaPDF.Initialize 2992
- 127.13 IsRegistered 6382
- 127.18 Plugin.BuildNumber 6391
- 127.48 Plugin.isDebug 6426
- 127.30 Plugin.LicenseName 6403
- 127.35 Plugin.Path 6410
- 127.49 Register 6428
- 127.62 Version 6446

### 127.17.1 Blog Entries

- [My FileMaker 17 Release Notes](#)

Created 18th August 2014, last changed 31st January 2019.

**127.18 Plugin.BuildNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.BuildNumber" )

(old name: BuildNumber)

**Result** Returns build number or error.

**Description**

Sometimes you may have two plugins with same version number, but one is newer as it has a higher build number.

Version 5.0 returns 1139.

**Examples**

Show build number:

Show Custom Dialog [ MBS( "BuildNumber" ) ]

**See also**

- 127.13 IsRegistered 6382
- 127.17 Platform 6389
- 127.48 Plugin.isDebug 6426
- 127.30 Plugin.LicenseeName 6403
- 127.35 Plugin.Path 6410

Created 27th November 2014, last changed 21st October 2017.

## 127.19 Plugin.CallCounter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.CallCounter" )

**Result** Returns number.

### Description

The MBS Plugin counts how often it is called and this function returns the current value. Calling this function increments the value.

### 127.19.1 Blog Entries

- [Heavy thread testing on FileMaker Server](#)
- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr7](#)

Created 20th July 2019, last changed 20th July 2019.

## 127.20 Plugin.CallErrorScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.5	Yes	Yes	No	No	Yes

MBS( "Plugin.CallErrorScriptTrigger" )

**Result** Returns OK or error.

### Description

To test your script trigger for error, you can call this method to test.

### See also

- [127.39 Plugin.SetErrorScriptTrigger](#)

6415

### Example Databases

- [Utility functions/Trigger Script on Plugin Error](#)

### 127.20.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 24th October 2018, last changed 24th October 2018.

## 127.21 Plugin.CompileDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.CompileDate" )

**Result** Returns date or error.

### Description

Allows you to compare current time to compile date to check how old the plugin is.

### Examples

Check age of plugin:

```
get(CurrentDate) - MBS( "Plugin.CompileDate" )
```

Check and ask user to install newer version than the prerelease they have:

```
If [ MBS("Plugin.IsPrerelease") ]
```

```
If [ Get(CurrentDate) - MBS( "Plugin.CompileDate" ) >= 14 ]
```

```
Show Custom Dialog [ "Update" ; "Please install newer version of MBS Plugin." & §& MBS("Version") ]
```

```
End If
```

```
End If
```

### See also

- [127.2 CompileDate](#) 6370
- [127.27 Plugin.IsPrerelease](#) 6400
- [127.62 Version](#) 6446

### 127.21.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 24th December 2019, last changed 24th December 2019.

## 127.22 Plugin.DisableFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.DisableFunction"; name )

(old name: DisableFunction)

### Parameters

#### name

A function name like RemoteControl.ClickMouse.  
"RemoteControl.ClickMouse"

**Result** Returns OK on success.

### Description

This can be useful with security when you want to be sure your script does not use certain methods. The plugin removes the function from the global function list so it can't be called until you restart FileMaker.

### Examples

Disable a function:

```
$r = MBS( "Plugin.DisableFunction"; "RemoteControl.ClickMouse" )
```

### See also

- 140.1 RemoteControl.ClickMouse

6807

Created 18th August 2014, last changed 21st October 2017.

## 127.23 Plugin.FunctionCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.FunctionCount" )

**Result** Returns number or error.

### Description

As some functions are not available, this number is usually lower than our total number.  
e.g. Windows only functions are not included on Mac count.

### 127.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 20th March 2017, last changed 21st October 2017.



## 127.24 Plugin.Functions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.Functions" )

(old name: Functions)

**Result** Returns function names.

### Description

### Examples

Query the functions in the plugins:

```
$r = MBS("Plugin.Functions")
```

### See also

- 127.40 Plugin.SetFunctions 6417
- 127.46 Plugin.UsedFunctions 6424

Created 18th August 2014, last changed 21st October 2017.

## 127.25 Plugin.GetSuccessReturn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.GetSuccessReturn" )

**Result** Returns OK or error.

**Description**

**See also**

- 127.42 Plugin.SetSuccessReturn

6420

### 127.25.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 7th April 2015, last changed 21st October 2017.

## 127.26 Plugin.InstallSignalHandlers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	No	Yes	Yes	Yes

MBS( "Plugin.InstallSignalHandlers" )

**Result** Returns OK or error.

### Description

When something happens like a segmentation fault (a crash in C code), the plugin can print the backtrace (list of functions called) to help to debug the problem.

Usually you call this function only if we ask you to help on debugging a crash on Linux or MacOS.

### Example Databases

- [CURL/SFTP/CURL sFTP Upload File](#)

### 127.26.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr5](#)

Created 29th June 2019, last changed 29th June 2019.

## 127.27 Plugin.IsPrerelease

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.IsPrerelease" )

**Result** Returns 1 or 0.

### Description

We set to 1 for prerelease versions and 0 for final version.

### Examples

Check and ask user to install newer version than the prerelease they have:

```

If [ MBS("Plugin.IsPrerelease") ]
If [ Get(CurrentDate) - MBS( "Plugin.CompileDate" ) >= 14 ]
Show Custom Dialog [ "Update" ; "Please install newer version of MBS Plugin." & §& MBS("Version") ]
End If
End If

```

### See also

- 127.21 Plugin.CompileDate 6394
- 127.62 Version 6446

### 127.27.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)

Created 24th December 2019, last changed 24th December 2019.

## 127.28 Plugin.JasperVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.JasperVersion" )

**Result** Returns text or error.

### Description

We use Jasper library for JPEG 2000 support.

e.g. "1.900.29"

### 127.28.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 28th December 2018.

## 127.29 Plugin.LibSSHVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.LibSSHVersion" )

**Result** Returns text or error.

### Description

### Examples

Query version:

MBS( "Plugin.LibSSHVersion" )

Shows LibSSH version used:

Show Custom Dialog [ "SSH Version"; MBS( "Plugin.LibSSHVersion" ) ]

### See also

- [127.33 Plugin.OpenSSLVersion](#) 6408
- [127.44 Plugin.TiffVersion](#) 6422
- [127.47 Plugin.ZLibVersion](#) 6425

### 127.29.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr3](#)

Created 22nd March 2016, last changed 14th April 2018.

**127.30 Plugin.LicenseeName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.LicenseeName" )

**Result** Returns name or error.

**Description**

Returns the name used in Register function.

**Examples**

Script to report back status of MBS Plugin:

```
# Script to trigger somewhere to report back details about MBS Plugin
Set Variable [ $version ; Value: GetAsText(MBS("Version")) ]
Set Variable [ $platform ; Value: MBS( "Platform" ) ]
Set Variable [ $buildNumber ; Value: MBS( "Plugin.BuildNumber" ) ]
Set Variable [ $path ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $IsRegistered ; Value: MBS( "IsRegistered" ) ]
Set Variable [ $Name ; Value: MBS( "Plugin.LicenseeName" ) ]
Set Variable [ $Debug ; Value: MBS( "Plugin.isDebug" ) ]
If [ $version = "?" ]
Set Variable [ $text ; Value: "MBS Plugin not installed. " & Get ( ApplicationVersion ) ]
Else
Set Variable [ $l1 ; Value: "MBS Plugin " & $version & ", build " & $buildNumber & " installed in " & Get
( ApplicationVersion ) ]
Set Variable [ $l2 ; Value: "$Platform: " & $Platform & "$Path: " & $path ]
Set Variable [ $l3 ; Value: If($IsRegistered; "$Licensed for: " & $Name ; "$No license set.") ]
Set Variable [ $l4 ; Value: "$Debug: " & If($debug; "yes"; "no") ]
Set Variable [ $text ; Value: $l1 & $l2 & $l3 ]
End If
Exit Script [ Text Result: $text ]
```

**See also**

- 127.13 IsRegistered 6382
- 127.17 Platform 6389
- 127.18 Plugin.BuildNumber 6391
- 127.48 Plugin.isDebug 6426
- 127.35 Plugin.Path 6410
- 127.62 Version 6446

### 127.30.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 19th June 2018, last changed 26th June 2018.



## 127.31 Plugin.LimitFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.LimitFunction"; name { ; privilegeSets; AccountNames; ScriptNames } )

### Parameters

#### name

A function name like RemoteControl.ClickMouse.

"RemoteControl.ClickMouse"

#### privilegeSets

Optional

List of privilege set names.

#### AccountNames

Optional

List of account names.

"admin"

#### ScriptNames

Optional

List of script names. Each entry contains the name fo the file followed with ":" and the script name.

"MyFile.fmp12:TestScript"

**Result** Returns OK or error.

### Description

Once limited, the function can only be called if current privilege set, account name and script name match those in the list. Lists can be empty if not needed.

For FileMaker hosting of several clients with one server, we highly recommend to limit the available plugin functions via Plugin.SetFunctions function. You also should limit some functions like Files.Delete or System.Shutdown to be only called by certain user accounts and/or script.

### Examples

Limit a function to be called only from a certain script:

```
MBS("Plugin.LimitFunction"; "Version"; ""; ""; "test.fmp12:test")
```

Limit a function to be called only from a certain account name:

```
MBS("Plugin.LimitFunction"; "Text.WriteTextFile"; "Backup"; ""; "")
```

### See also

- 79.14 Files.Delete

- 127.32 Plugin.LockFunction 6407
- 127.40 Plugin.SetFunctions 6417
- 140.1 RemoteControl.ClickMouse 6807
- 163.3 System.Shutdown 7777
- 167.68 Text.WriteTextFile 7999
- 127.62 Version 6446

### 127.31.1 Blog Entries

- [FileMaker Server Security and plugins](#)
- [Shared FileMaker Server Hosting and Plugin Security](#)

Created 20th October 2015, last changed 21st October 2017.

## 127.32 Plugin.LockFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.LockFunction"; name; password )

### Parameters

#### name

A function name like RemoteControl.ClickMouse.  
"RemoteControl.ClickMouse"

#### password

The password to use.  
"secure"

**Result** Returns OK or error.

### Description

The function can no longer be called until unlocked.

### Examples

Locks version function:

```
MBS("Plugin.LockFunction"; "Version"; "test")
```

### See also

- [127.31 Plugin.LimitFunction](#) 6405
- [127.40 Plugin.SetFunctions](#) 6417
- [127.45 Plugin.UnlockFunction](#) 6423
- [127.46 Plugin.UsedFunctions](#) 6424
- [140.1 RemoteControl.ClickMouse](#) 6807
- [127.62 Version](#) 6446

### 127.32.1 Blog Entries

- [Shared FileMaker Server Hosting and Plugin Security](#)

Created 20th October 2015, last changed 21st October 2017.

## 127.33 Plugin.OpenSSLVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.OpenSSLVersion" )

(old name: CURL.OpenSSLVersion)

**Result** Returns text or error.

### Description

Here you can check which OpenSSL version was used to built the plugin.

### Examples

Shows open SSL version used:

```
Show Custom Dialog [ "SSL Version"; MBS( "Plugin.OpenSSLVersion" ) ]
```

### See also

- [127.29 Plugin.LibSSHVersion](#)

6402

### 127.33.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr3](#)

Created 24th March 2016, last changed 14th April 2018.

**127.34 Plugin.PNGVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.PNGVersion" )

**Result** Returns text or error.

**Description**

This function is to allow you an automatic check of the PNG library version. For 7.2 it is 1.6.14 and for 7.3 1.6.30.

**See also**

- 127.44 Plugin.TiffVersion 6422
- 127.47 Plugin.ZLibVersion 6425

**127.34.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr6](#)

Created 12nd July 2017, last changed 21st October 2017.

## 127.35 Plugin.Path

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.Path" )

**Result** Returns path or error.

### Description

On FileMaker Cloud this returns a path like `"/opt/FileMaker/FileMaker Server/Database Server/Extensions/MBS.fmx"`.

On MacOS this points usually to the application folder, e.g. `"/Applications/FileMaker Pro 16 Advanced/Extensions/MBS.fmplugin"`

### Examples

Write DynaPDF library to same folder as plugin:

```
Goto Layout [ "MBS Update" (MBS Update) ; Animation: None ]
Go to Record/Query/Page [ First ]
Set Variable [ $folder ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $folder ; Value: MBS( "Path.RemoveLastPathComponent"; $folder ) ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "dynapdf.dylib" ) ]
Set Variable [ $Plat ; Value: MBS("Files.MoveToTrash"; $path) ]
Set Variable [ $Plat ; Value: MBS("Files.WriteFile"; MBS Update::dynaPdfMac; $path) ]
```

Script to report back status of MBS Plugin:

```
# Script to trigger somewhere to report back details about MBS Plugin
Set Variable [ $version ; Value: GetAsText(MBS("Version")) ]
Set Variable [ $platform ; Value: MBS( "Platform" ) ]
Set Variable [ $buildNumber ; Value: MBS( "Plugin.BuildNumber" ) ]
Set Variable [ $path ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $IsRegistered ; Value: MBS( "IsRegistered" ) ]
Set Variable [ $Name ; Value: MBS( "Plugin.LicenseName" ) ]
Set Variable [ $Debug ; Value: MBS( "Plugin.isDebug" ) ]
If [ $version = "?" ]
Set Variable [ $text ; Value: "MBS Plugin not installed. " & Get ( ApplicationVersion ) ]
Else
Set Variable [ $l1 ; Value: "MBS Plugin " & $version & ", build " & $buildNumber & " installed in " & Get ( ApplicationVersion ) ]
Set Variable [ $l2 ; Value: "$Platform: " & $Platform & "$Path: " & $path ]
Set Variable [ $l3 ; Value: If($IsRegistered; "$Licensed for: " & $Name ; "$No license set.") ]
Set Variable [ $l4 ; Value: "$Debug: " & If($debug; "yes"; "no") ]
Set Variable [ $text ; Value: $l1 & $l2 & $l3 ]
End If
Exit Script [ Text Result: $text ]
```

127.35. *PLUGIN.PATH* 6411

Query plugin folder:

```
MBS( "Path.RemoveLastPathComponent"; MBS( "Plugin.Path" ) )
```

#### See also

- 71.277 *DynaPDF.Initialize* 2992
- 79.62 *Files.WriteFile* 3925
- 127.13 *IsRegistered* 6382
- 124.1 *Path.AddPathComponent* 6243
- 124.8 *Path.RemoveLastPathComponent* 6257
- 127.17 *Platform* 6389
- 127.18 *Plugin.BuildNumber* 6391
- 127.48 *Plugin.isDebug* 6426
- 127.30 *Plugin.LicenseeName* 6403
- 127.62 *Version* 6446

#### 127.35.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)
- [FileMaker Server 13 with Web Direct](#)
- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 4th April 2020.

## 127.36 Plugin.ScriptStepParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.ScriptStepParameter"; Index )

### Parameters

#### Index

The zero based index of the parameter to query. Range from 0 to Plugin.ScriptStepParameterCount-1.  
0

**Result** Returns value.

### Description

If index is out of range, we return empty result.

### See also

- 127.37 Plugin.ScriptStepParameterCount

6413

Created 23th April 2017, last changed 21st October 2017.



## 127.37 Plugin.ScriptStepParameterCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.ScriptStepParameterCount" )

**Result** Returns number or error.

### Description

### See also

- 127.36 Plugin.ScriptStepParameter

6412

Created 23th April 2017, last changed 21st October 2017.

## 127.38 Plugin.Seats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.6	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.Seats" )

(old name: Seats)

**Result** The number of seats licensed.

### Description

### Examples

Display seat count:

```
$r = MBS("Plugin.Seats")
```

### See also

- 127.35 Plugin.Path

6410

Created 18th August 2014, last changed 21st October 2017.

## 127.39 Plugin.SetErrorScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.5	Yes	Yes	No	No	Yes

MBS( "Plugin.SetErrorScriptTrigger"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

You can call Plugin.CallErrorScriptTrigger to test this.

The script is called with JSON block as parameter and this JSON includes entries for Function, Parameters, Result, UserName, FileName, ScriptName, AccountName, HostName, RecordID, CurrentTimeStamp, LayoutTableName, LayoutName, WindowName and TraceID.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- [127.20 Plugin.CallErrorScriptTrigger](#) 6393

### Example Databases

- [Utility functions/Trigger Script on Plugin Error](#)

### 127.39.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)

### 127.39.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 33](#)



## 127.40 Plugin.SetFunctions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.SetFunctions"; FunctionList )

(old name: SetFunctions)

### Parameters

#### FunctionList

The new function list.

"Version\$Functions"

**Result** Returns OK or error.

### Description

By default plugin allows use of 3000 and more functions.

You can use this command to limit what functions are available to your solution. This avoids some calling a function you don't want to have, e.g. not allow Files.Delete call.

For FileMaker hosting of several clients with one server, we highly recommend to limit the available plugin functions via Plugin.SetFunctions function. You also should limit some functions like Files.Delete or System.Shutdown to be only called by certain user accounts and/or script. See Plugin.LimitFunction for this.

### Examples

Allow only two functions:

```
MBS( "Plugin.SetFunctions"; "Version$Functions" )
```

A typical MBS Init script for server usage:

```
If [ MBS("IsRegistered") 1 ]
If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Server"; 123; 123) ]
# limit to the commands you need
Set Variable [ $r; MBS( "Plugin.SetFunctions"; "IsRegistered$CURL.New$CURL.Perform..." ) ]
# enable trace for errors
Set Variable [ $r; MBS( "Trace.ErrorsOnly"; 1 ) ]
Set Variable [ $r; MBS( "Trace"; "/Library/FileMaker Server/Logs/MBS.txt" ) ]
Else
# register on client
Set Variable [ $r; Value:MBS("Register"; "test"; "5 seats"; 123; 123) ]
End If
End If
```

**See also**

• 62.140 CURL.New	1985
• 62.143 CURL.Perform	1992
• 79.14 Files.Delete	3846
• 127.13 IsRegistered	6382
• 127.24 Plugin.Functions	6397
• 127.32 Plugin.LockFunction	6407
• 127.46 Plugin.UsedFunctions	6424
• 127.49 Register	6428
• 163.3 System.Shutdown	7777
• 127.52 Trace	6434

### 127.40.1 Blog Entries

- [FileMaker Server Security and plugins](#)
- [Shared FileMaker Server Hosting and Plugin Security](#)

Created 16th May 2015, last changed 21st October 2017.

## 127.41 Plugin.SetPreviewSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.SetPreviewSize"; Size )

### Parameters

#### Size

The size for width and height to use for generating previews. Default is 600.  
600

**Result** Returns OK or error.

### Description

When plugin returns PDF or Image, we add JPEG preview.  
e.g. in DynaPDF, PDFKit and Graphicsmagick functions.

### Examples

Set size for previews:

MBS( "Plugin.SetPreviewSize"; 1234 )

### Example Databases

- [DynaPDF/PDF Library](#)
- [DynaPDF/Report](#)

### 127.41.1 Blog Entries

- [FileMaker and PDF Containers](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 9th March 2015, last changed 21st October 2017.

## 127.42 Plugin.SetSuccessReturn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.SetSuccessReturn" )

**Result** Returns OK or error.

### Description

Default is "OK", but this can be changed here to some other text or number.  
Some users prefer 1 or "success" as result.

### See also

- 127.25 Plugin.GetSuccessReturn

6398

### 127.42.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 7th April 2015, last changed 21st October 2017.



## 127.43 Plugin.StartTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.StartTimeStamp" )

**Result** Returns timestamp.

**Description**

### 127.43.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr3](#)

Created 11st October 2019, last changed 11st October 2019.

## 127.44 Plugin.TiffVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.TiffVersion" )

**Result** Returns text or error.

### Description

e.g.

LIBTIFF, Version 4.0.9

Copyright (c) 1988-1996 Sam Leffler

Copyright (c) 1991-1996 Silicon Graphics, Inc.

**See also**

- 127.29 Plugin.LibSSHVersion 6402
- 127.34 Plugin.PNGVersion 6409
- 127.47 Plugin.ZLibVersion 6425

### 127.44.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr6](#)

Created 28th December 2018, last changed 28th December 2018.

**127.45 Plugin.UnlockFunction**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.UnlockFunction"; name; password )

**Parameters****name**

A function name like RemoteControl.ClickMouse.  
"RemoteControl.ClickMouse"

**password**

The password to use.  
"secure"

**Result** Returns OK or error.

**Description**

After unlocking you can use this function.

**Examples**

Unlocks version function:

```
MBS("Plugin.UnlockFunction"; "Version"; "test")
```

**See also**

- 127.32 Plugin.LockFunction 6407
- 140.1 RemoteControl.ClickMouse 6807
- 127.62 Version 6446

Created 20th October 2015, last changed 21st October 2017.

## 127.46 Plugin.UsedFunctions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.UsedFunctions" )

**Result** Returns list or error.

### Description

Can be useful to check what's needed and use with Plugin.SetFunctions.

### See also

- 127.24 Plugin.Functions 6397
- 127.32 Plugin.LockFunction 6407
- 127.40 Plugin.SetFunctions 6417

### 127.46.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr4](#)

Created 24th June 2018, last changed 25th June 2018.

## 127.47 Plugin.ZLibVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.ZLibVersion" )

**Result** Returns version or error.

### Description

Currently reports 1.2.8.

### See also

- 127.29 Plugin.LibSSHVersion 6402
- 127.34 Plugin.PNGVersion 6409
- 127.44 Plugin.TiffVersion 6422

Created 2nd March 2018, last changed 19th June 2018.

## 127.48 Plugin.isDebug

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "Plugin.isDebug" )

**Result** Returns 1, 0 or error.

### Description

The debug version is available on request and given to users to find the roots of a bug.

### Examples

Query debug status

```
MBS("Plugin.IsDebug")
```

Example result: 0

Script to report back status of MBS Plugin:

```
# Script to trigger somewhere to report back details about MBS Plugin
Set Variable [ $version ; Value: GetAsText(MBS("Version")) ]
Set Variable [ $platform ; Value: MBS( "Platform" ) ]
Set Variable [ $buildNumber ; Value: MBS( "Plugin.BuildNumber" ) ]
Set Variable [ $path ; Value: MBS( "Plugin.Path" ) ]
Set Variable [ $IsRegistered ; Value: MBS( "IsRegistered" ) ]
Set Variable [ $Name ; Value: MBS( "Plugin.LicenseeName" ) ]
Set Variable [ $Debug ; Value: MBS( "Plugin.isDebug" ) ]
If [ $version = "?" ]
Set Variable [ $text ; Value: "MBS Plugin not installed. " & Get ( ApplicationVersion ) ]
Else
Set Variable [ $11 ; Value: "MBS Plugin " & $version & ", build " & $buildNumber & " installed in " & Get
( ApplicationVersion ) ]
Set Variable [ $12 ; Value: "$Platform: " & $Platform & "$Path: " & $path ]
Set Variable [ $13 ; Value: If($IsRegistered; "$Licensed for: " & $Name ; "$No license set.") ]
Set Variable [ $14 ; Value: "$Debug: " & If($debug; "yes"; "no") ]
Set Variable [ $text ; Value: $11 & $12 & $13 ]
End If
Exit Script [ Text Result: $text ]
```

### See also

- 127.13 IsRegistered 6382
- 127.17 Platform 6389
- 127.18 Plugin.BuildNumber 6391
- 127.30 Plugin.LicenseeName 6403

127.48. *PLUGIN.ISDEBUG*

6427

- 127.35 Plugin.Path

6410

- 127.62 Version

6446

Created 23th February 2017, last changed 26th June 2018.

## 127.49 Register

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "Register"; Licensee Name; component; License Type; Expire Month; Serial number )

### Parameters

#### Licensee Name

This is the name of the person or organization that holds the license for the plug-in  
Your Name

#### component

The component that was licensed. For example "Complete"

#### License Type

Seats purchased. For example, "1 seat", "10 seats", "Developer"  
1 Seat

#### Expire Month

This is the month in which the serial will expire for new versions of the plug-in in YYYYMM format. Plug-in released before the end of that month will continue to work forever. New Releases after that date will require a renewal  
200708

#### Serial number

The license number  
your serial number

**Result** Returns OK on success.

### Description

If you use Server and Client licenses, be sure to register the right license for the right type.  
e.g. in your script detect if you are on the server or not.  
Before you register, you may want to check if already is registered.

See also StoreRegistration, IsRegistration, IsRuntime, IsServer and IsClient functions.

Newer plugins since 8.4 call StoreRegistration for iOS and Server automatically, so plugin registers automatically on loading and avoid problems with process is relaunched.

### Examples

Register only when needed:

```
If [ MBS("IsRegistered") 1 ]
If [ MBS("IsRuntime") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Runtime"; 123; 123) ]
Else If [ MBS("IsMobile") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "iOS"; 123; 123) ]
```



```

Else If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Server"; 123; 123) ]
Else
Set Variable [ $r; Value:MBS("Register"; "test"; "5 seats"; 123; 123) ]
End If
End If

```

Register with license values in a text field:

```

Set Variable [ $result ; Valeu: Evaluation("MBS(\\"Register\\"; " & Register::License & ")") ]

```

Register with Startup script for server and client:

Startup Script:

```

# Register for client
Perform Script [ "InitMBS" ]
# Register for server. Will be ignored if no server or no plugin installed on server
Perform Script on Server [ "InitMBS" ]

```

InitMBS script:

```

# Enable debug logging. Shows messages in DebugView/Console.app
Set Variable [ $r; Value:MBS("Trace") ]
# Register if needed for right platform
If [ MBS("IsRegistered") = 0 ]
If [ MBS("IsRuntime") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Runtime"; 123; 123) ]
Else If [ MBS("IsServer") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "Server"; 123; 123) ]
Else If [ MBS("IsClient") ]
Set Variable [ $r; Value:MBS("Register"; "test"; "Complete"; "5 Seats"; 123; 123) ]
Else
Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If
# May initialize other stuff
# like dynapdf with library in extensions folder
If [ MBS("DynaPDF.IsInitialized") = 0 ]
Set Variable [ $DynaPDFLicense; Value:"1003637-16022016-3-8-12-685C57F..." ]
If [ MBS("IsWindows") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dll"; $DynaPDFLicense) ]

```

```

Else If [ MBS("IsMacOSX") ]
Set Variable [ $r; Value:MBS( "DynaPDF.Initialize"; "dynapdf.dylib"; $DynaPDFLicense) ]
Else
Set Variable [ $r; Value:"Unknown platform: " & MBS("Platform") ]
End If
# Show errors, so developer can fix them
If [ $r "OK" ]
Show Custom Dialog [ "InitMBS failed."; $r ]
End If
End If

```

**See also**

- 71.277 DynaPDF.Initialize 2992
- 71.286 DynaPDF.IsInitialized 3017
- 127.5 IsClient 6373
- 127.12 IsMobile 6381
- 127.13 IsRegistered 6382
- 127.14 IsRuntime 6385
- 127.15 IsServer 6386
- 127.17 Platform 6389
- 127.40 Plugin.SetFunctions 6417
- 127.52 Trace 6434

**127.49.1 Blog Entries**

- [MBS FileMaker Plugin registration dialogs](#)

**127.49.2 FileMaker Magazin**

- Ausgabe 2/2017, Seite 37

Created 18th August 2014, last changed 3th June 2019.

## 127.50 Registration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "Registration" )

**Result** Returns "Registered." or "Not registered."

### Description

### Examples

Check Registration:

```
$r = MBS("Registration")
```

Created 18th August 2014, last changed 31st January 2016.

## 127.51 StoreRegistration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "StoreRegistration"; Licensee Name; component; License Type; Expire Month; Serial number )

### Parameters

#### Licensee Name

This is the name of the person or organization that holds the license for the plug-in

Your Name

#### component

The component that was licensed. For example "Complete"

#### License Type

Seats purchased. For example, "1 seat", "10 seats", "Developer"

1 Seat

#### Expire Month

This is the month in which the serial will expire for new versions of the plug-in in YYYYMM format. Plug-in released before the end of that month will continue to work forever. New Releases after that date will require a renewal

200708

#### Serial number

The license number

your serial number

**Result** Returns OK on success.

### Description

This is very useful for trainings where you want to preinstall license on FileMaker installations.

Added Windows support in plugin version 4.4.

You can clear the license with ClearRegistration function.

Added Linux support for 7.5.

Saves in preferences file on Mac and Linux, saves to registry on Windows.

### Examples

Stores registration:

```
$r = MBS( "StoreRegistration"; $name; "Complete"; "5 seat"; $date; $code)
```

### See also

- 127.1 ClearRegistration

### 127.51.1 **Blog Entries**

- [Preferences dialog for Windows](#)
- [MBS FileMaker Plugin, version 7.5pr3](#)
- [MBS FileMaker Plugin, version 7.3pr5](#)
- [MBS FileMaker Plugin, version 6.3pr3](#)
- [MBS FileMaker Plugin debugging help](#)
- [MBS Filemaker Plugin, version 4.4pr7](#)
- [Storing Registration for MBS Filemaker Plugin](#)
- [MBS Filemaker Plugin, version 3.0pr9](#)

Created 18th August 2014, last changed 15th October 2018.

## 127.52 Trace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Trace" { ; path; Append } )

### Parameters

#### path

Optional

The native file path to the log file.

"/Users/name/Desktop/debug.txt"

#### Append

Optional

Whether to append or create new file. Pass 1 to append or 0 (default) for new file.

1

**Result** Returns "OK" on success.

### Description

If you pass a path, debug messages are written to the file. Else the plugin writes to debug console. See Console.app on Mac or DebugView on Windows.

See also Trace.Off and Trace.ErrorsOnly.

On Linux, if no path is provided, the log output will go to stderr, which is usually redirected by our plugin to /FileMakerData/Logs/ or /opt/FileMaker/FileMaker Server/Logs/ folder. The log files are WebPluginsStdErr and WebPluginsStdOut for Web Direct and ServerScriptingPluginsStdErr and ServerScriptingPluginsStdOut for normal scripting.

On Windows with a FileMaker Server, you can see debug messages in DebugView if you run DebugView application as admin and enable global Win32 listening.

For FileMaker Server on Mac OS X you can see messages in /Library/FileMaker Server/Logs/stderr file.

On Windows the log file is UTF-16 with BOM and CRLF as line endings. On Mac, Linux and iOS, you get an UTF-8 file with BOM and LF line endings.

See Trace.GetErrorsOnly, Trace.GetWithTimes, Trace.SetErrorsOnly and Trace.SetWithTimes to set options.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Log plugin calls to console:

```
MBS( "Trace" )
```

Log plugin calls to desktop on Windows:

```
MBS( "Trace"; "C:\Documents\Christian\Desktop\plugin.txt")
```

Log plugin calls to temp folder on Mac:

```
MBS( "Trace"; "/tmp/MBS Plugin Log.txt")
```

Log to log file on desktop:

```
Set Variable [ $TracePath; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "trace.txt" ) ]
```

```
Set Variable [ $r; Value:MBS("Trace"; $TracePath) ]
```

### See also

- 62.268 [CURL.SetOptionPassword](#) 2186
- 71.277 [DynaPDF.Initialize](#) 2992
- 127.13 [IsRegistered](#) 6382
- 127.40 [Plugin.SetFunctions](#) 6417
- 127.49 [Register](#) 6428
- 157.68 [Socket.Write](#) 7385
- 127.56 [Trace.GetErrorsOnly](#) 6440
- 127.57 [Trace.GetWithTimes](#) 6441
- 127.58 [Trace.Off](#) 6442
- 127.60 [Trace.SetWithTimes](#) 6444

### 127.52.1 Blog Entries

- [Looping over records in FileMaker with error checking](#)
- [Debugging problems on FileMaker Cloud for AWS](#)
- [DbgView for watching trace messages live on FileMaker Server](#)
- [MBS FileMaker Plugin, version 8.1pr6](#)
- [Using MBS Plugin with FileMaker iOS SDK](#)

- [MBS FileMaker Plugin for iOS Update](#)
- [Properly register MBS FileMaker Plugin](#)
- [Tracing MBS Filemaker Plugin](#)

### **127.52.2 FileMaker Magazin**

- Ausgabe 2/2017, Seite 39

Created 18th August 2014, last changed 4th April 2020.



## 127.53 Trace.AreErrorNotificationsEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.0	Yes	No	No	No	No

MBS( "Trace.AreErrorNotificationsEnabled" )

**Result** Returns 0 or 1.

### Description

See also Trace.DisableErrorNotifications or Trace.EnableErrorNotifications.

### See also

- 127.54 Trace.DisableErrorNotifications 6438
- 127.55 Trace.EnableErrorNotifications 6439

### 127.53.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr4](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 11st December 2014, last changed 21st October 2017.

## 127.54 Trace.DisableErrorNotifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.0	Yes	No	No	No	No

MBS( "Trace.DisableErrorNotifications" )

**Result** Returns OK or error.

### Description

See also [Trace.AreErrorNotificationsEnabled](#) or [Trace.EnableErrorNotifications](#).

### See also

- [127.53 Trace.AreErrorNotificationsEnabled](#) 6437
- [127.55 Trace.EnableErrorNotifications](#) 6439

### Example Databases

- [Registration/Debugging and Registration](#)

#### 127.54.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 11st December 2014, last changed 21st October 2017.

## 127.55 Trace.EnableErrorNotifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	5.0	Yes	No	No	No	No

MBS( "Trace.EnableErrorNotifications" )

**Result** Returns OK or error.

### Description

The plugin presents errors returned by plugin calls as notifications, so you more easier notice them. Notifications are only presented at most one per 30 seconds. They are not shown if last error is same as new error or if you run plugin on server or runtime. The plugin will close error notifications after 5 seconds. See also Trace.DisableErrorNotifications or Trace.AreErrorNotificationsEnabled.

### See also

- [127.53 Trace.AreErrorNotificationsEnabled](#) 6437
- [127.54 Trace.DisableErrorNotifications](#) 6438

### Example Databases

- [Registration/Debugging and Registration](#)

### 127.55.1 Blog Entries

- [MBS FileMaker Plugin debugging help](#)
- [MBS FileMaker Plugin 5.0 for OS X/Windows - More than 3000 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 11st December 2014, last changed 21st October 2017.

## 127.56 Trace.GetErrorsOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.GetErrorsOnly" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- [127.52 Trace](#) 6434
- [127.59 Trace.SetErrorsOnly](#) 6443

### 127.56.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.

## 127.57 Trace.GetWithTimes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.GetWithTimes" )

**Result** Returns 1, 0 or error.

### Description

### See also

- [127.52 Trace](#) 6434
- [127.60 Trace.SetWithTimes](#) 6444

### 127.57.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.

## 127.58 Trace.Off

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.Off" )

**Result** Returns OK.

**Description**

**See also**

- [80.46 FM.Loop](#) 4027
- [127.52 Trace](#) 6434

**Example Databases**

- [List/QuickList Test](#)
- [List/Sort Benchmark](#)

### 127.58.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 21st October 2017.

## 127.59 Trace.SetErrorsOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.SetErrorsOnly"; Value )

(old name: Trace.ErrorsOnly)

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### See also

- [127.52 Trace](#) 6434
- [127.56 Trace.GetErrorsOnly](#) 6440

### 127.59.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.

## 127.60 Trace.SetWithTimes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.SetWithTimes"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

#### See also

- [127.52 Trace](#) 6434
- [127.57 Trace.GetWithTimes](#) 6441

### 127.60.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.



## 127.61 Trace.WriteLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "Trace.WriteLine" { ; Parameters } )

### Parameters

#### Parameters

Optional

The parameters to print to the trace line. Can be several parameters in various data types.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Add trace log entry:

```
MBS("Trace.WriteLine"; "Hello: "; 123)
```

### 127.61.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr3](#)

Created 14th February 2019, last changed 14th February 2019.

## 127.62 Version

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	1.0	Yes	Yes	Yes	Yes	Yes

MBS( "Version" )

### Description

### Examples

Get the Plugin Version

```
$r = MBS("Version")
```

Query Plugin version on Server from Client with two scripts:

# First a script called "Query MBS Version on Server" which you can run:

```
Perform Script on Server [ Wait for completion; "Query MBS Version Helper" ]
Set Variable [ $e; Value:Get(LastError) ]
Set Variable [ $r; Value:Get(ScriptResult) ]
If [ $e = 0 ]
Show Custom Dialog [ "MBS Version on Server"; "Failed to run script on server: " & $e ]
Else
Show Custom Dialog [ "MBS Version on Server"; $r ]
End If
```

# Second, the helper script called "Query MBS Version Helper" which will run on the server:

```
Set Variable [ $r; Value:MBS("Version") & " " & MBS("Platform") ]
Exit Script [ Result: $r ]
```

Check and ask user to install newer version than the prerelease they have:

```
If [ MBS("Plugin.IsPrerelease") ]
If [ Get(CurrentDate) - MBS( "Plugin.CompileDate" ) >= 14 ]
Show Custom Dialog [ "Update" ; "Please install newer version of MBS Plugin." & $r & MBS("Version") ]
End If
End If
```

### See also

- 97.13 iOSDevice.SystemVersion 5217
- 127.21 Plugin.CompileDate 6394
- 127.48 Plugin.isDebug 6426

127.62. <i>VERSION</i>	6447
• 127.31 Plugin.LimitFunction	6405
• 127.35 Plugin.Path	6410
• 127.45 Plugin.UnlockFunction	6423
• 153.12 SmartCard.Init	7216
• 153.23 SmartCard.Transmit	7233
• 49.33 X509.Version	1414
• 193.41 XL.Book.Version	9039

### **127.62.1 Blog Entries**

- [Create Barcodes on Server from FileMaker Go](#)
- [Run scripts via Data API with FileMaker Plugins](#)
- [FileMaker iOS SDK and MBS Plugin Video](#)
- [Print WebViewer on macOS in FileMaker](#)
- [FileMaker Server 13 with Web Direct](#)

### **127.62.2 FileMaker Magazin**

- Ausgabe 1/2017, Seite 8
- Ausgabe 1/2017, Seite 7

Created 18th August 2014, last changed 24th December 2019.

## 127.63 VersionAutoUpdate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
127 Plugin	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "VersionAutoUpdate" )

**Result** the version as an 8 digit number.

### Description

### Examples

Queries version for auto update:

```
MBS("VersionAutoUpdate")
```

Convert from display format to auto update format:

```
Let ( [
v = Substitute ( MBS Update::VersionDisplayText ; "" ; §);
v1 = GetAsNumber ( GetValue ( v ; 1 ) );
v2 = GetAsNumber ( GetValue ( v ; 2 ) );
v3 = GetAsNumber ( GetValue ( v ; 3 ) );
v4 = GetAsNumber ( GetValue ( v ; 4 ) )
] ; v4+v3*100+v2*10000+v1*1000000)
```

### 127.63.1 Blog Entries

- [MBS FileMaker Plugin Update Check Script](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr2](#)

### 127.63.2 FileMaker Magazin

- Ausgabe 1/2017, Seite 8
- Ausgabe 1/2017, Seite 7

Created 18th August 2014, last changed 21st October 2017.

# Chapter 128

## PortMidi

Access Midi devices and send/receive midi notes.

### 128.1 PortMidi.Abort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.Abort"; StreamRef )

#### Parameters

##### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns OK or error.

#### Description

The caller should immediately close the output port; this call may result in transmission of a partial midi message.

There is no abort for Midi input because the user can simply ignore messages in the buffer and close an input device at any time.

#### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

Created 18th August 2014, last changed 18th August 2014.

## 128.2 PortMidi.CheckHostError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.CheckHostError"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns any pending host error text or nothing.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

Created 18th August 2014, last changed 18th August 2014.

## 128.3 PortMidi.ClearDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	8.5	Yes	Yes	No	No	No

MBS( "PortMidi.ClearDataAvailableHandler"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns OK or error.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.24 PortMidi.SetDataAvailableHandler 6476
- 147.3 SerialPort.ClearDataAvailableHandler 7048
- 157.6 Socket.ClearDataAvailableHandler 7307

### 128.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr9](#)

Created 24th November 2018, last changed 24th November 2018.

## 128.4 PortMidi.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.Close"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns OK or error.

### Description

Don't use the StreamRef after this call as stream is gone.

### See also

- 128.1 PortMidi.Abort 6449
- 128.12 PortMidi.GetDeviceName 6461
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.17 PortMidi.ReadMessage 6467
- 128.19 PortMidi.SendMessage 6469
- 128.21 PortMidi.SendSysExHex 6472
- 128.22 PortMidi.SetChannelMask 6473
- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 128.25 PortMidi.SetFilter 6478

### Example Databases

- [Midi/Midi Receive](#)
- [Midi/Midi Send](#)

Created 18th August 2014, last changed 18th August 2014.



## 128.5 PortMidi.CurrentEvent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	7.1	Yes	Yes	No	No	No

MBS( "PortMidi.CurrentEvent" )

**Result** Returns list of values or error.

### Description

Returns several values: status, data1, data2 and timestamp.

You can use this to show current note playing.

### Examples

Queries current event:

MBS( "PortMidi.CurrentEvent" )

Example result: 128

56

95

0

### 128.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 10th February 2017, last changed 11st February 2017.

## 128.6 PortMidi.DeviceCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.DeviceCount" )

**Result** Returns number.

### Description

### Examples

Check before and after a scan:

```
$CountBefore = MBS( "PortMidi.DeviceCount" )
```

```
$r = MBS("PortMidi.Rescan")
```

```
$CountAfter = MBS( "PortMidi.DeviceCount" )
```

### See also

- 128.11 PortMidi.GetDeviceInfo 6459
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.18 PortMidi.Rescan 6468

### Example Databases

- [Midi/Midi List Devices](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.7 PortMidi.GetChannelMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.GetChannelMask"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns value or error.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.22 PortMidi.SetChannelMask 6473

Created 18th August 2014, last changed 18th August 2014.

## 128.8 PortMidi.GetDefaultInputDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.GetDefaultInputDeviceID" )

**Result** Returns Device ID.

### Description

Returns -1 if no device is found. You can pass the index to PortMidi.OpenInput function.

### See also

- [128.9 PortMidi.GetDefaultOutputDeviceID](#) 6457
- [128.14 PortMidi.OpenInput](#) 6463

### Example Databases

- [Midi/Midi Receive](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.9 PortMidi.GetDefaultOutputDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.GetDefaultOutputDeviceID" )

**Result** Returns Device ID.

### Description

Returns -1 if no device is found. You can pass the index to PortMidi.OpenOutput function.

### See also

- [128.8 PortMidi.GetDefaultInputDeviceID](#) 6456
- [128.15 PortMidi.OpenOutput](#) 6464

### Example Databases

- [Midi/Midi Send](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.10 PortMidi.GetDeviceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	7.0	Yes	Yes	No	No	No

MBS( "PortMidi.GetDeviceID"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns number or error.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.11 PortMidi.GetDeviceInfo 6459
- 128.12 PortMidi.GetDeviceName 6461
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

### 128.10.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 29th December 2016, last changed 2nd January 2017.

## 128.11 PortMidi.GetDeviceInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.GetDeviceInfo"; index; selector )

### Parameters

#### index

The device ID to query. From 0 to PortMidi.DeviceCount-1.

0

#### selector

Which detail to query. Can be Name, Interface, Input, Output or Opened.

"name"

**Result** Returns value or error.

### Description

Information to query are the name of the device, the name of the interface, whether it's an input or output device and the open status.

### Examples

Query if first device is open:

```
MBS( "PortMidi.GetDeviceInfo"; 0; "opened" )
```

Query name of third device

```
MBS( "PortMidi.GetDeviceInfo"; 2; "Name" )
```

### See also

- [128.6 PortMidi.DeviceCount](#) 6454
- [128.10 PortMidi.GetDeviceID](#) 6458
- [128.12 PortMidi.GetDeviceName](#) 6461

### Example Databases

- [Midi/Midi List Devices](#)
- [Midi/Midi Receive](#)
- [Midi/Midi Send](#)

### 128.11.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr5](#)

Created 18th August 2014, last changed 18th August 2014.



## 128.12 PortMidi.GetDeviceName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	7.0	Yes	Yes	No	No	No

MBS( "PortMidi.GetDeviceName"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns text or error.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.10 PortMidi.GetDeviceID 6458
- 128.11 PortMidi.GetDeviceInfo 6459
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

### 128.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 29th December 2016, last changed 29th December 2016.

## 128.13 PortMidi.GetFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.GetFilter"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns value or error.

### Description

#### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.25 PortMidi.SetFilter 6478

Created 18th August 2014, last changed 18th August 2014.

## 128.14 PortMidi.OpenInput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.OpenInput"; DeviceID { ; BufferSize; Latency } )

### Parameters

#### DeviceID

The device ID, a number from 0 to PortMidi.DeviceCount-1.

0

#### BufferSize

Optional

Optional, number of events to buffer. Default is 100 if you don't pass this parameter.

0

#### Latency

Optional

The desired latency. By default 0 is used which means no latency.

0

**Result** Returns StreamRef or error.

### Description

Midi reference numbers are starting at 17000 and counting up for each new midi stream.

### See also

- 128.2 PortMidi.CheckHostError 6450
- 128.6 PortMidi.DeviceCount 6454
- 128.12 PortMidi.GetDeviceName 6461
- 128.15 PortMidi.OpenOutput 6464
- 128.16 PortMidi.Poll 6466
- 128.19 PortMidi.SendMessage 6469
- 128.20 PortMidi.SendMessageRaw 6471
- 128.21 PortMidi.SendSysExHex 6472
- 128.22 PortMidi.SetChannelMask 6473
- 128.25 PortMidi.SetFilter 6478

### Example Databases

- [Midi/Midi Receive](#)

Created 18th August 2014, last changed 9th January 2015.

## 128.15 PortMidi.OpenOutput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.OpenOutput"; DeviceID { ; BufferSize; Latency } )

### Parameters

#### DeviceID

The device ID, a number from 0 to PortMidi.DeviceCount-1.

0

#### BufferSize

Optional

Optional, Specifies the number of output events to be buffered waiting for output. Default is 100 if you don't pass this parameter.

0

#### Latency

Optional

The latency you want. Default is zero. Latency is the delay in milliseconds applied to timestamps to determine when the output should actually occur. (If latency is <0, 0 is assumed.) If latency is zero, timestamps are ignored and all output is delivered immediately. If latency is greater than zero, output is delayed until the message timestamp plus the latency. In some cases, PortMidi can obtain better timing than your application by passing timestamps along to the device driver or hardware. Latency may also help you to synchronize midi data to audio data by matching midi latency to the audio buffer latency.

10

**Result** Returns StreamRef or error.

### Description

Midi reference numbers are starting at 17000 and counting up for each new midi stream.

### See also

- 128.4 PortMidi.Close 6452
- 128.6 PortMidi.DeviceCount 6454
- 128.7 PortMidi.GetChannelMask 6455
- 128.12 PortMidi.GetDeviceName 6461
- 128.14 PortMidi.OpenInput 6463
- 128.17 PortMidi.ReadMessage 6467
- 128.20 PortMidi.SendMessageRaw 6471
- 128.22 PortMidi.SetChannelMask 6473
- 128.24 PortMidi.SetDataAvailableHandler 6476

128.15. *PORTMIDI.OPENOUTPUT*

6465

- 128.25 PortMidi.SetFilter

6478

### **Example Databases**

- [Midi/Midi Send](#)

### **128.15.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr4](#)

Created 18th August 2014, last changed 25th January 2017.

## 128.16 PortMidi.Poll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.Poll"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns 1, 0 or error.

### Description

Returns 1 if data is available and zero if not.

### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

### Example Databases

- [Midi/Midi Receive](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.17 PortMidi.ReadMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.ReadMessage"; StreamRef )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

**Result** Returns message, empty or error.

### Description

Format of result is a list containing: Status, Data1, Data2, Timestamp and raw message first as decimal number and than also as hex number. Hex notation makes reading easier for debugging.

### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.19 PortMidi.SendMessage 6469
- 128.20 PortMidi.SendMessageRaw 6471
- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 128.24 PortMidi.SetDataAvailableHandler 6476

### Example Databases

- [Midi/Midi Receive](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.18 PortMidi.Rescan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.Rescan" )

**Result** Returns OK or error.

### Description

Than on next call midi devices are searched.

### Examples

Check before and after a scan:

```
$CountBefore = MBS( "PortMidi.DeviceCount" )
```

```
$r = MBS("PortMidi.Rescan")
```

```
$CountAfter = MBS( "PortMidi.DeviceCount" )
```

### See also

- 128.6 PortMidi.DeviceCount

6454

### Example Databases

- [Midi/Midi Receive](#)

Created 18th August 2014, last changed 18th August 2014.



## 128.19 PortMidi.SendMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.SendMessage"; StreamRef; Status; Data1; Data2 { ; Timestamp } )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Status

The Midi status code.

144

#### Data1

The first data byte.

4\*12+0

#### Data2

The second data bytes.

127

#### Timestamp

Optional

The timestamp. If zero or not provided, note is sent immediately.

0

**Result** Returns OK or error.

### Description

The Status is the command code. 144 is note on and 128 is note off. For those note commands Data1 is the number of the note. 48 (4\*12) is C2 and then you can count over all notes till you get to next octave with C3 (5\*12).

### Examples

Press down a C note:

```
MBS( "PortMidi.SendMessage"; $StreamRef; 144; 4*12+0; 127 )
```

Release a C note:

```
MBS( "PortMidi.SendMessage"; $StreamRef; 128; 4*12+0; 127 )
```

### See also

- 128.4 PortMidi.Close

6470

*CHAPTER 128. PORTMIDI*

- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.17 PortMidi.ReadMessage 6467
- 128.20 PortMidi.SendMessageRaw 6471
- 157.51 Socket.SendMessage 7364

### **Example Databases**

- [Midi/Midi Send](#)

Created 18th August 2014, last changed 18th August 2014.

## 128.20 PortMidi.SendMessageRaw

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.SendMessageRaw"; StreamRef; Message { ; timestamp } )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Message

The message encoded as a 32bit integer number.

\$msg

#### timestamp

Optional

The timestamp.

**Result** Returns OK or error.

### Description

This allows you to encode your own message data like this: status + data1 \* 256 + data2 \* 65536 + data3 \* 16777216.

You can send this way also 4 byte messages by including a third data item.

### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.17 PortMidi.ReadMessage 6467
- 128.19 PortMidi.SendMessage 6469

Created 18th August 2014, last changed 18th August 2014.

## 128.21 PortMidi.SendSysExHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.SendSysExHex"; StreamRef; Message { ; TimeStamp } )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Message

The message to send.

#### TimeStamp

Optional

The timestamp.

0

**Result** Returns OK or error.

### Description

The input text must be hex encoded and is decoded before sending.

### Examples

Send SysEx:

MBS( "PortMidi.SendSysExHex"; \$out; "F000200D681020002BF7" )

### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

Created 18th August 2014, last changed 11st December 2017.

## 128.22 PortMidi.SetChannelMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.SetChannelMask"; StreamRef; Mask )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Mask

The new mask.

1

**Result** Returns OK or error.

### Description

The mask is a 16-bit bitfield corresponding to appropriate channels.

Pass sum of the channel mask values you need:

Channel	Mask Value
0	1
1	2
2	4
3	8
4	16
5	32
6	64
7	128
8	256
9	512
10	1024
11	2048
12	4096
13	8192
14	16384
15	32767

**See also**

- 128.4 PortMidi.Close 6452
- 128.7 PortMidi.GetChannelMask 6455
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

Created 18th August 2014, last changed 18th August 2014.

## 128.23 PortMidi.SetDataAvailableEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	8.5	Yes	Yes	No	No	No

MBS( "PortMidi.SetDataAvailableEvaluate"; StreamRef; Expression )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

When new data arrives, this expression is evaluated, so you can call PortMidi.ReadMessage function.

Be aware that expression may be evaluated when just a few notes are in the read buffer. So the data message you wait for may only be available partly.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the port midi reference, so you can pass it to other functions if needed.

### See also

- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.17 PortMidi.ReadMessage 6467
- 128.24 PortMidi.SetDataAvailableHandler 6476
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 157.54 Socket.SetDataAvailableEvaluate 7368

### 128.23.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr9](#)

Created 24th November 2018, last changed 24th November 2018.

## 128.24 PortMidi.SetDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	8.5	Yes	Yes	No	No	No

MBS( "PortMidi.SetDataAvailableHandler"; StreamRef; FileName; ScriptName )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DataAvailable"

**Result** Returns OK or error.

### Description

When new data arrives, this script is called, so you can call PortMidi.ReadMessage function. Be aware that script may be called when just a few notes are in the read buffer.

### Examples

Set script to be triggered if data is available:

```
Set Variable [ $r; Value:MBS("PortMidi.SetDataAvailableHandler"; $$port; Get(FileName); "ReadMessage") ]
```

### See also

- 128.3 PortMidi.ClearDataAvailableHandler 6451
- 128.4 PortMidi.Close 6452
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464
- 128.17 PortMidi.ReadMessage 6467
- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 157.55 Socket.SetDataAvailableHandler 7369



### 128.24.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr9](#)

Created 24th November 2018, last changed 26th November 2018.

## 128.25 PortMidi.SetFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	4.2	Yes	Yes	No	No	No

MBS( "PortMidi.SetFilter"; StreamRef; Filter )

### Parameters

#### StreamRef

The reference to the midi stream. You create those with PortMidi.OpenInput or PortMidi.OpenOutput and finally close them with PortMidi.Close.

\$stream

#### Filter

The new filter value.

0

**Result** Returns OK or error.

### Description

By default, only active sensing messages are filtered.

Filtering is useful when midi routing or midi thru functionality is being provided by the user application. For example, you may want to exclude timing messages (clock, MTC, start/stop/continue), while allowing note-related messages to pass. Or you may be using a sequencer or drum-machine for MIDI clock information but want to exclude any notes it may play.

Filter values (can be ORed):

Filter active sensing messages (0xFE)	PM_FILTER_ACTIVE	16384
Filter system exclusive messages (0xF0)	PM_FILTER_SYSEX	1
Filter clock messages (CLOCK 0xF8, START 0xFA, STOP 0xFC, and CONTINUE 0xFB)	PM_FILTER_CLOCK	7424
Filter play messages (start 0xFA, stop 0xFC, continue 0xFB)	PM_FILTER_PLAY	1024
Filter tick messages (0xF9)	PM_FILTER_TICK	512
Filter undefined FD messages	PM_FILTER_FD	8192
Filter undefined real-time messages	PM_FILTER_UNDEFINED	8192
Filter reset messages (0xFF)	PM_FILTER_RESET	32768
Filter all real-time messages	PM_FILTER_REALTIME	65281
Filter note-on and note-off (0x90-0x9F and 0x80-0x8F)	PM_FILTER_NOTE	50331648
Filter channel aftertouch (most midi controllers use this) (0xD0-0xDF)	PM_FILTER_CHANNEL_AFTERTOUCH	536870912
Per-note aftertouch (0xA0-0xAF)	PM_FILTER_POLY_AFTERTOUCH	67108864
Filter both channel and poly aftertouch	PM_FILTER_AFTERTOUCH	603979776
Program changes (0xC0-0xCF)	PM_FILTER_PROGRAM	268435456
Control Changes (CC's) (0xB0-0xBF)	PM_FILTER_CONTROL	134217728
Pitch Bender (0xE0-0xEF)	PM_FILTER_PITCHBEND	1073741824
MIDI Time Code (0xF1)	PM_FILTER_MTC	2
Song Position (0xF2)	PM_FILTER_SONG_POSITION	4
Song Select (0xF3)	PM_FILTER_SONG_SELECT	8
Tuning request (0xF6)	PM_FILTER_TUNE	64
All System Common messages (mtc, song position, song select, tune request)	PM_FILTER_SYSTEMCOMMON	78

### Examples

To prohibit, say, active sensing and sysex messages, call:

MBS( "PortMidi.SetFilter"; \$StreamRef; 16384 + 1 )

128.25. *PORTMIDI.SETFILTER*

6479

**See also**

- 128.4 PortMidi.Close 6452
- 128.13 PortMidi.GetFilter 6462
- 128.14 PortMidi.OpenInput 6463
- 128.15 PortMidi.OpenOutput 6464

Created 18th August 2014, last changed 18th August 2014.

## 128.26 PortMidi.TimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
128 PortMidi	7.0	Yes	Yes	No	No	No

MBS( "PortMidi.TimeStamp" )

**Result** Returns number or error.

### Description

On Mac this is the time since booting in milliseconds.

### See also

- 157.51 Socket.SendMessage

7364

### 128.26.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr4](#)

Created 15th January 2017, last changed 15th January 2017.

# Chapter 129

## Preferences

Get or set preferences.

See also Registry functions for Windows.

### 129.1 Preferences.ClearRecentFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	6.5	Yes	No	No	No	No

MBS( "Preferences.ClearRecentFiles" )

**Result** Returns OK or error.

#### Description

After calling this, you should restart FileMaker to see effect.

#### 129.1.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 23th November 2016, last changed 17th June 2018.

## 129.2 Preferences.DeleteValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	6.0	Yes	Yes	Yes	No	Yes

MBS( "Preferences.DeleteValue"; Domain; Key )

### Parameters

#### Domain

The domain name for your preferences. Leave empty for default one.  
"de.mbsplugins.MyApp"

#### Key

The key for the value lookup.  
"Username"

**Result** Returns OK or error.

### Description

### Examples

Delete username value

MBS( "Preferences.DeleteValue"; "de.mbsplugins.MyApp"; "Username" )

### See also

- [129.4 Preferences.GetValue](#) 6484
- [129.8 Preferences.SetValue](#) 6490

### Example Databases

- [Preferences/Preferences](#)

### 129.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 4th January 2016, last changed 4th July 2019.

## 129.3 Preferences.GetTextSelectionWithDragAndDrop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	2.8	Yes	No	Yes, macOS only	No	No

MBS( "Preferences.GetTextSelectionWithDragAndDrop" )

**Result** Returns current value 0 or 1 or an error.

### Description

This function queries the preference setting from FileMaker (or Runtime) about allowing text selection by drag and drop.

Due to the way the preferences work, we can read the value which the setting has, but we can only set the value for the next launch of the application.

**See also**

- [129.7 Preferences.SetTextSelectionWithDragAndDrop](#) 6489

### Example Databases

- [Preferences/TextSelectionWithDragAndDrop Preference](#)

### 129.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS Filemaker Plugin, version 2.8pr5](#)

Created 18th August 2014, last changed 24th September 2019.

## 129.4 Preferences.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	2.7	Yes	Yes	Yes	No	Yes

MBS( "Preferences.GetValue"; Domain; Key )

### Parameters

#### Domain

The domain name for your preferences. Leave empty for default one.

"de.mbsplugins.MyApp"

#### Key

The key for the value lookup.

"Username"

**Result** Returns the text for the preference value.

### Description

Domain should be an unique name for your app, like with reverse domain name notation. An example: "de.monkeybreadsoftware.filemaker.runtimes.MyApp". If you use no domain, the default one is used.

If no value exists for the value, an empty text is returned.

Values are read from registry on Windows and preference files on Mac.

Key must not be an empty string.

### Examples

Gets preferences:

```
$username = MBS( "Preferences.GetValue"; "de.mbsplugins.MyApp"; "Username" )
```

Query file cache size:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:FileCacheSize")
# Mac only!
```

Query name of user:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:UserName")
# Mac only!
```

Query whether quick start window shows:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:ShowQuickStart")
# Mac only!
```

Query network name:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:NetworkName")
```



# Mac only!

Query memory cache size:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:CacheSize")
# Mac only!
```

Query user name for FileMaker preferences:

```
MBS( "Preferences.GetValue"; "com.filemaker.client.advanced12"; "Preferences:UserName" )
```

Query advanced tools flag for FileMaker Pro Advanced 17 (mac):

```
MBS( "Preferences.GetValue"; ""; "Preferences:UseAdvancedTools" )
```

Check flag for whether system or custom user name is used:

e.g. for FileMaker Pro 17 on MacOS:

```
MBS("Math.BitWiseAnd"; MBS( "Preferences.GetValue"; "com.filemaker.client.pro12"; "Preferences:AppGenOptions"); 8)
```

Value is 8 for custom name.

Value is 0 for system name.

Check whether flag "Notify me if updates are available" is on:

```
MBS("Math.BitWiseAnd"; MBS( "Preferences.GetValue"; "com.filemaker.client.pro12"; "Preferences:AppGenOptions"); 32768)
# returns 0 if checkmark is set
```

Check whether flag "Notify me when a new version is available" is on:

```
MBS("Math.BitWiseAnd"; MBS( "Preferences.GetValue"; "com.filemaker.client.pro12"; "Preferences:AppGenOptions"); 32)
# returns 0 if checkmark is set
```

#### See also

- 110.1 Math.BitwiseAND 5839
- 129.2 Preferences.DeleteValue 6482
- 129.5 Preferences.GetValueType 6487
- 129.6 Preferences.HasValue 6488
- 129.8 Preferences.SetValue 6490

**Example Databases**

- [Preferences/Preferences](#)

Created 18th August 2014, last changed 29th April 2020.

## 129.5 Preferences.GetValueType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	9.3	Yes	Yes	Yes	No	Yes

MBS( "Preferences.GetValueType"; Domain; Key )

### Parameters

#### Domain

The domain name for your preferences. Leave empty for default one.  
"de.mbsplugins.MyApp"

#### Key

The key for the value lookup.  
"Username"

**Result** Returns text or error.

### Description

Types may be Text, Data, Integer, Double, Boolean, Array or Dictionary.

### Examples

Query type of an entry on Mac:

```
MBS( "Preferences.GetValueType"; "com.filemaker.client.advanced12"; "Preferences:FileCacheSize")
```

### See also

- [129.4 Preferences.GetValue](#) 6484
- [129.8 Preferences.SetValue](#) 6490

### 129.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr5](#)

Created 4th July 2019, last changed 4th July 2019.

## 129.6 Preferences.HasValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	6.0	Yes	Yes	Yes	No	Yes

MBS( "Preferences.HasValue"; Domain; Key )

### Parameters

#### Domain

The domain name for your preferences. Leave empty for default one.  
"de.mbsplugins.MyApp"

#### Key

The key for the value lookup.  
"Username"

**Result** Returns 0, 1 or error.

### Description

### See also

- [129.4 Preferences.GetValue](#) 6484
- [129.8 Preferences.SetValue](#) 6490

### Example Databases

- [Preferences/Preferences](#)

### 129.6.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 4th January 2016, last changed 4th July 2019.

## 129.7 Preferences.SetTextSelectionWithDragAndDrop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	2.8	Yes	No	Yes, macOS only	No	No

MBS( "Preferences.SetTextSelectionWithDragAndDrop"; value )

### Parameters

#### value

The new value: 0 for off and 1 for on.

1

**Result** Returns OK or error.

### Description

Due to the way the preferences work, we can read the value which the setting has, but we can only set the value for the next launch of the application.

### See also

- [129.3 Preferences.GetTextSelectionWithDragAndDrop](#) 6483

### Example Databases

- [Preferences/TextSelectionWithDragAndDrop Preference](#)

### 129.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS Filemaker Plugin, version 2.8pr5](#)

Created 18th August 2014, last changed 17th June 2018.

## 129.8 Preferences.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
129 Preferences	2.7	Yes	Yes	Yes	No	Yes

MBS( "Preferences.SetValue"; Domain; Key { ; Value; Type } )

### Parameters

#### Domain

The domain name for your preferences. Leave empty for default one.

"de.mbsplugins.MyApp"

#### Key

The key for the value lookup.

"Username"

#### Value

Optional

The new value text.

"Christian"

#### Type

Optional

The data type to use. (Mac only) Can be integer, double, boolean or text.

"text"

**Result** Returns OK or error message.

### Description

Domain should be an unique name for your app, like with reverse domain name notation. An example: "de.monkeybreadsoftware.filemaker.runtimes.MyApp". If you use no domain, the default one is used.

Values are stored in registry on Windows and preference files on Mac.

Key must not be an empty string.

This is the location where you can store global settings like the last used username for login.

Changing preferences of FileMaker only works, if you restart FileMaker for changes take effect. Going to the preferences dialog (even with cancel on exit), can cause FileMaker to write it's settings over what you just changed.

To change windows preferences for Windows, you may better go with Registry functions.

### Examples

Sets preferences:

```
MBS( "Preferences.SetValue"; "de.mbsplugins.MyApp"; "Username"; $username )
```

Set flag to not allow plugins to update:

```
MBS( "Preferences.SetValue"; "com.filemaker.client.advanced12"; "Preferences:AllowToUpdatePlugins"; 0; "integer")
```

Set file cache to 1 GB:

```
MBS( "Preferences.SetValue"; "com.filemaker.client.advanced12"; "Preferences:FileCacheSize"; 1048576; "integer")
```

Set user name in FileMaker preferences:

```
MBS( "Preferences.SetValue"; "com.filemaker.client.advanced12"; "Preferences:UserName"; "Chris" )
```

Switch off update checks:

```
Let(
[
oldValue = MBS( "Preferences.GetValue"; "com.filemaker.client.pro12"; "Preferences:AppGenOptions");
newValue = MBS("Math.BitwiseOr"; oldValue; 32 + 32768);
R = MBS( "Preferences.SetValue"; "com.filemaker.client.pro12"; "Preferences:AppGenOptions"; newValue; "integer")
];r )
```

#### See also

- [110.3 Math.BitwiseOR](#) 5842
- [129.2 Preferences.DeleteValue](#) 6482
- [129.4 Preferences.GetValue](#) 6484
- [129.5 Preferences.GetValueType](#) 6487
- [129.6 Preferences.HasValue](#) 6488

#### Example Databases

- [Preferences/Preferences](#)

#### 129.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr2](#)

Created 18th August 2014, last changed 29th April 2020.





# Chapter 130

## PrintDialog

Control the Mac printer dialog. Select printer on Mac.

See `Printer.Print` and `Printer.SetPrinter` for similar features on Windows.

### 130.1 PageSetupDialog.ClearOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.ClearOption"; Key )

#### Parameters

##### Key

The key to use.

**Result** Returns OK or error.

#### Description

#### See also

- 130.2 PageSetupDialog.ClearOptions 6494
- 130.7 PageSetupDialog.GetOption 6500
- 130.14 PageSetupDialog.SetOption 6508

Created 20th April 2019, last changed 20th April 2019.

## 130.2 PageSetupDialog.ClearOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.ClearOptions" )

**Result** Returns OK or error.

**Description**

**See also**

- 130.1 PageSetupDialog.ClearOption 6493
- 130.7 PageSetupDialog.GetOption 6500
- 130.14 PageSetupDialog.SetOption 6508
- 130.20 PrintDialog.ClearOptions 6514

Created 20th April 2019, last changed 20th April 2019.

## 130.3 PageSetupDialog.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.Disable" )

**Result** Returns OK or error.

### Description

### Examples

Disable it:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.Disable") ]
```

### See also

- [130.4 PageSetupDialog.Enable](#) 6496
- [130.12 PageSetupDialog.Install](#) 6505

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

### 130.3.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 20th April 2019.

## 130.4 PageSetupDialog.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.Enable" )

**Result** Returns OK or error.

### Description

Your page setup commands in FileMaker should show a dialog, so the plugin can intercept it.

Use Printer.SetPrinter for similar features on Windows.

### Examples

Enable:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.Disable") ]
```

Run dialog with plugin:

```
Allow User Abort [ Off ]
```

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.Install") ]
```

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.Enable") ]
```

```
# set options here
```

```
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; ,1; "MBS( \"MenuBar.RunMenuCom-  
mand\"; 57606 )" ) // run Page Setup Dialog in 0.1 seconds ]
```

```
Pause/Resume Script [ Duration (seconds): 1 ]
```

### See also

- [115.5 Menubar.RunMenuCommand](#) 6099
- [130.3 PageSetupDialog.Disable](#) 6495
- [130.12 PageSetupDialog.Install](#) 6505
- [131.15 Printer.SetPrinter](#) 6584
- [143.4 Schedule.EvaluateAfterDelay](#) 6902

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

### 130.4.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 21st November 2019.

## 130.5 PageSetupDialog.GetLastSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetLastSettings" )

**Result** Returns text or error.

### Description

Please print once with enabled page setup dialog functions. After printing with dialog, you can query last settings and see what OS X or your driver uses.

Since version 10.1 we return settings as JSON instead of XML and includes print parameter.

### See also

- [130.30 PrintDialog.GetLastSettings](#) 6525

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)

### 130.5.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 20th April 2019, last changed 21st February 2020.

## 130.6 PageSetupDialog.GetNoDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetNoDialog" )

**Result** Returns value or error.

### Description

Use PageSetupDialog.SetNoDialog to set this setting.

### See also

- 130.7 PageSetupDialog.GetOption 6500
- 130.13 PageSetupDialog.SetNoDialog 6507
- 130.14 PageSetupDialog.SetOption 6508

Created 20th April 2019, last changed 20th April 2019.

## 130.7 PageSetupDialog.GetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetOption"; Key )

### Parameters

#### Key

The key to use.

**Result** Returns value or error.

### Description

You can use PrintDialog.SetOption to set options or PrintDialog.ClearOption to clear one.

### See also

- 130.1 PageSetupDialog.ClearOption 6493
- 130.2 PageSetupDialog.ClearOptions 6494
- 130.6 PageSetupDialog.GetNoDialog 6499
- 130.13 PageSetupDialog.SetNoDialog 6507
- 130.14 PageSetupDialog.SetOption 6508
- 130.19 PrintDialog.ClearOption 6513
- 130.49 PrintDialog.SetOption 6548

Created 20th April 2019, last changed 20th April 2019.



## 130.8 PageSetupDialog.GetPaperName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetPaperName" )

**Result** Returns paper name or error.

### Description

You can set this with PageSetupDialog.SetPaperName.

### See also

- 130.10 PageSetupDialog.GetPrinterName 6503
- 130.15 PageSetupDialog.SetPaperName 6509
- 130.17 PageSetupDialog.SetPrinterName 6511
- 130.34 PrintDialog.GetPaperName 6530

Created 20th April 2019, last changed 20th April 2019.

## 130.9 PageSetupDialog.GetPaperOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetPaperOrientation" )

**Result** Returns value or error.

### Description

Result should be landscape, portrait or default.

### See also

- 130.16 PageSetupDialog.SetPaperOrientation

6510

Created 20th April 2019, last changed 20th April 2019.

## 130.10 PageSetupDialog.GetPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetPrinterName" )

**Result** Returns OK or error.

### Description

You can set this with PageSetupDialog.SetPrinterName.

### See also

- 130.8 PageSetupDialog.GetPaperName 6501
- 130.15 PageSetupDialog.SetPaperName 6509
- 130.17 PageSetupDialog.SetPrinterName 6511
- 130.36 PrintDialog.GetPrinterName 6532

Created 20th April 2019, last changed 20th April 2019.

## 130.11 PageSetupDialog.GetScalingFactor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.GetScalingFactor" )

**Result** Returns value or error.

**Description**

**See also**

- 130.18 PageSetupDialog.SetScalingFactor

6512

Created 20th April 2019, last changed 20th April 2019.

## 130.12 PageSetupDialog.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.Install" )

**Result** Returns OK or error.

### Description

Only after PageSetupDialog.Install was called, you can use PageSetupDialog.Enable. You only call this function once.

This is Mac only. For Windows, please check Printer.SetPrinter and Printer.Print.

### Examples

Initialize paper setup dialog:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.Install") ]
```

Run dialog with plugin:

```
Allow User Abort [ Off ]
Set Variable [ $r ; Value: MBS("PageSetupDialog.Install") ]
Set Variable [ $r ; Value: MBS("PageSetupDialog.Enable") ]
# set options here
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; ,1; "MBS( \ "MenuBar.RunMenuCommand\"; 57606 )" ) // run Page Setup Dialog in 0.1 seconds ]
Pause/Resume Script [ Duration (seconds): 1 ]
```

### See also

- 115.5 Menubar.RunMenuCommand 6099
- 130.3 PageSetupDialog.Disable 6495
- 130.4 PageSetupDialog.Enable 6496
- 131.10 Printer.Print 6574
- 131.15 Printer.SetPrinter 6584
- 143.4 Schedule.EvaluateAfterDelay 6902

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

### 130.12.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 20th April 2019.

## 130.13 PageSetupDialog.SetNoDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetNoDialog"; Flag )

### Parameters

#### Flag

Whether to show page setup dialog.

1

**Result** Returns OK or error.

### Description

In FileMaker script step you need to use page setup with dialog. Than the plugin can control the dialog and either close it right away (with setting 1) or let it open (setting 0).

### Examples

Set to show dialog:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.SetNoDialog"; 0) ]
```

No dialog, please:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.SetNoDialog"; 1) ]
```

### See also

- [130.6 PageSetupDialog.GetNoDialog](#) 6499
- [130.7 PageSetupDialog.GetOption](#) 6500
- [130.14 PageSetupDialog.SetOption](#) 6508

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

### 130.13.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 20th April 2019.

## 130.14 PageSetupDialog.SetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetOption"; Key; Value; Type )

### Parameters

#### Key

The key to use.

#### Value

The value to use. Depending on data type, the plugin will pass a number or a text.

3

#### Type

The type of data to add. Default is empty to use type of value passed. So text or number type would be picked automatically. Valid values for type are text, number, integer and text. Integer is for integer numbers while number is for floating numbers.

**Result** Returns OK or error.

### Description

You can use PrintDialog.GetLastSettings after printing to query XML with all settings and pick keys and values.

### See also

- 130.1 PageSetupDialog.ClearOption 6493
- 130.2 PageSetupDialog.ClearOptions 6494
- 130.6 PageSetupDialog.GetNoDialog 6499
- 130.7 PageSetupDialog.GetOption 6500
- 130.13 PageSetupDialog.SetNoDialog 6507
- 130.30 PrintDialog.GetLastSettings 6525

Created 20th April 2019, last changed 20th April 2019.



## 130.15 PageSetupDialog.SetPaperName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetPaperName"; name )

### Parameters

#### name

The paper name.

"A4"

**Result** Returns OK or error.

### Description

You need to run paper setup dialog to let the plugin change values.

We found paper sizes for our printer in PPD files in /private/etc/cups/ppd folder. e.g. "Env10" for Envelope # 10.

### Examples

Set paper to be A5:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.SetPaperName"; "A5") ]
```

### See also

- [130.8 PageSetupDialog.GetPaperName](#) 6501
- [130.10 PageSetupDialog.GetPrinterName](#) 6503
- [130.17 PageSetupDialog.SetPrinterName](#) 6511
- [130.51 PrintDialog.SetPaperName](#) 6551

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

### 130.15.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 26th August 2019.

## 130.16 PageSetupDialog.SetPaperOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetPaperOrientation"; PaperFormat )

### Parameters

#### PaperFormat

The new paper orientation. Value should be landscape, portrait or default.  
"landscape"

**Result** Returns OK or error.

### Description

You need to run paper setup dialog to let the plugin change values.

### Examples

Set paper orientation to portrait:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.SetPaperOrientation"; "portrait") ]
```

Set paper orientation to landscape:

```
Set Variable [ $r ; Value: MBS("PageSetupDialog.SetPaperOrientation"; "landscape") ]
```

### See also

- [130.9 PageSetupDialog.GetPaperOrientation](#)

6502

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)

#### 130.16.1 Blog Entries

- [Page Setup Dialog example](#)

Created 20th April 2019, last changed 20th April 2019.

**130.17 PageSetupDialog.SetPrinterName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetPrinterName" )

**Result** Returns OK or error.

**Description**

The plugin will try to find a printer with the given name and assigns it for the printing. You need to run paper setup dialog to let the plugin change values.

**See also**

- 130.8 PageSetupDialog.GetPaperName 6501
- 130.10 PageSetupDialog.GetPrinterName 6503
- 130.15 PageSetupDialog.SetPaperName 6509
- 130.54 PrintDialog.SetPrinterName 6555

**Example Databases**

- [Mac only/Print/Page Setup Dialog on Mac](#)

Created 20th April 2019, last changed 20th April 2019.

## 130.18 PageSetupDialog.SetScalingFactor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	9.2	Yes	No	No	No	No

MBS( "PageSetupDialog.SetScalingFactor"; Value )

### Parameters

#### Value

The new scale factor.

1.0

**Result** Returns OK or error.

### Description

If zero, we don't change it.

Value is 1.0 for 100% .

You need to run paper setup dialog to let the plugin change values.

### Examples

Set scaling to 150% :

Set Variable [ \$r ; Value: MBS("PageSetupDialog.SetScalingFactor"; 1,5) ]

### See also

- 130.11 PageSetupDialog.GetScalingFactor

6504

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)

Created 20th April 2019, last changed 20th April 2019.

## 130.19 PrintDialog.ClearOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.ClearOption"; Key )

### Parameters

#### Key

The key to use.

"com\_apple\_print\_PrintSettings\_PMCopies"

**Result** Returns OK or error.

### Description

#### See also

- [130.7 PageSetupDialog.GetOption](#) 6500
- [130.20 PrintDialog.ClearOptions](#) 6514
- [130.32 PrintDialog.GetOption](#) 6528
- [130.49 PrintDialog.SetOption](#) 6548

### 130.19.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 30th April 2016, last changed 30th April 2016.

## 130.20 PrintDialog.ClearOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.ClearOptions" )

**Result** Returns OK or error.

### Description

### Examples

Clear all options:

MBS( "PrintDialog.ClearOptions" )

### See also

- [130.2 PageSetupDialog.ClearOptions](#) 6494
- [130.19 PrintDialog.ClearOption](#) 6513
- [130.32 PrintDialog.GetOption](#) 6528
- [130.49 PrintDialog.SetOption](#) 6548

### 130.20.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 30th April 2016, last changed 30th April 2016.

## 130.21 PrintDialog.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.Disable" )

**Result** Returns OK or error.

### Description

### Examples

Disable plugin's printer extension:

```
Set Variable [ $r; MBS( "PrintDialog.Disable" ) ]
```

### See also

- [130.22 PrintDialog.Enable](#) 6516
- [130.30 PrintDialog.GetLastSettings](#) 6525
- [130.40 PrintDialog.Install](#) 6536
- [130.43 PrintDialog.SetCopies](#) 6540
- [130.46 PrintDialog.SetFirstPage](#) 6544
- [130.47 PrintDialog.SetLastPage](#) 6545
- [130.53 PrintDialog.SetPrintType](#) 6553

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

### 130.21.1 FileMaker Magazin

- Ausgabe 5/2017, Seite 22

Created 18th August 2014, last changed 18th August 2014.

## 130.22 PrintDialog.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.Enable" )

**Result** Returns OK or error.

### Description

Your print commands in FileMaker should show a dialog, so the plugin can intercept it.

### Examples

Install and print to PDF:

```
Set Variable [ $r; MBS( "PrintDialog.Install" ) ]
Set Variable [ $r; MBS( "PrintDialog.Enable" ) ]
Set Variable [ $r; MBS( "PrintDialog.SetPrintToPDF"; 1 ) ]
Set Variable [ $r; MBS( "PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test.pdf" ) ]
Set Variable [ $r; MBS( "PrintDialog.SetNoDialog"; 1 ) ]
Print [ ]
```

### See also

- [130.24 PrintDialog.GetConfiguration](#) 6519
- [130.30 PrintDialog.GetLastSettings](#) 6525
- [130.42 PrintDialog.SetConfiguration](#) 6539
- [130.44 PrintDialog.SetDestinationPath](#) 6542
- [130.46 PrintDialog.SetFirstPage](#) 6544
- [130.47 PrintDialog.SetLastPage](#) 6545
- [130.48 PrintDialog.SetNoDialog](#) 6546
- [130.52 PrintDialog.SetPrintToPDF](#) 6552
- [130.53 PrintDialog.SetPrintType](#) 6553
- [130.56 PrintDialog.SetResetDestination](#) 6557

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)



### **130.22.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr1](#)
- [How to fix the Sierra printing bug in FileMaker](#)
- [Printing with FileMaker on Mac with a specific Paper Tray](#)

### **130.22.2 FileMaker Magazin**

- [Ausgabe 5/2017, Seite 22](#)

Created 18th August 2014, last changed 16th September 2016.

## 130.23 PrintDialog.GetAllPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetAllPages" )

**Result** Returns OK or error.

### Description

Value is -1 if not defined.

### See also

- 130.25 PrintDialog.GetCopies 6520
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.41 PrintDialog.SetAllPages 6538
- 130.47 PrintDialog.SetLastPage 6545

Created 17th March 2016, last changed 17th March 2016.

## 130.24 PrintDialog.GetConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	8.0	Yes	No	No	No	No

MBS( "PrintDialog.GetConfiguration" )

**Result** Returns OK or error.

### Description

You can run with dialog, select all settings you like and than store the configuration.

Configuration is the serialized and base64 encoded setup data.

Just store as it is in a text field for later restoration with PrintDialog.SetConfiguration or PDFKit.SavePrintSettings.

Returns empty result if no print configuration was yet created.

See PrintDialog.GetLastSettings for a xml you can read.

### Examples

Query configuration after printing:

```
Set Variable [ $r ; Value: MBS("PrintDialog.Enable") ]
```

```
Print [ With dialog: On ]
```

```
Set Field [ Printer Dialog on Mac::Data ; MBS("PrintDialog.GetConfiguration") ]
```

### See also

- 125.37 PDFKit.SavePrintSettings 6321
- 130.22 PrintDialog.Enable 6516
- 130.30 PrintDialog.GetLastSettings 6525
- 130.42 PrintDialog.SetConfiguration 6539

### 130.24.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 16th March 2019.

## 130.25 PrintDialog.GetCopies

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetCopies" )

**Result** Returns OK or error.

### Description

This property is the number of copies of the print job to be printed.

Value is -1 if not defined.

### See also

- 130.23 PrintDialog.GetAllPages 6518
- 130.27 PrintDialog.GetDuplex 6522
- 130.31 PrintDialog.GetNoDialog 6527
- 130.32 PrintDialog.GetOption 6528
- 130.37 PrintDialog.GetReset 6533
- 130.43 PrintDialog.SetCopies 6540
- 130.45 PrintDialog.SetDuplex 6543
- 130.49 PrintDialog.SetOption 6548

Created 17th March 2016, last changed 17th March 2016.

## 130.26 PrintDialog.GetDestinationPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.GetDestinationPath" )

**Result** Returns path text or error.

**Description**

**See also**

- 130.44 PrintDialog.SetDestinationPath

6542

Created 18th August 2014, last changed 18th August 2014.

## 130.27 PrintDialog.GetDuplex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	4.1	Yes	No	No	No	No

MBS( "PrintDialog.GetDuplex" )

**Result** Returns current setting.

### Description

Use PrintDialog.SetDuplex to set this value.  
Setting is 1 (on), 0 (off) or -1 (not set).

### See also

- 130.25 PrintDialog.GetCopies 6520
- 130.31 PrintDialog.GetNoDialog 6527
- 130.32 PrintDialog.GetOption 6528
- 130.37 PrintDialog.GetReset 6533
- 130.43 PrintDialog.SetCopies 6540
- 130.45 PrintDialog.SetDuplex 6543

Created 18th August 2014, last changed 18th August 2014.

**130.28 PrintDialog.GetFirstPage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetFirstPage" )

**Result** Returns OK or error.

**Description**

This property containing the one-based index of the first page in the job to print.

Value is -1 if not defined.

**See also**

- 130.23 PrintDialog.GetAllPages 6518
- 130.29 PrintDialog.GetLastPage 6524
- 130.34 PrintDialog.GetPaperName 6530
- 130.36 PrintDialog.GetPrinterName 6532
- 130.46 PrintDialog.SetFirstPage 6544
- 130.47 PrintDialog.SetLastPage 6545
- 130.53 PrintDialog.SetPrintType 6553

Created 17th March 2016, last changed 17th March 2016.

**130.29 PrintDialog.GetLastPage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetLastPage" )

**Result** Returns OK or error.

**Description**

This property containing the one-based index of the last page in the job to print.  
Value is -1 if not defined.

**See also**

- 130.23 PrintDialog.GetAllPages 6518
- 130.28 PrintDialog.GetFirstPage 6523
- 130.34 PrintDialog.GetPaperName 6530
- 130.41 PrintDialog.SetAllPages 6538
- 130.46 PrintDialog.SetFirstPage 6544
- 130.47 PrintDialog.SetLastPage 6545

Created 17th March 2016, last changed 17th March 2016.



## 130.30 PrintDialog.GetLastSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetLastSettings" )

**Result** Returns text or error.

### Description

Please print once with enabled print dialog functions. After printing with dialog, you can query last settings and see what OS X or your driver uses.

Since version 10.1 we return settings as JSON instead of XML and includes print parameter.

### Examples

Get last settings:

```
MBS("PrintDialog.GetLastSettings")
```

Query settings after using dialog:

```
Set Variable [ $r ; Value: MBS("PrintDialog.Install") ]
Set Variable [ $r ; Value: MBS("PrintDialog.Enable") ]
Print [ With dialog: On ]
Set Variable [ $r ; Value: MBS("PrintDialog.Disable") ]
Set Variable [ $r ; Value: MBS("PrintDialog.GetLastSettings") ]
Set Field [ Printer Dialog on Mac::Path ; $r ]
```

### See also

- [130.5 PageSetupDialog.GetLastSettings](#) 6498
- [130.14 PageSetupDialog.SetOption](#) 6508
- [130.21 PrintDialog.Disable](#) 6515
- [130.22 PrintDialog.Enable](#) 6516
- [130.24 PrintDialog.GetConfiguration](#) 6519
- [130.40 PrintDialog.Install](#) 6536
- [130.49 PrintDialog.SetOption](#) 6548

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

### 130.30.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 30th April 2016, last changed 21st February 2020.

**130.31 PrintDialog.GetNoDialog**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.GetNoDialog" )

**Result** Returns value or error.

**Description**

Use PrintDialog.SetNoDialog to set this setting.

**See also**

- 130.25 PrintDialog.GetCopies 6520
- 130.27 PrintDialog.GetDuplex 6522
- 130.32 PrintDialog.GetOption 6528
- 130.48 PrintDialog.SetNoDialog 6546

Created 18th August 2014, last changed 18th August 2014.

## 130.32 PrintDialog.GetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.GetOption"; Key )

### Parameters

#### Key

The key to use.

"com\_apple\_print\_PrintSettings\_PMCopies"

**Result** Returns value or error.

### Description

You can use PrintDialog.SetOption to set options or PrintDialog.ClearOption to clear one.

### See also

- 130.19 PrintDialog.ClearOption 6513
- 130.20 PrintDialog.ClearOptions 6514
- 130.25 PrintDialog.GetCopies 6520
- 130.27 PrintDialog.GetDuplex 6522
- 130.31 PrintDialog.GetNoDialog 6527
- 130.43 PrintDialog.SetCopies 6540
- 130.49 PrintDialog.SetOption 6548

### 130.32.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr7](#)

Created 30th April 2016, last changed 30th April 2016.

## 130.33 PrintDialog.GetPageNumberingOffset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	7.0	Yes	No	No	No	No

MBS( "PrintDialog.GetPageNumberingOffset" )

**Result** Returns value or error.

### Description

Use PrintDialog.SetPageNumberingOffset to set this value.

Value -1 means to not change it. Value 0 is for no offset. Other values to start page numbering at given number.

### See also

- 130.50 PrintDialog.SetPageNumberingOffset

6550

### 130.33.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 6th January 2017, last changed 6th January 2017.

## 130.34 PrintDialog.GetPaperName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	5.0	Yes	No	No	No	No

MBS( "PrintDialog.GetPaperName" )

**Result** Returns paper name or error.

### Description

You can set this with PrintDialog.SetPaperName.

### See also

- 130.8 PageSetupDialog.GetPaperName 6501
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.36 PrintDialog.GetPrinterName 6532
- 130.51 PrintDialog.SetPaperName 6551
- 130.54 PrintDialog.SetPrinterName 6555

### 130.34.1 Blog Entries

- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 27th December 2014, last changed 27th December 2014.

**130.35 PrintDialog.GetPrintToPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.GetPrintToPDF" )

**Result** Returns boolean or error.

**Description****See also**

- 130.36 PrintDialog.GetPrinterName 6532
- 130.54 PrintDialog.SetPrinterName 6555
- 130.52 PrintDialog.SetPrintToPDF 6552
- 130.53 PrintDialog.SetPrintType 6553

Created 18th August 2014, last changed 18th August 2014.

## 130.36 PrintDialog.GetPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.GetPrinterName" )

**Result** Returns printer name or error.

### Description

You can set this with PrintDialog.SetPrinterName.

### See also

- 130.10 PageSetupDialog.GetPrinterName 6503
- 130.28 PrintDialog.GetFirstPage 6523
- 130.34 PrintDialog.GetPaperName 6530
- 130.35 PrintDialog.GetPrintToPDF 6531
- 130.51 PrintDialog.SetPaperName 6551
- 130.54 PrintDialog.SetPrinterName 6555
- 130.52 PrintDialog.SetPrintToPDF 6552
- 130.53 PrintDialog.SetPrintType 6553

Created 18th August 2014, last changed 18th August 2014.



## 130.37 PrintDialog.GetReset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	7.0	Yes	No	No	No	No

MBS( "PrintDialog.GetReset" )

**Result** Returns value or error.

### Description

#### See also

- [130.25 PrintDialog.GetCopies](#) 6520
- [130.27 PrintDialog.GetDuplex](#) 6522
- [130.39 PrintDialog.GetTray](#) 6535
- [130.55 PrintDialog.SetReset](#) 6556

### 130.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr3](#)

Created 10th January 2017, last changed 10th January 2017.

## 130.38 PrintDialog.GetResetDestination

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.5	Yes	No	No	No	No

MBS( "PrintDialog.GetResetDestination" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- [130.56 PrintDialog.SetResetDestination](#)

6557

### 130.38.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 17th October 2016, last changed 17th October 2016.

## 130.39 PrintDialog.GetTray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.1	Yes	No	No	No	No

MBS( "PrintDialog.GetTray" { ; LastTray } )

### Parameters

#### LastTray

Optional

Pass 1 to return the last tray name used by print dialog. This allows you use the print dialog and than see what value is used internally for the tray you selected. Pass 0 to get the text you passed to PrintDialog.SetTray.

0

**Result** Returns text or error.

### Description

### Examples

Query last tray selection from dialog:

```
MBS( "PrintDialog.GetTray"; 1 )
```

### See also

- [125.44 PDFKit.SetPrintSetting](#) 6334
- [130.37 PrintDialog.GetReset](#) 6533
- [130.57 PrintDialog.SetTray](#) 6558

### 130.39.1 Blog Entries

- [Printing with FileMaker on Mac with a specific Paper Tray](#)

Created 10th February 2016, last changed 11st February 2016.

## 130.40 PrintDialog.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.Install" )

**Result** Returns OK or error.

### Description

Only after PrintDialog.Install was called, you can use PrintDialog.Enable.  
You only call this function once.

This is Mac only. For Windows, please check Printer.SetPrinter and Printer.Print.

### Examples

Install and print to PDF:

```
Set Variable [ $r; MBS( "PrintDialog.Install" ) ]
Set Variable [ $r; MBS( "PrintDialog.Enable" ) ]
Set Variable [ $r; MBS( "PrintDialog.SetPrintToPDF"; 1 ) ]
Set Variable [ $r; MBS( "PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test.pdf" ) ]
Set Variable [ $r; MBS( "PrintDialog.SetNoDialog"; 1 ) ]
Print [ ]
```

### See also

- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.30 PrintDialog.GetLastSettings 6525
- 130.44 PrintDialog.SetDestinationPath 6542
- 130.48 PrintDialog.SetNoDialog 6546
- 130.52 PrintDialog.SetPrintToPDF 6552
- 130.56 PrintDialog.SetResetDestination 6557
- 131.10 Printer.Print 6574
- 131.15 Printer.SetPrinter 6584

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

### **130.40.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr1](#)
- [How to fix the Sierra printing bug in FileMaker](#)
- [Printing with FileMaker on Mac with a specific Paper Tray](#)

### **130.40.2 FileMaker Magazin**

- [Ausgabe 5/2017, Seite 22](#)

Created 18th August 2014, last changed 20th April 2019.

## 130.41 PrintDialog.SetAllPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.SetAllPages"; Value )

### Parameters

#### Value

The new value. 1 = on, 0 = off, -1 = undefined

1

**Result** Returns OK or error.

### Description

Value is -1 if not defined.

### See also

- 130.23 PrintDialog.GetAllPages 6518
- 130.29 PrintDialog.GetLastPage 6524
- 130.43 PrintDialog.SetCopies 6540
- 130.46 PrintDialog.SetFirstPage 6544
- 130.47 PrintDialog.SetLastPage 6545

Created 17th March 2016, last changed 17th March 2016.

## 130.42 PrintDialog.SetConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	8.0	Yes	No	No	No	No

MBS( "PrintDialog.SetConfiguration"; Configuration )

### Parameters

#### Configuration

The configuration data you got from PrintDialog.GetConfiguration.

**Result** Returns OK or error.

#### Description

The given configuration will be applied after reset of settings (if enabled) and before other settings are applied. This way you can still customize the saved configuration.

#### Examples

Restore configuration:

Allow User Abort [ Off ]

Set Variable [ \$r ; Value: MBS("PrintDialog.Enable") ]

Set Variable [ \$r ; Value: MBS("PrintDialog.SetConfiguration"; Printer Dialog on Mac::Data) ]

Print [ With dialog: On ]

#### See also

- 125.37 PDFKit.SavePrintSettings 6321
- 130.22 PrintDialog.Enable 6516
- 130.24 PrintDialog.GetConfiguration 6519

### 130.42.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 21st December 2017.

## 130.43 PrintDialog.SetCopies

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.SetCopies"; Value )

### Parameters

#### Value

The new copies value. Use -1 for undefined.

2

**Result** Returns OK or error.

### Description

This property is the number of copies of the print job to be printed.

Value is -1 if not defined.

### Examples

Print with 5 copies:

```
Set Variable [ $r; Value:MBS("PrintDialog.Enable") ]
Set Variable [ $r; Value:MBS("PrintDialog.SetCopies"; 5) ]
Print [ ]
Set Variable [ $r; Value:MBS("PrintDialog.Disable") ]
```

### See also

- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.25 PrintDialog.GetCopies 6520
- 130.27 PrintDialog.GetDuplex 6522
- 130.32 PrintDialog.GetOption 6528
- 130.41 PrintDialog.SetAllPages 6538
- 130.45 PrintDialog.SetDuplex 6543
- 130.48 PrintDialog.SetNoDialog 6546
- 130.49 PrintDialog.SetOption 6548
- 130.55 PrintDialog.SetReset 6556



### 130.43.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 17th March 2016, last changed 17th March 2016.

## 130.44 PrintDialog.SetDestinationPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.SetDestinationPath"; Path )

### Parameters

#### Path

Native file path for PDF file.

\$path

**Result** Returns error or OK.

### Description

If you want the user to select a path, please use FileDialog functions.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Set print to PDF:

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetPrintToPDF"; 1 ) ]
```

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test.pdf" ) ]
```

### See also

- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [130.22 PrintDialog.Enable](#) 6516
- [130.26 PrintDialog.GetDestinationPath](#) 6521
- [130.40 PrintDialog.Install](#) 6536
- [130.52 PrintDialog.SetPrintToPDF](#) 6552
- [130.53 PrintDialog.SetPrintType](#) 6553

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

Created 18th August 2014, last changed 25th November 2017.

## 130.45 PrintDialog.SetDuplex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	4.1	Yes	No	No	No	No

MBS( "PrintDialog.SetDuplex"; value )

### Parameters

#### value

The new duplex setting.

1

**Result** Returns OK or error.

### Description

Pass 0 for no duplex, 1 to enable duplex and -1 to not change it.

Version 6.5 adds 2 for duplex with tumble.

Version 7.5 changes value: 0 = off, 1 = long edge, 2 = short edge

### Examples

Enable duplex:

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetDuplex"; 1 ) ]
```

### See also

- [130.25 PrintDialog.GetCopies](#) 6520
- [130.27 PrintDialog.GetDuplex](#) 6522
- [130.43 PrintDialog.SetCopies](#) 6540
- [130.48 PrintDialog.SetNoDialog](#) 6546
- [130.49 PrintDialog.SetOption](#) 6548
- [130.55 PrintDialog.SetReset](#) 6556

### 130.45.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 18th August 2014, last changed 25th November 2017.

## 130.46 PrintDialog.SetFirstPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.SetFirstPage"; Page )

### Parameters

#### Page

The first page to print.

2

**Result** Returns OK or error.

### Description

This property containing the one-based index of the first page in the job to print.

Value is -1 if not defined.

### Examples

Print page 2 to 3 copies:

```
Set Variable [ $r; Value:MBS("PrintDialog.Enable") ]
Set Variable [ $r; Value:MBS("PrintDialog.SetFirstPage"; 2) ]
Set Variable [ $r; Value:MBS("PrintDialog.SetLastPage"; 3) ]
Print [ ]
Set Variable [ $r; Value:MBS("PrintDialog.Disable") ]
```

### See also

- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.41 PrintDialog.SetAllPages 6538
- 130.47 PrintDialog.SetLastPage 6545
- 130.51 PrintDialog.SetPaperName 6551
- 130.54 PrintDialog.SetPrinterName 6555
- 130.53 PrintDialog.SetPrintType 6553

Created 17th March 2016, last changed 17th March 2016.

## 130.47 PrintDialog.SetLastPage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.SetLastPage"; Page )

### Parameters

#### Page

The last page to print.

2

**Result** Returns OK or error.

### Description

This property containing the one-based index of the last page in the job to print.

Value is -1 if not defined.

### Examples

Print page 2 to 3 copies:

```
Set Variable [ $r; Value:MBS("PrintDialog.Enable") ]
Set Variable [ $r; Value:MBS("PrintDialog.SetFirstPage"; 2) ]
Set Variable [ $r; Value:MBS("PrintDialog.SetLastPage"; 3) ]
Print [ ]
Set Variable [ $r; Value:MBS("PrintDialog.Disable") ]
```

### See also

- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.23 PrintDialog.GetAllPages 6518
- 130.28 PrintDialog.GetFirstPage 6523
- 130.29 PrintDialog.GetLastPage 6524
- 130.41 PrintDialog.SetAllPages 6538
- 130.46 PrintDialog.SetFirstPage 6544
- 130.51 PrintDialog.SetPaperName 6551

Created 17th March 2016, last changed 17th March 2016.

## 130.48 PrintDialog.SetNoDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.SetNoDialog"; Flag )

### Parameters

#### Flag

Whether to show print dialog.

1

**Result** Returns OK or error.

### Description

In FileMaker script step you need to use print with dialog. Than the plugin can control the dialog and either close it right away (with setting 1) or let it open (setting 0).

### Examples

Disable dialog:

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetNoDialog"; 1 ) ]
```

Enable dialog:

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetNoDialog"; 0 ) ]
```

### See also

- [130.22 PrintDialog.Enable](#) 6516
- [130.31 PrintDialog.GetNoDialog](#) 6527
- [130.40 PrintDialog.Install](#) 6536
- [130.43 PrintDialog.SetCopies](#) 6540
- [130.45 PrintDialog.SetDuplex](#) 6543
- [130.49 PrintDialog.SetOption](#) 6548
- [130.53 PrintDialog.SetPrintType](#) 6553

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

**130.48.1 FileMaker Magazin**

- Ausgabe 5/2017, Seite 22

Created 18th August 2014, last changed 25th November 2017.

## 130.49 PrintDialog.SetOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.2	Yes	No	No	No	No

MBS( "PrintDialog.SetOption"; Key; Value { ; Type } )

### Parameters

#### Key

The key to use.

"com\_apple\_print\_PrintSettings\_PMCopies"

#### Value

The value to use. Depending on data type, the plugin will pass a number or a text.

3

#### Type

Optional

Available in MBS FileMaker Plugin 9.2 or newer.

The type of data to add. Default is empty to use type of value passed. So text or number type would be picked automatically. Valid values for type are text, number, integer and text. Integer is for integer numbers while number is for floating numbers.

**Result** Returns OK or error.

### Description

You can use PrintDialog.GetLastSettings after printing to query XML with all settings and pick keys and values.

### Examples

Set copies to 3 via options:

```
MBS("PrintDialog.SetOption"; "com_apple_print_PrintSettings_PMCopies"; 3)
```

Set border to double hairline:

```
MBS("PrintDialog.SetOption"; "com_apple_print_PrintSettings_PMBorderType"; 2)
```

Set border to single hairline:

```
MBS("PrintDialog.SetOption"; "com_apple_print_PrintSettings_PMBorderType"; 1)
```

Set duplex binding:

```
MBS("PrintDialog.SetOption"; "com_apple_print_PrintSettings_PMDuplexing"; 2) &
```

```
MBS("PrintDialog.SetOption"; "DuplexBindingEdge"; 2)
```

Set input slot and output bin:



### 130.49. PRINTDIALOG.SETOPTION

6549

MBS("PrintDialog.SetOption"; "InputSlot"; "4Tray") &

MBS("PrintDialog.SetOption"; "OutputBin"; "MailBoxBin7")

# those keys and values are print driver dependent and hand picked from configuration XML.

#### See also

- 125.44 PDFKit.SetPrintSetting 6334
- 130.19 PrintDialog.ClearOption 6513
- 130.20 PrintDialog.ClearOptions 6514
- 130.25 PrintDialog.GetCopies 6520
- 130.30 PrintDialog.GetLastSettings 6525
- 130.32 PrintDialog.GetOption 6528
- 130.43 PrintDialog.SetCopies 6540
- 130.45 PrintDialog.SetDuplex 6543
- 130.48 PrintDialog.SetNoDialog 6546
- 130.57 PrintDialog.SetTray 6558

#### 130.49.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 6.2pr7](#)

#### 130.49.2 FileMaker Magazin

- Ausgabe 5/2017, Seite 21

Created 30th April 2016, last changed 14th March 2019.

## 130.50 PrintDialog.SetPageNumberingOffset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	7.0	Yes	No	No	No	No

MBS( "PrintDialog.SetPageNumberingOffset"; Value )

### Parameters

#### Value

The new offset to use.

1

**Result** Returns OK or error.

### Description

Value -1 means to not change it. Value 0 is for no offset. Other values to start page numbering at given number.

Showing print dialog may reset this!

### Examples

Set offset to 5:

MBS( "PrintDialog.SetPageNumberingOffset"; 5 )

### See also

- [130.33 PrintDialog.GetPageNumberingOffset](#)

6529

### 130.50.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 6th January 2017, last changed 6th January 2017.

## 130.51 PrintDialog.SetPaperName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	5.0	Yes	No	No	No	No

MBS( "PrintDialog.SetPaperName"; name )

### Parameters

**name**

The paper name.

"A4"

**Result** Returns OK or error.

### Description

### Examples

Set paper to A4:

Set Variable [ \$r ; Value: MBS( "PrintDialog.SetPaperName"; "A4" ) ]

### See also

- 130.15 PageSetupDialog.SetPaperName 6509
- 130.34 PrintDialog.GetPaperName 6530
- 130.36 PrintDialog.GetPrinterName 6532
- 130.46 PrintDialog.SetFirstPage 6544
- 130.47 PrintDialog.SetLastPage 6545
- 130.54 PrintDialog.SetPrinterName 6555
- 130.53 PrintDialog.SetPrintType 6553

### 130.51.1 Blog Entries

- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 27th December 2014, last changed 25th November 2017.

## 130.52 PrintDialog.SetPrintToPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.SetPrintToPDF"; flag )

### Parameters

#### flag

The new setting. Can be 0 to disable PDF creation or 1 to enable it.

1

**Result** Returns OK or error.

### Description

Please also use PrintDialog.SetDestinationPath to print to PDF.

### Examples

Set print to PDF:

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetPrintToPDF"; 1 ) ]
```

```
Set Variable [ $r ; Value: MBS( "PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test.pdf" ) ]
```

### See also

- 130.22 PrintDialog.Enable 6516
- 130.36 PrintDialog.GetPrinterName 6532
- 130.35 PrintDialog.GetPrintToPDF 6531
- 130.40 PrintDialog.Install 6536
- 130.44 PrintDialog.SetDestinationPath 6542
- 130.54 PrintDialog.SetPrinterName 6555
- 130.53 PrintDialog.SetPrintType 6553

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

Created 18th August 2014, last changed 25th November 2017.

## 130.53 PrintDialog.SetPrintType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	5.0	Yes	No	No	No	No

MBS( "PrintDialog.SetPrintType"; Type { ; BlankOption } )

### Parameters

#### Type

What to print. Can be 0 for records being browsed, 1 for current record or 2 for blank record.

1

#### BlankOption

Optional

Optional, which option to select for blank. Can be 0 for "as formatted", 1 for "with boxes" or 2 for "with underline".

0

**Result** Returns OK or error.

### Description

Works only if dialog is not shown currently.

### Examples

Test all variants:

Allow User Abort [ Off ]

Set Variable [ \$r; Value:MBS("PrintDialog.Enable") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrinterName"; "" ) ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetNoDialog"; 1) ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test-0.pdf") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrintType"; 0; 0) ]

Print [ ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test-1.pdf") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrintType"; 1; 0) ]

Print [ ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test-2-0.pdf") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrintType"; 2; 0) ]

Print [ ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test-2-1.pdf") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrintType"; 2; 1) ]

Print [ ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetDestinationPath"; "/Users/cs/Desktop/test-2-2.pdf") ]

Set Variable [ \$r; Value:MBS("PrintDialog.SetPrintType"; 2; 2) ]

Print [ ]

Set Variable [ \$r; Value:MBS("PrintDialog.Disable") ]

### See also

- 130.21 PrintDialog.Disable 6515
- 130.22 PrintDialog.Enable 6516
- 130.28 PrintDialog.GetFirstPage 6523
- 130.36 PrintDialog.GetPrinterName 6532
- 130.35 PrintDialog.GetPrintToPDF 6531
- 130.44 PrintDialog.SetDestinationPath 6542
- 130.46 PrintDialog.SetFirstPage 6544
- 130.48 PrintDialog.SetNoDialog 6546
- 130.51 PrintDialog.SetPaperName 6551
- 130.52 PrintDialog.SetPrintToPDF 6552

### 130.53.1 Blog Entries

- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 27th December 2014, last changed 27th December 2014.

## 130.54 PrintDialog.SetPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	3.5	Yes	No	No	No	No

MBS( "PrintDialog.SetPrinterName"; name )

### Parameters

#### name

The printer name.

"My Printer"

**Result** Returns OK or error.

### Description

The plugin will try to find a printer with the given name and assigns it for the printing.

### Examples

Sets printer name:

MBS( "PrintDialog.SetPrinterName"; "Test Printer" )

### See also

- 130.17 PageSetupDialog.SetPrinterName 6511
- 130.34 PrintDialog.GetPaperName 6530
- 130.36 PrintDialog.GetPrinterName 6532
- 130.35 PrintDialog.GetPrintToPDF 6531
- 130.46 PrintDialog.SetFirstPage 6544
- 130.51 PrintDialog.SetPaperName 6551
- 130.52 PrintDialog.SetPrintToPDF 6552
- 130.53 PrintDialog.SetPrintType 6553

### Example Databases

- [Mac only/Print/Printer Dialog on Mac](#)

#### 130.54.1 FileMaker Magazin

- Ausgabe 5/2017, Seite 22

Created 18th August 2014, last changed 18th August 2014.

## 130.55 PrintDialog.SetReset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	7.0	Yes	No	No	No	No

MBS( "PrintDialog.SetReset"; value )

### Parameters

#### value

The new value. Pass 1 or 0.

1

**Result** Returns OK or error.

### Description

When this is set to 1, we reset print settings to the default ones.

This removes any settings including presets.

### See also

- 130.37 PrintDialog.GetReset 6533
- 130.43 PrintDialog.SetCopies 6540
- 130.45 PrintDialog.SetDuplex 6543
- 130.56 PrintDialog.SetResetDestination 6557
- 130.57 PrintDialog.SetTray 6558

### 130.55.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr3](#)

Created 10th January 2017, last changed 10th January 2017.



## 130.56 PrintDialog.SetResetDestination

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.5	Yes	No	No	No	No

MBS( "PrintDialog.SetResetDestination"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable reset of destination. Pass 0 to disable.

1

**Result** Returns OK or error.

### Description

FileMaker 15 and older on macOS Sierra show a problem with printing.

If you once print to PDF, the print dialog in FileMaker will remember the PDF printing and even print to PDF if no PDF printing is selected.

If you set this option to 1, the plugin will reset the print destination to the printer before the dialog is shown or other options are applied.

### Examples

Initialize to fix printing issues with FileMaker and macOS Sierra:

```
Set Variable [ $r; Value: MBS( "PrintDialog.Install" ) ]
Set Variable [ $r; Value: MBS( "PrintDialog.Enable" ) ]
Set Variable [ $r; Value: MBS( "PrintDialog.SetResetDestination"; 1 ) ]
```

### See also

- [130.22 PrintDialog.Enable](#) 6516
- [130.38 PrintDialog.GetResetDestination](#) 6534
- [130.40 PrintDialog.Install](#) 6536
- [130.55 PrintDialog.SetReset](#) 6556

### 130.56.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)
- [How to fix the Sierra printing bug in FileMaker](#)

Created 17th October 2016, last changed 17th October 2016.

## 130.57 PrintDialog.SetTray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
130 PrintDialog	6.1	Yes	No	No	No	No

MBS( "PrintDialog.SetTray"; Value )

### Parameters

#### Value

The name of the tray to use.

"Tray1"

**Result** Returns OK or error.

### Description

Value may be Tray1, Tray2, tray-1, tray-2, auto, Left, Right, Lower, Middle, Upper and depends on the printer driver. This is not the name displayed in dialog, but the internal value which is the same for all localization.

Same as using PrintDialog.SetOption with "InputSlot" as key and tray name as value.

### Examples

Set Tray-2 as the tray for paper:

```
MBS("PrintDialog.SetTray"; "Tray-2")
```

### See also

- [130.39 PrintDialog.GetTray](#) 6535
- [130.49 PrintDialog.SetOption](#) 6548
- [130.55 PrintDialog.SetReset](#) 6556

### 130.57.1 Blog Entries

- [Printing with FileMaker on Mac with a specific Paper Tray](#)

### 130.57.2 FileMaker Magazin

- [Ausgabe 5/2017, Seite 22](#)

Created 10th February 2016, last changed 15th May 2017.

# Chapter 131

## Printer

List printers and set/get default printer. Select printer on Windows.

See `PrintDialog` functions for Mac, too.

### 131.1 `Printer.CurrentNumberOfCopies`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	9.2	No	Yes	No	No	No

MBS( "Printer.CurrentNumberOfCopies" )

**Result** Returns number or error.

#### **Description**

This is queried when dialog opens after setting number of copies.

So it may be useful to use `Printer.Print` with mode 2 to just read current values.

Value is -1 if unknown.

**See also**

- 131.10 `Printer.Print`

6574

#### 131.1.1 **Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr3](#)

Created 9th April 2019, last changed 9th April 2019.

## 131.2 Printer.CurrentPaperFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.CurrentPaperFormat" { ; ReturnIndex } )

### Parameters

#### ReturnIndex

Optional

Pass 1 to return index or 0 to return name. Default is zero to return name.

0

**Result** Returns value or error.

### Description

This value is only available after Printer.Print or Printer.SetPrinter run.

### Examples

Show current settings:

```
Show Custom Dialog [ "Current Settings" ; "PrinterName: " & MBS( "Printer.CurrentPrinterName" ) &
&&
"PaperSource: " & MBS( "Printer.CurrentPaperSource" ) & &&
"PaperFormat: " & MBS( "Printer.CurrentPaperFormat" ) & &&
"PrintWhat: " & MBS( "Printer.CurrentPrintWhat" ) ]
```

### See also

- [131.3 Printer.CurrentPaperSource](#) 6562
- [131.5 Printer.CurrentPrinterName](#) 6566
- [131.4 Printer.CurrentPrintWhat](#) 6564
- [131.10 Printer.Print](#) 6574
- [131.15 Printer.SetPrinter](#) 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

### 131.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

### **131.2.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23

Created 18th November 2016, last changed 21st November 2019.

### 131.3 Printer.CurrentPaperSource

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.CurrentPaperSource" { ; ReturnIndex } )

#### Parameters

#### ReturnIndex

Optional

Pass 1 to return index or 0 to return name. Default is zero to return name.

0

**Result** Returns value or error.

#### Description

This value is only available after Printer.Print or Printer.SetPrinter run.

#### Examples

Show current settings:

```
Show Custom Dialog [ "Current Settings" ; "PrinterName: " & MBS( "Printer.CurrentPrinterName" ) &
&&
"PaperSource: " & MBS( "Printer.CurrentPaperSource" ) & &&
"PaperFormat: " & MBS( "Printer.CurrentPaperFormat" ) & &&
"PrintWhat: " & MBS( "Printer.CurrentPrintWhat" ) ]
```

#### See also

- [131.2 Printer.CurrentPaperFormat](#) 6560
- [131.5 Printer.CurrentPrinterName](#) 6566
- [131.4 Printer.CurrentPrintWhat](#) 6564
- [131.10 Printer.Print](#) 6574
- [131.15 Printer.SetPrinter](#) 6584

#### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

#### 131.3.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)

**131.3.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23

Created 18th November 2016, last changed 21st November 2019.

## 131.4 Printer.CurrentPrintWhat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.CurrentPrintWhat" { ; ReturnIndex } )

### Parameters

#### ReturnIndex

Optional

Pass 1 to return index or 0 to return name. Default is zero to return name.

0

**Result** Returns value or error.

### Description

This value is only available after Printer.Print run.

### Examples

Show current settings:

```
Show Custom Dialog [ "Current Settings" ; "PrinterName: " & MBS( "Printer.CurrentPrinterName" ) &
§&
"PaperSource: " & MBS( "Printer.CurrentPaperSource" ) & §&
"PaperFormat: " & MBS( "Printer.CurrentPaperFormat" ) & §&
"PrintWhat: " & MBS( "Printer.CurrentPrintWhat" ) ]
```

### See also

- [131.2 Printer.CurrentPaperFormat](#) 6560
- [131.3 Printer.CurrentPaperSource](#) 6562
- [131.5 Printer.CurrentPrinterName](#) 6566
- [131.10 Printer.Print](#) 6574

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

#### 131.4.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr8](#)



### **131.4.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23

Created 18th November 2016, last changed 25th November 2017.

## 131.5 Printer.CurrentPrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.CurrentPrinterName" { ; ReturnIndex } )

### Parameters

#### ReturnIndex

Optional

Pass 1 to return index or 0 to return name. Default is zero to return name.

0

**Result** Returns value or error.

### Description

This value is only available after Printer.Print or Printer.SetPrinter run.

### Examples

Show current settings:

```
Show Custom Dialog [ "Current Settings" ; "PrinterName: " & MBS( "Printer.CurrentPrinterName" ) &
§&
"PaperSource: " & MBS( "Printer.CurrentPaperSource" ) & §&
"PaperFormat: " & MBS( "Printer.CurrentPaperFormat" ) & §&
"PrintWhat: " & MBS( "Printer.CurrentPrintWhat" ) ]
```

### See also

- 131.2 Printer.CurrentPaperFormat 6560
- 131.3 Printer.CurrentPaperSource 6562
- 131.4 Printer.CurrentPrintWhat 6564
- 131.10 Printer.Print 6574
- 131.15 Printer.SetPrinter 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

### **131.5.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [MBS FileMaker Plugin, version 6.5pr8](#)

### **131.5.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23
- Ausgabe 5/2017, Seite 21

Created 18th November 2016, last changed 21st November 2019.

## 131.6 Printer.ErrorLog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.ErrorLog" )

**Result** Returns list of error messages.

### Description

On success, the result is simply "OK".

### See also

- 131.10 Printer.Print 6574
- 131.15 Printer.SetPrinter 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

### 131.6.1 FileMaker Magazin

- Ausgabe 5/2017, Seite 23

Created 14th November 2016, last changed 14th November 2016.

## 131.7 Printer.GetDefaultPrinter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	3.0	Yes	Yes	Yes	No	No

MBS( "Printer.GetDefaultPrinter" )

**Result** Returns printer name or error.

### Description

### Example Databases

- [Printers/Printers](#)

### 131.7.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr8](#)

Created 29th August 2017, last changed 29th August 2017.

## 131.8 Printer.PaperFormats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.PaperFormats" )

**Result** Returns list or error.

### Description

The plugin will store the paper formats it sees in the dialog, so you can later query them. This value is only available after Printer.Print or Printer.SetPrinter run.

### Examples

Query formats:

```
# we run Print dialog
# as there is no printer or paper format with ?, this will not change it
# and 2 means cancel
#
Set Variable [ $r; Value:MBS("Printer.Print"; "?"; 2; ""; "?") ]
#
Pause/Resume Script [ Duration (seconds): 2 ]
#
Set Field [ Printer Dialog::PaperFormats; MBS( "Printer.PaperFormats" ) ]
Set Field [ Printer Dialog::Printers; MBS( "Printer.PrinterNames" ) ]
Set Field [ Printer Dialog::PaperSources; MBS( "Printer.PaperSources" ) ]
```

### See also

- [131.9 Printer.PaperSources](#) 6572
- [131.10 Printer.Print](#) 6574
- [131.13 Printer.PrinterName](#) 6580
- [131.14 Printer.PrinterNames](#) 6582
- [131.15 Printer.SetPrinter](#) 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

### **131.8.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr7](#)

### **131.8.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23

Created 16th November 2016, last changed 21st November 2019.

## 131.9 Printer.PaperSources

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.PaperSources" )

**Result** Returns list or error.

### Description

The plugin will store the paper sources it sees in the dialog, so you can later query them. This value is only available after Printer.Print or Printer.SetPrinter run.

### Examples

Query formats:

```
# we run Print dialog
# as there is no printer or paper format with ?, this will not change it
# and 2 means cancel
#
Set Variable [ $r; Value:MBS("Printer.Print"; "?"; 2; ""; "?") ]
#
Pause/Resume Script [ Duration (seconds): 2 ]
#
Set Field [ Printer Dialog::PaperFormats; MBS( "Printer.PaperFormats" ) ]
Set Field [ Printer Dialog::Printers; MBS( "Printer.PrinterNames" ) ]
Set Field [ Printer Dialog::PaperSources; MBS( "Printer.PaperSources" ) ]
```

### See also

- [131.8 Printer.PaperFormats](#) 6570
- [131.10 Printer.Print](#) 6574
- [131.13 Printer.PrinterName](#) 6580
- [131.14 Printer.PrinterNames](#) 6582
- [131.15 Printer.SetPrinter](#) 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)



### **131.9.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr7](#)

### **131.9.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 23
- Ausgabe 5/2017, Seite 21

Created 16th November 2016, last changed 21st November 2019.

## 131.10 Printer.Print

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.Print"; Printer { ; CloseDialog; Number of Copies; Paper Format; Paper Orientation; Paper Source; Pages From; Pages To; Collate Pages; What } )

### Parameters

#### Printer

The printer name to set. Must not match exactly, just the first letters. If empty, we use current. "Brother"

#### CloseDialog

Optional

Whether to close print dialog. Pass 1 to close or 0 to not close. Pass 2 to press cancel button in case you just want to learn the options. Pass 3 to leave dialog open.

1

#### Number of Copies

Optional

The number of copies. Leave empty to not change.

1

#### Paper Format

Optional

The name of the paper format. Leave empty to not change.

"A4"

#### Paper Orientation

Optional

The paper orientation. Pass portrait or landscape. Empty value leaves setting as is.

"landscape"

#### Paper Source

Optional

The paper source. Pass name of setting. Name doesn't need to match exactly, just first letters. So you can pass "Man" für Manual (English) and Manuell (German).

"Man"

#### Pages From

Optional

The start number of page range. Pass empty text for Pages From and To to select all pages.

1

#### Pages To

Optional

The end number of page range. Pass empty text for Pages From and To to select all pages.

1

**Collate Pages**

Optional

Whether to collate pages. Pass 1 to enable or 0 to disable. Other values are ignored, so pass -1 to leave existing value.

1

**What**

Optional

What to print: Pass 0 for records being browsed. Pass 1 for current record. Pass 2 for Blank Record showing fields. Default is empty (or -1) to keep current setting.

0

**Result** Returns OK or error.

**Description**

The plugin will show the print dialog from FileMaker, automatically set options and close dialog if requested. Sub dialog for paper is opened if paper format, paper orientation or source is passed.

The function returns before the dialog shows, so please do a script pause after calling this.

You can later call `Print.ErrorLog` to detect errors. If Windows ever change dialogs, features may no longer work. FileMaker may not show the print dialog if there is no record available or when debugger is open.

For Mac, please check `PrintDialog.Install` function.

After calling this method, you can call `Printer.PaperFormats`, `Printer.PaperSources` or `Printer.PrinterNames` to learn what was available.

Version 9.1 or newer allows you to pass 3 for `CloseDialog` parameter to leave dialog open while sub dialog is closed.

Source code sponsored by [schubec.com](http://www.schubec.com)

<http://www.schubec.com>

**Examples**

Print:

```
Set Variable [ $r; Value:MBS("Printer.Print"; Printer Dialog::Printer Name; Printer Dialog::Close Dialog;
Printer Dialog::Number of Copies; Printer Dialog::Paper Format; Printer Dialog::Paper Orientation; Printer
Dialog::Paper Source; Printer Dialog:... ]
```

```
Pause/Resume Script [ Duration (seconds): 2 ]
```

```
Show Custom Dialog [ "Result"; MBS("Printer.ErrorLog") ]
```

**See also**

- 130.12 `PageSetupDialog.Install`

- 130.40 PrintDialog.Install 6536
- 131.1 Printer.CurrentNumberOfCopies 6559
- 131.2 Printer.CurrentPaperFormat 6560
- 131.3 Printer.CurrentPaperSource 6562
- 131.5 Printer.CurrentPrinterName 6566
- 131.8 Printer.PaperFormats 6570
- 131.9 Printer.PaperSources 6572
- 131.13 Printer.PrinterName 6580
- 131.14 Printer.PrinterNames 6582

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

### 131.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)
- [MBS FileMaker Plugin, version 9.1pr5](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)
- [MBS FileMaker Plugin, version 9.0pr8](#)
- [MBS FileMaker Plugin, version 7.1pr2](#)
- [MBS FileMaker Plugin, version 6.5pr7](#)
- [Printer Switch for Windows with MBS FileMaker Plugin](#)

### 131.10.2 FileMaker Magazin

- [Ausgabe 5/2017, Seite 23](#)
- [Ausgabe 5/2017, Seite 22](#)
- [Ausgabe 5/2017, Seite 21](#)

## 131.11 Printer.PrinterCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	3.0	Yes	Yes	Yes	No	No

MBS( "Printer.PrinterCount" )

**Result** Returns the number of printers.

### Description

### Examples

Queries number of printers:

```
$r = MBS( "Printer.PrinterCount" )
```

### See also

- [131.10 Printer.Print](#) 6574
- [131.12 Printer.PrinterInfo](#) 6578
- [131.13 Printer.PrinterName](#) 6580
- [131.14 Printer.PrinterNames](#) 6582

### Example Databases

- [Printers/Printers](#)

#### 131.11.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr8](#)

#### 131.11.2 FileMaker Magazin

- [Ausgabe 5/2017, Seite 21](#)

Created 18th August 2014, last changed 18th August 2014.

## 131.12 Printer.PrinterInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	Yes	Yes	Yes	No	No

MBS( "Printer.PrinterInfo"; Name; Selector )

### Parameters

#### Name

The name of the printer.

"LaserPrinter"

#### Selector

The selector for the value to query.

"Name"

**Result** Returns value or error.

### Description

Selectors on Mac: Name, Type, languageLevel (PostScript language level or zero). If you ask for deviceDescriptionKeys, you get a list of other keys available.

Selectors on Windows: ServerName, PrinterName, ShareName, PortName, DriverName, Comment, Location, SepFile, PrintProcessor, Datatype, Parameters, SepFile, Priority, DefaultPriority, StartTime, UntilTime, Status, Jobs, AveragePPM, Status, Attributes.

Attributes and Status are returned as numbers.

If you pass "Keys" for selector, we return list of all available keys.

### Examples

Queries type of Mac printer:

```
MBS("Printer.PrinterInfo"; "Brother DCP-8085DN"; "type")
```

### See also

- 131.10 Printer.Print 6574
- 131.11 Printer.PrinterCount 6577
- 131.13 Printer.PrinterName 6580
- 131.14 Printer.PrinterNames 6582

### Example Databases

- [Printers/Printer Info](#)
- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)

### **131.12.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr8](#)

### **131.12.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 21

Created 27th November 2016, last changed 27th November 2016.

## 131.13 Printer.PrinterName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	3.0	Yes	Yes	Yes	No	No

MBS( "Printer.PrinterName"; index )

### Parameters

#### index

The index of the printer. From 0 to PrinterCount-1.  
0

**Result** Returns name of printer or error.

### Description

### Examples

Queries name of first printer:

```
$name = MBS( "Printer.PrinterName"; 0 )
```

### See also

- [71.307 DynaPDF.Print](#) 3070
- [131.8 Printer.PaperFormats](#) 6570
- [131.9 Printer.PaperSources](#) 6572
- [131.10 Printer.Print](#) 6574
- [131.11 Printer.PrinterCount](#) 6577
- [131.12 Printer.PrinterInfo](#) 6578
- [131.14 Printer.PrinterNames](#) 6582

### Example Databases

- [Printers/Printer Info](#)
- [Printers/Printers](#)

### 131.13.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr2](#)
- [MBS Filemaker Plugin, version 3.0pr8](#)



131.13. *PRINTER.PRINTERNAME*

6581

### **131.13.2 FileMaker Magazin**

- Ausgabe 5/2017, Seite 21

Created 18th August 2014, last changed 18th August 2014.

## 131.14 Printer.PrinterNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.PrinterNames" )

**Result** Returns list or error.

### Description

The plugin will store the printer names it sees in the dialog, so you can later query them. This value is only available after Printer.Print run or Printer.SetPrinter.

### Examples

Query formats:

```
# we run Print dialog
# as there is no printer or paper format with ?, this will not change it
# and 2 means cancel
#
Set Variable [ $r; Value:MBS("Printer.Print"; "?"; 2; "; "?") ]
#
Pause/Resume Script [ Duration (seconds): 2 ]
#
Set Field [ Printer Dialog::PaperFormats; MBS( "Printer.PaperFormats" ) ]
Set Field [ Printer Dialog::Printers; MBS( "Printer.PrinterNames" ) ]
Set Field [ Printer Dialog::PaperSources; MBS( "Printer.PaperSources" ) ]
```

### See also

- 71.307 DynaPDF.Print 3070
- 131.8 Printer.PaperFormats 6570
- 131.9 Printer.PaperSources 6572
- 131.10 Printer.Print 6574
- 131.11 Printer.PrinterCount 6577
- 131.12 Printer.PrinterInfo 6578
- 131.13 Printer.PrinterName 6580
- 131.15 Printer.SetPrinter 6584

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)

- [Win Only/Printer Switch/PrinterToolWin/printerTool\\_FM15](#)
- [Win Only/Printer Switch/Query Paper Formats and Sources](#)

#### **131.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr7](#)

#### **131.14.2 FileMaker Magazin**

- [Ausgabe 5/2017, Seite 23](#)
- [Ausgabe 5/2017, Seite 21](#)

Created 16th November 2016, last changed 6th March 2017.

## 131.15 Printer.SetPrinter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
131 Printer	6.5	No	Yes	No	No	No

MBS( "Printer.SetPrinter"; Printer { ; CloseDialog; Paper Format; Paper Orientation; Paper Source } )

### Parameters

#### Printer

The printer name to set. Must not match exactly, just the first letters. Leave empty to not change printer. "Brother"

#### CloseDialog

Optional

Whether to close print dialog. Pass 1 to close or 0 to not close. Pass 2 to press cancel button in case you just want to learn the options.

1

#### Paper Format

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

The name of the paper format. Leave empty to not change.

"A4"

#### Paper Orientation

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

The paper orientation. Pass portrait or landscape. Empty value leaves setting as is.

"landscape"

#### Paper Source

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

The paper source. Pass name of setting. Name doesn't need to match exactly, just first letters. So you can pass "Man" für Manual (English) and Manuell (German).

"Man"

**Result** Returns OK or error.

### Description

Shows the printer setup dialog and switches target printer or paper settings.

Please use a script pause of at least a second after calling this function to let Windows show the dialogs.

You can later call Print.ErrorLog to detect errors. If Windows ever change dialogs, features may no longer work.

For Mac, please check PrintDialog.Install function.

Version 10.0 of MBS Plugin adds three new parameters paper format, orientation and source. And the plugin fills the internal lists for paper sources, formats and printers.

Source code sponsored by schubec.com  
<http://www.schubec.com>

### Examples

Switch printer:

```
Set Variable [ $r; Value:MBS("Printer.SetPrinter"; Printer Dialog::Printer Name) ]
Pause/Resume Script [ Duration (seconds): 2 ]
Show Custom Dialog [ "Result"; MBS("Printer.ErrorLog") ]
```

Change paper to Letter in landscape:

```
MBS( "Printer.SetPrinter"; "" ; 0; "Letter"; "landscape")
```

### See also

- [130.4 PageSetupDialog.Enable](#) 6496
- [130.12 PageSetupDialog.Install](#) 6505
- [130.40 PrintDialog.Install](#) 6536
- [131.2 Printer.CurrentPaperFormat](#) 6560
- [131.3 Printer.CurrentPaperSource](#) 6562
- [131.5 Printer.CurrentPrinterName](#) 6566
- [131.6 Printer.ErrorLog](#) 6568
- [131.8 Printer.PaperFormats](#) 6570
- [131.9 Printer.PaperSources](#) 6572
- [131.14 Printer.PrinterNames](#) 6582

### Example Databases

- [Win Only/Printer Switch/Printer Dialog](#)

#### 131.15.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr1](#)

- [MBS FileMaker Plugin, version 6.5pr7](#)
- [Printer Switch for Windows with MBS FileMaker Plugin](#)

Created 14th November 2016, last changed 21st November 2019.

# Chapter 132

## Process

Query process details.

### 132.1 Process.FrontProcessBundleID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	4.2	Yes	No	No	No	No

MBS( "Process.FrontProcessBundleID" )

**Result** Returns error or app bundle ID.

**Description**

**Examples**

Show bundle ID of front process:

Show Custom Dialog [ "Front Process" ; MBS( "Process.FrontProcessBundleID" ) ]

**See also**

- [132.2 Process.FrontProcessName](#)

6588

#### 132.1.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 25th November 2017.

## 132.2 Process.FrontProcessName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	4.2	Yes	Yes	No	No	No

MBS( "Process.FrontProcessName" )

**Result** Returns app name.

### Description

On Windows the app name is just the name of the exe file.

Returns empty string or error in case of errors.

### Examples

Show name of current process in front:

Show Custom Dialog [ "Front Process" ; MBS( "Process.FrontProcessName" ) ]

### See also

- [132.1 Process.FrontProcessBundleID](#)

6587

### Example Databases

- [Utility functions/Process Info](#)

### 132.2.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr4](#)

Created 18th August 2014, last changed 25th November 2017.



## 132.3 Process.FrontWindowTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	4.2	Yes	Yes	No	No	No

MBS( "Process.FrontWindowTitle" { ; index } )

### Parameters

#### index

Optional

Optional for Mac. Pass -1 to return number of windows. Else pass index from 0 to count-1 to query title of nth window.

””

**Result** Returns window title.

### Description

On Mac OS X requires you to allow FileMaker accessibility functions. In System Preferences check privacy control panel and add FileMaker there to the list allowed for assistive input.

### Examples

Query title of focused window:

```
MBS( "Process.FrontWindowTitle"
```

Query on Mac number of Windows.

```
MBS( "Process.FrontWindowTitle"; -1 )
```

Query on Mac the second window:

```
MBS( "Process.FrontWindowTitle"; 1 )
```

### Example Databases

- [Utility functions/Process Info](#)

### 132.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 132.4 Process.GetCurrentDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Process.GetCurrentDirectory" )

**Result** Returns path or error.

### Description

Some OS functions look for files relative to this folder.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Query current directory:

MBS( "Process.GetCurrentDirectory" )

### See also

- 124.2 `Path.FileMakerPathToNativePath` 6247
- 132.9 `Process.SetCurrentDirectory` 6595
- 151.18 `Shell.GetCurrentDirectory` 7141
- 151.39 `Shell.SetCurrentDirectory` 7163

### 132.4.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr6](#)

Created 8th November 2016, last changed 8th November 2016.

## 132.5 Process.IsFrontMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	2.9	Yes	Yes	No	No	No

MBS( "Process.IsFrontMost" )

**Result** Returns 1 if FileMaker is frontmost and 0 if not.

### Description

If the function returns zero, you can call Process.SetFrontMost to move FileMaker to the front. Added support for Windows in plugin version 4.2.

### Examples

Check if we are in background and move us to front:

```
If [ MBS( "Process.IsFrontMost" ) = 0 ]
Set Variable [ $r ; Value: MBS( "Process.SetFrontMost" ) ]
End If
```

### See also

- [132.7 Process.KeepFrontMost](#) 6593
- [132.10 Process.SetFrontMost](#) 6596

### Example Databases

- [Mac only/Process FrontMost](#)
- [Utility functions/Process Info](#)

### 132.5.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr4](#)
- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 25th November 2019.

## 132.6 Process.IsRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	4.0	Yes	No	Yes, macOS only	No	No

MBS( "Process.IsRunning"; Process )

### Parameters

#### Process

Either a number with process ID or a process name or a bundle ID.

123

**Result** Returns 0, 1 or error.

### Description

Returns 1 if process is found in process list or 0 if not.

### Examples

Check if Safari is running by name:

```
MBS( "Process.IsRunning"; "Safari" )
```

Check if Safari is running by bundle ID:

```
MBS( "Process.IsRunning"; "com.apple.safari" )
```

### 132.6.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr1](#)
- [MBS FileMaker Plugin 4.0 for OS X/Windows - More than 2200 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 132.7 Process.KeepFrontMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	7.1	Yes	No	No	No	No

MBS( "Process.KeepFrontMost"; Enabled )

### Parameters

#### Enabled

Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Can be enabled/disabled at any time.

If enabled, the plugin will bring FileMaker to front whenever it goes to background.

### Examples

Enable in script:

```
Variable setzen [ $$ref ; Wert: MBS( "Process.KeepFrontMost"; 1) ]
```

Disable in script:

```
Variable setzen [ $$ref ; Wert: MBS( "Process.KeepFrontMost"; 0) ]
```

### See also

- [132.5 Process.IsFrontMost](#) 6591
- [132.10 Process.SetFrontMost](#) 6596

### 132.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 28th February 2017, last changed 28th February 2017.

## 132.8 Process.LoadLibrary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Process.LoadLibrary"; Path )

### Parameters

#### Path

The native path to the library.

"C:\Users\Christian\Desktop\dynapdf64.dll"

**Result** Returns OK or error.

### Description

This can be used to resolve dependencies with libraries in various places.

This should work with .dll files on Windows, .dylib files on macOS and .so files on Linux.

Windows error 193 means that 64-bit FileMaker tried to load 32-bit library or 32-bit FileMaker tried to load 64-bit library. The bit level must match between app and library. For Mac OS X the error message will tell you about wrong architecture.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**See also**

- 124.2 Path.FileMakerPathToNativePath 6247

### 132.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr6](#)

Created 8th November 2016, last changed 14th August 2017.

## 132.9 Process.SetCurrentDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Process.SetCurrentDirectory"; Path )

### Parameters

#### Path

The new native path.

"C:\Test"

**Result** Returns OK or error.

### Description

Some OS functions look for files relative to this folder.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Set current directory:

MBS( "Process.SetCurrentDirectory"; "/Users/cs/Desktop" )

Set current path on Windows:

MBS( "Process.SetCurrentDirectory"; "C:\Test" )

### See also

- 79.19 Files.FileExists 3855
- 124.2 Path.FileMakerPathToNativePath 6247
- 132.4 Process.GetCurrentDirectory 6590
- 151.18 Shell.GetCurrentDirectory 7141
- 151.39 Shell.SetCurrentDirectory 7163
- 194.38 XML.ValidateFile 9468

### 132.9.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr6](#)

Created 8th November 2016, last changed 8th November 2016.

## 132.10 Process.SetFrontMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	2.9	Yes	Yes	Yes	No	No

MBS( "Process.SetFrontMost" )

**Result** Returns OK or error.

### Description

You can use Process.IsFrontMost to check the status.

You can use Window.Activate for Windows.

Implemented Process.SetFrontMost for Windows in version 9.2. The plugin builds a list of all FileMaker windows. Than we activate the top most of them and move all other windows in z order behind.

### Examples

Bring FileMaker to front:

```
Set Variable [ $r; Value:MBS("Process.SetFrontMost") ]
```

### See also

- [132.5 Process.IsFrontMost](#) 6591
- [132.7 Process.KeepFrontMost](#) 6593
- [185.5 Window.Activate](#) 8673

### Example Databases

- [Mac only/Process FrontMost](#)

### 132.10.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)
- [SetFrontMost for Windows](#)
- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 27th March 2019.



## 132.11 ProcessActivity.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "ProcessActivity.List" )

**Result** Returns list of IDs or error.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.

### Examples

List all activities:

MBS( "ProcessActivity.List" )

### See also

- 132.13 ProcessActivity.Reason

6599

Created 2nd June 2015, last changed 21st September 2015.

## 132.12 ProcessActivity.Options

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "ProcessActivity.Options"; ProcessActivityID )

### Parameters

#### ProcessActivityID

The process activity reference number as returned by ProcessActivity.beginActivity function.  
\$ref

**Result** Returns number or error.

### Description

### Examples

Query options of first activity:

MBS( "ProcessActivity.Options"; "39001" )

### See also

- 132.14 ProcessActivity.beginActivity 6600
- 132.13 ProcessActivity.Reason 6599

Created 2nd June 2015, last changed 2nd June 2015.

**132.13 ProcessActivity.Reason**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "ProcessActivity.Reason"; ProcessActivityID )

**Parameters****ProcessActivityID**

The process activity reference number as returned by ProcessActivity.beginActivity function.  
\$ref

**Result** Returns text or error.

**Description****Examples**

Query reason of first activity:

MBS( "ProcessActivity.Reason"; "39001" )

**See also**

- 132.14 ProcessActivity.beginActivity 6600
- 132.11 ProcessActivity.List 6597
- 132.12 ProcessActivity.Options 6598

Created 2nd June 2015, last changed 2nd June 2015.

## 132.14 ProcessActivity.beginActivity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "ProcessActivity.beginActivity"; activity; Reason )

### Parameters

#### activity

The activity as a number or a text. The plugin allows you to pass texts like IdleDisplaySleepDisabled, IdleSystemSleepDisabled, UserInitiated, UserInitiatedAllowingIdleSystemSleep, Background and Latency-Critical. Those texts can be combined.

"IdleDisplaySleepDisabled"

#### Reason

The reason text.

"Doing backup"

**Result** Returns reference number or error.

### Description

Pass in an activity to this function, and a non-empty reason string. Indicate completion of the activity by calling the corresponding ProcessActivity.endActivity function with the result of this function. The reason string is used for debugging.

Requires Mac OS X 10.9 and newer.

This function allows to deactivate App Nap for FileMaker. So when a script has to do some work, you can disable system/display sleep here which also disables app nap.

### Examples

Start an activity:

```
MBS( "ProcessActivity.beginActivity"; "IdleSystemSleepDisabled UserInitiated"; "Doing Backup in File-Maker" )
```

Avoid display sleep:

```
MBS( "ProcessActivity.beginActivity"; "IdleDisplaySleepDisabled UserInitiated"; "Showing animation" )
```

### See also

- 132.15 ProcessActivity.endActivity 6602
- 132.12 ProcessActivity.Options 6598
- 132.13 ProcessActivity.Reason 6599

### Example Databases

- [Utility functions/Process Activity](#)

### 132.14.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr2](#)
- [Disable App Nap, System and Screen Sleep in FileMaker](#)

Created 2nd June 2015, last changed 17th May 2019.

## 132.15 ProcessActivity.endActivity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
132 Process	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "ProcessActivity.endActivity"; ProcessActivityID )

### Parameters

#### ProcessActivityID

The process activity reference number as returned by ProcessActivity.beginActivity function.  
\$ref

**Result** Returns OK or error.

### Description

#### See also

- [132.14 ProcessActivity.beginActivity](#) 6600

### Example Databases

- [Utility functions/Process Activity](#)

### 132.15.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr2](#)
- [Disable App Nap, System and Screen Sleep in FileMaker](#)

Created 2nd June 2015, last changed 2nd June 2015.

# Chapter 133

## ProgressDialog

Show progress dialog.

### 133.1 ProgressDialog.ClearImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.ClearImage" )

**Result** Returns "OK" on success.

#### Description

If there is no image, there is more room for your text in the dialog.

#### Examples

Clear Image

MBS( "ProgressDialog.ClearImage" )

#### See also

- [133.20 ProgressDialog.SetImage](#)

6629

#### Example Databases

- [Progress Dialog](#)
- [Utility functions/MouseCursors](#)

### **133.1.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.4pr7](#)

### **133.1.2 FileMaker Magazin**

- Ausgabe 2/2017, Seite 40

Created 18th August 2014, last changed 18th August 2014.



## 133.2 ProgressDialog.GetBottomText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetBottomText" )

**Result** The bottom text.

### Description

#### See also

- [133.3 ProgressDialog.GetButtonCaption](#) 6606
- [133.12 ProgressDialog.GetTopMost](#) 6616
- [133.13 ProgressDialog.GetTopText](#) 6617
- [133.16 ProgressDialog.SetBottomText](#) 6621
- [133.30 ProgressDialog.SetTopText](#) 6645

### 133.2.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr4](#)

Created 18th August 2014, last changed 18th August 2014.

### 133.3 ProgressDialog.GetButtonCaption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetButtonCaption" )

**Result** The button text.

**Description**

**See also**

- 133.2 ProgressDialog.GetBottomText 6605
- 133.17 ProgressDialog.SetButtonCaption 6623

Created 18th August 2014, last changed 18th August 2014.

## 133.4 ProgressDialog.GetCancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetCancel" )

**Result** The current state. 1 = cancel pressed, 0 = cancel not pressed.

### Description

Cancel property is set when the user clicks the cancel button. It is reset when you call ProgressDialog.Show. You can also set it with ProgressDialog.SetCancel.

### Examples

Query cancel state

MBS( "ProgressDialog.GetCancel" )

### See also

- [102.57 JSON.Import](#) 5395
- [133.9 ProgressDialog.GetProgress](#) 6613
- [133.11 ProgressDialog.GetTitle](#) 6615
- [133.12 ProgressDialog.GetTopMost](#) 6616
- [133.18 ProgressDialog.SetCancel](#) 6625
- [133.19 ProgressDialog.SetFont](#) 6627
- [133.20 ProgressDialog.SetImage](#) 6629
- [133.27 ProgressDialog.SetTitle](#) 6639
- [133.30 ProgressDialog.SetTopText](#) 6645
- [194.13 XML.Import](#) 9428

### Example Databases

- [CURL/CURL Download in Background](#)
- [CURL/Email/Batch Emailer](#)
- [CURL/Email/Email Client](#)
- [JSON/JSON Import](#)
- [Mac and iOS/Addressbook/Addressbook](#)

- [Progress Dialog](#)
- [Utility functions/MouseCursors](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)
- [XML/XML Import](#)

### 133.4.1 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

Created 18th August 2014, last changed 18th August 2014.

## 133.5 ProgressDialog.GetImageHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	9.2	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetImageHeight" )

**Result** Returns number or error.

### Description

#### See also

- [133.6 ProgressDialog.GetImageWidth](#) 6610
- [133.21 ProgressDialog.SetImageHeight](#) 6631
- [133.22 ProgressDialog.SetImageWidth](#) 6632

### 133.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 28th March 2019, last changed 28th March 2019.

## 133.6 ProgressDialog.GetImageWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	9.2	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetImageWidth" )

**Result** Returns number or error.

### Description

#### See also

- [133.5 ProgressDialog.GetImageHeight](#) 6609
- [133.20 ProgressDialog.SetImage](#) 6629
- [133.21 ProgressDialog.SetImageHeight](#) 6631
- [133.22 ProgressDialog.SetImageWidth](#) 6632

### 133.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 28th March 2019, last changed 28th March 2019.

## 133.7 ProgressDialog.GetPositionX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.6	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetPositionX" )

**Result** The X position value or an error message.

### Description

You can store the position in your database so the user can enjoy a movable dialog which remembers position. Please use ProgressDialog.SetPosition to restore position.

### See also

- 133.8 ProgressDialog.GetPositionY 6612
- 133.10 ProgressDialog.GetShowButton 6614
- 133.12 ProgressDialog.GetTopMost 6616
- 133.23 ProgressDialog.SetPosition 6633
- 133.26 ProgressDialog.SetShowButton 6637

### 133.7.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 133.8 ProgressDialog.GetPositionY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.6	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetPositionY" )

**Result** The Y position value or an error message.

### Description

You can store the position in your database so the user can enjoy a movable dialog which remembers position. Please use ProgressDialog.SetPosition to restore position.

### See also

- 133.7 ProgressDialog.GetPositionX 6611
- 133.10 ProgressDialog.GetShowButton 6614
- 133.12 ProgressDialog.GetTopMost 6616
- 133.23 ProgressDialog.SetPosition 6633
- 133.26 ProgressDialog.SetShowButton 6637

### 133.8.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr3](#)

Created 18th August 2014, last changed 18th August 2014.



**133.9 ProgressDialog.GetProgress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetProgress" )

**Result** The current progress value.

**Description**

This is a number from 0 to 100 for progress or a negative number for indeterminate progress bar.

**See also**

- 133.4 ProgressDialog.GetCancel 6607
- 133.12 ProgressDialog.GetTopMost 6616
- 133.13 ProgressDialog.GetTopText 6617
- 133.25 ProgressDialog.SetProgress 6635
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645

Created 18th August 2014, last changed 18th August 2014.

## 133.10 ProgressDialog.GetShowButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetShowButton" )

**Result** The current status. 1 if visible and 0 if the show button is hidden.

### Description

#### See also

- 133.7 ProgressDialog.GetPositionX 6611
- 133.8 ProgressDialog.GetPositionY 6612
- 133.23 ProgressDialog.SetPosition 6633
- 133.26 ProgressDialog.SetShowButton 6637

Created 18th August 2014, last changed 18th August 2014.

**133.11 ProgressDialog.GetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetTitle" )

**Result** The title of the dialog.

**Description****Examples**

Queries the title text:

MBS( "ProgressDialog.GetTitle" )

**See also**

- 133.4 ProgressDialog.GetCancel 6607
- 133.12 ProgressDialog.GetTopMost 6616
- 133.13 ProgressDialog.GetTopText 6617
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.20 ProgressDialog.SetImage 6629
- 133.27 ProgressDialog.SetTitle 6639
- 133.28 ProgressDialog.SetTitleIcon 6641
- 133.30 ProgressDialog.SetTopText 6645
- 133.32 ProgressDialog.Update 6649

Created 18th August 2014, last changed 18th August 2014.

## 133.12 ProgressDialog.GetTopMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.6	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetTopMost" )

**Result** Returns 1 if dialog is topmost or 0 if not.

### Description

Top most means that dialog floats over other windows.

### See also

- 133.4 ProgressDialog.GetCancel 6607
- 133.7 ProgressDialog.GetPositionX 6611
- 133.8 ProgressDialog.GetPositionY 6612
- 133.9 ProgressDialog.GetProgress 6613
- 133.11 ProgressDialog.GetTitle 6615
- 133.13 ProgressDialog.GetTopText 6617
- 133.19 ProgressDialog.SetFont 6627
- 133.25 ProgressDialog.SetProgress 6635
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645

### 133.12.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**133.13 ProgressDialog.GetTopText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.GetTopText" )

**Result** The top text.

**Description****See also**

- 133.9 ProgressDialog.GetProgress 6613
- 133.11 ProgressDialog.GetTitle 6615
- 133.12 ProgressDialog.GetTopMost 6616
- 133.16 ProgressDialog.SetBottomText 6621
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.25 ProgressDialog.SetProgress 6635
- 133.27 ProgressDialog.SetTitle 6639
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645

Created 18th August 2014, last changed 18th August 2014.

## 133.14 ProgressDialog.Hide

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.Hide" )

**Result** Returns "OK" on success.

### Description

You may want to call ProgressDialog.Reset before reusing the progress dialog. Or later call ProgressDialog.Show again to show progress dialog with same settings.

Resets parent and enables parent window to make sure it is not disabled.

### Examples

Show the progress dialog:

MBS( "ProgressDialog.Show" )

Hide the progress dialog:

MBS( "ProgressDialog.Hide" )

### See also

- 64.27 Dialog.Reset 2408
- 81.3 FM.CompareTables 4127
- 81.37 FM.SetSQLBatchMode 4220
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 133.15 ProgressDialog.Reset 6620
- 133.36 Progressdialog.SetEvaluate 6654
- 133.31 ProgressDialog.Show 6647
- 133.32 ProgressDialog.Update 6649
- 194.13 XML.Import 9428

### Example Databases

- [CURL/CURL Download in Background](#)

- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [JSON/JSON Import](#)
- [Mac and iOS/AVExport](#)
- [Progress Dialog](#)
- [Utility functions/MouseCursors](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)
- [Win Only/WIA Scan](#)

#### **133.14.1 Blog Entries**

- [ImageCapture functions for Mac OS X](#)

#### **133.14.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

Created 18th August 2014, last changed 21st December 2017.

## 133.15 ProgressDialog.Reset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	6.4	Yes	Yes	Yes	No	No

MBS( "ProgressDialog.Reset" )

**Result** Returns OK or error.

### Description

#### See also

- [81.37 FM.SetSQLBatchMode](#) 4220
- [93.86 ImageCapture.RequestScan](#) 5086
- [93.91 ImageCapture.SetParameter](#) 5094
- [133.14 ProgressDialog.Hide](#) 6618
- [133.19 ProgressDialog.SetFont](#) 6627
- [133.31 ProgressDialog.Show](#) 6647
- [133.32 ProgressDialog.Update](#) 6649

#### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/Batch Emailer](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [Mac only/MetaDataQuery/Search Applications](#)
- [Win Only/WIA Scan](#)

### 133.15.1 Blog Entries

- [Debugging problems on FileMaker Cloud for AWS](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)
- [ImageCapture functions for Mac OS X](#)

Created 11st September 2016, last changed 11st September 2016.



**133.16 ProgressDialog.SetBottomText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetBottomText"; text )

**Parameters****text**

The new bottom text.

"Hello"

**Result** Returns "OK" on success.

**Description**

Below the progress bar most applications shows some data like "x of y files processed" or "123 KB of 456 KB copied."

Please do not call this function more than one time per second to avoid the progress window redraw to slow down your process.

**Examples**

Report progress:

MBS( "ProgressDialog.SetBottomText"; \$index & " of " & \$total & " files" )

**See also**

- 81.3 FM.CompareTables 4127
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 102.57 JSON.Import 5395
- 133.2 ProgressDialog.GetBottomText 6605
- 133.13 ProgressDialog.GetTopText 6617
- 133.17 ProgressDialog.SetButtonCaption 6623
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645
- 194.13 XML.Import 9428

**Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/Email Client](#)
- [JSON/JSON Import](#)
- [Mac and iOS/Addressbook/Addressbook](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [Mac only/MetaDataQuery/Search Applications](#)
- [Utility functions/MouseCursors](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)
- [XML/XML Import](#)

### 133.16.1 Blog Entries

- [ImageCapture functions for Mac OS X](#)

### 133.16.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

Created 18th August 2014, last changed 9th February 2015.

## 133.17 ProgressDialog.SetButtonCaption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetButtonCaption"; text )

### Parameters

#### text

The new button text.

"Annuler"

**Result** Returns "OK" on success.

### Description

Default is "Cancel" if you don't call this method. If your solution supports multiple languages, it may be worth putting those texts into an extra table and picking the right text at runtime.

### Examples

Set button text for Germany:

MBS( "ProgressDialog.SetButtonCaption"; "Abbrechen" )

### See also

- [64.31 Dialog.SetButton](#) 2413
- [81.3 FM.CompareTables](#) 4127
- [93.86 ImageCapture.RequestScan](#) 5086
- [93.91 ImageCapture.SetParameter](#) 5094
- [102.57 JSON.Import](#) 5395
- [133.3 ProgressDialog.GetButtonCaption](#) 6606
- [133.16 ProgressDialog.SetBottomText](#) 6621
- [133.32 ProgressDialog.Update](#) 6649
- [194.13 XML.Import](#) 9428

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Download in Background](#)
- [CURL/Email/Batch Emailer](#)

- [JSON/JSON Import](#)
- [Mac and iOS/Addressbook/Addressbook](#)
- [Mac and iOS/AVExport](#)
- [Mac only/MetaDataQuery/Search Applications](#)
- [Utility functions/MouseCursors](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

### 133.17.1 Blog Entries

- [ImageCapture functions for Mac OS X](#)

### 133.17.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

Created 18th August 2014, last changed 18th August 2014.

**133.18 ProgressDialog.SetCancel**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetCancel"; Flag )

**Parameters****Flag**

the new cancel state.

1

**Result** Returns "OK" on success.

**Description**

You can query in your loop whether user clicked cancel so you can exit your loop.

If your script does not make a pause or a long running plugin functions runs, there may be no reaction on the cancel button.

**Examples**

Set cancel state

MBS( "ProgressDialog.SetCancel"; 1 )

Reset Cancel state:

MBS( "ProgressDialog.SetCancel"; 0 )

**See also**

- 133.4 ProgressDialog.GetCancel 6607
- 133.11 ProgressDialog.GetTitle 6615
- 133.19 ProgressDialog.SetFont 6627
- 133.20 ProgressDialog.SetImage 6629
- 133.25 ProgressDialog.SetProgress 6635
- 133.37 Progressdialog.SetScript 6655
- 133.27 ProgressDialog.SetTitle 6639
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647

**Example Databases**

- [CURL/CURL Download in Background](#)
- [CURL/CURL Download with Progress](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/FTP/CURL FTP Upload with Progress](#)
- [Mac only/MetaDataQuery/Search Applications](#)

Created 18th August 2014, last changed 3th April 2016.

## 133.19 ProgressDialog.SetFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.9	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetFont" { ; fontname; fontsize } )

### Parameters

#### fontname

Optional

The font name. If this is empty, the system font is used.

"Arial"

#### fontsize

Optional

The font size. If this value is 0, the system font size is used.

12

**Result** Returns OK on success.

### Description

### Examples

Set font:

MBS( "ProgressDialog.SetFont"; "Comic Sans MS"; 12 )

### See also

- 133.13 ProgressDialog.GetTopText 6617
- 133.15 ProgressDialog.Reset 6620
- 133.18 ProgressDialog.SetCancel 6625
- 133.20 ProgressDialog.SetImage 6629
- 133.23 ProgressDialog.SetPosition 6633
- 133.37 Progressdialog.SetScript 6655
- 133.27 ProgressDialog.SetTitle 6639
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647

### 133.19.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr2](#)
- [MBS Filemaker Plugin, version 2.9pr9](#)

Created 18th August 2014, last changed 25th November 2017.



## 133.20 ProgressDialog.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetImage"; image )

### Parameters

#### image

A container value with some picture. Can be JPEG, GIF, BMP, PNG or TIFF.

preftable::ProgressIcon

**Result** Returns "OK" on success.

### Description

For best results use a PNG with alpha channel, so you don't see a border. Size should be 64 x 64 Pixels (72 dpi). If the picture does not fit, the plugin tries to scale it.

Alpha Channel is not supported on Windows 2000, but works on Windows XP and newer.

Internally we use GraphicsMagick, so all the image formats supported by GraphicsMagick should work.

If there is no image, there is more room for your text in the dialog.

### Examples

Set Image:

MBS( "ProgressDialog.SetImage"; Globals::ProgressLogo )

### See also

- 133.1 ProgressDialog.ClearImage 6603
- 133.11 ProgressDialog.GetTitle 6615
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.21 ProgressDialog.SetImageHeight 6631
- 133.22 ProgressDialog.SetImageWidth 6632
- 133.25 ProgressDialog.SetProgress 6635
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645
- 133.32 ProgressDialog.Update 6649

### Example Databases

- [Progress Dialog](#)

### 133.20.1 FileMaker Magazin

- Ausgabe 2/2017, Seite 40

Created 18th August 2014, last changed 25th November 2017.

**133.21 ProgressDialog.SetImageHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	9.2	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetImageHeight"; Height )

**Parameters****Height**

The new height.

64

**Result** Returns OK or error.

**Description**

Sets the height for the image view showing the image.

Default is 64 points.

Image is stretched to this size on MacOS.

**See also**

- [133.5 ProgressDialog.GetImageHeight](#) 6609
- [133.6 ProgressDialog.GetImageWidth](#) 6610
- [133.20 ProgressDialog.SetImage](#) 6629
- [133.22 ProgressDialog.SetImageWidth](#) 6632

**133.21.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 28th March 2019, last changed 28th March 2019.

## 133.22 ProgressDialog.SetImageWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	9.2	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetImageWidth"; Width )

### Parameters

#### Width

The new width.

64

**Result** Returns OK or error.

### Description

Sets the width for the image view showing the image.

Default is 64 points.

Image is stretched to this size on MacOS.

### See also

- [133.5 ProgressDialog.GetImageHeight](#) 6609
- [133.6 ProgressDialog.GetImageWidth](#) 6610
- [133.20 ProgressDialog.SetImage](#) 6629
- [133.21 ProgressDialog.SetImageHeight](#) 6631

### 133.22.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 28th March 2019, last changed 28th March 2019.

## 133.23 ProgressDialog.SetPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetPosition"; X; Y )

### Parameters

#### X

Relative x coordinate.

100

#### Y

Relative y coordinate.

100

**Result** Returns "OK" on success.

### Description

With X and Y you can move the dialog relative to the top left corner of the main screen. Use functions like Screen.Height to learn about screen height.

### See also

- 133.7 ProgressDialog.GetPositionX 6611
- 133.8 ProgressDialog.GetPositionY 6612
- 133.10 ProgressDialog.GetShowButton 6614
- 133.19 ProgressDialog.SetFont 6627
- 133.24 ProgressDialog.SetPositionCentered 6634
- 133.25 ProgressDialog.SetProgress 6635
- 133.26 ProgressDialog.SetShowButton 6637
- 133.27 ProgressDialog.SetTitle 6639
- 133.28 ProgressDialog.SetTitleIcon 6641
- 133.30 ProgressDialog.SetTopText 6645

### 133.23.1 Blog Entries

- [MBS Filemaker Plugin, version 2.4pr9](#)

Created 18th August 2014, last changed 31st May 2018.

## 133.24 ProgressDialog.SetPositionCentered

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetPositionCentered" { ; X; Y } )

### Parameters

#### X

Optional

Optional, Relative x coordinate.

0

#### Y

Optional

Optional, Relative y coordinate.

0

**Result** Returns "OK" on success.

### Description

With X and Y you can move the dialog relative to the center of the main screen. Use functions like Screen.Height to learn about screen height.

### Examples

Center dialog:

```
MBS( "ProgressDialog.SetPositionCentered" )
```

Center dialog a little bit lower on screen:

```
MBS( "ProgressDialog.SetPositionCentered"; 0; 200 )
```

### See also

- [133.23 ProgressDialog.SetPosition](#) 6633
- [144.4 Screen.Height](#) 6954

### 133.24.1 Blog Entries

- [MBS Filemaker Plugin, version 2.4pr9](#)

Created 18th August 2014, last changed 18th August 2014.

**133.25 ProgressDialog.SetProgress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetProgress"; value )

**Parameters****value**

New value. Range from 0 to 100 for a normal progress bar or negative value for indeterminated progress bar.

50

**Result** Returns "OK" on success.

**Description**

Depending on your range, you need to multiply/divide to get into range from 0 to 100. Typically you can simply do math like this:  $\$index * 100 / \$total$ . That calculates the percentage of files processed if you have  $\$total$  files and current file index is  $\$index$ .

If you process more than 100 items, please consider only updating progress if you actually moved forward 1% . You can do this by keeping variable with last progress you set and update only if new progress value is bigger.

Please do not call this function more than one time per second to avoid the progress window redraw to slow down your process.

**Examples**

Set progress bar to indeterminate while preparing operations:

```
MBS( "ProgressDialog.SetProgress"; -1 )
```

Set later progress bar to current value:

```
MBS( "ProgressDialog.SetProgress"; $index * 100 / $total )
```

Update only when changed by one percent:

```
Set Variable [ $percent; Value:Round(100 * $current / $total; 0) ]
If [ $percent $lastpercent ]
Set Variable [ $lastpercent; Value:$percent ]
Set Variable [ $r; Value:MBS( "ProgressDialog.SetProgress"; $percent ) ]
End If
```

**See also**

- 81.37 FM.SetSQLBatchMode

- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 102.57 JSON.Import 5395
- 133.12 ProgressDialog.GetTopMost 6616
- 133.13 ProgressDialog.GetTopText 6617
- 133.18 ProgressDialog.SetCancel 6625
- 133.23 ProgressDialog.SetPosition 6633
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Download with Progress](#)
- [CURL/Email/Batch Emailer](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [Mac and iOS/Addressbook/Addressbook](#)
- [Mac only/MetaDataQuery/Search Applications](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)
- [XML/XML Import](#)

### 133.25.1 Blog Entries

- [ImageCapture functions for Mac OS X](#)

### 133.25.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 2/2017, Seite 40



**133.26 ProgressDialog.SetShowButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetShowButton"; Flag )

**Parameters****Flag**

Whether to show or hide the show button.

1

**Result** Returns "OK" on success.

**Description****Examples**

Hide button:

MBS( "ProgressDialog.SetShowButton"; 0 )

Show button:

MBS( "ProgressDialog.SetShowButton"; 1 )

**See also**

- 62.388 [CURL.SetUpdateProgressDialog](#) 2359
- 81.23 [FM.InsertSetUpdateProgressDialog](#) 4190
- 133.7 [ProgressDialog.GetPositionX](#) 6611
- 133.8 [ProgressDialog.GetPositionY](#) 6612
- 133.10 [ProgressDialog.GetShowButton](#) 6614
- 133.23 [ProgressDialog.SetPosition](#) 6633
- 133.28 [ProgressDialog.SetTitleIcon](#) 6641
- 133.31 [ProgressDialog.Show](#) 6647

**Example Databases**

- [CURL/CURL Download in Background](#)
- [CURL/CURL Download with Progress](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)

- [CURL/FTP/CURL FTP Upload with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [Mac and iOS/AVExport](#)
- [Mac only/MetaDataQuery/Search Applications](#)

Created 18th August 2014, last changed 26th May 2016.

**133.27 ProgressDialog.SetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetTitle"; title )

**Parameters****title**

The new text for the title.

"Please wait."

**Result** Returns "OK" on success.

**Description****Examples**

Sets new title text:

MBS( "ProgressDialog.SetTitle"; "Please wait." )

**See also**

- 81.37 FM.SetSQLBatchMode 4220
- 93.86 ImageCapture.RequestScan 5086
- 133.11 ProgressDialog.GetTitle 6615
- 133.13 ProgressDialog.GetTopText 6617
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.20 ProgressDialog.SetImage 6629
- 133.28 ProgressDialog.SetTitleIcon 6641
- 133.29 ProgressDialog.SetTopMost 6643
- 133.32 ProgressDialog.Update 6649

**Example Databases**

- [CURL/Amazon S3 Upload File](#)
- [CURL/Email/Batch Emailer](#)
- [CURL/SFTP/CURL sFTP Upload File](#)

- DynaPDF/Scan with WIA to PDF
- Mac only/ImageCapture/ImageCapture
- Progress Dialog
- WebViewer/WebKit 1.x only/WebViewer Download Delegate for Mac with Custom Webviewer
- WebViewer/WebKit 1.x only/WebViewer Download Delegate for Mac
- Win Only/WIA Scan
- XML/XML Import

### 133.27.1 Blog Entries

- ImageCapture functions for Mac OS X

### 133.27.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 2/2017, Seite 40

Created 18th August 2014, last changed 18th August 2014.

## 133.28 ProgressDialog.SetTitleIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	10.2	No	Yes	No	No	No

MBS( "ProgressDialog.SetTitleIcon"; ImageRef { ; bigIcon } )

### Parameters

#### ImageRef

The image reference for the picture image, a number returned from the GImage.New functions

1

#### bigIcon

Optional

Pass 1 to set big icon (for app switcher) or 0 for small icon (icon in title bar). Default is 0.

1

**Result** Returns OK or error.

### Description

You may need to use GImage.NewImagesFromContainer to read image from container first.

### Examples

Set progress dialog icon:

```
# load image
Set Variable [ $image ; Value: MBS( "GImage.NewImagesFromContainer"; ProgressDialog::Icon) ]
# set icon
Set Variable [ $r ; Value: MBS("ProgressDialog.SetTitleIcon"; $image) ]

# later free it
Set Variable [ $r ; Value: MBS( "GImage.Release"; $image) ]
```

### See also

- 87.191 GImage.New 4642
- 87.196 GImage.NewImagesFromContainer 4651
- 87.214 GImage.Release 4674
- 133.11 ProgressDialog.GetTitle 6615
- 133.23 ProgressDialog.SetPosition 6633
- 133.26 ProgressDialog.SetShowButton 6637
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645

### 133.28.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr8](#)

Created 7th May 2020, last changed 7th May 2020.

**133.29 ProgressDialog.SetTopMost**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.6	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetTopMost"; value )

**Parameters****value**

The new topmost state.

1

**Result** Returns "OK" or error message.

**Description**

Default is to have topmost enabled.

Top most means that dialog floats over other windows.

**Examples**

Enable top most:

MBS( "ProgressDialog.SetTopMost"; 1 )

Disable top most:

MBS( "ProgressDialog.SetTopMost"; 0 )

**See also**

- 64.47 Dialog.SetTop 2431
- 133.12 ProgressDialog.GetTopMost 6616
- 133.16 ProgressDialog.SetBottomText 6621
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.23 ProgressDialog.SetPosition 6633
- 133.25 ProgressDialog.SetProgress 6635
- 133.37 Progressdialog.SetScript 6655
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645

### 133.29.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr5](#)

Created 18th August 2014, last changed 25th November 2017.



**133.30 ProgressDialog.SetTopText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.SetTopText"; text )

**Parameters****text**

The new top text.

"Generating thumbnails..."

**Result** Returns "OK" on success.

**Description**

Here you can show what your solution is doing.

Please do not call this function more than one time per second to avoid the progress window redraw to slow down your process.

**Examples**

Report activity in dialog:

MBS( "ProgressDialog.SetTopText"; "Downloading images..." )

**See also**

- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094
- 133.12 ProgressDialog.GetTopMost 6616
- 133.19 ProgressDialog.SetFont 6627
- 133.23 ProgressDialog.SetPosition 6633
- 133.27 ProgressDialog.SetTitle 6639
- 133.28 ProgressDialog.SetTitleIcon 6641
- 133.29 ProgressDialog.SetTopMost 6643
- 133.31 ProgressDialog.Show 6647
- 194.13 XML.Import 9428

**Example Databases**

- [CURL/CURL Download in Background](#)

- [CURL/Email/Batch Emailer](#)
- [CURL/Email/Email Client](#)
- [CURL/FTP/CURL FTP Upload from file with Progress](#)
- [CURL/SFTP/CURL sFTP Upload File](#)
- [Mac and iOS/AVExport](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [Utility functions/MouseCursors](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)
- [XML/XML Import](#)

### 133.30.1 Blog Entries

- [ImageCapture functions for Mac OS X](#)

### 133.30.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

Created 18th August 2014, last changed 9th February 2015.

## 133.31 ProgressDialog.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.4	Yes	Yes	No	No	No

MBS( "ProgressDialog.Show" { ; NoActivate } )

### Parameters

#### NoActivate

Optional

Available in MBS FileMaker Plugin 8.0 or newer.

Whether to activate the window (0) or not to activate (1). By default we move window to front to show user. But if you prefer being in background, you can simply show without activation.

0

**Result** Returns "OK" on success.

### Description

### Examples

Show the progress dialog:

```
MBS( "ProgressDialog.Show" )
```

Hide the progress dialog:

```
MBS( "ProgressDialog.Hide" )
```

Setup a progress window before an upload:

```
Set Variable [ $result; Value:MBS("ProgressDialog.Reset") ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetCancel"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetProgress"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetTopText"; "Uploading text...") ]
Set Variable [ $result; Value:MBS("ProgressDialog.SetShowButton"; 0) ]
Set Variable [ $result; Value:MBS("ProgressDialog.Show") ]
```

### See also

- 81.3 FM.CompareTables 4127
- 81.23 FM.InsertSetUpdateProgressDialog 4190
- 81.37 FM.SetSQLBatchMode 4220
- 93.86 ImageCapture.RequestScan 5086
- 93.91 ImageCapture.SetParameter 5094

- 102.57 JSON.Import 5395
- 133.4 ProgressDialog.GetCancel 6607
- 133.18 ProgressDialog.SetCancel 6625
- 133.19 ProgressDialog.SetFont 6627
- 133.25 ProgressDialog.SetProgress 6635

### Example Databases

- [CURL/Amazon S3 Upload File](#)
- [CURL/CURL Download in Background](#)
- [CURL/CURL Download with Progress](#)
- [CURL/Email/Email Client](#)
- [DynaPDF/Scan with WIA to PDF](#)
- [JSON/JSON Import](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [Progress Dialog](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

### 133.31.1 Blog Entries

- [Introducing FM.CompareTables function](#)
- [MBS FileMaker Plugin, version 7.6pr1](#)
- [ImageCapture functions for Mac OS X](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)

### 133.31.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 2/2017, Seite 40](#)

## 133.32 ProgressDialog.Update

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
133 ProgressDialog	2.6	Yes	Yes	No	No	No

MBS( "ProgressDialog.Update" )

**Result** Returns "OK" on success.

### Description

When you change something on the dialog, it's marked for needing a redraw and this redraw is normally performed when there is some free CPU time like in a script pause. You can call this function to redraw now.

Please do not call this function more than 10 times a second in your script. Else you may see a slowdown in script performance as redrawing the dialog takes time.

### Examples

Updates dialog with new button caption:

```
MBS( "ProgressDialog.SetButtonCaption"; "Abbrechen" )
MBS( "ProgressDialog.Update" )
```

### See also

- [64.31 Dialog.SetButton](#) 2413
- [81.37 FM.SetSQLBatchMode](#) 4220
- [133.11 ProgressDialog.GetTitle](#) 6615
- [133.14 ProgressDialog.Hide](#) 6618
- [133.15 ProgressDialog.Reset](#) 6620
- [133.17 ProgressDialog.SetButtonCaption](#) 6623
- [133.20 ProgressDialog.SetImage](#) 6629
- [133.27 ProgressDialog.SetTitle](#) 6639

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Email Client](#)
- [Mac and iOS/Addressbook/Addressbook](#)
- [Utility functions/MouseCursors](#)

### 133.32.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr3](#)

Created 18th August 2014, last changed 17th January 2016.

## 133.33 Progressdialog.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Progressdialog	7.1	Yes	Yes	No	No	No

MBS( "Progressdialog.GetEvaluate" )

**Result** Returns text or error.

### Description

### See also

- [133.34 Progressdialog.GetFileName](#) 6652
- [133.36 Progressdialog.SetEvaluate](#) 6654

### 133.33.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 14th February 2017.

## 133.34 Progressdialog.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Progressdialog	7.1	Yes	Yes	No	No	No

MBS( "Progressdialog.GetFileName" )

**Result** Returns text or error.

**Description**

**See also**

- [133.33 Progressdialog.GetEvaluate](#) 6651
- [133.35 Progressdialog.GetScriptName](#) 6653
- [133.36 Progressdialog.SetEvaluate](#) 6654

### 133.34.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 14th February 2017.



## 133.35 Progressdialog.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Progressdialog	7.1	Yes	Yes	No	No	No

MBS( "Progressdialog.GetScriptName" )

**Result** Returns text or error.

### Description

### See also

- 133.34 Progressdialog.GetFileName 6652
- 133.37 Progressdialog.SetScript 6655

### 133.35.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 16th February 2017.

## 133.36 Progressdialog.SetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Progressdialog	7.1	Yes	Yes	No	No	No

MBS( "Progressdialog.SetEvaluate"; Expression )

### Parameters

#### Expression

The expression to run. Can be in local language of FileMaker Pro or english. For Server must always be in english.

”\$\$cancel = 1”

**Result** Returns OK or error.

### Description

You can set global variable to stop something or call MBS functions here.

### Examples

Sets expression to hide dialog:

```
MBS("ProgressDialog.SetEvaluate"; "MBS(\"ProgressDialog.Hide\)")")
```

### See also

- [133.33 Progressdialog.GetEvaluate](#) 6651
- [133.34 Progressdialog.GetFileName](#) 6652
- [133.14 ProgressDialog.Hide](#) 6618
- [133.37 Progressdialog.SetScript](#) 6655

### 133.36.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 4th April 2018.

## 133.37 Progressdialog.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Progressdialog	7.1	Yes	Yes	No	No	No

MBS( "Progressdialog.SetScript"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The file name for the script.

Get(FileName)

#### ScriptName

The script name to run. An empty name will disable the script calling.

"CancelScript"

#### Parameter

Optional

The script parameter to pass.

**Result** Returns OK or error.

### Description

### Examples

Set script to run

```
MBS("ProgressDialog.SetScript"; Get(FileName); "CancelScript"; "optional parameter")
```

### See also

- 133.35 Progressdialog.GetScriptName 6653
- 133.18 ProgressDialog.SetCancel 6625
- 133.36 Progressdialog.SetEvaluate 6654
- 133.19 ProgressDialog.SetFont 6627
- 133.29 ProgressDialog.SetTopMost 6643
- 133.30 ProgressDialog.SetTopText 6645

### 133.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr3](#)

Created 14th February 2017, last changed 14th February 2017.



# Chapter 134

## Proj

Transform geo coordinate between projections with PROJ library.

Learn more about this open source library here: <https://proj.org>

### 134.1 Proj.BatchTransform

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
134 Proj	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "Proj.BatchTransform"; Source Projection; Output Projection; InputCoordinates )

#### Parameters

##### Source Projection

The definition string for the source projection.

"+proj=longlat +datum=WGS84"

##### Output Projection

The definition for the output projection.

"+proj=utm +zone=31 +datum=WGS84"

##### InputCoordinates

The JSON array with the input coordinates.

**Result** Returns JSON or error.

#### Description

Reads x/y/z from JSON array and returns new JSON array with results.

#### Example Databases

- [Proj/PROJ Library](#)



## 134.2 Proj.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
134 Proj	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "Proj.Initialize"; Path )

### Parameters

#### Path

The file path to the framework or library.  
 "/Library/Frameworks/PROJ.framework"

**Result** Returns OK or error.

### Description

Please pass file path to DLL for Windows, framework for iOS/macOS and path to shared object for Linux. The plugin does not care where you install it or whether you just copy the library with your solution.

### Examples

Load framework on Mac from default location:

MBS( "Proj.Initialize"; "/Library/Frameworks/PROJ.framework" )

### See also

- 99.6 Java.Initialize 5238
- 123.9 OCR.Initialize 6227
- 134.3 Proj.IsInitialized 6660
- 166.21 TAPI.Initialize 7876
- 184.12 WIA.Initialize 8647

### Example Databases

- [Proj/PROJ Library](#)

Created 22nd January 2020, last changed 22nd January 2020.

### 134.3 Proj.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
134 Proj	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "Proj.IsInitialized" )

**Result** Returns 1, 0 or error.

#### Description

Returns 1 if initialized or 0 if not.

#### See also

- 123.10 OCR.IsInitialized 6229
- 126.7 PHP.IsInitialized 6363
- 134.2 Proj.Initialize 6659
- 166.22 TAPI.IsInitialized 7877
- 172.39 Twain.IsInitialized 8156
- 193.118 XL.IsInitialized 9148

Created 22nd January 2020, last changed 22nd January 2020.



## 134.4 Proj.Transform

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
134 Proj	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "Proj.Transform"; Source Projection; Output Projection { ; X; Y; Z } )

### Parameters

#### Source Projection

The definition string for the source projection.

"+proj=longlat +datum=WGS84"

#### Output Projection

The definition for the output projection.

"+proj=utm +zone=31 +datum=WGS84"

#### X

Optional

The x coordinate to transform.

#### Y

Optional

The y coordinate to transform.

#### Z

Optional

The z coordinate to transform. Not used by all transformations.

**Result** Returns JSON or error.

### Description

#### Example Databases

- [Proj/PROJ Library](#)

Created 22nd January 2020, last changed 22nd January 2020.



# Chapter 135

## QTExport

Older QuickTime based functions on OS X and Windows to transcode videos.

Can be used to compress videos as MPEG 4 video file. Or with LAME encoder component to create MP3 files.

Deprecated and only for 32-bit available. Will be removed someday.

### 135.1 QTExport.CloseMovie

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTExport	6.1	Yes	Yes	No	No	No

MBS( "QTExport.CloseMovie"; QTExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

#### Parameters

##### QTExporter

The exporter reference number.

\$\$QTExporter

**Result** Returns OK or error.

#### Description

Please close movie before you load a new one.

#### Examples

Close Exporter:

```
If [ not IsEmpty($$QT) ]
```

6664

CHAPTER 135. QTEXTPORT

```
Set Variable [ $r; Value:MBS("QTextport.Release"; $$QT) ]  
Set Variable [ $$QT; Value:"" ]  
End If
```

**See also**

- 135.14 QTextport.OpenMovie 6679
- 135.15 QTextport.Release 6680

Created 1st March 2016, last changed 1st March 2016.

## 135.2 QTEExport.Duration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.Duration"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns number or error.

### Description

Returns duration in seconds.

### Examples

Query duration:

```
Set Field [ QTMovieExporter::Duration; MBS("QTEExport.Duration"; $$QT) ]
```

### See also

- 40.3 AVExport.Duration

## 135.3 QTExport.Export

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTExport	6.1	Yes	Yes	No	No	No

MBS( "QTExport.Export"; QTExporter; Path; FileType; Creator Code { ; Flags } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTExporter

The exporter reference number.

\$\$QTExporter

#### Path

The native path for the destination file.

"/Users/cs/Desktop/test.mp3"

#### FileType

The file type code.

"MP3 "

#### Creator Code

The creator code. We normally use TVOD for the QuickTime Player.

"TVOD"

#### Flags

Optional

The flags.

0

**Result** Returns OK or error.

### Description

The export is running modal and may show a progress dialog.

Deprecated. Please move to use AVExport functions for new projects.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Run exporter:

```
Set Variable [ $r; Value:MBS("QTExport.Export"; $$QT; QTMovieExporter::Output File Path; "MP3 "; "TVOD") ]
```

135.3. *QTEXTORT.EXPORT*

6667

**See also**

- 124.2 Path.FileMakerPathToNativePath

6247

Created 1st March 2016, last changed 16th November 2017.

## 135.4 QTEExport.GetHighResolution

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetHighResolution"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns setting or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- 135.16 QTEExport.SetHighResolution

6681

Created 1st March 2016, last changed 1st March 2016.



## 135.5 QTEExport.GetMovieHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetMovieHeight"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns value or error.

### Description

#### See also

- 135.6 QTEExport.GetMovieWidth 6670
- 135.17 QTEExport.SetMovieHeight 6682
- 135.18 QTEExport.SetMovieWidth 6683

Created 1st March 2016, last changed 1st March 2016.

## 135.6 QTEExport.GetMovieWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetMovieWidth"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns value or error.

### Description

#### See also

- 135.5 QTEExport.GetMovieHeight 6669
- 135.17 QTEExport.SetMovieHeight 6682
- 135.18 QTEExport.SetMovieWidth 6683

Created 1st March 2016, last changed 1st March 2016.

## 135.7 QTEExport.GetSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetSettings"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns text or error.

### Description

The plugin encoded settings as base64 text, so you can store it in a global preferences field. Please use QTEExport.SetSettings to restore those settings for another export.

### Examples

Query settings:

```
MBS("QTEExport.GetSettings"; $$QT)
```

### See also

- 135.19 QTEExport.SetSettings

## 135.8 QTEExport.GetShowProgress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetShowProgress"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns value or error.

### Description

Default is to 1 (on).

### See also

- 135.20 QTEExport.SetShowProgress

6685

Created 1st March 2016, last changed 1st March 2016.

**135.9 QTEExport.GetSoundChannelCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.GetSoundChannelCount"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****QTEExporter**

The exporter reference number.

\$\$QTEExporter

**Result** Returns value or error.

**Description****Examples**

Query channel count:

MBS( "QTEExport.GetSoundChannelCount"; \$\$QT )

**See also**

- 135.21 QTEExport.SetSoundChannelCount

## 135.10 QTextExport.GetSoundSampleRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTextExport	6.1	Yes	Yes	No	No	No

MBS( "QTextExport.GetSoundSampleRate"; QTextExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTextExporter

The exporter reference number.

\$\$QTextExporter

**Result** Returns value or error.

### Description

### Examples

Query sample rate:

MBS( "QTextExport.GetSoundSampleRate"; \$\$QT )

### See also

- 135.11 QTextExport.GetSoundSampleSize 6675
- 135.22 QTextExport.SetSoundSampleRate 6687
- 135.23 QTextExport.SetSoundSampleSize 6688

Created 1st March 2016, last changed 1st March 2016.

**135.11 QTextport.GetSoundSampleSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTextport	6.1	Yes	Yes	No	No	No

MBS( "QTextport.GetSoundSampleSize"; QTextporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****QTextporter**

The exporter reference number.

\$\$QTextporter

**Result** Returns value or error.

**Description****Examples**

Query sample size:

MBS( "QTextport.GetSoundSampleSize"; \$\$QT )

**See also**

- 135.10 QTextport.GetSoundSampleRate 6674
- 135.22 QTextport.SetSoundSampleRate 6687
- 135.23 QTextport.SetSoundSampleSize 6688

Created 1st March 2016, last changed 1st March 2016.

## 135.12 QTEExport.ListExporters

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.ListExporters" { ; Type } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Type

Optional

The component type. Default is "spit" for movie exporters.

**Result** Returns list or error.

### Description

The list returned is tab separated: Type, SubType, Manufacturer, Name and Info texts. If no entry is found for the given type, an empty list is returned.

### Examples

List exporters:

```
MBS("QTEExport.ListExporters")
```

### See also

- 135.13 QTEExport.OpenExporter

6677

Created 1st March 2016, last changed 1st March 2016.



## 135.13 QTEExport.OpenExporter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.OpenExporter"; SubType; Manufacturer )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### SubType

The exporter component subtype to identify the exporter to open.

"mp3 "

#### Manufacturer

The manufacturer of the exporter component.

"PYEh"

**Result** Returns reference number or error.

### Description

This function is only available for 32-bit. It may work on FileMaker Mac and Windows. For Windows please install QuickTime Player 7 for Windows.

Please use QTEExport.ListExporters to get a list of installed exporter components.

Please call AVExport.Release later to free the exporter.

### Examples

Open Exporter:

```
Set Variable [ $$QT; Value:MBS("QTEExport.OpenExporter"; QTMovieExporter::ExporterSubType; QT-
MovieExporter::ExporterManufacturer) ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ "Failed to create export sessio..."; MBS("Text.RemovePrefix"; $$AVExport; " [ MBS
] ") ]
```

```
Exit Script [ ]
```

```
Else
```

```
Set Variable [ $r; Value:MBS("QTEExport.SetShowProgress"; $$QT; 1) ]
```

```
Set Variable [ $r; Value:MBS("QTEExport.SetHighResolution"; $$QT; 1) ]
```

```
End If
```

### See also

- 40.17 AVExport.Release 1062
- 127.6 IsError 6374
- 135.12 QTEExport.ListExporters 6676
- 135.16 QTEExport.SetHighResolution 6681

6678

*CHAPTER 135. QTEXPORT*

- 135.20 QTEExport.SetShowProgress 6685
- 167.57 Text.RemovePrefix 7982

Created 1st March 2016, last changed 1st March 2016.

## 135.14 QTEExport.OpenMovie

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.OpenMovie"; QTEExporter; Path )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

#### Path

The native file path to the movie file.

"/Users/cs/Desktop/test.mov"

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Open Movie:

```
Set Variable [ $r; Value:MBS("QTEExport.OpenMovie"; $$QT; QTMovieExporter::Input File Path) ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 135.1 QTEExport.CloseMovie 6663

Created 1st March 2016, last changed 1st March 2016.

## 135.15 QTEExport.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.Release"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns OK or error.

### Description

All memory is released.

Please call this when you are done with the export.

### See also

- 40.17 AVExport.Release 1062
- 135.1 QTEExport.CloseMovie 6663

Created 1st March 2016, last changed 1st March 2016.

**135.16 QTEExport.SetHighResolution**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetHighResolution"; QTEExporter; Value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****QTEExporter**

The exporter reference number.

\$\$QTEExporter

**Value**

The new setting. 1 to enable, 0 to disable.

1

**Result** Returns OK or error.

**Description**

If you set it to 1 and you have QuickTime 7 on your Mac OS X copy, you can e.g. export a movie with 96000 HZ audio.

**See also**

- 135.4 QTEExport.GetHighResolution 6668
- 135.13 QTEExport.OpenExporter 6677

Created 1st March 2016, last changed 1st March 2016.

## 135.17 QTEExport.SetMovieHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetMovieHeight"; QTEExporter; Height )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

#### Height

The movie height to export.

480

**Result** Returns OK or error.

### Description

If you don't set this, the default is used.

### See also

- 135.5 QTEExport.GetMovieHeight 6669
- 135.6 QTEExport.GetMovieWidth 6670
- 135.18 QTEExport.SetMovieWidth 6683

Created 1st March 2016, last changed 1st March 2016.

**135.18 QTEExport.SetMovieWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetMovieWidth"; QTEExporter; Width )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****QTEExporter**

The exporter reference number.

\$\$QTEExporter

**Width**

The movie width to export.

640

**Result** Returns OK or error.

**Description**

If you don't set this, the default is used.

**See also**

- 135.5 QTEExport.GetMovieHeight 6669
- 135.6 QTEExport.GetMovieWidth 6670
- 135.17 QTEExport.SetMovieHeight 6682

Created 1st March 2016, last changed 1st March 2016.

## 135.19 QTEExport.SetSettings

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetSettings"; QTEExporter; Settings )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

#### Settings

The settings as base64 encoded text as returned by QTEExport.GetSettings.

MyPreferences::ExportSettings

**Result** Returns OK or error.

### Description

You can save the settings text you got from QTEExport.GetSettings and restore it with this function. Please make sure you use the same settings for the same exporter component.

### Examples

Load Settings from field:

```
MBS("QTEExport.SetSettings"; $$QT; QTMovieExporter::Settings)
```

### See also

- 135.7 QTEExport.GetSettings

6671

Created 1st March 2016, last changed 1st March 2016.



**135.20 QTEExport.SetShowProgress**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetShowProgress"; QTEExporter; Value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****QTEExporter**

The exporter reference number.

\$\$QTEExporter

**Value**

The new setting. Can be 1 to show progress dialog or 0 to hide it.

1

**Result** Returns OK or error.

**Description**

Pass 1 to show progress dialog automatically or 0 to hide it.

**Examples**

Enable progress dialog:

MBS( "QTEExport.SetShowProgress"; \$QTEExport; 1 )

**See also**

- 135.8 QTEExport.GetShowProgress 6672
- 135.13 QTEExport.OpenExporter 6677

Created 1st March 2016, last changed 1st March 2016.

## 135.21 QTextport.SetSoundChannelCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTextport	6.1	Yes	Yes	No	No	No

MBS( "QTextport.SetSoundChannelCount"; QTextporter; Value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTextporter

The exporter reference number.

\$\$QTextporter

#### Value

The new channel count.

2

**Result** Returns OK or error.

### Description

### Examples

Sets sound settings:

```
Set Variable [ $r; Value:MBS("QTextport.SetSoundChannelCount"; $$QT; 1) ]
```

```
Set Variable [ $r; Value:MBS("QTextport.SetSoundSampleSize"; $$QT; 8) ]
```

```
Set Variable [ $r; Value:MBS("QTextport.SetSoundSampleRate"; $$QT; 22050) ]
```

### See also

- 135.9 QTextport.GetSoundChannelCount 6673
- 135.22 QTextport.SetSoundSampleRate 6687
- 135.23 QTextport.SetSoundSampleSize 6688

Created 1st March 2016, last changed 1st March 2016.

## 135.22 QTExport.SetSoundSampleRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTExport	6.1	Yes	Yes	No	No	No

MBS( "QTExport.SetSoundSampleRate"; QTExporter; Value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTExporter

The exporter reference number.

\$\$QTExporter

#### Value

The new sample rate.

44100

**Result** Returns OK or error.

### Description

### Examples

Sets sound settings:

```
Set Variable [ $r; Value:MBS("QTExport.SetSoundChannelCount"; $$QT; 1) ]
```

```
Set Variable [ $r; Value:MBS("QTExport.SetSoundSampleSize"; $$QT; 8) ]
```

```
Set Variable [ $r; Value:MBS("QTExport.SetSoundSampleRate"; $$QT; 22050) ]
```

### See also

- 135.10 QTExport.GetSoundSampleRate 6674
- 135.11 QTExport.GetSoundSampleSize 6675
- 135.21 QTExport.SetSoundChannelCount 6686
- 135.23 QTExport.SetSoundSampleSize 6688

Created 1st March 2016, last changed 1st March 2016.

## 135.23 QTEExport.SetSoundSampleSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetSoundSampleSize"; QTEExporter; Value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

#### Value

The new sample size in bits.

16

**Result** Returns OK or error.

### Description

### Examples

Sets sound settings:

```
Set Variable [ $r; Value:MBS("QTEExport.SetSoundChannelCount"; $$QT; 1) ]
```

```
Set Variable [ $r; Value:MBS("QTEExport.SetSoundSampleSize"; $$QT; 8) ]
```

```
Set Variable [ $r; Value:MBS("QTEExport.SetSoundSampleRate"; $$QT; 22050) ]
```

### See also

- 135.10 QTEExport.GetSoundSampleRate 6674
- 135.11 QTEExport.GetSoundSampleSize 6675
- 135.21 QTEExport.SetSoundChannelCount 6686
- 135.22 QTEExport.SetSoundSampleRate 6687

Created 1st March 2016, last changed 1st March 2016.

## 135.24 QTEExport.SetupDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.SetupDialog"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns OK or error.

### Description

The user can define the settings and you can store those in your preferences.

This way the user doesn't need to select settings each time.

If the user presses cancel button the text "Cancel" is returned.

### Examples

Show setup dialog:

```
MBS("QTEExport.SetupDialog"; $$QT)
```

Created 1st March 2016, last changed 1st March 2016.

## 135.25 QTEExport.Validate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
135 QTEExport	6.1	Yes	Yes	No	No	No

MBS( "QTEExport.Validate"; QTEExporter )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### QTEExporter

The exporter reference number.

\$\$QTEExporter

**Result** Returns OK or error.

### Description

Returns "Valid" in case of success.

### Examples

Validate settings:

```
MBS("QTEExport.Validate"; $$QT)
```

Created 1st March 2016, last changed 1st March 2016.

# Chapter 136

## QTMovie

QuickTime Movie access.

Deprecated. Please move to AVPlayer functions for playing sound.

### 136.1 QTMovie.Autoplay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.Autoplay"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

#### Parameters

##### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

#### Description

The autoplay method configures a QTMovie object to begin playing as soon as enough data is available that the playback can continue uninterrupted to the end of the movie. This is most useful for movies being loaded from a remote URL or from an extremely slow local device. For movies stored on most local devices, this method has the same effect as the QTMovie.play method.

#### Examples

Play now

MBS( "QTMovie.Autoplay"; \$Movie )

Play when enough data is loaded:

MBS( "QTMovie.Autoplay"; \$Movie )

**See also**

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.22 QTMovie.Play 6716

Created 18th August 2014, last changed 18th August 2014.



**136.2 QTMovie.CurrentFrameImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.CurrentFrameImage"; Movie { ; ImageType; Filename } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**ImageType**

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

**Filename**

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns an image as container value or error.

**Description****See also**

- 118.3 *MovieView.CurrentFrameImage* 6160
- 136.18 *QTMovie.OpenContainer* 6709
- 136.19 *QTMovie.OpenFile* 6711
- 136.20 *QTMovie.OpenURL* 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.3 QTMovie.FormatTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	5.0	Yes	No	No	No	No

MBS( "QTMovie.FormatTime"; Seconds )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Seconds

The number of seconds to format.

123

**Result** Returns text or error.

### Description

#### Examples

Format one second:

```
MBS("QTMovie.FormatTime"; 1)
```

Format 3 hours, 2 minutes, 1 second and one millisecond

```
MBS("QTMovie.FormatTime"; 3600*3 + 60*2 + 1 + 1/1000)
```

### See also

- [136.21 QTMovie.ParseTime](#)

6715

### 136.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 15th December 2014, last changed 15th December 2014.

## 136.4 *QTMovie.FrameImageAtTime*

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 <i>QTMovie</i>	4.0	Yes	No	Yes, macOS only	No	No

MBS( "*QTMovie.FrameImageAtTime*"; Movie; Time { ; ImageType; Filename } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use *QTMovie.OpenContainer*, *QTMovie.OpenFile* or *QTMovie.OpenURL* function to get movie reference.

\$mov

#### Time

The time of the movie to use in seconds.

5.0

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns an image as container value or error.

### Description

Please use *AVAsset.Image* for new projects.

### See also

- 39.5 *AVAsset.Image* 1004
- 136.18 *QTMovie.OpenContainer* 6709
- 136.19 *QTMovie.OpenFile* 6711
- 136.20 *QTMovie.OpenURL* 6713

Created 18th August 2014, last changed 31st August 2017.

## 136.5 QTMovie.GetCurrentTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetCurrentTime"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

### Description

#### See also

- 118.4 [MovieView.CurrentTime](#) 6161
- 136.18 [QTMovie.OpenContainer](#) 6709
- 136.19 [QTMovie.OpenFile](#) 6711
- 136.20 [QTMovie.OpenURL](#) 6713
- 136.26 [QTMovie.SetCurrentTime](#) 6721

Created 18th August 2014, last changed 18th August 2014.

**136.6 QTMovie.GetDuration**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetDuration"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

**Description****See also**

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.7 QTMovie.GetMuted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetMuted"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

### Description

Value is 1 if muted and 0 if not.

### See also

- 136.8 QTMovie.GetRate 6699
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.27 QTMovie.SetMuted 6722
- 136.28 QTMovie.SetRate 6723

Created 18th August 2014, last changed 18th August 2014.

**136.8 QTMovie.GetRate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetRate"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use `QTMovie.OpenContainer`, `QTMovie.OpenFile` or `QTMovie.OpenURL` function to get movie reference.

\$mov

**Result** Returns value or error.

**Description**

For instance, 0.0 is stop, 1.0 is playback at normal speed, 2.0 is twice normal speed, and so on.

**See also**

- 136.7 `QTMovie.GetMuted` 6698
- 136.18 `QTMovie.OpenContainer` 6709
- 136.19 `QTMovie.OpenFile` 6711
- 136.20 `QTMovie.OpenURL` 6713
- 136.24 `QTMovie.Release` 6719
- 136.27 `QTMovie.SetMuted` 6722
- 136.28 `QTMovie.SetRate` 6723

Created 18th August 2014, last changed 18th August 2014.

## 136.9 QTMovie.GetSelectionDuration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetSelectionDuration"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

### Description

#### See also

- 136.11 QTMovie.GetSelectionStart 6702
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.



**136.10 QTMovie.GetSelectionEnd**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetSelectionEnd"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

**Description****See also**

- 136.11 QTMovie.GetSelectionStart 6702
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.11 QTMovie.GetSelectionStart

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetSelectionStart"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

### Description

#### See also

- 136.9 QTMovie.GetSelectionDuration 6700
- 136.10 QTMovie.GetSelectionEnd 6701
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

**136.12 QTMovie.GetVolume**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GetVolume"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns value or error.

**Description**

The valid range is 0.0 to 1.0.

**See also**

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.29 QTMovie.SetVolume 6724

Created 18th August 2014, last changed 18th August 2014.

## 136.13 QTMovie.GotoBeginning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GotoBeginning"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

If the movie is playing, the movie continues playing from the new position.

### Examples

Go to poster time:

```
MBS( "QTMovie.GotoPosterTime"; $Movie )
```

Go to beginning of movie:

```
MBS( "QTMovie.GotoBeginning"; $Movie )
```

Go to end of movie:

```
MBS( "QTMovie.GotoEnd"; $Movie )
```

### See also

- 118.6 [MovieView.GotoBeginning](#) 6163
- 136.14 [QTMovie.GotoEnd](#) 6705
- 136.16 [QTMovie.GotoPosterTime](#) 6707
- 136.18 [QTMovie.OpenContainer](#) 6709
- 136.19 [QTMovie.OpenFile](#) 6711
- 136.20 [QTMovie.OpenURL](#) 6713

Created 18th August 2014, last changed 18th August 2014.

**136.14 QTMovie.GotoEnd**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GotoEnd"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

**Description**

If the movie is playing in one of the looping modes, the movie continues playing accordingly; otherwise, play stops.

**Examples**

Go to poster time:

MBS( "QTMovie.GotoPosterTime"; \$Movie )

Go to beginning of movie:

MBS( "QTMovie.GotoBeginning"; \$Movie )

Go to end of movie:

MBS( "QTMovie.GotoEnd"; \$Movie )

**See also**

- 136.13 QTMovie.GotoBeginning 6704
- 136.16 QTMovie.GotoPosterTime 6707
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.15 QTMovie.GotoNextSelectionPoint

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GotoNextSelectionPoint"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

#### See also

- 136.17 QTMovie.GotoPreviousSelectionPoint 6708
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

**136.16 QTMovie.GotoPosterTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GotoPosterTime"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

**Description**

If no poster time is defined, the movie jumps to the beginning. If the movie is playing, the movie continues playing from the new position.

**Examples**

Go to poster time:

MBS( "QTMovie.GotoPosterTime"; \$Movie )

Go to beginning of movie:

MBS( "QTMovie.GotoBeginning"; \$Movie )

Go to end of movie:

MBS( "QTMovie.GotoEnd"; \$Movie )

**See also**

- 136.13 QTMovie.GotoBeginning 6704
- 136.14 QTMovie.GotoEnd 6705
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.17 QTMovie.GotoPreviousSelectionPoint

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.GotoPreviousSelectionPoint"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

#### See also

- 136.15 QTMovie.GotoNextSelectionPoint 6706
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.



## 136.18 QTMovie.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.OpenContainer"; Container )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Container

The container with the movie file.  
MyTable::MovieContainer

**Result** Returns Movie Reference or error.

### Description

This loads the movie in RAM.

Returns the movie reference which must be released with QTMovie.Release function.

See also QTMovie.OpenFile or QTMovie.OpenURL.

Works with normal container, compressed container and referenced container file.

For interactive containers it may be better to use MovieView.Movie as FileMaker already loaded the video and we can reference it instead of loading it again.

### Examples

Open Movie

```
$Movie = MBS( "QTMovie.OpenContainer"; MyTable::MovieContainer )
```

Close it later

```
MBS( "QTMovie.Release"; $Movie )
```

Load and play:

```
# Open Container
Set Variable [ $$Movie; Value:MBS("QTMovie.OpenContainer"; QTMovie::MovieContainer) ]
# Play it
Set Variable [ $r; Value:MBS("QTMovie.Play"; $$Movie) ]
# later you should release movie to free memory
```

### See also

- 136.13 QTMovie.GotoBeginning 6704
- 136.15 QTMovie.GotoNextSelectionPoint 6706

- 136.16 QTMovie.GotoPosterTime 6707
- 136.22 QTMovie.Play 6716
- 136.23 QTMovie.PosterImage 6718
- 136.27 QTMovie.SetMuted 6722
- 136.28 QTMovie.SetRate 6723
- 136.29 QTMovie.SetVolume 6724
- 136.30 QTMovie.StepBackward 6725
- 136.32 QTMovie.Stop 6727

### 136.18.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr8](#)
- [MBS Filemaker Plugin, version 4.3pr6](#)

Created 18th August 2014, last changed 20th January 2016.

## 136.19 QTMovie.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.OpenFile"; Path )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Path

The native file path to the movie file.

"/Test.mov"

**Result** Returns Movie Reference or error.

### Description

Returns the movie reference which must be released with QTMovie.Release function.

See also QTMovie.OpenContainer or QTMovie.OpenURL.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Open Movie

```
$Movie = MBS( "QTMovie.OpenFile"; "/Test.mov" )
```

Close it later

```
MBS( "QTMovie.Release"; $Movie )
```

### See also

- 136.12 QTMovie.GetVolume 6703
- 136.13 QTMovie.GotoBeginning 6704
- 136.14 QTMovie.GotoEnd 6705
- 136.16 QTMovie.GotoPosterTime 6707
- 136.18 QTMovie.OpenContainer 6709
- 136.22 QTMovie.Play 6716
- 136.29 QTMovie.SetVolume 6724

- 136.30 QTMovie.StepBackward 6725
- 136.31 QTMovie.StepForward 6726
- 136.32 QTMovie.Stop 6727

Created 18th August 2014, last changed 5th September 2014.

**136.20 QTMovie.OpenURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.OpenURL"; URL )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****URL**

The URL of the movie to open.

"http://example.test/mysound.mp3"

**Result** Returns Movie Reference or error.

**Description**

Returns the movie reference which must be released with QTMovie.Release function.

See also QTMovie.OpenFile or QTMovie.OpenContainer.

**Examples**

Open Movie

```
$Movie = MBS( "QTMovie.OpenURL"; "http://example.test/mysound.mp3" )
```

Close it later

```
MBS( "QTMovie.Release"; $Movie )
```

**See also**

- 136.11 QTMovie.GetSelectionStart 6702
- 136.12 QTMovie.GetVolume 6703
- 136.13 QTMovie.GotoBeginning 6704
- 136.14 QTMovie.GotoEnd 6705
- 136.15 QTMovie.GotoNextSelectionPoint 6706
- 136.17 QTMovie.GotoPreviousSelectionPoint 6708
- 136.26 QTMovie.SetCurrentTime 6721
- 136.27 QTMovie.SetMuted 6722
- 136.31 QTMovie.StepForward 6726
- 136.32 QTMovie.Stop 6727

6714

*CHAPTER 136. QTMOVIE*

Created 18th August 2014, last changed 18th August 2014.

## 136.21 QTMovie.ParseTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	5.0	Yes	No	No	No	No

MBS( "QTMovie.ParseTime"; Time value )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Time value

The time text to parse.

"04:03:02:01.12/60"

**Result** Returns seconds or error.

### Description

May return zero if wrong format.

### Examples

Parses a time value:

MBS("QTMovie.ParseTime"; "04:03:02:01.12/60")

### See also

- 136.3 QTMovie.FormatTime

6694

### 136.21.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 15th December 2014, last changed 15th December 2014.

## 136.22 QTMovie.Play

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.Play"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

Without an actual movie view, this will only play sound.

### Examples

Play movie:

```
MBS( "QTMovie.Play"; $Movie )
```

Stop movie:

```
MBS( "QTMovie.Stop"; $Movie )
```

Load and play:

```
# Open Container
Set Variable [ $$Movie; Value:MBS("QTMovie.OpenContainer"; QTMovie::MovieContainer) ]
# Play it
Set Variable [ $r; Value:MBS("QTMovie.Play"; $$Movie) ]
# later you should release movie to free memory
```

### See also

- 136.1 QTMovie.Autoplay 6691
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.32 QTMovie.Stop 6727



136.22. *QTMOVIE.PLAY*

6717

Created 18th August 2014, last changed 20th January 2016.

## 136.23 QTMovie.PosterImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.PosterImage"; Movie { ; ImageType; Filename } )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns an image as container value or error.

### Description

#### See also

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.

## 136.24 QTMovie.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.Release"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

If you forget to release a movie, the movie object stays in memory and if memory is low, FileMaker will crash.

To avoid this the plugin will only open up to 50 movies simultaneously.

### See also

- 118.15 MovieView.Movie 6172
- 136.8 QTMovie.GetRate 6699
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.25 QTMovie.ReleaseAll 6720
- 136.28 QTMovie.SetRate 6723

### 136.24.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 136.25 QTMovie.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	7.1	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.ReleaseAll" )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Result** Returns OK or error.

### Description

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 136.24 QTMovie.Release

6719

### 136.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 2nd February 2017, last changed 9th January 2020.

**136.26 QTMovie.SetCurrentTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	No	No	No

MBS( "QTMovie.SetCurrentTime"; Movie; Time )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Time**

Time in the movie in seconds.

5.0

**Result** Returns OK or error.

**Description****Examples**

Go to 5th second:

MBS( "QTMovie.SetCurrentTime"; \$Movie; 5.0 )

**See also**

- 118.4 [MovieView.CurrentTime](#) 6161
- 118.21 [MovieView.SetCurrentTime](#) 6178
- 136.5 [QTMovie.GetCurrentTime](#) 6696
- 136.18 [QTMovie.OpenContainer](#) 6709
- 136.19 [QTMovie.OpenFile](#) 6711
- 136.20 [QTMovie.OpenURL](#) 6713

Created 18th August 2014, last changed 10th December 2014.

## 136.27 QTMovie.SetMuted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.SetMuted"; Movie; Flag )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

#### Flag

The new mute status. Pass 0 to mute or 1 to unmute.

1

**Result** Returns OK or error.

### Description

Note that this does not affect the volume.

### See also

- 136.7 QTMovie.GetMuted 6698
- 136.8 QTMovie.GetRate 6699
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.28 QTMovie.SetRate 6723

Created 18th August 2014, last changed 18th August 2014.

**136.28 QTMovie.SetRate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.SetRate"; Movie; Rate )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Rate**

The new playback rate.

1.0

**Result** Returns OK or error.

**Description**

For instance, 0.0 is stop, 1.0 is playback at normal speed, 2.0 is twice normal speed, and so on.

**See also**

- 136.7 QTMovie.GetMuted 6698
- 136.8 QTMovie.GetRate 6699
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.24 QTMovie.Release 6719
- 136.27 QTMovie.SetMuted 6722

Created 18th August 2014, last changed 18th August 2014.

## 136.29 QTMovie.SetVolume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.SetVolume"; Movie; Volume )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

#### Volume

The new volume. 0.0 is no sound while 1.0 is maximum.

1.0

**Result** Returns OK or error.

### Description

Note that this does not affect the movie's stored settings.

### See also

- 136.12 QTMovie.GetVolume 6703
- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

Created 18th August 2014, last changed 18th August 2014.



**136.30 QTMovie.StepBackward**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.StepBackward"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

**Description****See also**

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.31 QTMovie.StepForward 6726

Created 18th August 2014, last changed 18th August 2014.

## 136.31 QTMovie.StepForward

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.StepForward"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

### Description

#### See also

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.30 QTMovie.StepBackward 6725

Created 18th August 2014, last changed 18th August 2014.

**136.32 QTMovie.Stop**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	4.0	Yes	No	Yes, macOS only	No	No

MBS( "QTMovie.Stop"; Movie )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

**Parameters****Movie**

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

**Result** Returns OK or error.

**Description****Examples**

Play movie:

MBS( "QTMovie.Play"; \$Movie )

Stop movie:

MBS( "QTMovie.Stop"; \$Movie )

**See also**

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713
- 136.22 QTMovie.Play 6716

Created 18th August 2014, last changed 18th August 2014.

## 136.33 QTMovie.StopDelayed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
136 QTMovie	5.0	Yes	No	No	No	No

MBS( "QTMovie.StopDelayed"; Movie; Delay )

This function was ?? removed for MBS FileMaker Plugin 9.0. Please move to newer functions or keep using older plugins.

### Parameters

#### Movie

The reference number of the movie. Please use QTMovie.OpenContainer, QTMovie.OpenFile or QTMovie.OpenURL function to get movie reference.

\$mov

#### Delay

The time in seconds to wait for performing pause operation.

5

**Result** Returns OK or error.

### Description

You can start a video in a script and in next step run the stop command with a delay to play only a portion of the video.

### See also

- 136.18 QTMovie.OpenContainer 6709
- 136.19 QTMovie.OpenFile 6711
- 136.20 QTMovie.OpenURL 6713

### 136.33.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 15th December 2014, last changed 15th December 2014.

# Chapter 137

## QuickLook

Query file icons and previews.

### 137.1 Icon.ClearIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.7	Yes	No	Yes, macOS only	No	No

MBS( "Icon.ClearIcon"; Path )

#### Parameters

##### Path

The path to the file or folder.

"/Applications"

**Result** Returns OK on success.

#### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

#### Examples

Clears icon of a file on the desktop:

```
MBS("Icon.ClearIcon"; "/Users/Christian/Desktop/test.pdf")
```

#### See also

- 124.2 Path.FileMakerPathToNativePath

6247

**Example Databases**

- [Mac only/Icon and QuickLook/SetIcon](#)

**137.1.1 Blog Entries**

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 24th May 2017.

## 137.2 Icon.GetIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.3	Yes	Yes	Yes	No	No

MBS( "Icon.GetIcon"; Path; Size )

### Parameters

#### Path

The path to the file or folder.

"/Applications"

#### Size

The size of the icon picture you'd like to have. Suggested range is from 16 to 512 pixel.

512

**Result** Container value.

### Description

Size specifies the icon size from 16 to 512 pixel. The container value returned includes PNG data with alpha, JPEG preview, filename and size.

Added Windows support in plugin version 4.2.

On Mac Server this may not work well as the Server user account has no icon database.

See also [Icon.GetIconWithQuickLook](#).

### Examples

Queries icon of iPhoto app:

MBS( "Icon.GetIcon"; "/Applications/iPhoto.app"; 512 )

### See also

- [137.3 Icon.GetIconWithQuickLook](#) 6733
- [137.4 Icon.SetIcon](#) 6735
- [137.22 QLPreviewPanel.Show](#) 6755

### Example Databases

- [Files/File Listing With Icons](#)
- [Mac only/Icon and QuickLook/Icons](#)
- [Mac only/MetaDataQuery/Search Applications](#)

### 137.2.1 Blog Entries

- [Spotlight search in FileMaker with MBS Plugin](#)
- [MBS Filemaker Plugin, version 4.3pr5](#)
- [MBS Filemaker Plugin, version 4.2pr12](#)
- [MBS Filemaker Plugin, version 2.3pr3](#)
- [MBS Filemaker Plugin, version 2.3pr2](#)
- [Getting icons from Files](#)

Created 18th August 2014, last changed 29th October 2018.



## 137.3 Icon.GetIconWithQuickLook

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.3	Yes	Yes	Yes	No	No

MBS( "Icon.GetIconWithQuickLook"; Path; Size )

### Parameters

#### Path

The path to the file or folder.  
"/Applications"

#### Size

The size of the icon picture you'd like to have. Suggested range is from 16 to 512 pixel.  
512

**Result** Container value.

### Description

This method tries first to get QuickLook preview for the file, before it tries the icon. QuickLook requires Mac OS X 10.5. Size specifies the icon size from 16 to 512 pixel. The container value returned includes PNG data with alpha, JPEG preview, filename and size.

Version 4.3 adds support for Windows. We now query same thumbnail as explorer uses.  
See also Icon.GetIcon.

### Examples

Queries preview on iPhoto app:

MBS( "Icon.GetIconWithQuickLook"; "/Applications/iPhoto.app"; 512 )

### See also

- [137.2 Icon.GetIcon](#) 6731
- [137.22 QLPreviewPanel.Show](#) 6755

### Example Databases

- [Mac only/Icon and QuickLook/Icons](#)

### 137.3.1 Blog Entries

- [MBS Filemaker Plugin, version 2.3pr3](#)
- [MBS Filemaker Plugin, version 2.3pr2](#)

- [Getting icons from Files](#)

Created 18th August 2014, last changed 17th June 2018.

## 137.4 Icon.SetIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook 79 Files	2.7	Yes	No	Yes, macOS only	No	No

MBS( "Icon.SetIcon"; Path; image )

### Parameters

#### Path

The path to the file or folder.

"/Applications"

#### image

A container value with some picture. Can be JPEG, GIF, BMP, PNG or TIFF.

\$image

**Result** Returns OK on success.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Sets icon of a file on the desktop:

```
MBS("Icon.SetIcon"; "/Users/Christian/Desktop/test.pdf"; Data::image)
```

### See also

- [137.2 Icon.GetIcon](#) 6731
- [124.2 Path.FileMakerPathToNativePath](#) 6247

### Example Databases

- [Mac only/Icon and QuickLook/SetIcon](#)

### 137.4.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr8](#)

Created 18th August 2014, last changed 24th May 2017.

## 137.5 QLPreviewPanel.AddContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	8.4	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.AddContainer"; Container { ; Title } )

### Parameters

#### Container

the container to show.

MyTable::MyField

#### Title

Optional

The title for the container.

"My Holiday"

**Result** Returns OK or error.

### Description

If you have an existing file, better use QLPreviewPanel.AddFile function.

The container can contain a file supported by QuickLook for previewing.

Either we use file path from FileMaker's external container storage directly or we write a temporary file, which is cleared later when app quits or panel is cleared.

### Examples

Show containers:

```
# Prepare
If [ MBS("QLPreviewPanel.IsVisible") ]
Set Variable [ $r ; Value: MBS("QLPreviewPanel.Hide") ]
End If
Set Variable [ $r ; Value: MBS("QLPreviewPanel.Clear") ]
#
# Add all containers you have
Set Variable [ $r ; Value: MBS("QLPreviewPanel.AddContainer"; Placeholder::Container; "Stratocaster") ]
#
# Run it!
Set Variable [ $r ; Value: MBS("QLPreviewPanel.Show") ]
```

### See also

- 137.6 QLPreviewPanel.AddFile 6738
- 137.9 QLPreviewPanel.Clear 6741
- 137.17 QLPreviewPanel.Hide 6749

<i>137.5. QLPREVIEWPANEL.ADDCONTAINER</i>	6737
• 137.18 QLPreviewPanel.IsVisible	6750
• 137.22 QLPreviewPanel.Show	6755

### **137.5.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr3](#)
- [QLPreviewPanel functions for iOS](#)

Created 14th August 2018, last changed 15th August 2018.

## 137.6 QLPreviewPanel.AddFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.AddFile"; Path )

### Parameters

#### Path

The native file path to the image file.

"/Users/test/Images/test.jpg"

**Result** Returns Ok or error.

### Description

If you want the user to select a path, please use OpenFileDialog functions.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use OpenFileDialog functions.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 137.5 QLPreviewPanel.AddContainer 6736
- 137.7 QLPreviewPanel.AddImage 6739
- 137.8 QLPreviewPanel.AddPDF 6740
- 137.17 QLPreviewPanel.Hide 6749
- 137.18 QLPreviewPanel.IsVisible 6750
- 137.20 QLPreviewPanel.Resize 6752

### Example Databases

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

Created 18th August 2014, last changed 15th August 2018.

## 137.7 QLPreviewPanel.AddImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.AddImage"; Image { ; Title } )

### Parameters

#### Image

The image as container.

\$img

#### Title

Optional

The title for the image.

"My Holiday"

**Result** Returns OK or error.

### Description

If you have an image file, better use QLPreviewPanel.AddFile function.

The container can contain an image (GIF, PNG, BMP, JPEG) or an image file (TIFF, BMP, PNG, JPEG and other formats supported by Mac OS X).

Either we use file path from FileMaker's external container storage directly or we write a temporary file, which is cleared later when app quits or panel is cleared.

### See also

- [137.6 QLPreviewPanel.AddFile](#) 6738
- [137.8 QLPreviewPanel.AddPDF](#) 6740
- [137.9 QLPreviewPanel.Clear](#) 6741

### Example Databases

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

Created 18th August 2014, last changed 15th August 2018.

## 137.8 QLPreviewPanel.AddPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.AddPDF"; PDF { ; Title } )

### Parameters

#### PDF

The PDF.

\$pdf

#### Title

Optional

The title to use.

"Hello World"

**Result** Returns OK or error.

### Description

You can pass a container value with the PDF content from a media field. Or a text with an URL. Or a PDF reference from PDFKit.Open.

Either we use file path from FileMaker's external container storage directly or we write a temporary file, which is cleared later when app quits or panel is cleared.

### See also

- 125.28 PDFKit.Open 6306
- 137.6 QLPreviewPanel.AddFile 6738
- 137.7 QLPreviewPanel.AddImage 6739
- 137.9 QLPreviewPanel.Clear 6741
- 137.15 QLPreviewPanel.GetTop 6747
- 137.17 QLPreviewPanel.Hide 6749
- 137.20 QLPreviewPanel.Resize 6752

### Example Databases

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

Created 18th August 2014, last changed 15th August 2018.



## 137.9 QLPreviewPanel.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.Clear" )

**Result** Returns OK or error.

### Description

Please call this function always before you start to fill

This also deletes any temporary file created by QLPreviewPanel.AddPDF or QLPreviewPanel.AddImage.

### See also

- [137.5 QLPreviewPanel.AddContainer](#) 6736
- [137.7 QLPreviewPanel.AddImage](#) 6739
- [137.8 QLPreviewPanel.AddPDF](#) 6740
- [137.17 QLPreviewPanel.Hide](#) 6749
- [137.19 QLPreviewPanel.Move](#) 6751
- [137.22 QLPreviewPanel.Show](#) 6755

### Example Databases

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

### 137.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr7](#)
- [QLPreviewPanel functions for iOS](#)

Created 18th August 2014, last changed 14th August 2018.

## 137.10 QLPreviewPanel.CurrentPreviewItemIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	8.4	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.CurrentPreviewItemIndex" )

**Result** Returns index or error.

### Description

Can be empty if no index is set.

### See also

- 137.11 QLPreviewPanel.CurrentPreviewItemPath 6743
- 137.12 QLPreviewPanel.CurrentPreviewItemTitle 6744
- 137.21 QLPreviewPanel.SetCurrentPreviewItemIndex 6754

### 137.10.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 14th August 2018, last changed 15th August 2018.

## 137.11 QLPreviewPanel.CurrentPreviewItemPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	8.4	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.CurrentPreviewItemPath" )

**Result** Returns OK or error.

### Description

#### See also

- [137.10 QLPreviewPanel.CurrentPreviewItemIndex](#) 6742
- [137.12 QLPreviewPanel.CurrentPreviewItemTitle](#) 6744
- [137.21 QLPreviewPanel.SetCurrentPreviewItemIndex](#) 6754

### 137.11.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 14th August 2018, last changed 15th August 2018.

## 137.12 QLPreviewPanel.CurrentPreviewItemTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	8.4	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.CurrentPreviewItemTitle" )

**Result** Returns OK or error.

**Description**

**See also**

- [137.10 QLPreviewPanel.CurrentPreviewItemIndex](#) 6742
- [137.11 QLPreviewPanel.CurrentPreviewItemPath](#) 6743
- [137.21 QLPreviewPanel.SetCurrentPreviewItemIndex](#) 6754

### 137.12.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 14th August 2018, last changed 15th August 2018.

## 137.13 QLPreviewPanel.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.GetHeight" )

**Result** Returns height or error.

### Description

### See also

- 137.14 QLPreviewPanel.GetLeft 6746
- 137.15 QLPreviewPanel.GetTop 6747
- 137.16 QLPreviewPanel.GetWidth 6748

Created 18th August 2014, last changed 25th August 2014.

## 137.14 QLPreviewPanel.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.GetLeft" )

**Result** Returns position or error.

### Description

### See also

- 137.13 QLPreviewPanel.GetHeight 6745
- 137.15 QLPreviewPanel.GetTop 6747
- 137.16 QLPreviewPanel.GetWidth 6748
- 137.20 QLPreviewPanel.Resize 6752

Created 18th August 2014, last changed 25th August 2014.

## 137.15 QLPreviewPanel.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.GetTop" )

**Result** Returns top position or error.

### Description

#### See also

- 137.8 QLPreviewPanel.AddPDF 6740
- 137.13 QLPreviewPanel.GetHeight 6745
- 137.14 QLPreviewPanel.GetLeft 6746
- 137.16 QLPreviewPanel.GetWidth 6748
- 137.20 QLPreviewPanel.Resize 6752
- 137.22 QLPreviewPanel.Show 6755

Created 18th August 2014, last changed 25th August 2014.

## 137.16 QLPreviewPanel.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.GetWidth" )

**Result** Returns width or error.

### Description

### See also

- 137.13 QLPreviewPanel.GetHeight 6745
- 137.14 QLPreviewPanel.GetLeft 6746
- 137.15 QLPreviewPanel.GetTop 6747
- 137.20 QLPreviewPanel.Resize 6752

Created 18th August 2014, last changed 25th August 2014.



**137.17 QLPreviewPanel.Hide**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.Hide" )

**Result** Returns OK or error.

**Description**

Added iOS support for version 8.4.

**See also**

- 137.5 QLPreviewPanel.AddContainer 6736
- 137.6 QLPreviewPanel.AddFile 6738
- 137.8 QLPreviewPanel.AddPDF 6740
- 137.9 QLPreviewPanel.Clear 6741
- 137.19 QLPreviewPanel.Move 6751
- 137.20 QLPreviewPanel.Resize 6752
- 137.22 QLPreviewPanel.Show 6755

**Example Databases**

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

**137.17.1 Blog Entries**

- [QLPreviewPanel functions for iOS](#)

Created 18th August 2014, last changed 14th August 2018.

## 137.18 QLPreviewPanel.IsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.IsVisible" )

**Result** Returns 1 if visible or 0 if not.

### Description

Added iOS support for version 8.4.

### See also

- [137.5 QLPreviewPanel.AddContainer](#) 6736
- [137.6 QLPreviewPanel.AddFile](#) 6738
- [137.20 QLPreviewPanel.Resize](#) 6752

### Example Databases

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

### 137.18.1 Blog Entries

- [QLPreviewPanel functions for iOS](#)

Created 18th August 2014, last changed 14th August 2018.

## 137.19 QLPreviewPanel.Move

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.Move"; X; Y { ; Duration } )

### Parameters

#### X

The new screen position. Distance from top/left edge of main screen in points.

10

#### Y

The new screen position. Distance from top/Left edge of main screen in points.

50

#### Duration

Optional

Optional the duration. Can be a value between 0.1 and 5.0. Use zero to disable.

0.5

**Result** Returns OK or error.

### Description

You can use this method to have the panel side by side to your FileMaker layout window.

**See also**

- 137.9 QLPreviewPanel.Clear 6741
- 137.17 QLPreviewPanel.Hide 6749
- 137.20 QLPreviewPanel.Resize 6752
- 137.22 QLPreviewPanel.Show 6755

### 137.19.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr7](#)

Created 18th August 2014, last changed 26th October 2014.

## 137.20 QLPreviewPanel.Resize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	No

MBS( "QLPreviewPanel.Resize"; Width; Height { ; NoAnimation; Duration } )

### Parameters

#### Width

The new width of the panel.

600

#### Height

The new height of the panel.

500

#### NoAnimation

Optional

Whether to avoid animation. Pass 1 to disable animation. Default is 0 to allow animation.

0

#### Duration

Optional

Only for Mac: the duration. Can be a value between 0.1 and 5.0.

0.5

**Result** Returns OK or error.

### Description

#### See also

- 137.6 QLPreviewPanel.AddFile 6738
- 137.8 QLPreviewPanel.AddPDF 6740
- 137.14 QLPreviewPanel.GetLeft 6746
- 137.15 QLPreviewPanel.GetTop 6747
- 137.16 QLPreviewPanel.GetWidth 6748
- 137.17 QLPreviewPanel.Hide 6749
- 137.18 QLPreviewPanel.IsVisible 6750
- 137.19 QLPreviewPanel.Move 6751

### 137.20.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr7](#)

137.20. *QLPREVIEWPANEL.RESIZE*

6753

Created 18th August 2014, last changed 12nd July 2015.

## 137.21 QLPreviewPanel.SetCurrentPreviewItemIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	8.4	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.SetCurrentPreviewItemIndex"; Index )

### Parameters

#### Index

The zero based index of the current item.

0

**Result** Returns OK or error.

### Description

#### See also

- 137.10 QLPreviewPanel.CurrentPreviewItemIndex 6742
- 137.11 QLPreviewPanel.CurrentPreviewItemPath 6743
- 137.12 QLPreviewPanel.CurrentPreviewItemTitle 6744

### 137.21.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr3](#)

Created 14th August 2018, last changed 15th August 2018.

**137.22 QLPreviewPanel.Show**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
137 QuickLook	4.3	Yes	No	No	No	Yes

MBS( "QLPreviewPanel.Show" )

**Result** Returns OK or error.

**Description**

Added iOS support for version 8.4.

See also [Icon.GetIconWithQuickLook](#) for just getting the preview as image.

**See also**

- [137.2 Icon.GetIcon](#) 6731
- [137.3 Icon.GetIconWithQuickLook](#) 6733
- [137.5 QLPreviewPanel.AddContainer](#) 6736
- [137.9 QLPreviewPanel.Clear](#) 6741
- [137.15 QLPreviewPanel.GetTop](#) 6747
- [137.17 QLPreviewPanel.Hide](#) 6749
- [137.19 QLPreviewPanel.Move](#) 6751

**Example Databases**

- [Mac only/Icon and QuickLook/QuickLook Preview Panel](#)

**137.22.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr1](#)
- [QLPreviewPanel functions for iOS](#)

Created 18th August 2014, last changed 16th January 2019.





# Chapter 138

## RegEx

Regular expressions like in Perl.

### 138.1 RegEx.CaptureCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.CaptureCount"; RegExRef )

#### Parameters

##### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

**Result** Returns number or error.

#### Description

#### Examples

Run query:

```
Set Variable [ $Pattern ; Value: "H(.*?)o (.)or(..)" ]
```

```
Set Variable [ $Text ; Value: "Hello World Test" ]
```

```
# Compile
```

```
Set Variable [ $Regex ; Value: MBS("RegEx.Compile"; $Pattern; "CaseLess") ]
```

```
If [ MBS("isError") ]
```

```
Show Custom Dialog [ $Regex ]
```

```
Exit Script [ Text Result: ]
```

```
End If
```

```
Set Variable [ $ExecuteResult ; Value: MBS("RegEx.Execute"; $Regex; $Text; "") ]
```

```
If [ MBS("IsError") = 0 ]  
Show Custom Dialog [ "Captures" ; MBS("Regex.CaptureCount"; $Regex) & " captures" ]  
End If  
# free last  
Set Variable [ $r ; Value: MBS("Regex.Free"; $Regex) ]
```

**See also**

- [127.6 IsError](#) 6374
- [138.2 Regex.Compile](#) 6759
- [138.3 Regex.Execute](#) 6762
- [138.5 Regex.Free](#) 6768
- [138.21 Regex.Substring](#) 6789

**Example Databases**

- [Regex/Regex](#)

Created 26th October 2014, last changed 25th November 2017.

## 138.2 RegEx.Compile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Compile"; Pattern; CompilerOptions )

### Parameters

#### Pattern

The pattern to use.

"H(\*)"

#### CompilerOptions

A number for the options to use. e.g. 1 for case insensitive or 512 for ungreedy. Add 2 for multiline. Can be given as text or number.

"multiline\$ungreedy"

**Result** Returns reference number or error.

### Description

Returns the regular expression reference which you can then pass to other functions.

Remember to use RegEx.Free to free memory later.

You compile a pattern once. If you use RegEx.Execute several times on it, it may be worth using RegEx.Study for better performance.

Please use \r instead of \n for the pattern as FileMaker uses Mac line endings.

RegEx reference numbers are starting at 13000 and counting up for each new expression.

Compile option	Number	Description
Caseless	1	Do caseless matching
Multiline	2	^ and \$ match newlines within data
Dot All	4	. matches anything including NL
Extended	8	Ignore white space and # comments
Anchored	16	Force pattern anchoring
Dollar End Only	32	\$ not to match newline at end
Ungreedy	512	Invert greediness of quantifiers
No Auto Capture	4096	Disable numbered capturing parentheses (named ones available)
Auto Callout	16384	Compile automatic callouts
FirstLine	262144	Force matching to be before newline
Dup Names	524288	Allow duplicate names for subpatterns
Newline CR	1048576	Set CR as the newline sequence
Newline LF	2097152	Set LF as the newline sequence
Newline CRLF	3145728	Set CRLF as the newline sequence
Newline Any	4194304	Recognize any Unicode newline sequence
Newline Any CRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSR Any CRLF	8388608	\R matches only CR, LF, or CRLF
BSR Unicode	16777216	\R matches all Unicode line endings
JavaScript Compatible	33554432	JavaScript compatibility
No start optimize	67108864	Disable match-time start optimizations

Please pass sum of the numbers to select options.

### Examples

Compile with double escapement:

```
Set Variable [ $regex ; Value: MBS("RegEx.Compile"; "\\\""; 512+1) ]
```

Find matches in multiline text:

```
Let ( [
pattern = "^GR.";
text = "GR1§GR2 §GR3 ";
CompileOptions = 2 /* multiline */ + 1 /* caseless */ + 4194304 /* newline any */;
ExecuteOptions = 4194304 /* newline any */;
regex = MBS("RegEx.Compile"; pattern; CompileOptions );
result = MBS( "RegEx.FindMatches"; regex; text; ExecuteOptions ; 0 );
r = MBS("RegEx.Free"; regex)
] ; result )
```

Loop and find all matches for pattern:

```
Set Variable [ $pattern ; Value: "(USt\-ID:? | USt\-IDNR\.:? | Umsatzsteuer\-ID:? | VAT\-ID:?) [ \s
]?(DE) [ \s ]?( [ 0-9 ] { 9 } )" ]
Set Variable [ $ExecuteOptions ; Value: 0 ]
Set Variable [ $CompileOptions ; Value: "caseless" ]
Set Variable [ $regex ; Value: MBS("RegEx.Compile"; $Pattern; $CompileOptions) ]
Set Variable [ $offset ; Value: 0 ]
```

Loop

```
Set Variable [ $r ; Value: MBS("RegEx.Execute"; $regex; RegEx::Text; $ExecuteOptions; $offset) ]
Exit Loop If [ $r < 4 ]
Set Variable [ $s1 ; Value: MBS("RegEx.Substring"; $RegEx; 1) ]
Set Variable [ $s2 ; Value: MBS("RegEx.Substring"; $RegEx; 2) ]
Set Variable [ $s3 ; Value: MBS("RegEx.Substring"; $RegEx; 3) ]
Show Custom Dialog [ $s1 & $s2 & $s3 ]
Exit Loop If [ MBS("IsError") ]
Set Variable [ $offset ; $offset + Value: GetAsNumber(GetValue(MBS("RegEx.Results"; $regex); 2)) ]
End Loop
Set Variable [ $r ; Value: MBS("RegEx.Free"; $RegEx) ]
```

### See also

- 127.6 IsError 6374
- 138.3 RegEx.Execute 6762
- 138.5 RegEx.Free 6768
- 138.9 RegEx.MinimumLength 6774

<i>138.2. REGEX.COMPILE</i>	6761
• 138.10 RegEx.NameCount	6775
• 138.13 RegEx.Pattern	6778
• 138.17 RegEx.Results	6784
• 138.19 RegEx.StringNumber	6787
• 138.20 RegEx.Study	6788
• 138.21 RegEx.Substring	6789

### **Example Databases**

- [RegEx/RegEx Find all matches in text](#)
- [RegEx/RegEx](#)

Created 26th October 2014, last changed 29th June 2018.

### 138.3 RegEx.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Execute"; RegExRef; Text; ExecuteOptions { ; Offset } )

#### Parameters

##### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

##### Text

The text to search.

"Hello"

##### ExecuteOptions

The options for executing. Can be given as text or number.

0

##### Offset

Optional

Optional the offset in the text to start. Can be in range from 0 to length(text).

0

**Result** Returns result or error.

#### Description

You need to compile pattern before with RegEx.Compile function.

Returns the number of results.

Use RegEx.Results function to get list of results.

Please pass sum of the numbers to select options.

#### Examples

Run query and show substrings:

```
Set Variable [ $Pattern ; Value: "H(.*?)o (.)or(.)" ]
```

```
Set Variable [ $Text ; Value: "Hello World Test" ]
```

```
# Compile
```

```
Set Variable [ $Regex ; Value: MBS("RegEx.Compile"; $Pattern; "CaseLess") ]
```

```
If [ MBS("isError") ]
```

```
Show Custom Dialog [ $Regex ]
```

```
Exit Script [ Text Result: ]
```

```
End If
```

```
Set Variable [ $ExecuteResult ; Value: MBS("RegEx.Execute"; $Regex; $Text; "" ) ]
```

```
If [ MBS("IsError") = 0 ]
```

```
Show Custom Dialog [ "Captures" ; MBS("RegEx.CaptureCount"; $Regex) ]
```

```
Show Custom Dialog [ "Substrings" ; MBS("RegEx.Substring"; $Regex) & $&
```

Execute option	Number	Description
Anchored	16	Force pattern anchoring
Not BOL	128	Subject string is not the beginning of a line
Not EOL	256	Subject string is not the end of a line
Not Empty	1024	An empty string is not a valid match
Partial	32768	Allow partial results.
Newline CR	1048576	Set CR as the newline sequence
Newline LF	2097152	Set LF as the newline sequence
Newline CRLF	3145728	Set CRLF as the newline sequence
Newline Any	4194304	Recognize any Unicode newline sequence
Newline Any CRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSR Any CRLF	8388608	\R matches only CR, LF, or CRLF
BSR Unicode	16777216	\R matches all Unicode line endings
No start optimize	67108864	Disable match-time start optimizations
Partial Hard	134217728	Return partial result if found before .
Not Empty At Start	268435456	An empty string at the start of the subject is not a valid match
UCP	536870912	Use Unicode properties for \d, \w, etc.

```
MBS("RegEx.Substring"; $RegEx; 1) & $&
MBS("RegEx.Substring"; $RegEx; 2) & $&
MBS("RegEx.Substring"; $RegEx; 3) ]
End If
# free last
Set Variable [ $r ; Value: MBS("RegEx.Free"; $RegEx) ]
```

Loop and find all matches for pattern:

```
Set Variable [ $pattern ; Value: "(USt\-\?ID:? | USt\-\?IdNR\.\.? | Umsatzsteuer\-\?ID:? | VAT\-\?ID:?) [ \s
] ?(DE) [ \s ] ?( [ 0-9 ] { 9 } )" ]
Set Variable [ $ExecuteOptions ; Value: 0 ]
Set Variable [ $CompileOptions ; Value: "caseless" ]
Set Variable [ $regex ; Value: MBS("RegEx.Compile"; $Pattern; $CompileOptions) ]
Set Variable [ $offset ; Value: 0 ]
```

Loop

```
Set Variable [ $r ; Value: MBS("RegEx.Execute"; $regex; RegEx::Text; $ExecuteOptions; $offset) ]
Exit Loop If [ $r < 4 ]
Set Variable [ $s1 ; Value: MBS("RegEx.Substring"; $RegEx; 1) ]
Set Variable [ $s2 ; Value: MBS("RegEx.Substring"; $RegEx; 2) ]
Set Variable [ $s3 ; Value: MBS("RegEx.Substring"; $RegEx; 3) ]
Show Custom Dialog [ $s1 & $& $s2 & $& $s3 ]
Exit Loop If [ MBS("IsError") ]
Set Variable [ $offset ; $offset + Value: GetAsNumber(GetValue(MBS("RegEx.Results"; $regex); 2)) ]
End Loop
Set Variable [ $r ; Value: MBS("RegEx.Free"; $RegEx) ]
```

**See also**

- 127.6 IsError 6374
- 138.1 RegEx.CaptureCount 6757
- 138.2 RegEx.Compile 6759
- 138.5 RegEx.Free 6768
- 138.11 RegEx.NamedSubstring 6776
- 138.17 RegEx.Results 6784
- 138.20 RegEx.Study 6788
- 138.21 RegEx.Substring 6789

### Example Databases

- [RegEx/RegEx](#)

### 138.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr4](#)

Created 26th October 2014, last changed 29th June 2018.



## 138.4 RegEx.FindMatches

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	5.1	Yes	Yes	Yes	Yes	Yes

```
MBS( "RegEx.FindMatches"; RegExRef; Text; ExecuteOptions { ; ReturnWholeMatch; NoReturnEnding } )
```

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

#### Text

The text to search.

"Hello"

#### ExecuteOptions

The options for executing. Can be given as text or number.

0

#### ReturnWholeMatch

Optional

Pass 1 to return whole match including text you have in the pattern. Else pass 0 to get only the text from your captures.

1

#### NoReturnEnding

Optional

Pass 1 to have no extra newline character on the end of the returned list. Default is 0 to include one to easily concat lists.

1

**Result** Returns list or error.

### Description

Can be used for example to find tokens or placeholders in a text.

If your search pattern has no captures, please pass 1 for ReturnWholeMatch or you won't see anything in result.

Please pass sum of the numbers to select options.

### Examples

Search for numbers in text:

```
Set Variable [ $regex; Value:MBS("RegEx.Compile"; "(\\d+)\\D"; 512+1) ]
```

```
Set Variable [ $result; MBS("RegEx.FindMatches"; $regex; "aa 123 abc"; 0; 0) ]
```

```
Set Variable [ $r; Value:MBS("RegEx.Free"; $regex) ]
```

Execute option	Number	Description
Anchored	16	Force pattern anchoring
Not BOL	128	Subject string is not the beginning of a line
Not EOL	256	Subject string is not the end of a line
Not Empty	1024	An empty string is not a valid match
Partial	32768	Allow partial results.
Newline CR	1048576	Set CR as the newline sequence
Newline LF	2097152	Set LF as the newline sequence
Newline CRLF	3145728	Set CRLF as the newline sequence
Newline Any	4194304	Recognize any Unicode newline sequence
Newline Any CRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSR Any CRLF	8388608	\R matches only CR, LF, or CRLF
BSR Unicode	16777216	\R matches all Unicode line endings
No start optimize	67108864	Disable match-time start optimizations
Partial Hard	134217728	Return partial result if found before .
Not Empty At Start	268435456	An empty string at the start of the subject is not a valid match
UCP	536870912	Use Unicode properties for \d, \w, etc.

Find cd and 34 in the following text:

```
Set Variable [ $regex; Value:MBS("RegEx.Compile"; "<code>..(..)</code>"; 512+1) ]
Set Variable [ $result; Value:MBS("RegEx.FindMatches"; $regex; "<code>abcdef</code>§<code>123456</code>";
0; 0) ]
Set Variable [ $r; Value:MBS("RegEx.Free"; $regex) ]
```

Find matches in multiline text:

```
Let ( [
pattern = "^GR.";
text = "GR1$GR2 $GR3 ";
CompileOptions = 2 /* multiline */ + 1 /* caseless */ + 4194304 /* newline any */;
ExecuteOptions = 4194304 /* newline any */;
regex = MBS("RegEx.Compile"; pattern; CompileOptions );
result = MBS( "RegEx.FindMatches"; regex; text; ExecuteOptions ; 0 );
r = MBS("RegEx.Free"; regex)
] ; result )
```

### See also

- 138.2 RegEx.Compile 6759
- 138.5 RegEx.Free 6768

### Example Databases

- [RegEx/RegEx Find all matches in text](#)

### 138.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [MBS FileMaker Plugin, version 7.5pr8](#)
- [MBS FileMaker Plugin, version 5.1pr4](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 15th March 2015, last changed 27th October 2019.

## 138.5 RegEx.Free

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Free"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

**Result** Returns OK or error.

### Description

### Examples

Free regex:

Set Variable [ \$r ; Value: MBS("RegEx.Free"; \$RegEx) ]

### See also

- 138.1 RegEx.CaptureCount 6757
- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762
- 138.4 RegEx.FindMatches 6765
- 138.10 RegEx.NameCount 6775
- 138.13 RegEx.Pattern 6778
- 138.17 RegEx.Results 6784
- 138.21 RegEx.Substring 6789

### Example Databases

- [RegEx/RegEx Find all matches in text](#)
- [RegEx/RegEx](#)

Created 26th October 2014, last changed 25th November 2017.

## 138.6 RegEx.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.List" )

**Result** Returns list or error.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.

### 138.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr4](#)

Created 21st September 2015, last changed 21st September 2015.

## 138.7 RegEx.Match

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Match"; Pattern; Text; CompilerOptions; ExecuteOptions )

### Parameters

#### Pattern

The pattern to use.

"H(.\*)"

#### Text

The text to search.

"Hello"

#### CompilerOptions

A number for the options to use. e.g. 1 for case insensitive or 512 for ungreedy. Can be given as text or number.

512+1

#### ExecuteOptions

The options for executing. Can be given as text or number.

0

**Result** Returns 0, 1 or error.

### Description

This compiles the pattern, executes it and looks if we have a match or not.

Returns 1 if matches and 0 if not.

Please pass sum of the numbers to select options.

### Examples

Match Hello with pattern:

```
MBS( "RegEx.Match"; "H(.*)o"; "Hello")
```

Match case less:

```
MBS( "RegEx.Match"; "H(.*)o"; "hello"; 1)
```

### See also

- 138.8 RegEx.MatchList

6772

### Example Databases

Option	Number	Description
Caseless	1	Do caseless matching
CaseSensitive	0	Do case sensitive matching
Multiline	2	^and \$ match newlines within data
SingleLine	0	^and \$ do not match newlines within data
DotAll	4	. matches anything including NL
Extended	8	Ignore white space and # comments
Anchored	16	Force pattern anchoring
DollarEndOnly	32	\$ not to match newline at end
NotBOL	128	Subject string is not the beginning of a line
NotEOL	256	Subject string is not the end of a line
Ungreedy	512	Invert greediness of quantifiers
Greedy	0	Be greedy.
NotEmpty	1024	An empty string is not a valid match
Empty	0	An empty string is a valid match
AutoCapture	0	Enable numbered capturing parentheses
NoAutoCapture	4096	Disable numbered capturing parentheses (named ones available)
AutoCallout	16384	Compile automatic callouts
NoAutoCallout	0	Don't compile automatic callouts
Partial	32768	Allow partial results.
FirstLine	262144	Force matching to be before newline
DupNames	524288	Allow duplicate names for subpatterns
NewlineCR	1048576	Set CR as the newline sequence
NewlineLF	2097152	Set LF as the newline sequence
NewlineCRLF	3145728	Set CRLF as the newline sequence
NewlineAny	4194304	Recognize any Unicode newline sequence
NewlineAnyCRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSRAnyCRLF	8388608	\R matches only CR, LF, or CRLF
BSRUnicode	16777216	\R matches all Unicode line endings
JavaScriptCompatible	33554432	JavaScript compatibility
NoStartOptimize	67108864	Disable match-time start optimizations
PartialHard	134217728	Return partial result if found before .
NotEmptyAtStart	268435456	An empty string at the start of the subject is not a valid match
UCP	536870912	Use Unicode properties for \d, \w, etc.

- [RegEx/RegEx Simple Match](#)

### 138.7.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr5](#)

Created 26th October 2014, last changed 17th October 2017.

## 138.8 RegEx.MatchList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.MatchList"; Pattern; List; CompilerOptions; ExecuteOptions )

### Parameters

#### Pattern

The pattern to use.

"H(.\*)"

#### List

The list of texts to search.

"Hello"

#### CompilerOptions

A number for the options to use. e.g. 1 for case insensitive or 512 for ungreedy. Can be given as text or number.

512+1

#### ExecuteOptions

The options for executing. Can be given as text or number.

0

**Result** Returns list or error.

### Description

This compiles the pattern, executes it and looks if we have a match or not for each list item. Returns the list items which match.

Please pass sum of the numbers to select options.

### Examples

Match Hello with pattern:

```
MBS( "RegEx.MatchList"; "H(.*)o"; "Hello$Test$World$House$Test")
```

### See also

- 138.7 RegEx.Match

6770

### 138.8.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr9](#)

Created 2nd November 2014, last changed 17th October 2017.



Compile option	Number	Description
Caseless	1	Do caseless matching
Multiline	2	^and \$ match newlines within data
Dot All	4	. matches anything including NL
Extended	8	Ignore white space and # comments
Anchored	16	Force pattern anchoring
Dollar End Only	32	\$ not to match newline at end
Ungreedy	512	Invert greediness of quantifiers
No Auto Capture	4096	Disable numbered capturing parentheses (named ones available)
Auto Callout	16384	Compile automatic callouts
FirstLine	262144	Force matching to be before newline
Dup Names	524288	Allow duplicate names for subpatterns
Newline CR	1048576	Set CR as the newline sequence
Newline LF	2097152	Set LF as the newline sequence
Newline CRLF	3145728	Set CRLF as the newline sequence
Newline Any	4194304	Recognize any Unicode newline sequence
Newline Any CRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSR Any CRLF	8388608	\R matches only CR, LF, or CRLF
BSR Unicode	16777216	\R matches all Unicode line endings
JavaScript Compatible	33554432	JavaScript compatibility
No start optimize	67108864	Disable match-time start optimizations

Execute option	Number	Description
Anchored	16	Force pattern anchoring
Not BOL	128	Subject string is not the beginning of a line
Not EOL	256	Subject string is not the end of a line
Not Empty	1024	An empty string is not a valid match
Partial	32768	Allow partial results.
Newline CR	1048576	Set CR as the newline sequence
Newline LF	2097152	Set LF as the newline sequence
Newline CRLF	3145728	Set CRLF as the newline sequence
Newline Any	4194304	Recognize any Unicode newline sequence
Newline Any CRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSR Any CRLF	8388608	\R matches only CR, LF, or CRLF
BSR Unicode	16777216	\R matches all Unicode line endings
No start optimize	67108864	Disable match-time start optimizations
Partial Hard	134217728	Return partial result if found before .
Not Empty At Start	268435456	An empty string at the start of the subject is not a valid match
UCP	536870912	Use Unicode properties for \d, \w, etc.

## 138.9 RegEx.MinimumLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.MinimumLength"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns number or error.

### Description

Returns -1 if not applicable.

### See also

- 138.2 RegEx.Compile

6759

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 26th October 2014.

## 138.10 RegEx.NameCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.NameCount"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns number or error.

### Description

### Examples

Use a named group:

```
Set Variable [ $Pattern ; Value: "H(?P<MyName>.*o)" ]
Set Variable [ $Regex ; Value: MBS("RegEx.Compile"; $Pattern; "CaseLess") ]
Show Custom Dialog [ "Namecount" ; MBS( "RegEx.nameCount"; $Regex ) ]
Set Variable [ $r ; Value: MBS("RegEx.Free"; $Regex) ]
```

### See also

- [138.2 RegEx.Compile](#) 6759
- [138.5 RegEx.Free](#) 6768

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 25th November 2017.

## 138.11 RegEx.NamedSubstring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.NamedSubstring"; RegExRef; Name )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

#### Name

The name of the substring to find.

"test"

**Result** Returns OK or error.

### Description

#### Examples

Query text of named substring

```
$regex = MBS("RegEx.Compile"; "H(?P<name>.*); 0)
```

```
$r = MBS("RegEx.Execute"; "Hello")
```

```
$text = MBS("RegEx.NamedSubstring"; $regex; "name")
```

### See also

- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762

Created 26th October 2014, last changed 26th October 2014.

## 138.12 RegEx.Options

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Options"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns number or error.

### Description

Always returns numeric options value.

### See also

- 138.2 RegEx.Compile

6759

Created 26th October 2014, last changed 17th October 2017.

## 138.13 RegEx.Pattern

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Pattern"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns OK or error.

### Description

### Examples

Query pattern:

```
Set Variable [ $Pattern ; Value: "H(.*?)o (.)or(.)" ]
```

```
Set Variable [ $Regex ; Value: MBS("RegEx.Compile"; $Pattern; "CaseLess") ]
```

```
Show Custom Dialog [ "Pattern used" ; MBS( "RegEx.Pattern"; $RegEx ) ]
```

```
Set Variable [ $r ; Value: MBS("RegEx.Free"; $RegEx) ]
```

### See also

- 138.2 RegEx.Compile 6759
- 138.5 RegEx.Free 6768

Created 26th October 2014, last changed 25th November 2017.

## 138.14 RegEx.Quote

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Quote"; Text )

### Parameters

#### Text

The text to quote.

"Hello."

**Result** Returns text or error.

### Description

Escapes all potentially meaningful regexp characters in text. The returned string, used as a regular expression, will exactly match the original string. For example, "1.5-2.0?" may become: "1\.5\ -2\.0\?".

Note QuoteMeta behaves the same as perl's QuoteMeta function, *\*except\** that it escapes the NUL character (`\0`) as backslash + 0, rather than backslash + NUL.

### Examples

Escape a test string:

Show Custom Dialog [ "RegEx escaped" ; MBS( "RegEx.Quote"; "Hello? \*test\* 123" ) ]

Example result: "Hello\?\ \ \*test\\*\123"

### 138.14.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 17th October 2017, last changed 25th November 2017.

## 138.15 RegEx.Replace

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Replace"; Text; Pattern; Rewrite { ; Options; All } )

### Parameters

#### Text

The text to use.

"hello world"

#### Pattern

The pattern to use.

"1+"

#### Rewrite

The output pattern.

"\1\1"

#### Options

Optional

The PCRE options. Can be given as text or number.

0

#### All

Optional

Whether to replace all occurrences. Pass 1 to replace all or 0 to replace once. Default 0.

0

**Result** Returns new text or error.

### Description

You can replace the first match of pattern in text with rewrite pattern. Within rewrite pattern, backslash-escaped digits (\1 to \9) can be used to insert text matching corresponding parenthesized group from the pattern. \0 in rewrite refers to the entire matching text.

### Examples

Replace:

```
MBS( "RegEx.Replace"; "yabba dabba doo"; "b+"; "d" )
```

Example result: "yadba dabba doo"

### See also

- 138.16 RegEx.ReplaceAll



Option	Number	Description
Caseless	1	Do caseless matching
CaseSensitive	0	Do case sensitive matching
Multiline	2	^and \$ match newlines within data
SingleLine	0	^and \$ do not match newlines within data
DotAll	4	. matches anything including NL
Extended	8	Ignore white space and # comments
Anchored	16	Force pattern anchoring
DollarEndOnly	32	\$ not to match newline at end
NotBOL	128	Subject string is not the beginning of a line
NotEOL	256	Subject string is not the end of a line
Ungreedy	512	Invert greediness of quantifiers
Greedy	0	Be greedy.
NotEmpty	1024	An empty string is not a valid match
Empty	0	An empty string is a valid match
AutoCapture	0	Enable numbered capturing parentheses
NoAutoCapture	4096	Disable numbered capturing parentheses (named ones available)
AutoCallout	16384	Compile automatic callouts
NoAutoCallout	0	Don't compile automatic callouts
Partial	32768	Allow partial results.
FirstLine	262144	Force matching to be before newline
DupNames	524288	Allow duplicate names for subpatterns
NewlineCR	1048576	Set CR as the newline sequence
NewlineLF	2097152	Set LF as the newline sequence
NewlineCRLF	3145728	Set CRLF as the newline sequence
NewlineAny	4194304	Recognize any Unicode newline sequence
NewlineAnyCRLF	5242880	Recognize CR, LF, and CRLF as newline sequences
BSRAnyCRLF	8388608	\R matches only CR, LF, or CRLF
BSRUnicode	16777216	\R matches all Unicode line endings
JavaScriptCompatible	33554432	JavaScript compatibility
NoStartOptimize	67108864	Disable match-time start optimizations
PartialHard	134217728	Return partial result if found before .
NotEmptyAtStart	268435456	An empty string at the start of the subject is not a valid match
UCP	536870912	Use Unicode properties for \d, \w, etc.

### 138.15.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 17th October 2017, last changed 17th October 2017.

## 138.16 RegEx.ReplaceAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.ReplaceAll"; Text; Pattern; Rewrite { ; Options } )

### Parameters

#### Text

The text to use.

"hello world"

#### Pattern

The pattern to use.

"1+"

#### Rewrite

The output pattern.

"\1\1"

#### Options

Optional

The PCRE options. Can be given as text or number.

0

**Result** Returns new text or error.

### Description

You can replace the all occurrences of pattern in text with rewrite pattern. Within rewrite pattern, backslash-escaped digits (\1 to \9) can be used to insert text matching corresponding parenthesized group from the pattern. \0 in rewrite refers to the entire matching text.

Replacements are not subject to re-matching.

### Examples

Replace all:

MBS( "RegEx.ReplaceAll"; "yabba dabba doo"; "b+"; "d" )

Example result: "yadda dadda doo"

Replace all greedy:

MBS( "RegEx.ReplaceAll"; "yabba dabba doo"; "b+"; "d"; "greedy" )

Example result: "yada dada doo"

Replace links with html:

MBS( "RegEx.ReplaceAll"; "This is a link to the Monkeybread Software site: <http://www.mbsplugins.eu/>

where Filemaker solutions can be found.”; ”(https?:/ [ \w./ ] +)”; ”<a href=\”\1\”>\1</a>”; ”case-less\$greedy” )

Example result: This is a link to the Monkeybread Software site: <a href=”http://www.mbsplugins.eu/”>http://www.mbsplugins.eu/</a>where Filemaker solutions can be found.

Replace all with in greek texts:

MBS( ”Regex.ReplaceAll”; ”I test test”; ”( [ \p { Greek } \p { Latin } ] +)(\W\*)”; ”\1\2” )

### See also

- 138.15 RegEx.Replace 6780
- 167.58 Text.ReplaceAll 7984

### Example Databases

- [CURL/Email/IMAP Email](#)
- [WebViewer/Text To WebViewer](#)

#### 138.16.1 Blog Entries

- [Text to Webviewer Script for FileMaker](#)
- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 17th October 2017, last changed 23th July 2018.

## 138.17 RegEx.Results

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Results"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

**Result** Returns OK or error.

### Description

The result are offsets into the text to search. Two for the whole match followed by 2 for each sub pattern.

### Examples

Loop and find all matches for pattern:

```
Set Variable [ $pattern ; Value: "(USt\-ID:? | USt\-IdNR\.:? | Umsatzsteuer\-ID:? | VAT\-ID:?) [ \s ] ?(DE) [ \s ] ?( [ 0-9 ] { 9 } )" ]
Set Variable [ $ExecuteOptions ; Value: 0 ]
Set Variable [ $CompileOptions ; Value: "caseless" ]
Set Variable [ $regex ; Value: MBS("RegEx.Compile"; $Pattern; $CompileOptions) ]
Set Variable [ $offset ; Value: 0 ]
```

Loop

```
Set Variable [ $r ; Value: MBS("RegEx.Execute"; $regex; RegEx::Text; $ExecuteOptions; $offset) ]
Exit Loop If [ $r < 4 ]
Set Variable [ $s1 ; Value: MBS("RegEx.Substring"; $RegEx; 1) ]
Set Variable [ $s2 ; Value: MBS("RegEx.Substring"; $RegEx; 2) ]
Set Variable [ $s3 ; Value: MBS("RegEx.Substring"; $RegEx; 3) ]
Show Custom Dialog [ $s1 & $s2 & $s3 ]
Exit Loop If [ MBS("IsError") ]
Set Variable [ $offset ; $offset + Value: GetAsNumber(GetValue(MBS("RegEx.Results"; $regex); 2)) ]
End Loop
Set Variable [ $r ; Value: MBS("RegEx.Free"; $RegEx) ]
```

### See also

- 127.6 IsError 6374
- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762
- 138.5 RegEx.Free 6768

138.17. *REGEX.RESULTS*

6785

- 138.21 RegEx.Substring

6789

Created 26th October 2014, last changed 29th June 2018.

## 138.18 RegEx.Size

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Size"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns OK or error.

### Description

### See also

- 138.2 RegEx.Compile

6759

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 26th October 2014.

## 138.19 RegEx.StringNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.StringNumber"; RegExRef; Name )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

#### Name

The name of the substring to find.

"test"

**Result** Returns number or error.

### Description

### Examples

Test with a named substring:

```
$regex = MBS("RegEx.Compile"; "H(?P<name>.*); 0)
```

```
$index = MBS("RegEx.StringNumber"; $regex; "name")
```

```
# index is now 1 as this is first substring.
```

### See also

- 138.2 RegEx.Compile

## 138.20 RegEx.Study

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Study"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns OK or error.

### Description

You can call this if you plan to call RegEx.Execute often.

### Examples

Study regex:

Set Variable [ \$r ; Value: MBS("RegEx.Study"; \$RegEx) ]

### See also

- [138.2 RegEx.Compile](#) 6759
- [138.3 RegEx.Execute](#) 6762

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 25th November 2017.



## 138.21 RegEx.Substring

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Substring"; RegExRef; Index )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.

\$regex

#### Index

The index for the substring.

0

**Result** Returns text or error.

### Description

Index 0 gives whole match and index from 1 to RegEx.CaptureCount gives substrings matched.

### Examples

Find seller ID in an URL:

```
Let ( [
pattern = "^http.*\?.*& seller=(.*)$";
text = "https://www.example.com.com/gp/aag/main/ref=olp__merch__name__2?ie=UTF8& astn=B8J070KLDO&
isFulfilled=1& seller=A2XKMLD9HIY1T";

regex = MBS( "RegEx.Compile"; pattern; 512+1 );
r = MBS( "RegEx.Execute"; regex; text; 0 );
r = MBS( "RegEx.Substring"; regex; 1 );
f = MBS( "RegEx.Free"; regex )
]; r )
```

### See also

- 138.1 RegEx.CaptureCount 6757
- 138.2 RegEx.Compile 6759
- 138.3 RegEx.Execute 6762
- 138.5 RegEx.Free 6768
- 138.17 RegEx.Results 6784
- 138.22 RegEx.SubstringList 6791

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 9th June 2017.

## 138.22 RegEx.SubstringList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.SubstringList"; RegExRef )

### Parameters

#### RegExRef

The reference number for the regular expression returned from RegEx.Compile.  
\$regex

**Result** Returns list or error.

### Description

First item in the list is the whole match, followed by other lines for each substring.

### See also

- 138.2 RegEx.Compile 6759
- 138.21 RegEx.Substring 6789

### Example Databases

- [RegEx/RegEx](#)

Created 26th October 2014, last changed 26th October 2014.

## 138.23 RegEx.Version

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
138 RegEx	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "RegEx.Version" )

**Result** Returns version.

### Description

e.g. "8.33 2013-05-28"

### Examples

Query version:

MBS( "RegEx.Version" )

Created 26th October 2014, last changed 26th October 2014.

# Chapter 139

## Registry

Windows Registry functions.

### 139.1 Registry.CreateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.CreateKey"; Path; Name )

#### Parameters

##### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

##### Name

The name of the new key.

"test"

**Result** Returns OK or error.

#### Description

Does not return an error, if such a key exists already, so you can

#### Examples

Creates a key:

MBS( "Registry.CreateKey"; "CurrentUser"; "Test" )

6794

Creates key and intermediate ones:

```
MBS( "Registry.CreateKey"; "CurrentUser"; "Test\MyApp\MyPref" )
```

**See also**

- 139.2 Registry.DeleteKey

6795

Created 20th March 2017, last changed 20th March 2017.

## 139.2 Registry.DeleteKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.DeleteKey"; Path; Name )

### Parameters

#### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

#### Name

The name of the key to delete.

"test"

**Result** Returns OK or error.

### Description

### Examples

Delete test key:

```
MBS( "Registry.DeleteKey"; "CurrentUser"; "Test")
```

Delete a key in a path:

```
MBS( "Registry.DeleteKey"; "CurrentUser\Test\MyApp"; "MyPref")
```

### See also

- 139.1 Registry.CreateKey 6793
- 139.3 Registry.DeleteTree 6796
- 139.4 Registry.DeleteValue 6797
- 139.5 Registry.FlushKey 6798

Created 20th March 2017, last changed 20th March 2017.

### 139.3 Registry.DeleteTree

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.DeleteTree"; Path )

#### Parameters

##### Path

The path to the registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.  
"Users\test"

**Result** Returns OK or error.

#### Description

Not available on Windows XP. Works on Windows Vista or newer and Windows Server 2008 or newer.

#### Examples

Deletes a tree:

```
MBS( "Registry.DeleteTree"; "CurrentUser\Test")
```

#### See also

- 139.2 Registry.DeleteKey 6795
- 139.4 Registry.DeleteValue 6797

Created 20th March 2017, last changed 25th May 2017.



## 139.4 Registry.DeleteValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.DeleteValue"; Path; Name )

### Parameters

#### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

#### Name

The name of the value to delete.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Delete a value:

MBS( "Registry.DeleteValue"; "CurrentUser\Test"; "Hello" )

### See also

- 139.2 Registry.DeleteKey 6795
- 139.3 Registry.DeleteTree 6796
- 139.6 Registry.GetValue 6799
- 139.10 Registry.SetValue 6804

Created 20th March 2017, last changed 20th March 2017.

## 139.5 Registry.FlushKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.FlushKey"; Path )

### Parameters

#### Path

The path to the registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.  
"Users\test"

**Result** Returns OK or error.

### Description

#### See also

- 139.2 Registry.DeleteKey 6795
- 139.8 Registry.ListKeys 6802

Created 20th March 2017, last changed 20th March 2017.

## 139.6 Registry.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.GetValue"; Path; Name )

### Parameters

#### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

#### Name

The name of the value.

"Hello"

**Result** Returns value or error.

### Description

We return Text, Link or ExpandText as text.

Binary is returned hex encoded.

DWORD or QWORD is returned as numbers.

Lists are converted to FileMaker list.

### Examples

Query value:

```
MBS( "Registry.GetValue"; "CurrentUser\Test"; "Hello")
```

Query FileMaker's printer settings:

```
MBS( "Registry.GetValue"; "HKEY_CURRENT_USER\SOFTWARE\FileMaker\FileMaker Pro Advanced\16.0\Pref-
erences"; "Printer")
```

Query Windows product name:

```
MBS( "Registry.GetValue"; "HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows NT\CurrentVer-
sion"; "ProductName")
```

Query user name:

```
MBS( "Registry.GetValue"; "HKEY_CURRENT_USER\SOFTWARE\FileMaker\FileMaker Pro Advanced\16.0\Pref-
erences"; "User Name")
```

Query FileMaker Cache Size:

```
MBS( "Registry.GetValue"; "HKEY_CURRENT_USER\SOFTWARE\FileMaker\FileMaker Pro Advanced\16.0\Preferences"; "Cache Size")
```

Query whether we have FileMaker Pro Advanced 17:

```
MBS( "Registry.GetValue"; "HKEY_CURRENT_USER\SOFTWARE\FileMaker\FileMaker Pro Advanced\17.0\Preferences"; "Use Advanced Tools")
```

### See also

- 139.4 Registry.DeleteValue 6797
- 139.7 Registry.GetValueType 6801
- 139.9 Registry.ListValues 6803
- 139.10 Registry.SetValue 6804

Created 20th March 2017, last changed 28th November 2019.

## 139.7 Registry.GetValueType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.GetValueType"; Path; Name )

### Parameters

#### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

#### Name

The name of the value.

"Hello"

**Result** Returns value or error.

### Description

Value can be none, text, ExpandText, Binary, DWORD, DWORD BigEndian, Link, List, ResourceList, FullResourceDescriptor, ResourceRequirementsList or QWORD.

DWORD is a 32-bit number and QWORD a 64-bit number.

### Examples

Queries the value type:

```
MBS( "Registry.GetValueType"; "CurrentUser\Test"; "Hello")
```

### See also

- 139.6 Registry.GetValue 6799
- 139.10 Registry.SetValue 6804

Created 20th March 2017, last changed 20th March 2017.

## 139.8 Registry.ListKeys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.ListKeys"; Path )

### Parameters

#### Path

The path to the registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.  
"Users\test"

**Result** Returns list or error.

### Description

#### Examples

Lists all keys in CurrentUser:

MBS( "Registry.ListKeys"; "CurrentUser")

### See also

- 139.5 Registry.FlushKey 6798
- 139.9 Registry.ListValues 6803

Created 20th March 2017, last changed 20th March 2017.

## 139.9 Registry.ListValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.ListValues"; Path )

### Parameters

#### Path

The path to the registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.  
"Users\test"

**Result** Returns list or error.

### Description

### Examples

Query list of values:

MBS( "Registry.ListValues"; "CurrentUser\Test")

### See also

- 139.6 Registry.GetValue 6799
- 139.8 Registry.ListKeys 6802
- 139.10 Registry.SetValue 6804

Created 20th March 2017, last changed 20th March 2017.

## 139.10 Registry.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
139 Registry	7.2	No	Yes	Yes, Windows only	No	No

MBS( "Registry.SetValue"; Path; Name; Value; Type )

### Parameters

#### Path

The path to the parent registry key. Separated by \you specify the path to the key you want. Root can be Classes, CurrentUser, LocalMachine, Users, PerformanceData, CurrentConfig, DynData or the HKEY names.

"Users\test"

#### Name

The name of the value.

"Hello"

#### Value

The value to set.

"World"

#### Type

The data type to store.

"text"

**Result** Returns OK or error.

### Description

Type can be Text, ExpandText, DWORD, BinaryHex, None, QWORD or List.

Use DWORD to save 32-bit integer number or QWORD to save 64-bit number.

For list, please pass a normal \$separated list and we translate it.

For BinaryHex type, please pass hex encoded data and we decode it before saving.

### Examples

Set user name for FileMaker:

```
MBS( "Registry.SetValue"; "HKEY_CURRENT_USER\SOFTWARE\FileMaker\FileMaker Pro Advanced\16.0\Pref-
erences"; "User Name"; "Mr. Miller"; "text")
```

### See also

- 139.4 Registry.DeleteValue 6797
- 139.6 Registry.GetValue 6799
- 139.7 Registry.GetValueType 6801
- 139.9 Registry.ListValues 6803



Created 20th March 2017, last changed 17th November 2017.



# Chapter 140

## RemoteControl

Press keys or move/click mouse.

### 140.1 RemoteControl.ClickMouse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.ClickMouse"; x; y { ; down; ButtonIndex } )

#### Parameters

##### **x**

New x position of the mouse.

500

##### **y**

New y position of the mouse.

500

##### **down**

Optional

Pass 1 to press mouse button and 0 to release it. If this parameter is missing, the plugin will click and release in one step.

1

##### **ButtonIndex**

Optional

Optional, pass 2 for the right mouse instead of left mouse. Or 3 for the third button.

1

**Result** Returns OK on success.

**Description**

If x and y are both zero, the mouse is not moved.  
May fail due to limited permissions.

You can use RemoteControl.MouseX and RemoteControl.MouseY to find current mouse position.

**See also**

- 127.22 Plugin.DisableFunction 6395
- 127.31 Plugin.LimitFunction 6405
- 127.32 Plugin.LockFunction 6407
- 127.45 Plugin.UnlockFunction 6423
- 140.5 RemoteControl.MouseX 6812
- 140.6 RemoteControl.MouseY 6813
- 140.7 RemoteControl.MoveMouse 6814

**Example Databases**

- [RemoteControl/Move Mouse](#)

**140.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr3](#)
- [MBS FileMaker Plugin, version 6.2pr4](#)

Created 18th August 2014, last changed 17th August 2016.

## 140.2 RemoteControl.FindWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	No	Yes	No	No	No

MBS( "RemoteControl.FindWindow"; WindowClassName; WindowTitle )

### Parameters

#### WindowClassName

The internal class name of a window.

CalcFrame

#### WindowTitle

The title of the window.

"Calculator"

**Result** Returns the window handle for use with other window functions.

### Description

One of both parameters can be an empty string.

### Example Databases

- [RemoteControl/Control Windows Calculator](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.3 RemoteControl.GetWindowsList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	No	Yes	No	No	No

MBS( "RemoteControl.GetWindowsList" )

**Result** Returns list of window references separated by newline character.

### Description

You can separate this list and pass the window reference values as number to our other Window functions.

### See also

- [185.53 Window.List](#) 8731

### Example Databases

- [RemoteControl/Windows List](#)

### 140.3.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr5](#)

Created 18th August 2014, last changed 17th June 2018.

## 140.4 RemoteControl.HideCursor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	3.4	Yes	Yes	No	No	No

MBS( "RemoteControl.HideCursor" )

**Result** Returns OK.

### Description

As FileMaker may reset the cursor to be visible when scripts end, you may not see the mouse actually hide.

### Examples

Hide the mouse:

MBS( "RemoteControl.HideCursor" )

Show the mouse:

MBS( "RemoteControl.ShowCursor" )

### See also

- 140.16 RemoteControl.ShowCursor

6825

### 140.4.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.5 RemoteControl.MouseX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.MouseX" )

**Result** Returns x coordinate.

### Description

#### See also

- 76.7 EventMonitor.LastMousePositionX 3553
- 140.1 RemoteControl.ClickMouse 6807
- 140.6 RemoteControl.MouseY 6813
- 140.7 RemoteControl.MoveMouse 6814

### Example Databases

- [DynaPDF/Click Points](#)
- [RemoteControl/Move Mouse](#)

### 140.5.1 FileMaker Magazin

- Ausgabe 3/2015, Seite 37

Created 18th August 2014, last changed 18th August 2014.



## 140.6 RemoteControl.MouseY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.MouseY" )

**Result** Returns y coordinate.

### Description

### See also

- [76.8 EventMonitor.LastMousePositionY](#) 3554
- [140.1 RemoteControl.ClickMouse](#) 6807
- [140.5 RemoteControl.MouseX](#) 6812
- [140.7 RemoteControl.MoveMouse](#) 6814

### Example Databases

- [DynaPDF/Click Points](#)
- [RemoteControl/Move Mouse](#)

### 140.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.7 RemoteControl.MoveMouse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.MoveMouse"; x; y )

### Parameters

#### x

New x position of the mouse.

500

#### y

New y position of the mouse.

500

**Result** Returns OK on success.

### Description

#### See also

- [140.1 RemoteControl.ClickMouse](#) 6807
- [140.5 RemoteControl.MouseX](#) 6812
- [140.6 RemoteControl.MouseY](#) 6813

### Example Databases

- [RemoteControl/Move Mouse](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.8 RemoteControl.PressCommandKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	No	No	No	No

MBS( "RemoteControl.PressCommandKey"; down )

### Parameters

#### down

Pass 1 to press key down or 0 to release it.

1

**Result** Returns OK on success.

### Description

#### See also

- [140.9 RemoteControl.PressControlKey](#) 6816
- [140.13 RemoteControl.PressKeyLater](#) 6822
- [140.14 RemoteControl.PressOptionKey](#) 6823
- [140.15 RemoteControl.PressShiftKey](#) 6824

Created 18th August 2014, last changed 18th August 2014.

## 140.9 RemoteControl.PressControlKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.PressControlKey"; down )

### Parameters

#### down

Pass 1 to press key down or 0 to release it.

1

**Result** Returns OK on success.

### Description

### Examples

Press Control-V:

```
MBS( "RemoteControl.PressControlKey"; 1 )
```

```
MBS( "RemoteControl.PressKey"; "V" )
```

```
MBS( "RemoteControl.PressControlKey"; 0 )
```

### See also

- 90.15 HotKey.Register 4909
- 140.8 RemoteControl.PressCommandKey 6815
- 140.12 RemoteControl.PressKey 6819
- 140.14 RemoteControl.PressOptionKey 6823
- 140.15 RemoteControl.PressShiftKey 6824

### 140.9.1 Blog Entries

- [Insert snippet for FileMaker on Windows](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.10 RemoteControl.PressDialogButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	6.2	Yes	No	No	No	No

MBS( "RemoteControl.PressDialogButton"; ButtonName )

### Parameters

#### ButtonName

The name of the button.

"OK"

**Result** Returns OK or error.

### Description

The plugin takes the button name and waits in background.

If a dialog shows up with the right button name, the plugin presses it.

Please call RemoteControl.PressDialogButton.clear to stop this after you needed it.

### Examples

Press OK on the custom dialog:

```
Set Variable [ $r; Value:MBS( "RemoteControl.PressDialogButton"; "OK" ) ]
```

```
Show Custom Dialog [ "Hello" ]
```

```
Set Variable [ $r; Value:MBS( "RemoteControl.PressDialogButton.Clear" ) ]
```

### See also

- [140.11 RemoteControl.PressDialogButton.Clear](#)

6818

### 140.10.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 18th March 2016, last changed 18th March 2016.

## 140.11 RemoteControl.PressDialogButton.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	6.2	Yes	No	No	No	No

MBS( "RemoteControl.PressDialogButton.Clear" )

**Result** Returns OK or error.

**Description**

**Examples**

GetWindowsList

**See also**

- 140.10 RemoteControl.PressDialogButton

6817

Created 18th March 2016, last changed 17th June 2018.

## 140.12 RemoteControl.PressKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.PressKey"; VirtualKey; ScanCode { ; down } )

### Parameters

#### VirtualKey

The platform dependent virtual key code. Pass a number for a virtual key code or pass a string to let the plugin try to lookup the virtual key code.

"a"

#### ScanCode

The platform dependent scan code. Pass a number for a scan code or pass a string to let the plugin try to lookup the virtual key code. If this parameter is missing, the virtual key code is used to lookup the scan code.

"a"

#### down

Optional

Whether to press key down or release it. If parameter is missing the plugin will do both.

**Result** Returns OK on success.

### Description

Codes are platform dependent. As a help we allow you to pass the character for the key as text and the plugin looks up virtual key code and scan code. But this lookup can fail. So please try all keys for your keyboard.

Common key codes for MacOS:

### Examples

Press a key

```
MBS( "RemoteControl.PressKey"; "a")
```

Press return key on Mac:

```
MBS( "RemoteControl.PressKey"; 36; 13)
```

Press cursor right key on Mac:

```
MBS( "RemoteControl.PressKey"; 124; 0 )
```

Write Hello

```

Set Variable [ $r ; Value: MBS("RemoteControl.PressShiftKey"; 1) ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; "H") ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressShiftKey"; 0) ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; "e") ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; "l") ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; "l") ]
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; "o") ]

```

Press return with plugin looking up codes:

```
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; §) ]
```

Press space key:

```
Set Variable [ $r ; Value: MBS("RemoteControl.PressKey"; " ") ]
```

### See also

- 90.15 HotKey.Register 4909
- 140.9 RemoteControl.PressControlKey 6816
- 140.13 RemoteControl.PressKeyLater 6822
- 140.14 RemoteControl.PressOptionKey 6823
- 140.15 RemoteControl.PressShiftKey 6824

### Example Databases

- [RemoteControl/Control Windows Calculator](#)
- [RemoteControl/Press keys](#)

#### 140.12.1 Blog Entries

- [Insert snippet for FileMaker on Windows](#)

Created 18th August 2014, last changed 1st January 2019.



Key	Hex KeyCode	Decimal KeyCode
a	00	0
b	0B	11
c	08	8
d	02	2
e	0E	14
f	03	3
g	05	5
h	04	4
i	22	34
j	26	38
k	28	40
l	25	37
m	2E	46
n	2D	45
o	1F	31
p	23	35
q	0C	12
r	0F	15
s	01	1
t	11	17
u	20	32
v	09	9
w	0D	13
x	07	7
y	10	16
z	06	6
0	52	82
1	53	83
2	54	84
3	55	85
4	56	86
5	57	87
6	58	88
7	59	89
8	5B	91
9	5C	92
F1	7A	122
F2	78	120
F3	63	99
F4	76	118
F5	60	96
F6	61	97
F7	62	98
F8	64	100
F9	65	101
F10	6D	109
F11	67	103
F12	6F	111
F13	69	105
F14	6B	107
F15	71	113
Space	31	49
Tab	30	48
Home	73	115
Backspace	33	51
End	77	119
Page Up	74	116
Page Down	79	121
Delete	75	117
Help	72	114
Left	7B	123

## 140.13 RemoteControl.PressKeyLater

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	6.2	Yes	Yes	No	No	No

MBS( "RemoteControl.PressKeyLater"; VirtualKey; ScanCode; Delay )

### Parameters

#### VirtualKey

The platform dependent virtual key code. Pass a number for a virtual key code or pass a string to let the plugin try to lookup the virtual key code.

"a"

#### ScanCode

The platform dependent scan code. Pass a number for a scan code or pass a string to let the plugin try to lookup the virtual key code. If this parameter is missing, the virtual key code is used to lookup the scan code.

"a"

#### Delay

the delay in seconds.

2

**Result** Returns OK or error.

### Description

Codes are platform dependent. As a help we allow you to pass the character for the key as text and the plugin looks up virtual key code and scan code. But this lookup can fail. So please try all keys for your keyboard.

### Examples

Press enter in 2 seconds on Mac:

```
MBS( "RemoteControl.PressKeyLater"; 36; 13; 2)
```

### See also

- 140.8 RemoteControl.PressCommandKey 6815
- 140.12 RemoteControl.PressKey 6819
- 140.14 RemoteControl.PressOptionKey 6823
- 140.15 RemoteControl.PressShiftKey 6824

Created 22nd March 2016, last changed 22nd March 2016.

**140.14 RemoteControl.PressOptionKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.PressOptionKey"; down )

**Parameters****down**

Pass 1 to press key down or 0 to release it.

1

**Result** Returns OK on success.

**Description****See also**

- 140.8 RemoteControl.PressCommandKey 6815
- 140.9 RemoteControl.PressControlKey 6816
- 140.12 RemoteControl.PressKey 6819
- 140.13 RemoteControl.PressKeyLater 6822
- 140.15 RemoteControl.PressShiftKey 6824

Created 18th August 2014, last changed 18th August 2014.

## 140.15 RemoteControl.PressShiftKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	2.8	Yes	Yes	No	No	No

MBS( "RemoteControl.PressShiftKey"; down )

### Parameters

#### down

Pass 1 to press key down or 0 to release it.

1

**Result** Returns OK on success.

### Description

#### See also

- 140.8 RemoteControl.PressCommandKey 6815
- 140.9 RemoteControl.PressControlKey 6816
- 140.12 RemoteControl.PressKey 6819
- 140.13 RemoteControl.PressKeyLater 6822
- 140.14 RemoteControl.PressOptionKey 6823

### Example Databases

- [RemoteControl/Press keys](#)

Created 18th August 2014, last changed 18th August 2014.

## 140.16 RemoteControl.ShowCursor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
140 RemoteControl	3.4	Yes	Yes	No	No	No

MBS( "RemoteControl.ShowCursor" )

**Result** Returns OK.

### Description

### Examples

Hide the mouse:

MBS( "RemoteControl.HideCursor" )

Show the mouse:

MBS( "RemoteControl.ShowCursor" )

### See also

- [140.4 RemoteControl.HideCursor](#)

6811

### 140.16.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr4](#)

Created 18th August 2014, last changed 18th August 2014.



# Chapter 141

## RichText

Read and write Word/OpenOffice/RTF files on Mac.

### 141.1 RichText.AppendFormattedText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	10.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.AppendFormattedText"; text )

#### Parameters

##### text

The new text to use. Can have style information.  
"Hello World"

**Result** Returns OK or error.

#### Description

You may need to append a line break first.

#### See also

- 141.5 RichText.FormattedText 6831
- 141.20 RichText.SetFormattedText 6852

#### 141.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 16th November 2019, last changed 16th November 2019.

## 141.2 RichText.AppendText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	10.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.AppendText"; text )

### Parameters

#### text

The new text to use.

"Hello World"

**Result** Returns OK or error.

### Description

You may need to append a line break first.

### Examples

Append some text in one expression:

```
Let( [
r = MBS( "RichText.SetText"; "Hello " );
r = MBS( "RichText.AppendText"; "World!" );
r = MBS( "RichText.Text" )
]; r)
```

Example result: Hello World!

### See also

- 141.13 RichText.ReadText 6843
- 141.21 RichText.SetText 6854
- 141.22 RichText.Text 6855

### 141.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 16th November 2019, last changed 16th November 2019.



## 141.3 RichText.Attribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.Attribute"; AttributeSelector )

### Parameters

#### AttributeSelector

The name of the attribute to query. Can be Title, Company, Copyright, Subject, Author, Keywords, Comment, Editor, ModificationTime, Manager, Category or Type.  
"title"

**Result** Returns attribute value or error.

### Description

Added selector PaperSize in v9.2 to return two values with width and height of paper size.

### Examples

Get title:

```
$title = MBS( "RichText.Attribute"; "Title"
```

Get type of document:

```
$title = MBS( "RichText.Attribute"; "Type"
```

### See also

- [141.19 RichText.SetAttribute](#)

6851

### Example Databases

- [Mac only/RichText/RichText](#)

### 141.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr6](#)

Created 18th August 2014, last changed 3th May 2019.

## 141.4 RichText.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.Clear" )

**Result** Returns OK.

**Description**

**See also**

- 141.16 RichText.Release 6847
- 141.18 RichText.ReplaceTexts 6850
- 141.8 RichText.RTF 6835
- 141.20 RichText.SetFormattedText 6852

**Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 18th August 2014.

## 141.5 RichText.FormattedText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.FormattedText" )

**Result** Returns text or error.

### Description

### Examples

Read formatted text from container field:

```
$r = MBS( "RichText.ReadContainer"; Test::ContainerField )
$text = MBS( "RichText.FormattedText" )
```

Read container in one formula:

```
Let ( [
r = MBS( "RichText.ReadContainer"; MyContainer );
text = MBS( "RichText.FormattedText" )
]; text )
```

### See also

- [141.1 RichText.AppendFormattedText](#) 6827
- [141.9 RichText.ReadContainer](#) 6836
- [141.10 RichText.ReadFile](#) 6838
- [141.11 RichText.ReadHTML](#) 6840
- [141.12 RichText.ReadRTF](#) 6842
- [141.14 RichText.ReadURL](#) 6845
- [141.16 RichText.Release](#) 6847
- [141.20 RichText.SetFormattedText](#) 6852

### Example Databases

- [Mac only/RichText/RichText](#)
- [Mac only/RichText/RTF to formatted text](#)
- [Text functions/HTML to formatted text](#)

### 141.5.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 18th August 2014, last changed 18th December 2015.

## 141.6 RichText.GeneratePDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	5.1	Yes	No	Yes, macOS only	No	No

MBS( "RichText.GeneratePDF" { ; Filename } )

### Parameters

#### Filename

Optional

The desired file name.

test.png

**Result** Returns PDF container or error.

### Description

#### Examples

Convert HTML to PDF:

```
Set Variable [ $r ; Value: MBS( "RichText.ReadHTML"; "<html><body><p><b>Schokoladenplätzchen</b></p></body></html>" ) ]
```

```
Set Variable [ $r ; Value: MBS( "RichText.GeneratePDF"; "test.pdf" ) ]
```

```
Set Field [ RegEx::test ; $r ]
```

### See also

- [141.11 RichText.ReadHTML](#) 6840
- [141.27 RichText.WritePDF](#) 6864

### 141.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 14th March 2015, last changed 25th November 2017.

## 141.7 RichText.HTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	6.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.HTMLText" )

**Result** Returns html or error.

### Description

This does not handle all, but most attributes.

### Examples

Read in HTML and output it:

```
Set Variable [ $r ; Value: MBS( "RichText.ReadHTML"; "<html><body><p><b>Schokoladenplätzchen</b></p></body>" ) ]
```

```
Show Custom Dialog [ "HTML" ; MBS( "RichText.HTMLText" ) ]
```

### See also

- [141.11 RichText.ReadHTML](#) 6840
- [141.13 RichText.ReadText](#) 6843
- [141.17 RichText.ReplaceText](#) 6848
- [141.21 RichText.SetText](#) 6854

### Example Databases

- [Mac only/RichText/RTF to formatted text](#)

#### 141.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr3](#)

Created 11st January 2016, last changed 25th November 2017.

## 141.8 RichText.RTF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	6.5	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.RTF" )

**Result** Returns text or error.

### Description

### Examples

From Styled text to RTF:

```
// Custom function with pFormattedText as parameter
Let ( [
r = MBS( "RichText.Clear" );
vOK = MBS( "RichText.SetFormattedText"; pFormattedText );
vResult = MBS( "RichText.RTF" );
vOK = MBS( "RichText.Release" )
];
vResult
)
```

### See also

- [141.4 RichText.Clear](#) 6830
- [141.16 RichText.Release](#) 6847
- [141.20 RichText.SetFormattedText](#) 6852

### 141.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 27th September 2016, last changed 4th January 2017.

## 141.9 RichText.ReadContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReadContainer"; Container )

### Parameters

#### Container

The container value to read from.

\$data

**Result** Returns OK or error message.

### Description

The plugin uses Mac system functions to read text files including plain text files, RTF files, Word files in doc or xml format, webkit archives or OpenOffice documents.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

### Examples

Read container field:

```
MBS( "RichText.ReadContainer"; Test::ContainerField )
```

Read container in one formula:

```
Let ( [
r = MBS( "RichText.ReadContainer"; MyContainer );
text = MBS( "RichText.FormattedText" )
]; text )
```

Convert doc/docx/rtf file in container to PDF:

```
Set Variable [ $temppath; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.UserTemporary" );
"temp.pdf" ) ]
Set Variable [ $r; Value:MBS( "RichText.ReadContainer"; test::MyContainerDoc ) ]
Set Variable [ $r; Value:MBS( "RichText.WritePDF"; $temppath ) ]
Set Variable [ $r; Value:MBS( "RichText.Release" ) ]
Set Field [ test::MyContainerPDF; MBS("Files.ReadFile"; $temppath; "PDF"; "test.pdf" ) ]
```

### See also

- 79.45 Files.ReadFile 3898
- 82.16 Folders.UserTemporary 4245



<i>141.9. RICHTEXT.READCONTAINER</i>	6837
• 124.1 Path.AddPathComponent	6243
• 141.5 RichText.FormattedText	6831
• 141.16 RichText.Release	6847
• 141.22 RichText.Text	6855
• 141.23 RichText.TextLength	6856
• 141.24 RichText.WriteContainer	6857
• 141.26 RichText.WriteFile	6861
• 141.27 RichText.WritePDF	6864

### **Example Databases**

- [Mac only/RichText/Replace Text in Word File](#)
- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 14th August 2017.

## 141.10 RichText.ReadFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReadFile"; Path )

### Parameters

#### Path

The native file path to the file.

\$path

**Result** Returns OK or error message.

### Description

The plugin uses Mac system functions to read text files including plain text files, RTF files, Word files in doc or xml format, webkit archives or OpenOffice documents.

If you want the user to select a path, please use FileDialog functions.

See also Files.ReadJPEG, Files.ReadPDF, Files.ReadPNG, Text.ReadTextFile and Files.ReadFile.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read formatted text from container field:

```
$r = MBS( "RichText.ReadFile"; "/Users/Desktop/test.txt" )
```

```
$text = MBS( "RichText.FormattedText" )
```

### See also

- 56.28 Container.ReadFile 1681
- 79.45 Files.ReadFile 3898
- 79.46 Files.ReadJPEG 3901
- 79.47 Files.ReadPDF 3903
- 79.48 Files.ReadPNG 3905
- 124.2 Path.FileMakerPathToNativePath 6247
- 141.12 RichText.ReadRTF 6842

<i>141.10. RICHTEXT.READFILE</i>	6839
• 141.13 RichText.ReadText	6843
• 141.14 RichText.ReadURL	6845
• 141.26 RichText.WriteFile	6861

### **Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 14th August 2017.

## 141.11 RichText.ReadHTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	5.2	Yes	No	No	No	Yes

MBS( "RichText.ReadHTML"; HTML { ; Encoding; BaseURL } )

### Parameters

#### HTML

The html text to load.

"<p>Hello</p>"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

UTF8

#### BaseURL

Optional

The base URL for relative links.

"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

Does not work on server due to missing main thread support for Cocoa.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

Looks like font OpenSans will be converted to Times. You can avoid it by replacing 'OpenSans' with e.g. 'Helvetica' before reading HTML.

### Examples

Read HTML:

```
MBS( "RichText.ReadHTML"; "<p>Schokoladenplätzchen</P>" )
```

Convert HTML to formatted text:

```
Let ( [
r = MBS( "RichText.ReadHTML"; "<p>Schokoladenplätzchen</P>"; "UTF-8" );
o = MBS("RichText.FormattedText");
r = MBS( "RichText.Release" )
]; o )
```

**See also**

<i>141.11. RICHTEXT.READHTML</i>	6841
• 141.5 RichText.FormattedText	6831
• 141.6 RichText.GeneratePDF	6833
• 141.7 RichText.HTMLText	6834
• 141.10 RichText.ReadFile	6838
• 141.13 RichText.ReadText	6843
• 141.14 RichText.ReadURL	6845
• 141.16 RichText.Release	6847
• 141.17 RichText.ReplaceText	6848
• 141.25 RichText.WriteDOC	6859
• 141.28 RichText.WriteRTF	6866

### **Example Databases**

- [Mac only/RichText/Write Document](#)
- [Text functions/HTML to formatted text](#)

#### **141.11.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr8](#)

Created 23th July 2015, last changed 29th June 2018.

## 141.12 RichText.ReadRTF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	5.2	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReadRTF"; RTF { ; Encoding } )

### Parameters

#### RTF

The rtf text to load.

#### Encoding

Optional

The text encoding for text parameter. Default is native.

UTF8

**Result** Returns OK or error.

### Description

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

### Examples

Convert RTF to formatted text:

```
Let ( [
r = MBS( "RichText.ReadRTF"; $rtf );
o = MBS("RichText.FormattedText");
r = MBS( "RichText.Release" )
]; o )
```

### See also

- 141.5 RichText.FormattedText 6831
- 141.10 RichText.ReadFile 6838
- 141.11 RichText.ReadHTML 6840
- 141.13 RichText.ReadText 6843
- 141.14 RichText.ReadURL 6845
- 141.16 RichText.Release 6847

### 141.12.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr8](#)

Created 23th July 2015, last changed 14th August 2017.

## 141.13 RichText.ReadText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	4.4	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReadText"; text { ; Encoding } )

### Parameters

#### text

The text for the text file.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

UTF8

**Result** Returns OK or error.

### Description

This is for reading RTF text. Be sure to have right text encoding to preserve special characters.

To read styled text into RichText functions, please use RichText.SetFormattedText.

### See also

- 141.2 RichText.AppendText 6828
- 141.7 RichText.HTMLText 6834
- 141.10 RichText.ReadFile 6838
- 141.11 RichText.ReadHTML 6840
- 141.12 RichText.ReadRTF 6842
- 141.14 RichText.ReadURL 6845
- 141.17 RichText.ReplaceText 6848
- 141.18 RichText.ReplaceTexts 6850
- 141.20 RichText.SetFormattedText 6852
- 141.21 RichText.SetText 6854

### Example Databases

- [Mac only/RichText/RTF to formatted text](#)

### 141.13.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr7](#)

Created 24th October 2014, last changed 4th January 2017.



**141.14 RichText.ReadURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReadURL"; URL )

**Parameters****URL**

The URL to the text file.

\$URL

**Result** Returns OK or error message.

**Description**

The plugin uses Mac system functions to read text files including plain text files, RTF files, Word files in doc or xml format, webkit archives or OpenOffice documents.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

**Examples**

Read formatted text from container field:

```
$r = MBS( "RichText.ReadURL"; "file:///Users/Desktop/test.txt" )
```

```
$text = MBS( "RichText.FormattedText" )
```

**See also**

- 141.5 RichText.FormattedText 6831
- 141.10 RichText.ReadFile 6838
- 141.11 RichText.ReadHTML 6840
- 141.12 RichText.ReadRTF 6842
- 141.13 RichText.ReadText 6843

**Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 14th August 2017.

## 141.15 RichText.ReadWebviewer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	5.4	Yes	No	No	No	Yes

MBS( "RichText.ReadWebviewer"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework. Added iOS and FileMaker 16 support for version 8.2.

#### See also

- 183.46 [WebView.FindByName](#) 8469

### Example Databases

- [Mac only/RichText/Write Document](#)

### 141.15.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr7](#)
- [MBS FileMaker Plugin, version 5.4pr6](#)

Created 17th November 2015, last changed 10th May 2018.

**141.16 RichText.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.Release" )

**Result** Returns OK on success.

**Description**

When loading a new file, the old file is automatically released.

**Examples**

Read formatted text from container field and release memory:

```
$r = MBS( "RichText.ReadContainer"; Test::ContainerField )
$text = MBS( "RichText.FormattedText" )
$r = MBS( "RichText.Release" )
```

**See also**

- [141.4 RichText.Clear](#) 6830
- [141.5 RichText.FormattedText](#) 6831
- [141.9 RichText.ReadContainer](#) 6836
- [141.11 RichText.ReadHTML](#) 6840
- [141.12 RichText.ReadRTF](#) 6842
- [141.8 RichText.RTF](#) 6835
- [141.20 RichText.SetFormattedText](#) 6852
- [141.24 RichText.WriteContainer](#) 6857
- [141.26 RichText.WriteFile](#) 6861
- [141.27 RichText.WritePDF](#) 6864

**Example Databases**

- [Mac only/RichText/Replace Text in Word File](#)
- [Mac only/RichText/RTF to formatted text](#)
- [Mac only/RichText/Write Document](#)
- [Text functions/HTML to formatted text](#)

Created 18th August 2014, last changed 18th August 2014.

## 141.17 RichText.ReplaceText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	4.4	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReplaceText"; SearchText; NewText { ; Multiple } )

### Parameters

#### SearchText

The text to search. Search is case insensitive.

"\$FirstName"

#### NewText

The new text to use as replacement. Can be empty.

"Christian"

#### Multiple

Optional

Optional, Pass 1 to replace all occurrences. Default is 0 to replace the first one found.

0

**Result** Returns Count or error.

### Description

This can be used to load Word file (DOC, RTF, DOCX), replace place holders with values for client and save a personalized copy.

Version 6.0 and newer returns number of replaces. Older versions just returned OK on success.

### Examples

Replace chocolate with vanilla:

```
Set Variable [ $r ; Value: MBS( "RichText.ReadHTML"; "<html><body><p><b>Schokoladenplätzchen</b></p></body></html>" ) ]
```

```
Set Variable [ $r ; Value: MBS("RichText.ReplaceText"; "Schokoladen"; "Vanille") ]
```

```
Show Custom Dialog [ "HTML" ; MBS( "RichText.HTMLText" ) ]
```

### See also

- 141.7 RichText.HTMLText 6834
- 141.11 RichText.ReadHTML 6840
- 141.13 RichText.ReadText 6843
- 141.18 RichText.ReplaceTexts 6850
- 141.24 RichText.WriteContainer 6857
- 141.26 RichText.WriteFile 6861

**Example Databases**

- [Mac only/RichText/Replace Text in Word File](#)

**141.17.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.0pr8](#)
- [MBS FileMaker Plugin, version 5.3pr5](#)
- [MBS FileMaker Plugin, version 5.1pr7](#)
- [MBS Filemaker Plugin, version 4.4pr6](#)

Created 16th October 2014, last changed 25th November 2017.

## 141.18 RichText.ReplaceTexts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	6.4	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.ReplaceTexts"; SearchTextList; NewTextList { ; Multiple } )

### Parameters

#### SearchTextList

The list of texts to search. Search is case insensitive.

"\$FirstName"

#### NewTextList

The list of new text to use as replacement. Can be empty.

"Christian"

#### Multiple

Optional

Optional, Pass 1 to replace all occurrences. Default is 0 to replace the first one found.

0

**Result** Returns OK or error.

### Description

While RichText.ReplaceText replaces just one value, this function can replace a list of value.

This can be used to load Word file (DOC, RTF, DOCX), replace place holders with values for client and save a personalized copy.

### Examples

Replaces text to test function:

```
Let ( [
r1 = MBS( "RichText.ReadText"; "Hello World. Greetings from FileMaker."; "UTF-8" );
r2 = MBS( "RichText.ReplaceTexts"; "Hello$World$from$FileMaker$Greetings"; "Hallo$Leute$aus$File-
Maker!$Grüße"; 0 );
r = MBS( "RichText.Text" );
r3 = MBS( "RichText.Clear" )
];r)
```

### See also

- 141.4 RichText.Clear 6830
- 141.13 RichText.ReadText 6843
- 141.17 RichText.ReplaceText 6848
- 141.22 RichText.Text 6855

Created 25th September 2016, last changed 25th September 2016.

## 141.19 RichText.SetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.SetAttribute"; Key; Value )

### Parameters

#### Key

The new attribute key. Can be Title, Company, Copyright, Subject, Author, Keywords, Comment, Editor, ModificationTime, Manager or Category.

"Title"

#### Value

The value of the attribute. Most are text parameters except for the timestamp of ModificationTime.

"My title"

**Result** Returns OK or error.

### Description

See RichText.Attribute for details.

### Examples

Set title:

```
MBS( "RichText.SetAttribute"; "Title"; "Hello World")
```

Set paper size:

```
MBS( "RichText.SetAttribute"; "PaperSize"; 595; 842) // A4
```

### See also

- [141.3 RichText.Attribute](#) 6829
- [141.25 RichText.WriteDOC](#) 6859
- [141.28 RichText.WriteRTF](#) 6866

### Example Databases

- [Mac only/RichText/RichText](#)

### 141.19.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr6](#)

Created 18th August 2014, last changed 3th May 2019.

## 141.20 RichText.SetFormattedText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	Yes

```
MBS( "RichText.SetFormattedText"; text )
```

### Parameters

#### text

The new text to use. Can have style information.

```
"Hello World"
```

**Result** Returns OK or error.

### Description

### Examples

From Styled text to RTF:

```
// Custom function with pFormattedText as parameter
Let ( [
r = MBS( "RichText.Clear" );
vOK = MBS( "RichText.SetFormattedText"; pFormattedText );
vResult = MBS("RichText.RTF" );
vOK = MBS( "RichText.Release" )
];
vResult
)
```

### See also

- 141.1 RichText.AppendFormattedText 6827
- 141.4 RichText.Clear 6830
- 141.5 RichText.FormattedText 6831
- 141.13 RichText.ReadText 6843
- 141.16 RichText.Release 6847
- 141.8 RichText.RTF 6835
- 141.25 RichText.WriteDOC 6859
- 141.28 RichText.WriteRTF 6866



**Example Databases**

- [Mac only/RichText/RichText](#)

**141.20.1 Blog Entries**

- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 18th August 2014, last changed 27th September 2016.

**141.21 RichText.SetText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.SetText"; text )

**Parameters****text**

The new text to use.

"Hello World"

**Result** Returns OK or error.

**Description****See also**

- 141.2 RichText.AppendText 6828
- 141.7 RichText.HTMLText 6834
- 141.13 RichText.ReadText 6843
- 141.22 RichText.Text 6855
- 141.25 RichText.WriteDOC 6859
- 141.28 RichText.WriteRTF 6866

Created 18th August 2014, last changed 16th November 2019.

**141.22 RichText.Text**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.Text" )

**Result** Returns text or error.

**Description**

See also WordFile.Texts for extracting text from word files.

**Examples**

Read plain text from container field:

```
$r = MBS( "RichText.ReadContainer"; Test::ContainerField )
$text = MBS( "RichText.Text" )
```

**See also**

- [141.2 RichText.AppendText](#) 6828
- [141.9 RichText.ReadContainer](#) 6836
- [141.18 RichText.ReplaceTexts](#) 6850
- [141.21 RichText.SetText](#) 6854
- [141.23 RichText.TextLength](#) 6856
- [192.24 WordFile.Texts](#) 8982

**Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 11st April 2017.

## 141.23 RichText.TextLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.0	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.TextLength" )

**Result** Returns the length of the text in characters.

### Description

### Examples

Read plain text from container field:

```
$r = MBS( "RichText.ReadContainer"; Test::ContainerField )
$length = MBS( "RichText.TextLength" )
```

### See also

- [141.9 RichText.ReadContainer](#) 6836
- [141.22 RichText.Text](#) 6855

### Example Databases

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 18th August 2014.

## 141.24 RichText.WriteContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	4.4	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.WriteContainer"; Format { ; FileName } )

### Parameters

#### Format

The file format to use. Can be DOC, DOCX or RTF.

"DOC"

#### FileName

Optional

The file name to use for the container.

"test.doc"

**Result** Returns OK or error.

### Description

Please pass format type:

- doc: creates old style Word document
- rtf: created rich text file.
- docx: creates newer Word document.
- html: creates html file.
- webarchive: creates html and renders web archive.
- opendocument: creates open office document.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

### Examples

Read a file, apply replaces and save it:

```
# load from container
Set Variable [ $r; Value:MBS("RichText.ReadContainer"; Replace Text in Word File::InputContainer) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; "Failed to read file." ]
Exit Script [ ]
End If
# now loop through records to do replaces
Go to Record/Request/Page [ First ]
Loop
Set Variable [ $r; Value:MBS("RichText.ReplaceText"; Replace Text in Word File::Old Text; Replace Text
```

```
in Word File::New Text) ]
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
# write file
Set Field [ Replace Text in Word File::OutputContainer; MBS("RichText.WriteContainer"; Replace Text in
Word File::format) ]
# cleanup
Set Variable [ $r; Value:MBS("RichText.Release") ]
```

**See also**

- [127.6 IsError](#) 6374
- [141.9 RichText.ReadContainer](#) 6836
- [141.16 RichText.Release](#) 6847
- [141.17 RichText.ReplaceText](#) 6848
- [167.69 Text.WriteToContainer](#) 8003

**Example Databases**

- [Mac only/RichText/Replace Text in Word File](#)

**141.24.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.5pr3](#)
- [MBS Filemaker Plugin, version 4.4pr6](#)

Created 16th October 2014, last changed 14th August 2017.

## 141.25 RichText.WriteDOC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	No

MBS( "RichText.WriteDOC"; Path )

### Parameters

#### Path

The native file path to the file.

\$path

**Result** Returns OK or error.

### Description

Please set text with RichText.SetFormattedText or RichText.SetText.

And use RichText.SetAttribute to set properties for document.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Convert html to Word file:

```
Set Variable [ $r ; Value: MBS( "RichText.ReadHTML"; "<html><body><p><b>Schokoladenplätzchen</b></p></body></html>" ) ]
```

```
Set Variable [ $r ; Value: MBS( "RichText.WriteDOC"; "/Users/cs/Desktop/test.doc" ) ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 141.11 RichText.ReadHTML 6840
- 141.19 RichText.SetAttribute 6851
- 141.20 RichText.SetFormattedText 6852
- 141.21 RichText.SetText 6854
- 141.26 RichText.WriteFile 6861
- 141.27 RichText.WritePDF 6864
- 141.28 RichText.WriteRTF 6866

**Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 25th November 2017.



## 141.26 RichText.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	4.4	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.WriteFile"; Path; Format )

### Parameters

#### Path

The native file path.

"/Users/cs/Desktop/test.doc"

#### Format

The file format to use. Can be DOC, DOCX or RTF.

"DOC"

**Result** Returns OK or error.

### Description

Please pass format type:

- doc: creates old style Word document
- rtf: created rich text file.
- docx: creates newer Word document.
- html: creates html file.
- webarchive: creates html and renders web archive.
- opendocument: creates open office document.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework. If the styles don't come through to Word formats, maybe try RTF instead and let Word open that?

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read a file, apply replaces and save it:

```
# load from container
Set Variable [ $r; Value:MBS("RichText.ReadContainer"; Replace Text in Word File::InputContainer) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; "Failed to read file." ]
Exit Script [ ]
```

```

End If
# now loop through records to do replaces
Go to Record/Request/Page [ First ]
Loop
Set Variable [ $r; Value:MBS("RichText.ReplaceText"; Replace Text in Word File::Old Text; Replace Text
in Word File::New Text) ]
Go to Record/Request/Page [ Next; Exit after last ]
End Loop
# write file
Set Variable [ $r; MBS("RichText.WriteFile"; Replace Text in Word File::path; Replace Text in Word
File::format) ]
# cleanup
Set Variable [ $r; Value:MBS("RichText.Release") ]

```

Save as docx, the newer XML based Word file format:

```

# Word, new format
Set Variable [ $path ; Value: $folder & "/test.docx" ]
Set Variable [ $r ; Value: MBS( "RichText.WriteFile"; $path; "docx" ) ]

```

Save an old doc:

```

# Word, old format
Set Variable [ $path ; Value: $folder & "/test.doc" ]
Set Variable [ $r ; Value: MBS( "RichText.WriteFile"; $path; "doc" ) ]

```

Save as RTF:

```

# RTF
Set Variable [ $path ; Value: $folder & "/test.rtf" ]
Set Variable [ $r ; Value: MBS( "RichText.WriteFile"; $path; "rtf" ) ]

```

### See also

- 127.6 IsError 6374
- 124.2 Path.FileMakerPathToNativePath 6247
- 141.9 RichText.ReadContainer 6836
- 141.10 RichText.ReadFile 6838
- 141.16 RichText.Release 6847
- 141.17 RichText.ReplaceText 6848
- 141.25 RichText.WriteDOC 6859
- 141.27 RichText.WritePDF 6864

141.26. *RICHTEXT.WRITEFILE*

6863

- 141.28 RichText.WriteRTF

6866

### **Example Databases**

- [Mac only/RichText/Write Document](#)

Created 16th October 2014, last changed 3th May 2019.

## 141.27 RichText.WritePDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	5.1	Yes	No	Yes, macOS only	No	No

MBS( "RichText.WritePDF"; Path )

### Parameters

#### Path

A valid native file path.

"/Users/test/Desktop/test.pdf"

**Result** Returns OK or error.

### Description

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

### Examples

Convert doc/docx/rtf file in container to PDF:

```
Set Variable [ $tempPath; Value:MBS( "Path.AddPathComponent"; MBS( "Folders.UserTemporary" );
"temp.pdf" ) ]
```

```
Set Variable [ $r; Value:MBS( "RichText.ReadContainer"; test::MyContainerDoc ) ]
```

```
Set Variable [ $r; Value:MBS( "RichText.WritePDF"; $tempPath ) ]
```

```
Set Variable [ $r; Value:MBS( "RichText.Release" ) ]
```

```
Set Field [ test::MyContainerPDF; MBS("Files.ReadFile"; $tempPath; "PDF"; "test.pdf") ]
```

### See also

- 79.45 Files.ReadFile 3898
- 82.16 Folders.UserTemporary 4245
- 124.1 Path.AddPathComponent 6243
- 141.6 RichText.GeneratePDF 6833
- 141.9 RichText.ReadContainer 6836
- 141.16 RichText.Release 6847
- 141.25 RichText.WriteDOC 6859
- 141.26 RichText.WriteFile 6861
- 141.28 RichText.WriteRTF 6866

### 141.27.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 14th March 2015, last changed 14th August 2017.

## 141.28 RichText.WriteRTF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
141 RichText	3.5	Yes	No	Yes, macOS only	No	Yes

MBS( "RichText.WriteRTF"; Path )

### Parameters

#### Path

The native file path to the file.

\$path

**Result** Returns OK or error.

### Description

Please set text with RichText.SetFormattedText or RichText.SetText.

And use RichText.SetAttribute to set properties for document.

Warning: The plugin can only read/write the styles/formats which Apple supports for their cocoa framework.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Convert HTML to RTF:

```
Set Variable [ $r ; Value: MBS( "RichText.ReadHTML"; "<html><body><p><b>Schokoladenplätzchen</b></p></body></html>" ) ]
```

```
Set Variable [ $r ; Value: MBS( "RichText.WriteRTF"; "/Users/cs/Desktop/test.rtf" ) ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 141.11 RichText.ReadHTML 6840
- 141.19 RichText.SetAttribute 6851
- 141.20 RichText.SetFormattedText 6852
- 141.21 RichText.SetText 6854
- 141.25 RichText.WriteDOC 6859
- 141.26 RichText.WriteFile 6861
- 141.27 RichText.WritePDF 6864

**Example Databases**

- [Mac only/RichText/RichText](#)

Created 18th August 2014, last changed 25th November 2017.





# Chapter 142

## RunTask

Launch applications and command line tools with parameters and query their status.

Deprecated. Please use newer Shell functions.

### 142.1 RunTask.AddArgument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	4.1	Yes	Yes	Yes	No	No

```
MBS( "RunTask.AddArgument"; argument )
```

#### Parameters

##### **argument**

Pass one argument here.

"-v"

**Result** Returns OK or error.

#### Description

Be aware that shell expansion does not happen and shell variables are not expanded.

#### Examples

Set three arguments

```
MBS( "RunTask.AddArgument"; "-v" )
```

```
MBS( "RunTask.AddArgument"; "-s" )
```

```
MBS( "RunTask.AddArgument"; "test.txt" )
```

**See also**

6870

CHAPTER 142. RUNTASK

- 142.2 RunTask.GetArgument 6871
- 142.13 RunTask.SetArguments 6885

### Example Databases

- [RunTask/Run Shell Script on Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 142.2 RunTask.GetArgument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.GetArgument"; Index )

### Parameters

#### Index

The index of the argument to query. Range from 0 to RunTask.GetArgumentCount-1.

\$index

**Result** Returns argument text or error message.

### Description

On Windows we have only one argument string, so index is ignored and you receive all arguments.

### See also

- 142.1 RunTask.AddArgument 6869
- 142.3 RunTask.GetArgumentCount 6872
- 142.13 RunTask.SetArguments 6885

Created 18th August 2014, last changed 18th August 2014.

### 142.3 RunTask.GetArgumentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.GetArgumentCount" )

**Result** Returns the number of arguments or error message.

#### Description

One Windows all arguments are stored in one string with spaces separated, so this function returns 0 or 1 depending on whether an argument is set.

#### See also

- 142.2 RunTask.GetArgument

6871

Created 18th August 2014, last changed 18th August 2014.

## 142.4 RunTask.GetCurrentDirectoryPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.GetCurrentDirectoryPath" )

**Result** Returns the task's current directory.

### Description

### See also

- 142.14 RunTask.SetCurrentDirectoryPath

6888

Created 18th August 2014, last changed 18th August 2014.

## 142.5 RunTask.GetLaunchPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.GetLaunchPath" )

**Result** Returns the path of the executable.

### Description

### See also

- 142.15 RunTask.SetLaunchPath

6889

Created 18th August 2014, last changed 18th August 2014.

## 142.6 RunTask.GetVerb

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.2	No	Yes	Yes, Windows only	No	No

MBS( "RunTask.GetVerb" )

**Result** Returns the verb string.

**Description**

**See also**

- 142.16 RunTask.SetVerb

6891

Created 18th August 2014, last changed 18th August 2014.

## 142.7 RunTask.IsRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.IsRunning" )

**Result** Returns whether the receiver is still running.

### Description

1 if the receiver is still running, otherwise 0. 0 means either the receiver could not run or it has terminated.

### Examples

Wait for app ending:

```
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS( "RunTask.IsRunning" ) = 1 ]
End Loop
```

### See also

- [142.8 RunTask.Launch](#) 6877
- [142.9 RunTask.NewTask](#) 6880
- [142.13 RunTask.SetArguments](#) 6885
- [175.3 URLScheme.SetDefaultHandler](#) 8272

### Example Databases

- [RunTask/RunTask Windows](#)
- [RunTask/RunTask with read and write on Mac](#)
- [RunTask/RunTask](#)

### 142.7.1 Blog Entries

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 29th January 2016.



## 142.8 RunTask.Launch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.Launch" )

**Result** Returns OK or error.

### Description

If you get back an error with `posix_spawn` and error 13, that's a permission denied.

Please use `Shell.Execute` if you need more features.

For PowerShell scripts on Windows, you may need to check with the execution policy for the user account FileMaker is using or use an admin account. e.g. on FileMaker Server, may need to be installed as Admin user (not `fmserver` user).

### Examples

Run ls on Mac:

```
# new task
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
# set launch path and arguments
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/bin/ls" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "/bin" ) ]
# run
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
# wait
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS( "RunTask.IsRunning" ) = 1 ]
End Loop
# read result
Set Variable [ $data; Value:MBS( "RunTask.ReadOutputText"; "UTF-8" ) ]
Show Custom Dialog [ "Result"; $data ]
```

List connected clients on FileMaker Server:

```
# © 30.07.2016 Patrick Weh | Team Nifty GmbH (17:40 Uhr)
# List connected Clients
# -----
# Script checks for connected clients at the FileMaker Server.
# Copy this File to your Server and run this Script on your FileMaker Server.
# -----
#
Set Error Capture [ On ]
```

```

Allow User Abort [ Off ]
#
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/Library/FileMaker Server/Database Server/bin/fm-
sadmin" ) ]
# please put your admin password here
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "-u" ; "fmserveradmin" ; "-p" ; "fmserveradmin-
password" ; "list" ; "clients" ; "-s" ) ]
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
# now wait for task to finish:
Set Variable [ $result; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): 2 ]
Set Variable [ $result; Value:$result & MBS("RunTask.ReadOutputText") ]
Exit Loop If [ MBS("RunTask.IsRunning") 1 ]
End Loop
#
# write into a field:
Set Field [ Check clients::Clients; $result ]
Commit Records/Requests [ No dialog ]
#

```

Run shell script in bash:

```

Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/bin/bash" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "/Users/cs/Desktop/test.sh"; "First Param" ) ]
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]

```

Run something with shell to do redirect:

```

Set Variable [ $r ; Value: MBS( "RunTask.NewTask" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetLaunchPath"; "/bin/bash" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetArguments"; "-c"; "date >/tmp/date.txt" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.Launch" ) ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS( "RunTask.IsRunning" ) 1 ]
End Loop
Set Field [ RunTask::Text ; MBS( "Text.ReadTextFile"; "/tmp/date.txt"; "UTF-8" ) ]

```

Show quicklook preview window for PDF file:

```

Set Variable [ $r ; Value: MBS( "RunTask.NewTask" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetLaunchPath"; "/usr/bin/qlmanage" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetArguments"; "-p"; "/Users/cs/Desktop/Hello World.pdf" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.Launch" ) ]

```

**See also**

- 142.7 `RunTask.IsRunning` 6876
- 142.9 `RunTask.NewTask` 6880
- 142.11 `RunTask.ReadErrorText` 6883
- 142.13 `RunTask.SetArguments` 6885
- 142.15 `RunTask.SetLaunchPath` 6889
- 142.16 `RunTask.SetVerb` 6891
- 142.20 `RunTask.Wait` 6895
- 151.9 `Shell.Execute` 7125
- 167.49 `Text.ReadTextFile` 7971
- 175.3 `URLScheme.SetDefaultHandler` 8272

**Example Databases**

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask Windows](#)
- [RunTask/RunTask with read and write on Mac](#)
- [RunTask/RunTask](#)

**142.8.1 Blog Entries**

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 28th June 2019.

## 142.9 RunTask.NewTask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.NewTask" )

**Result** Returns OK or error.

### Description

Clears all properties, so you can start fresh.

Please use Shell.New if you need more features.

### Examples

Run ls on Mac:

```
# new task
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
# set launch path and arguments
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/bin/ls" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "/bin" ) ]
# run
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
# wait
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS( "RunTask.IsRunning" ) = 1 ]
End Loop
# read result
Set Variable [ $data; Value:MBS( "RunTask.ReadOutputText"; "UTF-8" ) ]
Show Custom Dialog [ "Result"; $data ]
```

Run shell script in bash:

```
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/bin/bash" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "/Users/cs/Desktop/test.sh"; "First Param" ) ]
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
```

### See also

- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.11 RunTask.ReadErrorText 6883

142.9. <i>RUNTASK.NEWTASK</i>	6881
• 142.12 RunTask.ReadOutputText	6884
• 142.13 RunTask.SetArguments	6885
• 142.15 RunTask.SetLaunchPath	6889
• 142.20 RunTask.Wait	6895
• 151.27 Shell.New	7150
• 175.3 URLScheme.SetDefaultHandler	8272

### **Example Databases**

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask Windows](#)
- [RunTask/RunTask with read and write on Mac](#)
- [RunTask/RunTask](#)

#### **142.9.1 Blog Entries**

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 14th November 2017.

## 142.10 RunTask.ProcessIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.ProcessIdentifier" )

**Result** Returns the receiver's process identifier.

### Description

### Example Databases

- [RunTask/RunTask Windows](#)

Created 18th August 2014, last changed 18th August 2014.

## 142.11 RunTask.ReadErrorText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	4.1	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.ReadErrorText" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding for result. Default is native.

"UTF-8"

**Result** Returns text or error.

### Description

### Examples

Read version of python:

```
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/usr/bin/python" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "-V" ) ]
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Show Custom Dialog [ "Version"; MBS("RunTask.ReadErrorText"; "UTF8") ]
```

### See also

- [142.8 RunTask.Launch](#) 6877
- [142.9 RunTask.NewTask](#) 6880
- [142.12 RunTask.ReadOutputText](#) 6884
- [142.13 RunTask.SetArguments](#) 6885
- [142.15 RunTask.SetLaunchPath](#) 6889
- [127.62 Version](#) 6446

### Example Databases

- [RunTask/Run Shell Script on Mac](#)

Created 18th August 2014, last changed 18th April 2017.

## 142.12 RunTask.ReadOutputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	4.1	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.ReadOutputText" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding for result. Default is native.

"UTF-8"

**Result** Returns text or error.

### Description

For Windows this is not available, but you can start a .bat file and redirect output to a text file. Version 7.5 introduces shell functions which offer this feature for macOS, Windows and Linux.

### See also

- [142.8 RunTask.Launch](#) 6877
- [142.9 RunTask.NewTask](#) 6880
- [142.11 RunTask.ReadErrorText](#) 6883
- [142.13 RunTask.SetArguments](#) 6885
- [142.20 RunTask.Wait](#) 6895

### Example Databases

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask with read and write on Mac](#)

### 142.12.1 Blog Entries

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 25th November 2017.



## 142.13 RunTask.SetArguments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.SetArguments"; arguments )

### Parameters

#### arguments

Pass one argument for each argument.

"-v"

**Result** Returns OK or error.

### Description

Be aware that shell expansion does not happen and shell variables are not expanded.

### Examples

Set three arguments

```
MBS( "RunTask.SetArguments"; "-v"; "-s"; "test.txt" )
```

Set a lot of arguments:

```
MBS("RunTask.SetArguments"; "-i"; "/test/tmp/filetmp% d.jpg"; "-b:v"; "320k"; "-vcodec"; "prores"; "-profile"; "2"; "-qscale"; "5"; "/test/tmp/IM_0001.mov")
```

List connected clients on FileMaker Server:

```
# © 30.07.2016 Patrick Weh | Team Nifty GmbH (17:40 Uhr)
# List connected Clients
# -----
# Script checks for connected clients at the FileMaker Server.
# Copy this File to your Server and run this Script on your FileMaker Server.
# -----
#
Set Error Capture [ On ]
Allow User Abort [ Off ]
#
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/Library/FileMaker Server/Database Server/bin/fm-
sadmin" ) ]
# please put your admin password here
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "-u" ; "fmserveradmin" ; "-p" ; "fmserveradmin-
password" ; "list" ; "clients" ; "-s" ) ]
Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
# now wait for task to finish:
Set Variable [ $result; Value:"" ]
```

Loop

```
Pause/Resume Script [ Duration (seconds): 2 ]
Set Variable [ $result; Value:$result & MBS("RunTask.ReadOutputText") ]
Exit Loop If [ MBS("RunTask.IsRunning") = 1 ]
End Loop
#
# write into a field:
Set Field [ Check clients::Clients; $result ]
Commit Records/Requests [ No dialog ]
#
```

Set parameters for -p "Hello World":

```
MBS( "RunTask.SetArguments"; "-p"; "Hello World" )
```

# please notice that we just have quotes around Hello World

Show quicklook preview window for PDF file:

```
Set Variable [ $r ; Value: MBS( "RunTask.NewTask" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetLaunchPath"; "/usr/bin/qlmanage" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.SetArguments"; "-p"; "/Users/cs/Desktop/Hello World.pdf" ) ]
Set Variable [ $r ; Value: MBS( "RunTask.Launch" ) ]
```

### See also

- 142.1 RunTask.AddArgument 6869
- 142.2 RunTask.GetArgument 6871
- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.9 RunTask.NewTask 6880
- 142.11 RunTask.ReadErrorText 6883
- 142.12 RunTask.ReadOutputText 6884
- 142.15 RunTask.SetLaunchPath 6889
- 142.20 RunTask.Wait 6895
- 175.3 URLScheme.SetDefaultHandler 8272

### Example Databases

- [RunTask/RunTask Windows](#)
- [RunTask/RunTask](#)

### 142.13.1 **Blog Entries**

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 22nd August 2017.

## 142.14 RunTask.SetCurrentDirectoryPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.SetCurrentDirectoryPath"; Path )

### Parameters

#### Path

The new path for current working directory.

"/Users/cs/Desktop"

**Result** Returns OK or error.

### Description

If this method isn't used, the current directory is inherited from the process that created the receiver.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 142.4 RunTask.GetCurrentDirectoryPath 6873

### Example Databases

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask Windows](#)

Created 18th August 2014, last changed 5th September 2014.

## 142.15 RunTask.SetLaunchPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.SetLaunchPath"; Path )

### Parameters

#### Path

The new path for current working directory.  
"notepad.exe"

**Result** Returns OK or error.

### Description

### Examples

Launch a Java application on Mac:

```
MBS( "RunTask.NewTask" )
# you launch java
MBS( "RunTask.SetLaunchPath"; "/usr/bin/java" )
# and pass jar file as arguments followed by other arguments
MBS( "RunTask.SetArguments"; "-jar" ; "/Applications/test/java.jar"; "Hello" )
MBS( "RunTask.Launch"
```

### See also

- [142.5 RunTask.GetLaunchPath](#) 6874
- [142.8 RunTask.Launch](#) 6877
- [142.9 RunTask.NewTask](#) 6880
- [142.11 RunTask.ReadErrorText](#) 6883
- [142.13 RunTask.SetArguments](#) 6885
- [142.20 RunTask.Wait](#) 6895
- [175.3 URLScheme.SetDefaultHandler](#) 8272

### Example Databases

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask Windows](#)
- [RunTask/RunTask with read and write on Mac](#)
- [RunTask/RunTask](#)

### 142.15.1 Blog Entries

- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 18th August 2014, last changed 19th May 2017.

## 142.16 RunTask.SetVerb

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.2	No	Yes	Yes, Windows only	No	No

MBS( "RunTask.SetVerb"; Verb )

### Parameters

#### Verb

The new verb.

"open"

**Result** Returns OK or error.

### Description

The set of available verbs depends on the particular file or folder. Generally, the actions available from an object's shortcut menu are available verbs. This parameter can be "", in which case the default verb is used if available. If not, the "open" verb is used. If neither verb is available, the system uses the first verb listed in the registry. The following verbs are commonly used:

edit	Launches an editor and opens the document for editing. If lpFile is not a document file, the RunTask.Launch function will fail.
explore	Explores the folder specified by lpFile.
find	Initiates a search starting from the specified directory.
open	Opens the file specified by the lpFile parameter. The file can be an executable file, a document file, or a folder.
print	Prints the document file specified by lpFile. If File is not a document file, the RunTask.Launch function will fail.
properties	Displays the file or folder's properties.

### See also

- [142.6 RunTask.GetVerb](#) 6875
- [142.8 RunTask.Launch](#) 6877

### Example Databases

- [RunTask/RunTask Windows](#)

Created 18th August 2014, last changed 18th August 2014.

## 142.17 RunTask.Terminate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	Yes	Yes	No	No

MBS( "RunTask.Terminate"; ExitCode )

### Parameters

#### ExitCode

Only for Windows the exit code for the application.

1

**Result** Returns OK or error.

### Description

This method has no effect if the receiver was already launched and has already finished executing. If the receiver has not been launched yet, this method raises an `NSInvalidArgumentException`.

It is not always possible to terminate the receiver because it might be ignoring the terminate signal. terminate sends SIGTERM.

### Example Databases

- [RunTask/Run Shell Script on Mac](#)
- [RunTask/RunTask Windows](#)

Created 18th August 2014, last changed 18th August 2014.



## 142.18 RunTask.TerminationReason

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.TerminationReason" )

**Result** Returns the reason the task was terminated.

### Description

Available in OS X v10.6 and later.

Returns 1 for exit and 2 for an uncaught signal.

### See also

- 142.19 RunTask.TerminationStatus

6894

Created 18th August 2014, last changed 13th April 2016.

## 142.19 RunTask.TerminationStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	3.1	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.TerminationStatus" )

**Result** Returns the exit status returned by the receiver's executable.

### Description

Each task defines and documents how its return value should be interpreted. For example, many commands return 0 if they complete successfully or an error code if they don't. You'll need to look at the documentation for that task to learn what values it returns under what circumstances.

### See also

- 142.18 RunTask.TerminationReason

6893

Created 18th August 2014, last changed 18th August 2014.

## 142.20 RunTask.Wait

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	6.4	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.Wait"; Timeout )

### Parameters

#### Timeout

The maximum time to wait.

30

**Result** Returns 1, 0 or error.

### Description

Returns 0 if task terminated or 1 if task is still running.

### Examples

Run a shell tool and wait for ending:

```
Let ( [
r = MBS( "RunTask.NewTask" );
r = MBS( "RunTask.SetLaunchPath"; "/bin/sh" );
r = MBS( "RunTask.SetArguments"; "-c"; "date;sleep 5;date" );
r = MBS( "RunTask.Launch");
r = MBS( "RunTask.Wait"; "30");
output = MBS( "RunTask.ReadOutputText"; "utf8")
]
; output )
```

### See also

- [142.8 RunTask.Launch](#) 6877
- [142.9 RunTask.NewTask](#) 6880
- [142.12 RunTask.ReadOutputText](#) 6884
- [142.13 RunTask.SetArguments](#) 6885
- [142.15 RunTask.SetLaunchPath](#) 6889

### Example Databases

- [RunTask/Run Shell Script on Mac](#)

### 142.20.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr9](#)



## 142.21 RunTask.WriteInputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
142 RunTask	4.1	Yes	No	Yes, macOS only	No	No

MBS( "RunTask.WriteInputText"; text { ; Encoding } )

### Parameters

#### text

The text to put in the buffer.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns OK.

### Description

### Example Databases

- [RunTask/RunTask with read and write on Mac](#)

Created 18th August 2014, last changed 12nd November 2015.



# Chapter 143

## Schedule

Scheduled script calls and sql queries.

### 143.1 Schedule.Check

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.Check" )

**Result** Returns OK or error.

#### Description

This is intended for server where you need to call this regularly (e.g. in scheduled script every minute) to process scheduled script calls or sql executes.

#### See also

- 143.8 Schedule.ExecuteSQLAfterDelay 6909
- 143.9 Schedule.ExecuteSQLAtTime 6911
- 143.10 Schedule.ExecuteSQLAtTimeStamp 6913
- 143.11 Schedule.ExecuteSQLOnIdle 6915

Created 20th May 2015, last changed 21st May 2015.

## 143.2 Schedule.ClearEvaluateResult

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.ClearEvaluateResult"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns OK or error.

### Description

#### See also

- 143.14 Schedule.GetEvaluateResult

6919

Created 21st May 2015, last changed 21st May 2015.



## 143.3 Schedule.ClearSQLResult

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.ClearSQLResult"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns OK or error.

### Description

#### See also

- 143.20 Schedule.GetSQLResult

6925

Created 21st May 2015, last changed 21st May 2015.

## 143.4 Schedule.EvaluateAfterDelay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.EvaluateAfterDelay"; DelaySeconds; Expression { ; ScriptFileName; ScriptName; RepeatDelay } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script.

10

#### Expression

The expression to evaluate.

"Get(CurrentTimeStamp)"

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run.

"TestScript"

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

**Result** Returns reference number or error.

### Description

Optional, we can start a script with the result of the query.

Please use Schedule.Release later to remove schedule from list. Non repeating scheduled items are free automatically for you.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

### Examples

Try it:

```
Set Variable [ $expression; Value:"MBS(\Log\; \Evaluate works\)" ]
```

```
Set Variable [ $ref; Value:MBS( "Schedule.EvaluateAfterDelay"; 5; $expression ) ]
```

Show/Hide format bar in German:

```
Variable setzen [ $r ; Wert: MBS( "Schedule.EvaluateAfterDelay"; ,1; "MBS( \MenuBar.RunMenuCom-
```

```
mand\"; Liste(\ "Ansicht\"; \ "Formatierungsleiste\") )" ]
```

Set scrollbar elasticity after delay of 0.1 seconds:

```
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; 0.1; "MBS(\ "Window.Scrollbar.SetScrollElasticity\"; 0; \ "none\")" ) ]
```

Open Scriptworkspace:

```
# won't work directly in script as we need to delay, let the script end and then the menu command can run:
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; 0.1; "MBS( \ "Menubar.RunMenuCommand\"; 51319 )" ) ]
```

### See also

- 115.5 Menubar.RunMenuCommand 6099
- 130.4 PageSetupDialog.Enable 6496
- 130.12 PageSetupDialog.Install 6505
- 143.6 Schedule.EvaluateAtTimeStamp 6906
- 143.13 Schedule.GetEvaluate 6918
- 143.14 Schedule.GetEvaluateResult 6919
- 143.26 Schedule.Release 6931
- 145.9 ScriptWorkspace.OpenScript 6971
- 185.73 Window.Scrollbar.set 8758
- 185.68 Window.Scrollbar.SetScrollElasticity 8752

### Example Databases

- [Mac only/Print/Page Setup Dialog on Mac](#)
- [Mac only/Print/Page Setup Dialog](#)
- [Utility functions/Schedules](#)

#### 143.4.1 Blog Entries

- [Page Setup Dialog example](#)

Created 21st May 2015, last changed 31st December 2019.

## 143.5 Schedule.EvaluateAtTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.EvaluateAtTime"; Hours; Minutes; Seconds; Expression { ; ScriptFileName; ScriptName; RepeatHour; RepeatMinute; RepeatSecond } )

### Parameters

#### Hours

The hour of the day at which to call the script.

12

#### Minutes

The minute of the day at which to call the script.

10

#### Seconds

The seconds of the day at which to call the script.

0

#### Expression

The expression to evaluate.

"Get(CurrentTimeStamp)"

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run.

"TestScript"

#### RepeatHour

Optional

The number of hours to wait between script calls.

1

#### RepeatMinute

Optional

The number of minutes to wait between script calls.

0

#### RepeatSecond

Optional

The number of seconds to wait between script calls.

0

**Result** Returns reference number or error.

**Description**

Optional, we can start a script with the result of the query.

Please use `Schedule.Release` later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp with hours, minutes and seconds parameter at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

**See also**

- 143.6 `Schedule.EvaluateAtTimeStamp` 6906
- 143.7 `Schedule.EvaluateOnIdle` 6908
- 143.26 `Schedule.Release` 6931

Created 21st May 2015, last changed 21st May 2015.

## 143.6 Schedule.EvaluateAtTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.EvaluateAtTimeStamp"; TimeStamp; Expression { ; ScriptFileName; ScriptName; Repeat-Delay } )

### Parameters

#### TimeStamp

The timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Get(CurrentTimeStamp)+60

#### Expression

The expression to evaluate.

"Get(CurrentTimeStamp)"

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run

"TestScript"

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

**Result** Returns reference number or error.

### Description

Optional, we can start a script with the result of the query.

Please use Schedule.Release later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

### See also

- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.5 Schedule.EvaluateAtTime 6904

143.6. *SCHEDULE.EVALUATEATTIMESTAMP*

6907

- 143.10 Schedule.ExecuteSQLAtTimeStamp

6913

- 143.26 Schedule.Release

6931

Created 21st May 2015, last changed 12nd July 2015.

## 143.7 Schedule.EvaluateOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	No

MBS( "Schedule.EvaluateOnIdle"; DelaySeconds; Expression { ; ScriptFileName; ScriptName } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script. Moving the mouse or using keyboard will reset the counter.

10

#### Expression

The expression to evaluate.

"Get(CurrentTimeStamp)"

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run.

"TestScript"

**Result** Returns reference number or error.

### Description

This SQL query is performed in FileMaker whenever no user activity has been for the given amount of time. If script is called, the user is idle the given time period. Than once user starts working again, the count is reset and next time the user is idle again, the script can be called. So our idle schedules repeat automatically. Please use Schedule.Release later to remove schedule from list.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- 143.5 Schedule.EvaluateAtTime 6904
- 143.26 Schedule.Release 6931

Created 21st May 2015, last changed 9th January 2020.



## 143.8 Schedule.ExecuteSQLAfterDelay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.ExecuteSQLAfterDelay"; DelaySeconds; FileName; SQL Statement { ; ScriptFileName; ScriptName; Column Delimiter; Record Delimiter; Params } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script.

10

#### FileName

The target database name. Can be empty to not limit query to one database.

””

#### SQL Statement

SQL Statement as a Text string

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(FileName)

#### ScriptName

Optional

The exact name of the script to run.

”TestScript”

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB.

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

13

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### Description

Optional, we can start a script with the result of the query.

Please use `Schedule.Release` later to remove schedule from list. Non repeating scheduled items are free automatically for you.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

Unless you call `Schedule.Check` to perform due schedules now, the schedules are performed at idle time, so all the SQL commands are available including `INSERT`, `DELETE`, `UPDATE` and even `ALTER TABLE`.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 143.1 `Schedule.Check` 6899
- 143.4 `Schedule.EvaluateAfterDelay` 6902
- 143.9 `Schedule.ExecuteSQLAtTime` 6911
- 143.10 `Schedule.ExecuteSQLAtTimeStamp` 6913
- 143.26 `Schedule.Release` 6931

**Example Databases**

- [Utility functions/Schedules](#)

Created 20th May 2015, last changed 27th January 2016.

## 143.9 Schedule.ExecuteSQLAtTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.ExecuteSQLAtTime"; Hours; Minutes; Seconds; FileName; SQL Statement { ; Script-FileName; ScriptName; Column Delimiter; Record Delimiter; RepeatHour; RepeatMinute; RepeatSecond; Params } )

### Parameters

#### Hours

The hour of the day at which to call the script.

12

#### Minutes

The minute of the day at which to call the script.

10

#### Seconds

The seconds of the day at which to call the script.

0

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### SQL Statement

SQL Statement as a Text string

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run.

"TestScript"

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB.

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

13

#### RepeatHour

Optional

The number of hours to wait between script calls.

1

### **RepeatMinute**

Optional

The number of minutes to wait between script calls.

0

### **RepeatSecond**

Optional

The number of seconds to wait between script calls.

0

### **Params**

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### **Description**

Optional, we can start a script with the result of the query.

Please use `Schedule.Release` later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp with hours, minutes and seconds parameter at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

Unless you call `Schedule.Check` to perform due schedules now, the schedules are performed at idle time, so all the SQL commands are available including `INSERT`, `DELETE`, `UPDATE` and even `ALTER TABLE`.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### **See also**

- 143.1 `Schedule.Check` 6899
- 143.8 `Schedule.ExecuteSQLAfterDelay` 6909
- 143.10 `Schedule.ExecuteSQLAtTimeStamp` 6913
- 143.11 `Schedule.ExecuteSQLOnIdle` 6915
- 143.26 `Schedule.Release` 6931

Created 21st May 2015, last changed 27th January 2016.

## 143.10 Schedule.ExecuteSQLAtTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.ExecuteSQLAtTimeStamp"; TimeStamp; FileName; SQL Statement { ; ScriptFileName; ScriptName; RepeatDelay; Params } )

### Parameters

#### TimeStamp

The timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Get(CurrentTimeStamp)+60

#### FileName

The target database name. Can be empty to not limit query to one database.

""

#### SQL Statement

SQL Statement as a Text string

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run

"TestScript"

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### Description

Optional, we can start a script with the result of the query.

Please use Schedule.Release later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker

is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

Unless you call `Schedule.Check` to perform due schedules now, the schedules are performed at idle time, so all the SQL commands are available including `INSERT`, `DELETE`, `UPDATE` and even `ALTER TABLE`.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 143.1 `Schedule.Check` 6899
- 143.6 `Schedule.EvaluateAtTimeStamp` 6906
- 143.8 `Schedule.ExecuteSQLAfterDelay` 6909
- 143.9 `Schedule.ExecuteSQLAtTime` 6911
- 143.26 `Schedule.Release` 6931

Created 21st May 2015, last changed 27th January 2016.

## 143.11 Schedule.ExecuteSQLOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	No

MBS( "Schedule.ExecuteSQLOnIdle"; DelaySeconds; FileName; SQL Statement { ; ScriptFileName; ScriptName; Column Delimiter; Record Delimiter; RepeatDelay; Params } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script. Moving the mouse or using keyboard will reset the counter.

10

#### FileName

The target database name. Can be empty to not limit query to one database.  
""

#### SQL Statement

SQL Statement as a Text string

#### ScriptFileName

Optional

The name of the file that contains the script to be run.

Get(Filename)

#### ScriptName

Optional

The exact name of the script to run.

"TestScript"

#### Column Delimiter

Optional

Columns Separator, only used with SELECT statement. Default is TAB.

9

#### Record Delimiter

Optional

Record Separator, only used with SELECT statement, Default is Return

13

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

#### Params

Optional

Optional, pass here parameters. One parameter to this function for each parameter you want to pass to the SQL statement.

123

**Result** Returns reference number or error.

### Description

This SQL query is performed in FileMaker whenever no user activity has been for the given amount of time. If script is called, the user is idle the given time period. Than once user starts working again, the count is reset and next time the user is idle again, the script can be called. So our idle schedules repeat automatically. Please use Schedule.Release later to remove schedule from list.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

Unless you call Schedule.Check to perform due schedules now, the schedules are performed at idle time, so all the SQL commands are available including INSERT, DELETE, UPDATE and even ALTER TABLE.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- 143.1 Schedule.Check 6899
- 143.9 Schedule.ExecuteSQLAtTime 6911
- 143.26 Schedule.Release 6931

Created 21st May 2015, last changed 9th January 2020.



## 143.12 Schedule.GetAutoRelease

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetAutoRelease"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns value or error.

### Description

Value is 1 to auto remove from list of schedules or 0 if not.

### See also

- 143.28 Schedule.SetAutoRelease

6934

Created 21st May 2015, last changed 21st May 2015.

## 143.13 Schedule.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetEvaluate"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

### Description

### Examples

Try it:

```
Set Variable [ $ref; Value:MBS( "Schedule.EvaluateAfterDelay"; 5; "1+2" ) ]
```

```
Set Variable [ $r; Value:MBS( "Schedule.GetEvaluate"; $ref ) ]
```

### See also

- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.14 Schedule.GetEvaluateResult 6919
- 143.29 Schedule.SetEvaluate 6935

Created 21st May 2015, last changed 5th March 2017.

## 143.14 Schedule.GetEvaluateResult

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetEvaluateResult"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns OK or error.

### Description

Please use Schedule.SetAutoRelease with parameter 0 to avoid the target schedule to be released before you can query result.

### Examples

Try it:

```
# evaluate that in a second
Set Variable [ $ref; Value:MBS( "Schedule.EvaluateAfterDelay"; 1; "1+2" ) ]
# stop plugin from removing schedule after it was evaluated
Set Variable [ $r; Value:MBS( "Schedule.SetFreeAfterRun"; $ref; 0 ) ]
# check what is inside?
Set Variable [ $r; Value:MBS( "Schedule.GetEvaluate"; $ref ) ]
# make a pause
Pause/Resume Script [ Duration (seconds): 2 ]
# now check result. Shows 3
Show Custom Dialog [ "Result"; MBS( "Schedule.GetEvaluateResult"; $ref ) ]
# and free memory
Set Variable [ $r; Value:MBS( "Schedule.Release"; $ref ) ]
```

### See also

- 143.2 Schedule.ClearEvaluateResult 6900
- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.13 Schedule.GetEvaluate 6918
- 143.26 Schedule.Release 6931
- 143.28 Schedule.SetAutoRelease 6934

Created 21st May 2015, last changed 21st May 2015.

## 143.15 Schedule.GetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetFileName"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

### Description

#### See also

- 143.21 Schedule.GetScriptName 6926
- 143.23 Schedule.GetTimeStamp 6928
- 143.30 Schedule.SetFileName 6936

Created 20th May 2015, last changed 20th May 2015.

## 143.16 Schedule.GetLastTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	6.2	Yes	Yes	Yes	No	Yes

MBS( "Schedule.GetLastTimeStamp"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns timestamp, empty or error.

### Description

May be empty if not yet run.

### See also

- 143.23 Schedule.GetTimeStamp 6928
- 143.35 Schedule.SetTimeStamp 6941

### 143.16.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 12nd March 2016, last changed 12nd March 2016.

## 143.17 Schedule.GetRepeatDelay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetRepeatDelay"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns value or error.

### Description

### See also

- 143.31 Schedule.SetRepeatDelay

6937

Created 20th May 2015, last changed 20th May 2015.

## 143.18 Schedule.GetRunCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetRunCount"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns value or error.

### Description

Created 20th May 2015, last changed 20th May 2015.

## 143.19 Schedule.GetSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetSQL"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

### Description

#### See also

- 143.24 Schedule.GetURL 6929
- 143.32 Schedule.SetSQL 6938
- 143.36 Schedule.SetURL 6942

Created 20th May 2015, last changed 20th May 2015.



**143.20 Schedule.GetSQLResult**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetSQLResult"; ScheduleRef )

**Parameters****ScheduleRef**

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns value or error.

**Description**

Please use Schedule.SetAutoRelease with parameter 0 to avoid the target schedule to be released before you can query result.

**See also**

- 143.3 Schedule.ClearSQLResult 6901
- 143.28 Schedule.SetAutoRelease 6934

Created 21st May 2015, last changed 21st May 2015.

## 143.21 Schedule.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetScriptName"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

### Description

#### See also

- 143.15 Schedule.GetFileName 6920
- 143.22 Schedule.GetScriptParameter 6927
- 143.33 Schedule.SetScriptName 6939

Created 20th May 2015, last changed 20th May 2015.

**143.22 Schedule.GetScriptParameter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetScriptParameter"; ScheduleRef )

**Parameters****ScheduleRef**

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

**Description****See also**

- 143.21 Schedule.GetScriptName 6926
- 143.34 Schedule.SetScriptParameter 6940

Created 20th May 2015, last changed 26th May 2015.

## 143.23 Schedule.GetTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.GetTimeStamp"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns value or error.

### Description

#### See also

- 143.15 Schedule.GetFileName 6920
- 143.16 Schedule.GetLastTimeStamp 6921
- 143.35 Schedule.SetTimeStamp 6941

Created 20th May 2015, last changed 20th May 2015.

## 143.24 Schedule.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	6.5	Yes	Yes	Yes	No	Yes

MBS( "Schedule.GetURL"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns text or error.

### Description

#### See also

- [143.19 Schedule.GetSQL](#) 6924
- [143.32 Schedule.SetSQL](#) 6938
- [143.36 Schedule.SetURL](#) 6942

### 143.24.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 143.25 Schedule.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.List" { ; OnlyIDs } )

### Parameters

#### OnlyIDs

Optional

Pass 1 to only get IDs. Pass 0 or no parameter to get IDs and details.

1

**Result** Returns list or error.

### Description

The list contains for each schedule the ID, type, file name, script name, script parameter, sql, repeat delay and idle delay.

### Examples

List items

```
Set Variables [ $List; MBS( "Schedule.List" ) ]
```

### Example Databases

- [Utility functions/Schedules](#)

Created 20th May 2015, last changed 27th May 2015.

## 143.26 Schedule.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.Release"; ScheduleRef )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Result** Returns OK or error.

### Description

This will free all memory used and stops the schedule.

### Examples

Release now:

```
MBS( "Schedule.Release"; $ScheduleRef )
```

Start a script once in 10 seconds and release:

```
Set Variable [ $ref; MBS( "Schedule.StartScriptAfterDelay"; 10; Get(FileName); "testScript"; "Hello World" ) ]
Set Variable [ $r; MBS("Schedule.Release"; $ref) ]
# script will never be called as schedule was destroyed!
```

### See also

- 143.4 Schedule.EvaluateAfterDelay 6902
- 143.5 Schedule.EvaluateAtTime 6904
- 143.6 Schedule.EvaluateAtTimeStamp 6906
- 143.7 Schedule.EvaluateOnIdle 6908
- 143.8 Schedule.ExecuteSQLAfterDelay 6909
- 143.9 Schedule.ExecuteSQLAtTime 6911
- 143.11 Schedule.ExecuteSQLOnIdle 6915
- 143.27 Schedule.ReleaseAll 6933
- 143.38 Schedule.StartScriptAtTime 6945

- 143.39 Schedule.StartScriptAtTimeStamp

Created 20th May 2015, last changed 27th May 2015.



## 143.27 Schedule.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	6.4	Yes	Yes	Yes	No	Yes

MBS( "Schedule.ReleaseAll" )

**Result** Returns OK or error.

### Description

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 143.26 Schedule.Release

6931

### 143.27.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr9](#)

Created 20th September 2016, last changed 9th January 2020.

## 143.28 Schedule.SetAutoRelease

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetAutoRelease"; ScheduleRef; Value )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### Value

The new setting. 1 to free schedule item after it run (and has no repeating), 0 to not free it.

1

**Result** Returns OK or error.

### Description

#### Examples

Set schedule to be destroyed after last execution:

```
MBS( "Schedule.SetAutoRelease"; $ScheduleRef; 1 )
```

Set schedule to be not destroyed after last execution:

```
MBS( "Schedule.SetAutoRelease"; $ScheduleRef; 0 )
```

### See also

- 143.12 Schedule.GetAutoRelease 6917
- 143.14 Schedule.GetEvaluateResult 6919
- 143.20 Schedule.GetSQLResult 6925

Created 21st May 2015, last changed 27th May 2015.

**143.29 Schedule.SetEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetEvaluate"; ScheduleRef; Expression )

**Parameters****ScheduleRef**

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Expression**

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

**Description****See also**

- 143.13 Schedule.GetEvaluate

6918

Created 21st May 2015, last changed 4th April 2018.

## 143.30 Schedule.SetFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetFileName"; ScheduleRef; Filename )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### Filename

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

### Description

#### See also

- 143.15 Schedule.GetFileName 6920
- 143.33 Schedule.SetScriptName 6939
- 143.35 Schedule.SetTimeStamp 6941

Created 20th May 2015, last changed 20th May 2015.

**143.31 Schedule.SetRepeatDelay**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetRepeatDelay"; ScheduleRef; Value )

**Parameters****ScheduleRef**

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**Value**

The delay in seconds.

60

**Result** Returns OK or error.

**Description**

For idle timer, the delay to wait for the user to be idle, else the delay for second or further calls.

**See also**

- 143.17 Schedule.GetRepeatDelay

6922

Created 20th May 2015, last changed 20th May 2015.

## 143.32 Schedule.SetSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetSQL"; ScheduleRef; SQL )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### SQL

The SQL to execute.

"INSERT INTO Contacts (FirstName, LastName) Values('Bob', 'Miller')"

**Result** Returns OK or error.

### Description

#### See also

- 143.19 Schedule.GetSQL 6924
- 143.24 Schedule.GetURL 6929
- 143.36 Schedule.SetURL 6942

Created 20th May 2015, last changed 20th May 2015.

**143.33 Schedule.SetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetScriptName"; ScheduleRef; ScriptName )

**Parameters****ScheduleRef**

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 143.21 Schedule.GetScriptName 6926
- 143.30 Schedule.SetFileName 6936
- 143.34 Schedule.SetScriptParameter 6940

Created 20th May 2015, last changed 27th January 2016.

## 143.34 Schedule.SetScriptParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetScriptParameter"; ScheduleRef; Parameter )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### Parameter

The new parameter value. If empty or not provided, the plugin passes the schedule reference number.  
””

**Result** Returns OK or error.

### Description

If the script parameter is empty, the plugin passes the timer reference number as parameter.

### Examples

Change Script Parameter:

```
MBS( "Schedule.SetScriptParameter"; $ScheduleRef; "Hello World" )
```

### See also

- 143.22 Schedule.GetScriptParameter 6927
- 143.33 Schedule.SetScriptName 6939

Created 20th May 2015, last changed 27th May 2015.



## 143.35 Schedule.SetTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.SetTimeStamp"; ScheduleRef; TimeStamp )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### TimeStamp

The new time stamp. This moves the schedule to run on a different time.

Get(CurrentTimeStamp) + 60

**Result** Returns OK or error.

### Description

#### Examples

Move next execution to now plus 10 seconds:

MBS( "Schedule.SetTimeStamp"; \$ScheduleRef; Get(CurrentTimeStamp) + 10 )

### See also

- 143.16 Schedule.GetLastTimeStamp 6921
- 143.23 Schedule.GetTimeStamp 6928
- 143.30 Schedule.SetFileName 6936

Created 20th May 2015, last changed 27th May 2015.

## 143.36 Schedule.SetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	6.5	Yes	Yes	Yes	No	Yes

MBS( "Schedule.SetURL"; ScheduleRef; URL )

### Parameters

#### ScheduleRef

The reference for a scheduled script call or sql query as returned by Schedule.StartScript\* functions or Schedule.ExecuteSQL\* functions.

\$ref

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with schedule ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

### See also

- 143.19 Schedule.GetSQL 6924
- 143.24 Schedule.GetURL 6929
- 143.32 Schedule.SetSQL 6938

### 143.36.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 143.37 Schedule.StartScriptAfterDelay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.StartScriptAfterDelay"; DelaySeconds; FileName; ScriptName { ; ScriptParameter; RepeatDelay } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script.

10

#### FileName

The name of the file that contains the script to be run

Get(FileName)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

Optional, the Script Parameter to pass to the script

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

**Result** Returns reference number or error.

### Description

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling.

Please use Schedule.Release later to remove schedule from list. Non repeating scheduled items are free automatically for you.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Start a script once in 10 seconds:

```
MBS( "Schedule.StartScriptAfterDelay"; 10; Get(FileName); "testScript"; "Hello World" )
```

Start a script once in 10 seconds and repeat every 20 seconds:

```
MBS( "Schedule.StartScriptAfterDelay"; 10; Get(FileName); "testScript"; "Hello World"; 20 )
```

#### See also

- 80.59 FM.RunScriptLater 4049
- 143.26 Schedule.Release 6931
- 143.38 Schedule.StartScriptAtTime 6945
- 143.39 Schedule.StartScriptAtTimeStamp 6947

#### Example Databases

- [Utility functions/Schedules](#)
- [Window/Flash Window and Jump Dock](#)

Created 20th May 2015, last changed 27th January 2016.

## 143.38 Schedule.StartScriptAtTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.StartScriptAtTime"; Hours; Minutes; Seconds; FileName; ScriptName { ; ScriptParameter; RepeatHour; RepeatMinute; RepeatSecond } )

### Parameters

#### Hours

The hour of the day at which to call the script.

12

#### Minutes

The minute of the day at which to call the script.

10

#### Seconds

The seconds of the day at which to call the script.

0

#### FileName

The name of the file that contains the script to be run

Get(Filename)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

Optional, the Script Parameter to pass to the script

#### RepeatHour

Optional

The number of hours to wait between script calls.

1

#### RepeatMinute

Optional

The number of minutes to wait between script calls.

0

#### RepeatSecond

Optional

The number of seconds to wait between script calls.

0

**Result** Returns reference number or error.

### Description

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using `Get(ScriptParameter)` in the script that plug-in is calling.

Please use `Schedule.Release` later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp with hours, minutes and seconds parameter at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Run at 10:30 and repeat every 2 hour:

```
MBS( "Schedule.StartScriptAtTime"; 10; 30; 0; Get(FileName); "testScript"; ""; 2; 0; 0 )
```

Run daily at 6:10 in morning

```
MBS( "Schedule.StartScriptAtTime"; 6;10; 0; Get(FileName); "Send Jobs"; ""; 24; 0; 0 )
```

### See also

- 143.26 `Schedule.Release` 6931
- 143.37 `Schedule.StartScriptAfterDelay` 6943
- 143.39 `Schedule.StartScriptAtTimeStamp` 6947
- 143.40 `Schedule.StartScriptOnIdle` 6949

Created 20th May 2015, last changed 20th April 2017.

## 143.39 Schedule.StartScriptAtTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	Yes

MBS( "Schedule.StartScriptAtTimeStamp"; TimeStamp; FileName; ScriptName { ; ScriptParameter; RepeatDelay } )

### Parameters

#### TimeStamp

The timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Get(CurrentTimeStamp)+60

#### FileName

The name of the file that contains the script to be run

Get(FileName)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

Optional, the Script Parameter to pass to the script

#### RepeatDelay

Optional

The number of seconds after which to repeat the script call.

30

**Result** Returns reference number or error.

### Description

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling.

Please use Schedule.Release later to remove schedule from list. Non repeating scheduled items are free automatically for you.

You define the timestamp at which to call the script. Plugin checks regularly if time stamp is reaches and calls as soon as current time is greater or equal the given timestamp. So calls can be delayed if FileMaker is busy!

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Run script in 10 seconds and then repeat every 10 seconds:

```
MBS( "Schedule.StartScriptAtTimeStamp"; Get(CurrentTimeStamp)+10; Get(FileName); "testScript"; "time passed"; 10 )
```

**See also**

- 143.26 Schedule.Release 6931
- 143.37 Schedule.StartScriptAfterDelay 6943
- 143.38 Schedule.StartScriptAtTime 6945

Created 20th May 2015, last changed 27th January 2016.



## 143.40 Schedule.StartScriptOnIdle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
143 Schedule	5.2	Yes	Yes	No	No	No

MBS( "Schedule.StartScriptOnIdle"; DelaySeconds; FileName; ScriptName { ; ScriptParameter } )

### Parameters

#### DelaySeconds

The Number of Seconds to wait before running the script. Moving the mouse or using keyboard will reset the counter.

10

#### FileName

The name of the file that contains the script to be run

Get(FileName)

#### ScriptName

The exact name of the script to run

"TestScript"

#### ScriptParameter

Optional

The Script Parameter to pass to the script

**Result** Returns reference number or error.

### Description

This script is called in FileMaker whenever no user activity has been for the given amount of time.

You can also pass a text string to the Script as a Parameter. The parameter can be retrieved by using Get(ScriptParameter) in the script that plug-in is calling.

If script is called, the user is idle the given time period. Than once user starts working again, the count is reset and next time the user is idle again, the script can be called. So our idle schedules repeat automatically. Please use Schedule.Release later to remove schedule from list.

Our plugin does not provide persistence. You need to schedule things in your scripts if you need them. When FileMaker quits, the plugin forgets the list of schedules.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Run a script 10 seconds after idle is detected:

```
MBS("Schedule.StartScriptOnIdle"; 10; Get(FileName); "testScript"; "don't work?")
```

### See also

6950

*CHAPTER 143. SCHEDULE*

- 80.58 FM.RunScriptIdle 4047
- 80.82 FM.StopScriptIdle 4093
- 143.26 Schedule.Release 6931
- 143.38 Schedule.StartScriptAtTime 6945

Created 20th May 2015, last changed 9th January 2020.

# Chapter 144

## Screenshot

Create screenshots.

### 144.1 Screen.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	No

MBS( "Screen.Count" )

#### Description

For version 7.1 we added support for multiple monitors for Windows.

#### Examples

Count Screens

MBS( "Screen.Count" )

#### See also

- 92.13 IKSlideShow.GetScreen 4972
- 92.24 IKSlideShow.SetScreen 4984

Created 18th August 2014, last changed 26th April 2020.

## 144.2 Screen.DockHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	8.3	Yes	No	No	No	No

MBS( "Screen.DockHeight" )

**Result** Returns number or error.

### Description

The plugin checks screen height compared to usable screen height, which gives the dock height on the main screen.

### Examples

Query dock size:

```
Show Custom Dialog [ "Dock Size" ; MBS( "Screen.DockWidth" ) & " x " & MBS( "Screen.DockHeight" ) ]
```

### See also

- [144.3 Screen.DockWidth](#) 6953

### 144.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 12nd July 2018, last changed 12nd July 2018.

## 144.3 Screen.DockWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	8.3	Yes	No	Yes, macOS only	No	No

MBS( "Screen.DockWidth" )

**Result** Returns number or error.

### Description

The plugin checks screen width compared to usable screen width, which gives the dock width on the main screen.

### Examples

Query dock size:

```
Show Custom Dialog [ "Dock Size" ; MBS( "Screen.DockWidth" ) & " x " & MBS( "Screen.DockHeight" ) ]
```

### See also

- 144.2 Screen.DockHeight

6952

### 144.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 12nd July 2018, last changed 13th July 2018.

## 144.4 Screen.Height

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	Yes

MBS( "Screen.Height"; ScreenID )

### Parameters

#### ScreenID

The zero based index of the screen to target.

0

### Description

FileMaker's built in functions for returning related information only works for the "desktop" and may include more than one screen in a Multiple monitor situation. Also Get(WindowDesktopHeight) returns the height of the desktop not the height of the monitor. The desktop height does not include the height of the menu.

For version 7.1 we added support for multiple monitors for Windows.

### Examples

Get the first screen's co-ordinates

```
MBS( "Screen.Left" ; 0 ) & " " &
MBS( "Screen.Top" ; 0 ) & " " &
MBS( "Screen.Width" ; 0 ) & " " &
MBS( "Screen.Height" ; 0 )
```

### See also

- 133.23 ProgressDialog.SetPosition 6633
- 133.24 ProgressDialog.SetPositionCentered 6634
- 144.5 Screen.Left 6955
- 144.7 Screen.Top 6957
- 144.8 Screen.Width 6958

Created 18th August 2014, last changed 26th April 2020.

## 144.5 Screen.Left

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	Yes

MBS( "Screen.Left"; ScreenID )

### Parameters

#### ScreenID

The zero based index of the screen to target.

0

### Description

FileMaker's built in functions for returning screen related information only works for the "desktop" and may include more than one screen in a Multiple monitor situation.

For version 7.1 we added support for multiple monitors for Windows.

### Examples

Get the first screen's co-ordinates

```
MBS( "Screen.Left" ; 0 ) & " " &
```

```
MBS( "Screen.Top" ; 0 ) & " " &
```

```
MBS( "Screen.Width" ; 0 ) & " " &
```

```
MBS( "Screen.Height" ; 0 )
```

### See also

- 144.4 Screen.Height 6954
- 144.7 Screen.Top 6957
- 144.8 Screen.Width 6958

Created 18th August 2014, last changed 26th April 2020.

## 144.6 Screen.Scale

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	9.2	Yes	Yes	Yes	No	Yes

MBS( "Screen.Scale" { ; Screen ID } )

### Parameters

#### Screen ID

Optional

The zero based index of the screen to to target. Default is main screen.

0

**Result** Returns number or error.

### Description

Normal screens have 1, retina screens have 2 and on iPhone some have even 3. Windows has same scale factor for all screens, which can be fractions like 1.5.

### 144.6.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.2](#)
- [MBS FileMaker Plugin 9.2 - More than 5800 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 21st March 2019, last changed 15th July 2019.



## 144.7 Screen.Top

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	Yes

MBS( "Screen.Top"; Screen ID )

### Parameters

#### Screen ID

The zero based index of the screen to to target.

0

### Description

Returns the Top coordinate of the screen indicated by the Screen ID parameter Also Get(WindowDesktopHeight) returns the height of the desktop not the height of the monitor. The desktop height does not include the height of the menu.

For version 7.1 we added support for multiple monitors for Windows.

### Examples

Get the first screen's co-ordinates

```
MBS( "Screen.Left" ; 0 ) & " " &
```

```
MBS( "Screen.Top" ; 0 ) & " " &
```

```
MBS( "Screen.Width" ; 0 ) & " " &
```

```
MBS( "Screen.Height" ; 0 )
```

### See also

- 144.4 Screen.Height 6954
- 144.5 Screen.Left 6955
- 144.8 Screen.Width 6958

Created 18th August 2014, last changed 26th April 2020.

## 144.8 Screen.Width

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	Yes

MBS( "Screen.Width"; ScreenID )

### Parameters

#### ScreenID

The zero based index of the screen to to target.

0

### Description

FileMaker's built in functions for returning related information only works for the "desktop" and may include more than one screen in a Multiple monitor situation.

For version 7.1 we added support for multiple monitors for Windows.

### Examples

Get the first screen's co-ordinates

```
MBS( "Screen.Left" ; 0 ) & " " &
```

```
MBS( "Screen.Top" ; 0 ) & " " &
```

```
MBS( "Screen.Width" ; 0 ) & " " &
```

```
MBS( "Screen.Height" ; 0 )
```

### See also

- 144.4 Screen.Height 6954
- 144.5 Screen.Left 6955
- 144.7 Screen.Top 6957

Created 18th August 2014, last changed 26th April 2020.

## 144.9 Screenshot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	No

MBS( "Screenshot"; ScreenID; Format; Quality; Filename )

### Parameters

#### ScreenID

Zero Based index of the screens. If blank "0" is assumed

0

#### Format

The format of the file (currently only JPEG is supported)

JPEG

#### Quality

The quality of the image. From 0 to 100.

80

#### Filename

The desired file name. The image is not written to disk. This file name is just added to the container for later export.

MyCoolFile

**Result** Returns the image as a container value so you can assign it to a container.

### Description

Use "Set Field" to set the result of this function into any container field. On PCs only the main monitor is supported, screen id 0.

Updated for Mac OS X 10.7 in plugin version 2.5.

Returns the image as container value, so you can assign it to a container field or save to disk with Container.WriteFile function.

### Examples

Capture screen as JPEG:

```
Let(
[
/*-----PARAMETERS-----*/
ScreenID = 0;
Format = "JPEG";
Quality = 512;
Filename = "MyCoolFile"
];
/*-----FUNCTION-----*/
MBS(
"Screenshot";
```

6960

CHAPTER 144. SCREENSHOT

```
ScreenID ;  
Format ;  
Quality ;  
Filename  
)  
)
```

Put screenshot in field:

```
Set Variable [ $screenshot ; Value: MBS("Screenshot"; 0; "jpeg"; 90) ]  
Set Field [ Contacts::Photo Container ; $screenshot ]
```

### See also

- 56.35 Container.WriteFile

1694

Created 18th August 2014, last changed 26th April 2019.

## 144.10 ScreenshotRect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
144 Screenshot	1.0	Yes	Yes	Yes	No	No

MBS( "ScreenshotRect"; Left; Top; Width; Height; Format; Quality; File Name )

### Parameters

**Left**

Left  
100

**Top**

Top  
100

**Width**

Width of the rectangle  
200

**Height**

Height of Rectangle  
200

**Format**

File Format. Currently only JPEG supported.  
JPEG

**Quality**

The quality of the image  
100

**File Name**

The desired file name. The image is not written to disk. This file name is just added to the container for later export.  
Test File.jpg

**Result** Returns the image as a container value so you can assign it to a container.

**Description**

Updated for Mac OS X 10.7 in plugin version 2.5.

Returns the image as container value, so you can assign it to a container field or save to disk with Container.WriteFile function.

**Examples**

Capture a portion of the screen to a JPEG

```
Let(
[
```

```
/*-----PARAMETERS-----*/
Left = 100;
Top = 100;
Width = 200;
Height = 200;
Format = "JPEG";
Quality = 1024;
File Name = "Test File.jpg"
];
/*-----FUNCTION-----*/
MBS(
"ScreenshotRect";
Left ;
Top ;
Width ;
Height ;
Format ;
Quality ;
File Name
)
)
```

Capture an area of screen as picture:

```
Set Field [ test::test ; MBS( "ScreenshotRect"; 100; 100; 400; 300; "JPEG"; 1024; "screenshot.jpg" ) ]
```

### See also

- 56.35 Container.WriteFile

1694

### 144.10.1 Blog Entries

- [MBS Filemaker Plugin Overview](#)

Created 18th August 2014, last changed 26th March 2020.

# Chapter 145

## ScriptWorkspace

Control FileMaker's Script Workspace on macOS.

### 145.1 ScriptWorkspace.BringToFront

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.BringToFront" )

**Result** Returns OK or error.

**Description**

**See also**

- 145.8 ScriptWorkspace.LineCount 6970

Created 13th August 2017, last changed 13th August 2017.

## 145.2 ScriptWorkspace.CopyScriptText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.1	Yes	No	No	No	No

MBS( "ScriptWorkspace.CopyScriptText" )

**Result** Returns OK or error.

### Description

Includes colors for script steps.

Maybe useful for automation workflows where you like to evaluate an expression by hotkey which puts current script on clipboard and then pastes it in your CMS for the website.

### See also

- [145.11 ScriptWorkspace.ScriptText](#) 6973
- [145.21 ScriptWorkspace.StyledScriptText](#) 6983

### 145.2.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 21st February 2020, last changed 21st February 2020.



## 145.3 ScriptWorkspace.CurrentTab

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.CurrentTab" )

**Result** Returns text or error.

### Description

#### See also

- 90.15 HotKey.Register 4909
- 90.17 HotKey.SetEvaluate 4914
- 162.1 SyntaxColoring.AddContextMenuCommand 7679

### 145.3.1 Blog Entries

- [Define hot keys for functions in the FileMaker development](#)

Created 13th August 2017, last changed 13th August 2017.

## 145.4 ScriptWorkspace.ExpandScriptFolders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.ExpandScriptFolders" )

**Result** Returns number or error.

### Description

Returns number of folders.

Created 14th August 2017, last changed 10th November 2017.

## 145.5 ScriptWorkspace.GetScriptListSearch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.GetScriptListSearch" )

**Result** Returns text or error.

**Description**

**See also**

- 145.19 ScriptWorkspace.SetScriptListSearch

6981

### 145.5.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 4th December 2019, last changed 4th December 2019.

## 145.6 ScriptWorkspace.IsActive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.IsActive" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if script workspace has focus.

e.g. if you trigger an evaluation via hotkey functions, you can use this function to check if you are in script workspace.

### See also

- 145.7 ScriptWorkspace.IsVisible 6969
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.16 ScriptWorkspace.SelectLines 6978
- 145.23 ScriptWorkspace.Title 6985

### 145.6.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 2nd December 2019, last changed 2nd December 2019.

**145.7 ScriptWorkspace.IsVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.IsVisible" )

**Result** Returns 0, 1 or error.

**Description**

Returns 1 if visible or 0 if not.

**See also**

- 145.6 ScriptWorkspace.IsActive 6968
- 145.12 ScriptWorkspace.ScriptsVisible 6974
- 145.20 ScriptWorkspace.StepsVisible 6982
- 145.23 ScriptWorkspace.Title 6985

Created 14th August 2017, last changed 14th August 2017.

## 145.8 ScriptWorkspace.LineCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.LineCount" )

**Result** Returns number or error.

### Description

### See also

- 145.1 ScriptWorkspace.BringToFront 6963
- 145.26 ScriptWorkspace.Window 6988

Created 14th August 2017, last changed 14th August 2017.

## 145.9 ScriptWorkspace.OpenScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.OpenScript"; ScriptName )

### Parameters

#### ScriptName

The name of the script to select. Must be visible in the left list of scripts in script workspace.  
"Test"

**Result** Returns OK or error.

### Description

The script list does not need to be visible.

### Examples

Open a script in a second:

```
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; 1; "MBS( \"ScriptWorkspace.OpenScript\"; \"Test Script\" )" ) ]
```

### See also

- 143.4 Schedule.EvaluateAfterDelay 6902
- 145.24 ScriptWorkspace.TriggerScripts 6986

Created 13th August 2017, last changed 8th October 2019.

## 145.10 ScriptWorkspace.ScriptNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.ScriptNames" )

**Result** Returns list or error.

### Description

#### See also

- 145.12 ScriptWorkspace.ScriptsVisible 6974
- 145.11 ScriptWorkspace.ScriptText 6973
- 145.16 ScriptWorkspace.SelectLines 6978

### 145.10.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr8](#)

Created 13th August 2017, last changed 13th August 2017.



## 145.11 ScriptWorkspace.ScriptText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	9.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.ScriptText" { ; SelectedOnly } )

### Parameters

#### SelectedOnly

Optional

Available in MBS FileMaker Plugin 9.5 or newer.

Return only selected text lines. Default is 0.

1

**Result** Returns text or error.

### Description

Same as copy button in script workspace.

### See also

- [90.15 HotKey.Register](#) 4909
- [90.17 HotKey.SetEvaluate](#) 4914
- [145.2 ScriptWorkspace.CopyScriptText](#) 6964
- [145.10 ScriptWorkspace.ScriptNames](#) 6972
- [145.21 ScriptWorkspace.StyledScriptText](#) 6983
- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679

### 145.11.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)
- [Define hot keys for functions in the FileMaker development](#)
- [MBS FileMaker Plugin, version 9.5pr7](#)
- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 20th December 2018, last changed 7th November 2019.

## 145.12 ScriptWorkspace.ScriptsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.5	Yes	No	No	No	No

MBS( "ScriptWorkspace.ScriptsVisible" )

**Result** Returns 1, 0 or error.

### Description

### Examples

Queries state:

Show Custom Dialog [ "Scripts: " & MBS( "ScriptWorkspace.ScriptsVisible" ) & ", Steps: "& MBS( "ScriptWorkspace.StepsVisible" ) ]

### See also

- [145.7 ScriptWorkspace.IsVisible](#) 6969
- [145.10 ScriptWorkspace.ScriptNames](#) 6972
- [145.20 ScriptWorkspace.StepsVisible](#) 6982

### 145.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 145.13 ScriptWorkspace.ScrollToLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	9.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.ScrollToLine"; Line )

### Parameters

#### Line

The new line number. If negative, will be relative to end.  
10

**Result** Returns OK or error.

### Description

Line number can be be negative to select a line relative to end of script.

### Examples

Scrolls to last line:

MBS( "ScriptWorkspace.ScrollToLine"; -1 )

### See also

- 145.14 ScriptWorkspace.ScrollToSelection 6976
- 145.17 ScriptWorkspace.SelectedLine 6979
- 145.18 ScriptWorkspace.SelectedLines 6980
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.16 ScriptWorkspace.SelectLines 6978

### 145.13.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 20th December 2018, last changed 20th December 2018.

## 145.14 ScriptWorkspace.ScrollToSelection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	9.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.ScrollToSelection" )

**Result** Returns OK or error.

**Description**

**See also**

- 145.13 ScriptWorkspace.ScrollToLine 6975

### 145.14.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 20th December 2018, last changed 20th December 2018.

## 145.15 ScriptWorkspace.SelectLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.SelectLine"; Line { ; Scroll } )

### Parameters

#### Line

The new line number. If negative, will be relative to end.

10

#### Scroll

Optional

Whether to scroll to move row visible.

1

**Result** Returns OK or error.

### Description

Line number can be be negative to select a line relative to end of script.

#### See also

- 145.6 ScriptWorkspace.IsActive 6968
- 145.13 ScriptWorkspace.ScrollToLine 6975
- 145.17 ScriptWorkspace.SelectedLine 6979
- 145.18 ScriptWorkspace.SelectedLines 6980
- 145.16 ScriptWorkspace.SelectLines 6978

### 145.15.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)

Created 14th August 2017, last changed 20th December 2018.

## 145.16 ScriptWorkspace.SelectLines

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	9.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.SelectLines"; Line1; Line2 )

### Parameters

#### Line1

The first line number. If negative, will be relative to end.  
10

#### Line2

The last line number. If negative, will be relative to end.  
15

**Result** Returns OK or error.

### Description

Line number can be be negative to select a line relative to end of script.

### Examples

Select rows 5 to 10:

```
MBS( "ScriptWorkspace.SelectLines"; 5; 10 )
```

Select last two lines:

```
MBS( "ScriptWorkspace.SelectLines"; -2; -1 )
```

### See also

- [145.6 ScriptWorkspace.IsActive](#) 6968
- [145.10 ScriptWorkspace.ScriptNames](#) 6972
- [145.13 ScriptWorkspace.ScrollToLine](#) 6975
- [145.17 ScriptWorkspace.SelectedLine](#) 6979
- [145.18 ScriptWorkspace.SelectedLines](#) 6980
- [145.15 ScriptWorkspace.SelectLine](#) 6977

### 145.16.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 20th December 2018, last changed 4th December 2019.

## 145.17 ScriptWorkspace.SelectedLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.SelectedLine" )

**Result** Returns line number or error.

### Description

#### See also

- 145.13 ScriptWorkspace.ScrollToLine 6975
- 145.18 ScriptWorkspace.SelectedLines 6980
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.16 ScriptWorkspace.SelectLines 6978

Created 14th August 2017, last changed 14th August 2017.

## 145.18 ScriptWorkspace.SelectedLines

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.SelectedLines" { ; Ranges } )

### Parameters

#### Ranges

Optional

Whether to return list with ranges. Pass 1 for ranges or 0 for just line numbers.

1

**Result** Returns list or error.

### Description

If ranges is 1, we return ranges like "3-5§7§10-12", otherwise we return "3§4§5§7§10§11§12".

### See also

- 145.13 ScriptWorkspace.ScrollToLine 6975
- 145.17 ScriptWorkspace.SelectedLine 6979
- 145.15 ScriptWorkspace.SelectLine 6977
- 145.16 ScriptWorkspace.SelectLines 6978

### 145.18.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 4th December 2019, last changed 4th December 2019.



## 145.19 ScriptWorkspace.SetScriptListSearch

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.0	Yes	No	No	No	No

MBS( "ScriptWorkspace.SetScriptListSearch" { ; SearchText } )

### Parameters

#### SearchText

Optional

The text to put in the search field.

"Import"

**Result** Returns OK or error.

### Description

Performs also search after changing text.

### See also

- 145.5 ScriptWorkspace.GetScriptListSearch

6967

### 145.19.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 4th December 2019, last changed 4th December 2019.

## 145.20 ScriptWorkspace.StepsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.5	Yes	No	No	No	No

MBS( "ScriptWorkspace.StepsVisible" )

**Result** Returns 1, 0 or error.

### Description

### Examples

Queries state:

Show Custom Dialog [ "Scripts: " & MBS( "ScriptWorkspace.ScriptsVisible" ) & ", Steps: "& MBS( "ScriptWorkspace.StepsVisible" ) ]

### See also

- [145.7 ScriptWorkspace.IsVisible](#) 6969
- [145.12 ScriptWorkspace.ScriptsVisible](#) 6974

### 145.20.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 145.21 ScriptWorkspace.StyledScriptText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	10.1	Yes	No	No	No	No

MBS( "ScriptWorkspace.StyledScriptText" { ; Mode } )

### Parameters

#### Mode

Optional

The mode to use. Can be HTML, RTF, StyledText or Text. Default is StyledText.

"StyledText"

**Result** Returns text or error.

### Description

Can return text as styled text, plain text, html or rtf.

Maybe useful for automation workflows where you like to evaluate an expression by hotkey which puts current scripttext into a CMS for your website or writes to it to a text file to compare differences later.

### Examples

Query text as styled text:

```
MBS( "ScriptWorkspace.StyledScriptText"; "StyledText")
```

### See also

- [145.2 ScriptWorkspace.CopyScriptText](#) 6964
- [145.11 ScriptWorkspace.ScriptText](#) 6973

### 145.21.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 21st February 2020, last changed 21st February 2020.

## 145.22 ScriptWorkspace.Tabs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.Tabs" )

**Result** Returns list or error.

**Description**

**See also**

- 145.23 ScriptWorkspace.Title

6985

Created 13th August 2017, last changed 13th August 2017.

## 145.23 ScriptWorkspace.Title

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.Title" )

**Result** Returns OK or error.

### Description

### See also

- 145.6 ScriptWorkspace.IsActive 6968
- 145.7 ScriptWorkspace.IsVisible 6969
- 145.22 ScriptWorkspace.Tabs 6984
- 145.26 ScriptWorkspace.Window 6988

Created 13th August 2017, last changed 13th August 2017.

## 145.24 ScriptWorkspace.TriggerScripts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.5	Yes	No	No	No	No

MBS( "ScriptWorkspace.TriggerScripts" )

**Result** Returns OK or error.

### Description

### Examples

Trigger scripts:

Set Variable [ \$r ; Value: MBS("ScriptWorkspace.TriggerScripts") ]

### See also

- [145.9 ScriptWorkspace.OpenScript](#) 6971
- [145.25 ScriptWorkspace.TriggerSteps](#) 6987

### 145.24.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 145.25 ScriptWorkspace.TriggerSteps

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.5	Yes	No	No	No	No

MBS( "ScriptWorkspace.TriggerSteps" )

**Result** Returns OK or error.

### Description

### Examples

Trigger steps:

Set Variable [ \$r ; Value: MBS("ScriptWorkspace.TriggerSteps") ]

### See also

- 145.24 ScriptWorkspace.TriggerScripts

6986

### 145.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 145.26 ScriptWorkspace.Window

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
145 ScriptWorkspace	7.4	Yes	No	No	No	No

MBS( "ScriptWorkspace.Window" )

**Result** Returns window reference number or error.

### Description

Allows to use other commands like Window.Hide.

### See also

- 145.8 ScriptWorkspace.LineCount 6970
- 145.23 ScriptWorkspace.Title 6985
- 185.41 Window.Hide 8717

Created 13th August 2017, last changed 13th August 2017.



# Chapter 146

## SendMail

Create emails and send them.

You can send or receive emails with our CURL functions. For sending the SendMail functions help to build an email and send it, while EmailParser functions help to parse an email you received.

If you need to get email in sent folder, please check CURL IMAP Upload example database.

### 146.1 SendMail.AddAttachmentContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "SendMail.AddAttachmentContainer"; EmailID; Container { ; Name; MimeType; InlineID } )
```

#### Parameters

##### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

##### Container

The container to attach to email.

Attachment::Container

##### Name

Optional

The name for the attachment. If empty, version 6.2 or newer uses file name from container.

"sample.pdf"

##### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".

Version 6.2 or newer detects mime type from file extension if needed.  
 ”application/octet-stream”

### **InlineID**

Optional

The content ID for inline images (CID). Empty text or no parameter gives regular attachment.  
 ”test.png@3C111B0E.81ED.478A.912C.4B64F538003C”

**Result** Returns OK or error.

### **Description**

Version 5 of MBS Plugin can encode file name for preserving non ASCII characters. Still for compatibility it is recommended to use simply ASCII names.

You can use `Text.FileExtensionToMimeType` to find the mime type for a file extension.

You can use `AddAttachment` functions several times to add several attachments.

If your Container is already Base64 encoded text, you can use the `SendMail.AddAttachmentText` function with 1 for `IsBase64` parameter.

For `InlineID`:

If you like to use inline images, please check your html for references to image files. Please add all the image files as attachments with an `InlineID`, e.g. pass the file name as `InlineID`.

e.g. in you html you may reference `background-3.jpg` in the body tag:

```
<body background="background-3.jpg">
```

Add an attachment named `background-3.jpg` (name doesn't matter) with `InlineID background-3.jpg` and replace the `background-3.jpg` in the html with `cid:background-3.jpg` so the email viewer will lookup the attachment with that id to display it there.

### **Examples**

Add attachment:

```
Set Variable [ $r; Value:MBS("SendMail.AddAttachmentContainer"; $EmailID; Attachment::Container; Attachment::Name; Attachment::Type) ]
```

### **See also**

- 146.2 `SendMail.AddAttachmentFile` 6992
- 146.3 `SendMail.AddAttachmentText` 6995
- 146.14 `SendMail.CreateEmail` 7012
- 146.25 `SendMail.PrepareCURL` 7024

146.1. <i>SENDMAIL.ADDATTACHMENTCONTAINER</i>	6991
• 146.28 SendMail.SetHTMLText	7029
• 167.37 Text.FileExtensionToMimeType	7956
• 189.1 WinSendMail.AddAttachmentContainer	8877

### **Example Databases**

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### **146.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr1](#)
- [Sending emails in FileMaker with MBS Plugin](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

### **146.1.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 26](#)

Created 3th September 2014, last changed 10th May 2018.

## 146.2 SendMail.AddAttachmentFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddAttachmentFile"; EmailID; Path { ; Name; MimeType; InlineID } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Path

The native file path to the file to include as attachment.

"/Users/cs/Desktop/sample.pdf"

#### Name

Optional

The name for the attachment. If empty, version 6.2 or newer uses file name from file path.

"sample.pdf"

#### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream".

Version 6.2 or newer detects mime type from file extension if needed.

"application/octet-stream"

#### InlineID

Optional

The content ID for inline images (CID). Empty text or no parameter gives regular attachment.

"test.png@3C111B0E.81ED.478A.912C.4B64F538003C"

**Result** Returns OK or error.

### Description

Attachments over 100 MB are not supported.

Version 5 of MBS Plugin can encode file name for preserving non ASCII characters. Still for compatibility it is recommended to use simply ASCII names.

You can use Text.FileExtensionToMimeType to find the mime type for a file extension.

You can use AddAttachment several times to add several attachments.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Add attachment:

```
Set Variable [ $r; Value:MBS("SendMail.AddAttachmentFile"; $EmailID; Attachment::Path; Attachment::Name;
```

```
Attachment::Type) ]
```

Recursive custom function to add a list of files:

```
MBSAttachment(EmailID, FilePathList, Flag_inline)

// e.g. $r=MBSattachment ( $EmailID ; MyTable::FilePathList; 1 ) ;

Case(
ValueCount (FilePathList ) >0;
Let(
[
$element =
ValueCount (FilePathList ) ;
$Line =
GetValue( FilePathList; $element );
$InlineID=
MBS( "Path.LastPathComponent"; $line ) ;
$r=
MBS(
"SendMail.AddAttachmentFile";
EmailID;
$Line;
""; /* file name from path automatically */
""; /* mime name from file name automatically */
Case(
Flag_inline = 1;
$InlineID ;
""
)
)
];

// call recursive for next file:
MBSAttachment(
EmailID;
Trim(
Substitute(
"$" & FilePathList;
"$" & $Line ;
""
));
Flag_inline
)
);
""
)
```

**See also**

- 124.2 Path.FileMakerPathToNativePath 6247
- 124.5 Path.LastPathComponent 6252
- 146.1 SendMail.AddAttachmentContainer 6989
- 146.3 SendMail.AddAttachmentText 6995
- 146.14 SendMail.CreateEmail 7012
- 146.25 SendMail.PrepareCURL 7024
- 167.37 Text.FileExtensionToMimeType 7956
- 189.1 WinSendMail.AddAttachmentContainer 8877
- 189.2 WinSendMail.AddAttachmentFile 8879
- 189.3 WinSendMail.AddAttachmentText 8881

**Example Databases**

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

**146.2.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

**146.2.2 FileMaker Magazin**

- Ausgabe 5/2014, Seite 26

## 146.3 SendMail.AddAttachmentText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	6.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "SendMail.AddAttachmentText"; EmailID; Text; Encoding { ; Name; MimeType; InlineID; IsBase64 } )
```

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Text

The text to use for the attachment.

"Hello World"

#### Encoding

The text encoding for text parameter. Default is UTF-8.

"UTF8"

#### Name

Optional

The name for the attachment. If empty, version 6.2 or newer uses file name from file path.

"sample.txt"

#### MimeType

Optional

The mime type to use. e.g. "application/pdf" for PDF files. If missing, we use "application/octet-stream". Version 6.2 or newer detects mime type from file extension if needed.

"application/octet-stream"

#### InlineID

Optional

Available in MBS FileMaker Plugin 7.3 or newer.

The content ID for inline images (CID). Empty text or no parameter gives regular attachment.

#### IsBase64

Optional

Available in MBS FileMaker Plugin 8.2 or newer.

Whether text is already base64 encoded. Default is 0, so we encode it. Pass 1 if you already encoded the text yourself.

0

**Result** Returns OK or error.

### Description

Attachments over 100 MB are not supported.

You can use Text.FileExtensionToMimeType to find the mime type for a file extension.

You can use AddAttachment several times to add several attachments.

Broken in 8.1 or older where you need to do Base64 encoding and fixed in 8.2 to work correctly.

### Examples

Adds a text attachment:

```
MBS( "SendMail.AddAttachmentText"; $email; "Hello World"; "UTF-8"; "test.txt"; "text/plain" )
```

### See also

- [146.1 SendMail.AddAttachmentContainer](#) 6989
- [146.2 SendMail.AddAttachmentFile](#) 6992
- [146.10 SendMail.AttachmentCount](#) 7008
- [146.14 SendMail.CreateEmail](#) 7012
- [167.37 Text.FileExtensionToMimeType](#) 7956
- [189.2 WinSendMail.AddAttachmentFile](#) 8879
- [189.3 WinSendMail.AddAttachmentText](#) 8881

### 146.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr3](#)
- [MBS FileMaker Plugin, version 6.5pr1](#)
- [Sending emails in FileMaker with MBS Plugin](#)

Created 1st October 2016, last changed 5th May 2018.



## 146.4 SendMail.AddBCC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddBCC"; EmailID; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Email

The email address of the recipient.

"test@mbsplugins.de"

#### Name

Optional

Optional the name of the recipient. If this name contains special characters, it will be automatically encoded with UTF-8.

"John Miller"

**Result** Returns OK or error.

### Description

See also SendMail.AddRecipient.

You can call this in a loop several times to add as many recipients as needed.

Please make sure the email addresses are syntactically correct.

### Examples

Start new email and add recipients:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.AddTO"; $EmailID; "Jens@mbsplugins.test"; "Jens Müller") ]
Set Variable [ $r; Value:MBS("SendMail.AddCC"; $EmailID; "John@mbsplugins.test"; "John Miller") ]
Set Variable [ $r; Value:MBS("SendMail.AddBCC"; $EmailID; "Bob@mbsplugins.test"; "Bob Jones") ]
```

### See also

- 146.5 SendMail.AddCC 6999
- 146.7 SendMail.AddRecipient 7003
- 146.9 SendMail.AddTo 7006
- 146.14 SendMail.CreateEmail 7012
- 146.25 SendMail.PrepareCURL 7024

- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.4.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.4.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 9th September 2019.

## 146.5 SendMail.AddCC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddCC"; EmailID; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Email

The email address of the recipient.

"test@mbsplugins.de"

#### Name

Optional

Optional the name of the recipient. If this name contains special characters, it will be automatically encoded with UTF-8.

"John Miller"

**Result** Returns OK or error.

### Description

See also SendMail.AddRecipient.

You can call this in a loop several times to add as many recipients as needed.

Please make sure the email addresses are syntactically correct.

### Examples

Start new email and add recipients:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.AddTO"; $EmailID; "Jens@mbsplugins.test"; "Jens Müller") ]
Set Variable [ $r; Value:MBS("SendMail.AddCC"; $EmailID; "John@mbsplugins.test"; "John Miller") ]
Set Variable [ $r; Value:MBS("SendMail.AddBCC"; $EmailID; "Bob@mbsplugins.test"; "Bob Jones") ]
```

### See also

- 146.4 SendMail.AddBCC 6997
- 146.7 SendMail.AddRecipient 7003
- 146.9 SendMail.AddTo 7006
- 146.14 SendMail.CreateEmail 7012
- 146.25 SendMail.PrepareCURL 7024

- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886
- 189.11 WinSendMail.CreateEmail 8893

### Example Databases

- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.5.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.5.2 FileMaker Magazin

- [Ausgabe 5/2014, Seite 26](#)

Created 3th September 2014, last changed 9th September 2019.

## 146.6 SendMail.AddHeader

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddHeader"; EmailID; Header )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Header

The new header entry. Passed to CURL later without modification. Since version 6.4 this can be a list of headers.

"X-Company: Test Inc"

**Result** Returns OK or error.

### Description

This header is passed as is and not preprocessed.

You can use this function to pass custom headers for "X-Universally-Unique-Identifier:", "Date:", "X-Mailer:", "Message-Id:" and "Mime-Version:".

If you pass header without text following ":", the header is not included.

### Examples

Add company name:

```
MBS("SendMail.AddHeader"; $EmailID; "X-Company: Your Company Name")
```

Add X-URL header:

```
MBS("SendMail.AddHeader"; $EmailID; "X-URL: http://www.myurl.com")
```

Add high priority:

```
MBS("SendMail.AddHeader"; $EmailID; "X-Priority: 1")
```

Add low priority:

```
MBS("SendMail.AddHeader"; $EmailID; "X-Priority: 5")
```

Add language

```
MBS("SendMail.AddHeader"; $EmailID; "Content-Language: de")
```

Request read receipt:

```
MBS("SendMail.AddHeader"; $EMailID; "Disposition-Notification-To: email@server.de")
```

Set email app:

```
MBS("SendMail.AddHeader"; $EMailID; "X-Mailer: FMCompanyManagerX")
```

Request return receipt:

```
MBS("SendMail.AddHeader"; $EMailID; "Return-Receipt-To: \"Test Software\" <admin@testsoft.com>")
```

### See also

- 146.14 SendMail.CreateEmail

7012

### 146.6.1 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 26th February 2020.

## 146.7 SendMail.AddRecipient

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddRecipient"; EmailID; Type; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

#### Type

The type of recipient. Can be TO, BCC, CC or ReplyTo.  
"CC"

#### Email

The email address of the recipient.  
"test@mbsplugins.de"

#### Name

Optional  
Optional the name of the recipient. If this name contains special characters, it will be automatically encoded with UTF-8.  
"John Miller"

**Result** Returns OK or error.

### Description

This function can be used easily if the type is also a field in your database.  
As an alternative you can of course also use SendMail.AddTo, SendMail.AddReplyTo, SendMail.AddCC or SendMail.AddBCC.

You can call this in a loop several times to add as many recipients as needed.  
Please make sure the email addresses are syntactically correct.

### Examples

Add email address for a carbon copy:

```
MBS( "SendMail.AddRecipient"; $email; "CC"; "test@mbsplugins.de"; "Bob Miller")
```

### See also

- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.8 SendMail.AddReplyTo 7005

- 146.9 SendMail.AddTo 7006
- 146.13 SendMail.ClearRecipients 7011
- 146.14 SendMail.CreateEmail 7012
- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886
- 189.7 WinSendMail.AddTo 8888

### 146.7.1 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 5th September 2014, last changed 9th September 2019.



## 146.8 SendMail.AddReplyTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddReplyTo"; EmailID; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Email

The email address of the recipient.

"test@mbsplugins.de"

#### Name

Optional

Optional the name of the recipient. If this name contains special characters, it will be automatically encoded with UTF-8.

"John Miller"

**Result** Returns OK or error.

### Description

See also SendMail.AddRecipient.

### Examples

Adds a reply to:

MBS( "SendMail.AddReplyTo"; \$EmailID; "test@test.test"; "Bob Miller" )

### See also

- 146.7 SendMail.AddRecipient 7003
- 146.14 SendMail.CreateEmail 7012
- 146.16 SendMail.GetInReplyTo 7015
- 146.29 SendMail.SetInReplyTo 7031
- 189.6 WinSendMail.AddRecipient 8886

Created 5th September 2014, last changed 5th September 2014.

## 146.9 SendMail.AddTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AddTo"; EmailID; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Email

The email address of the recipient.

"test@mbsplugins.de"

#### Name

Optional

Optional the name of the recipient. If this name contains special characters, it will be automatically encoded with UTF-8.

"John Miller"

**Result** Returns OK or error.

### Description

See also SendMail.AddRecipient.

You can call this in a loop several times to add as many recipients as needed.

Please make sure the email addresses are syntactically correct.

### Examples

Start new email and add recipients:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.AddTO"; $EmailID; "Jens@mbsplugins.test"; "Jens Müller") ]
Set Variable [ $r; Value:MBS("SendMail.AddCC"; $EmailID; "John@mbsplugins.test"; "John Miller") ]
Set Variable [ $r; Value:MBS("SendMail.AddBCC"; $EmailID; "Bob@mbsplugins.test"; "Bob Jones") ]
```

### See also

- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.7 SendMail.AddRecipient 7003
- 146.14 SendMail.CreateEmail 7012
- 146.25 SendMail.PrepareCURL 7024

<i>146.9. SENDMAIL.ADDTO</i>	7007
• 189.6 WinSendMail.AddRecipient	8886
• 189.7 WinSendMail.AddTo	8888
• 189.11 WinSendMail.CreateEmail	8893

### **146.9.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)

### **146.9.2 FileMaker Magazin**

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 9th September 2019.

## 146.10 SendMail.AttachmentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.AttachmentCount"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns number or error.

### Description

### See also

- 146.3 SendMail.AddAttachmentText 6995
- 146.14 SendMail.CreateEmail 7012
- 189.8 WinSendMail.AttachmentCount 8890

### 146.10.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr1](#)

Created 1st October 2016, last changed 1st October 2016.

**146.11 SendMail.ClearAttachments**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.ClearAttachments"; EmailID )

**Parameters****EmailID**

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns OK or error.

**Description****Examples**

Clear attachments from email:

MBS( "SendMail.ClearAttachments"; \$EmailID )

**See also**

- 146.13 SendMail.ClearRecipients 7011
- 146.14 SendMail.CreateEmail 7012
- 189.9 WinSendMail.ClearAttachments 8891

Created 5th September 2014, last changed 19th February 2016.

## 146.12 SendMail.ClearHeaders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.ClearHeaders"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns OK or error.

### Description

### Examples

Clear headers from email:

MBS( "SendMail.ClearHeaders"; \$EmailID )

### See also

- 146.14 SendMail.CreateEmail

7012

### 146.12.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 19th February 2016, last changed 19th February 2016.

## 146.13 SendMail.ClearRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.ClearRecipients"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

**Result** Returns OK or error.

### Description

Removes all TO, CC, BCC and ReplyTO entries.

### Examples

Clear recipients from email:

MBS( "SendMail.ClearRecipients"; \$EmailID )

### See also

- [146.7 SendMail.AddRecipient](#) 7003
- [146.11 SendMail.ClearAttachments](#) 7009
- [146.14 SendMail.CreateEmail](#) 7012
- [189.10 WinSendMail.ClearRecipients](#) 8892

### Example Databases

- [CURL/Email/Batch Mailer](#)

Created 5th September 2014, last changed 19th February 2016.

## 146.14 SendMail.CreateEmail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.CreateEmail" { ; Encoding } )

### Parameters

#### Encoding

Optional

The text encoding to use for the email. If unspecified we use "UTF-8". Can be UTF-8, macintosh, windows-1250, windows-1251, windows-1252, windows-1253, windows-1254, windows-1255, windows-1256, windows-1257, ISO-8859-1, ISO-8859-2, ISO-8859-3, ISO-8859-5, ISO-8859-6, ISO-8859-7, ISO-8859-8, ISO-8859-9 or ISO-8859-15.

"UTF-8"

**Result** Returns Email ID or error.

### Description

The reference number returned by this function can be passed to other plugin functions for setting up the email.

Later use SendMail.Release to free memory.

SendMail reference numbers are starting at 14000 and counting up for each new email.

### See also

- 146.9 SendMail.AddTo 7006
- 146.21 SendMail.GetSMTPServer 7020
- 146.23 SendMail.GetSource 7022
- 146.24 SendMail.GetSubject 7023
- 146.28 SendMail.SetHTMLText 7029
- 146.29 SendMail.SetInReplyTo 7031
- 146.30 SendMail.SetMessageID 7032
- 146.31 SendMail.SetPlainText 7033
- 146.32 SendMail.SetRichText 7035
- 146.35 SendMail.SetSMTPUserName 7041

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)



### **146.14.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)
- [MBS Filemaker Plugin, version 4.4pr10](#)
- [MBS Filemaker Plugin, version 4.4pr9](#)

### **146.14.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 25](#)

Created 3th September 2014, last changed 12nd November 2015.

**146.15 SendMail.GetHTMLText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetHTMLText"; EmailID )

**Parameters****EmailID**

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

**Description****See also**

- 146.14 SendMail.CreateEmail 7012
- 146.18 SendMail.GetPlainText 7017
- 146.19 SendMail.GetRichText 7018
- 146.28 SendMail.SetHTMLText 7029
- 146.32 SendMail.SetRichText 7035

Created 28th February 2017, last changed 28th February 2017.

**146.16 SendMail.GetInReplyTo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetInReplyTo"; EmailID )

**Parameters****EmailID**

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

**Description****See also**

- 146.8 SendMail.AddReplyTo 7005
- 146.14 SendMail.CreateEmail 7012
- 146.29 SendMail.SetInReplyTo 7031

Created 28th February 2017, last changed 28th February 2017.

## 146.17 SendMail.GetMessageID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetMessageID"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

### Description

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.30 SendMail.SetMessageID 7032

Created 28th February 2017, last changed 28th February 2017.

## 146.18 SendMail.GetPlainText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetPlainText"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

### Description

#### See also

- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.19 SendMail.GetRichText 7018
- 146.31 SendMail.SetPlainText 7033

Created 28th February 2017, last changed 28th February 2017.

## 146.19 SendMail.GetRichText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetRichText"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

### Description

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.18 SendMail.GetPlainText 7017
- 146.28 SendMail.SetHTMLText 7029
- 146.32 SendMail.SetRichText 7035

Created 28th February 2017, last changed 28th February 2017.

## 146.20 SendMail.GetSMTPPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetSMTPPassword"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

**Result** Returns text or error.

### Description

#### See also

- 146.14 SendMail.CreateEmail 7012
- 146.33 SendMail.SetSMTPPassword 7037

Created 28th February 2017, last changed 28th February 2017.

## 146.21 SendMail.GetSMTPServer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetSMTPServer"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

### Description

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.22 SendMail.GetSMTPUserName 7021
- 146.34 SendMail.SetSMTPServer 7039

Created 28th February 2017, last changed 28th February 2017.



## 146.22 SendMail.GetSMTPUserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetSMTPUserName"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

**Result** Returns text or error.

### Description

#### See also

- 146.14 SendMail.CreateEmail 7012
- 146.21 SendMail.GetSMTPServer 7020
- 146.35 SendMail.SetSMTPUserName 7041

Created 28th February 2017, last changed 28th February 2017.

## 146.23 SendMail.GetSource

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetSource"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

**Result** Returns text or error.

### Description

This is more for debugging, then for real use.

### See also

- [146.14 SendMail.CreateEmail](#) 7012
- [146.24 SendMail.GetSubject](#) 7023
- [146.25 SendMail.PrepareCURL](#) 7024

### Example Databases

- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.23.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

Created 3th September 2014, last changed 24th June 2019.

## 146.24 SendMail.GetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.GetSubject"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns text or error.

### Description

#### See also

- 146.14 SendMail.CreateEmail 7012
- 146.23 SendMail.GetSource 7022
- 146.36 SendMail.SetSubject 7043
- 189.12 WinSendMail.GetSubject 8895
- 189.19 WinSendMail.SetSubject 8902

Created 28th February 2017, last changed 28th February 2017.

## 146.25 SendMail.PrepareCURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.PrepareCURL"; EmailID; CURLID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### CURLID

The CURL session handle.

\$curl

**Result** Returns OK or error.

### Description

You can set your own settings like proxy after this function call.

If you like you can reuse the email and curl objects after you sent an email, change values and send another email.

### Examples

Setup and send email with all options:

```

Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.SetFrom"; $EmailID; EMail::FromEmail; EMail::FromName) ]
Set Variable [ $r; Value:MBS("SendMail.SetHTMLText"; $EmailID; EMail::HTMLText) ]
Set Variable [ $r; Value:MBS("SendMail.SetPlainText"; $EmailID; EMail::PlainText) ]
Set Variable [ $r; Value:MBS("SendMail.SetSubject"; $EmailID; EMail::Subject) ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPServer"; $EmailID; EMail::SMTP Server; EMail::SMTP
SSL) ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPUsername"; $EmailID; EMail::SMTP Username) ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPPassword"; $EmailID; EMail::SMTP Password) ]
Set Variable [ $r; Value:MBS("SendMail.AddTO"; $EmailID; Recipient::Email; Recipient::Name) ]
Set Variable [ $r; Value:MBS("SendMail.AddCC"; $EmailID; Recipient::Email; Recipient::Name) ]
Set Variable [ $r; Value:MBS("SendMail.AddBCC"; $EmailID; Recipient::Email; Recipient::Name) ]
Set Variable [ $r; Value:MBS("SendMail.AddAttachmentContainer"; $EmailID; Attachment::Container; At-
tachment::Name; Attachment::Type) ]
Set Variable [ $r; Value:MBS("SendMail.AddAttachmentFile"; $EmailID; Attachment::Path; Attachment::Name;
Attachment::Type) ]
Set Field [ EMail::EmailSource; MBS( "Text.ReplaceNewline"; MBS("SendMail.GetSource"; $EmailID); 1)
]
Set Variable [ $curl; Value:MBS("CURL.New") ]
Set Variable [ $r; Value:MBS("SendMail.PrepareCURL"; $EmailID; $curl) ]
Set Variable [ $r; Value:MBS("CURL.Perform"; $curl) ]
Set Field [ EMail::DebugInput; MBS("Text.ReplaceNewline"; MBS("CURL.GetHeaderAsText"; $curl);1) ]
Set Field [ EMail::DebugMessages; MBS("Text.ReplaceNewline"; MBS("CURL.GetDebugAsText"; $curl);1)

```

146.25. *SENDMAIL.PREPARECURL* 7025

```
]
Set Variable [ $r; Value:MBS("CURL.Release"; $curl) ]
Set Variable [ $r; Value:MBS("SendMail.Release"; $EmailID) ]
```

### See also

- 146.2 SendMail.AddAttachmentFile 6992
- 146.4 SendMail.AddBCC 6997
- 146.9 SendMail.AddTo 7006
- 146.23 SendMail.GetSource 7022
- 146.26 SendMail.Release 7026
- 146.27 SendMail.SetFrom 7027
- 146.28 SendMail.SetHTMLText 7029
- 146.33 SendMail.SetSMTPPassword 7037
- 146.35 SendMail.SetSMTPUserName 7041
- 146.36 SendMail.SetSubject 7043

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.25.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.25.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 19th April 2020.

## 146.26 SendMail.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.Release"; EmailID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

**Result** Returns OK or error.

### Description

#### See also

- [146.14 SendMail.CreateEmail](#) 7012
- [146.25 SendMail.PrepareCURL](#) 7024
- [189.11 WinSendMail.CreateEmail](#) 8893
- [189.14 WinSendMail.Release](#) 8897

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

#### 146.26.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

Created 3th September 2014, last changed 3th September 2014.

## 146.27 SendMail.SetFrom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetFrom"; EmailID; Email { ; Name } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

#### Email

The email address of the sender.  
"test@mbsplugins.de"

#### Name

Optional  
Optional the name of the sender. If this name contains special characters, it will be automatically encoded with UTF-8. Do not put an email address here!  
"John Miller"

**Result** Returns OK or error.

### Description

### Examples

Create email and set sender:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.SetFrom"; $EmailID; "Jens@mbsplugins.test"; "Jens Müller") ]
```

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.25 SendMail.PrepareCURL 7024
- 146.30 SendMail.SetMessageID 7032
- 189.11 WinSendMail.CreateEmail 8893
- 189.18 WinSendMail.SetFrom 8901

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### **146.27.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)

### **146.27.2 FileMaker Magazin**

- Ausgabe 5/2014, Seite 25

Created 3th September 2014, last changed 4th October 2017.



## 146.28 SendMail.SetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetHTMLText"; EmailID; Text )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

#### Text

The HTML text for the email. Will be encoded by the plugin to quoted printable UTF-8.  
Email::HTMLText

**Result** Returns OK or error.

### Description

See also SendMail.SetPlainText and SendMail.SetRichText.

If you need to encode text yourself to html, you can use the Text.EncodeToHTML function.  
You can read html content from file using the Text.ReplaceNewline function.

You can use Text.MergeFields to replace placeholders with values from variables, fields and expressions.

### Examples

Create email and set content:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.SetHTMLText"; $EmailID; $html) ]
```

Sets the text as plain text and as html:

```
Set Variable [ $r; Value: MBS("SendMail.SetHTMLText"; $EmailID; "<html><body>" & GetAsCSS(EMail::Plain-
Text) & "</body></html>") ]
Set Variable [ $r; Value: MBS("SendMail.SetPlainText"; $EmailID; EMail::PlainText) ]
```

Add inline graphics with placeholder in HTML:

```
Set Variable [ $EmailID ; Value: MBS("SendMail.CreateEmail") ]
# prepare HTML from field in FileMaker
Set Variable [ $html ; Value: "<html><body>" & GetAsCSS(EMail::PlainText) & "</body></html>" ]
# Replace $$img$$ in text with image.
Set Variable [ $html ; Value: Substitute($html; "$$img$$"; "<img src=\"cid:image1.png\">") ]
Set Variable [ $r ; Value: MBS("SendMail.SetHTMLText"; $EmailID; $html) ]
# now add a container
Set Variable [ $r ; Value: MBS("SendMail.AddAttachmentContainer"; $EmailID; EMail::ImageContainer;
EMail::ImageName; "image/png"; "image1.png") ]
```

**See also**

- [146.1 SendMail.AddAttachmentContainer](#) 6989
- [146.14 SendMail.CreateEmail](#) 7012
- [146.15 SendMail.GetHTMLText](#) 7014
- [146.19 SendMail.GetRichText](#) 7018
- [146.25 SendMail.PrepareCURL](#) 7024
- [146.31 SendMail.SetPlainText](#) 7033
- [146.32 SendMail.SetRichText](#) 7035
- [167.31 Text.EncodeToHTML](#) 7945
- [167.46 Text.MergeFields](#) 7967
- [167.59 Text.ReplaceNewline](#) 7985

**Example Databases**

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

**146.28.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)

Created 3th September 2014, last changed 15th October 2018.

## 146.29 SendMail.SetInReplyTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetInReplyTo"; EmailID; MessageID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### MessageID

The message ID of the email you reply to.

\$MessageID

**Result** Returns OK or error.

### Description

#### See also

- 146.8 SendMail.AddReplyTo 7005
- 146.14 SendMail.CreateEmail 7012
- 146.16 SendMail.GetInReplyTo 7015

### 146.29.1 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 5th September 2014, last changed 5th September 2014.

## 146.30 SendMail.SetMessageID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetMessageID"; EmailID; MessageID )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

#### MessageID

The new id for the email message.  
"6345767890@monkeybreadsoftware.de"

**Result** Returns OK or error.

### Description

This is normally set via SendMail.SetFrom.

#### See also

- 146.14 SendMail.CreateEmail 7012
- 146.17 SendMail.GetMessageID 7016
- 146.27 SendMail.SetFrom 7027

### 146.30.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr3](#)

### 146.30.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 29th September 2014, last changed 1st October 2014.

## 146.31 SendMail.SetPlainText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetPlainText"; EmailID; Text )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Text

The plain text for the email. Will be encoded by the plugin to quoted printable UTF-8.

Email::PlainText

**Result** Returns OK or error.

### Description

See also SendMail.SetHTMLText and SendMail.SetRichText.

You can read text content from file using the Text.ReadTextFile function.

You can use Text.MergeFields to replace placeholders with values from variables, fields and expressions.

### Examples

Create email and set content:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetPlainText"; $EmailID; "Hello World") ]
```

Sets the text as plain text and as html:

```
Set Variable [ $r ; Value: MBS("SendMail.SetHTMLText"; $EmailID; "<html><body>" & GetAsCSS(EMail::Plain-Text) & "</body></html>") ]
```

```
Set Variable [ $r ; Value: MBS("SendMail.SetPlainText"; $EmailID; EMail::PlainText) ]
```

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.18 SendMail.GetPlainText 7017
- 146.25 SendMail.PrepareCURL 7024
- 146.28 SendMail.SetHTMLText 7029
- 146.32 SendMail.SetRichText 7035
- 167.46 Text.MergeFields 7967

- 167.49 Text.ReadTextFile

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.31.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.31.2 FileMaker Magazin

- [Ausgabe 5/2014, Seite 25](#)

Created 3th September 2014, last changed 15th October 2018.

## 146.32 SendMail.SetRichText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetRichText"; EmailID; Text )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Text

The rich text for the email. Will be encoded by the plugin to quoted printable UTF-8.

Email::RichText

**Result** Returns OK or error.

### Description

See also SendMail.SetPlainText and SendMail.SetHTMLText.

You can read text content from file using the Text.ReadTextFile function.

This is not to be confused with RTF file format. Enriched text is described here:

[http://en.wikipedia.org/wiki/Enriched\\_text](http://en.wikipedia.org/wiki/Enriched_text)

Please note that most email clients do not support this nowadays.

### Examples

Sets rich text:

```
MBS("SendMail.SetRichText"; $EmailID; "<bold><italic>Hello, world!</italic></bold>")
```

### See also

- 146.14 SendMail.CreateEmail 7012
- 146.15 SendMail.GetHTMLText 7014
- 146.19 SendMail.GetRichText 7018
- 146.28 SendMail.SetHTMLText 7029
- 146.31 SendMail.SetPlainText 7033
- 167.49 Text.ReadTextFile 7971

### 146.32.1 FileMaker Magazin

- Ausgabe 5/2014, Seite 25

7036

*CHAPTER 146. SENDMAIL*

Created 3th September 2014, last changed 8th March 2018.



## 146.33 SendMail.SetSMTPPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetSMTPPassword"; EmailID; password )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.  
\$EmailID

#### password

Sets the password for SMTP server.  
"This is a password"

**Result** Returns OK or error.

### Description

Alternative to this method you can set `CURL.SetOptionPassword` yourself later.

### Examples

Start new email and setup SMTP login:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPServer"; $EmailID; EMail::SMTP Server; EMail::SMTP
SSL) ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPUsername"; $EmailID; EMail::SMTP Username) ]
Set Variable [ $r; Value:MBS("SendMail.SetSMTPPassword"; $EmailID; EMail::SMTP Password) ]
```

### See also

- 62.268 `CURL.SetOptionPassword` 2186
- 62.384 `CURL.SetOptionXOAuth2Bearer` 2353
- 146.14 `SendMail.CreateEmail` 7012
- 146.20 `SendMail.GetSMTPPassword` 7019
- 146.25 `SendMail.PrepareCURL` 7024
- 146.34 `SendMail.SetSMTPServer` 7039
- 146.35 `SendMail.SetSMTPUserName` 7041

### Example Databases

- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### **146.33.1 Blog Entries**

- [Sending emails in FileMaker with MBS Plugin](#)

### **146.33.2 FileMaker Magazin**

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 9th January 2017.

## 146.34 SendMail.SetSMTPServer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetSMTPServer"; EmailID; Server { ; SSL } )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Server

The new SMTP Server address.

"smtp.mac.com"

#### SSL

Optional

Optional, pass 1 to use SSL, else 0. Pass 0 for TLS and later configure CURL for TLS.

Pass 1 if you use port 465 to enable SSL.

1

**Result** Returns OK or error.

### Description

There are a few combinations possible.

First you can use SendMail.SetSMTPServer with SSL and pass 1 there.

Or you pass 0 for no SSL. Still you can use CURL.SetOptionFTPSSL set to 3 to allow TLS for an upgrade of the unencrypted connection to SSL later.

Some servers don't support unencrypted, SSL or TLS, so only one may work.

And ports can be difficult, too. You can use CURL.SetOptionPort to set a port explicit or include it in the server with double colon on the end. Common ports are 25, 587 or 465.

Alternative to this method you can set CURL.SetOptionURL directly.

### Examples

Start new email and setup SMTP login:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPServer"; $EmailID; EMail::SMTP Server; EMail::SMTP SSL) ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPUsername"; $EmailID; EMail::SMTP Username) ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPPassword"; $EmailID; EMail::SMTP Password) ]
```

### See also

- 62.272 CURL.SetOptionPort

- 62.373 CURL.SetOptionURL 2329
- 146.14 SendMail.CreateEmail 7012
- 146.21 SendMail.GetSMTPServer 7020
- 146.25 SendMail.PrepareCURL 7024
- 146.33 SendMail.SetSMTPPassword 7037
- 146.35 SendMail.SetSMTPUserName 7041

### Example Databases

- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.34.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.34.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 28th February 2020.

## 146.35 SendMail.SetSMTPUserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetSMTPUserName"; EmailID; Username )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Username

Sets the username for SMTP server.

"user@mbsplugins.de"

**Result** Returns OK or error.

### Description

Alternative to this method you can set CURL.SetOptionUsername yourself later.

### Examples

Start new email and setup SMTP login:

```
Set Variable [ $EmailID; Value:MBS("SendMail.CreateEmail") ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPServer"; $EmailID; EMail::SMTP Server; EMail::SMTP SSL) ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPUsername"; $EmailID; EMail::SMTP Username) ]
```

```
Set Variable [ $r; Value:MBS("SendMail.SetSMTPPassword"; $EmailID; EMail::SMTP Password) ]
```

### See also

- 62.381 CURL.SetOptionUsername 2346
- 62.384 CURL.SetOptionXOAuth2Bearer 2353
- 146.14 SendMail.CreateEmail 7012
- 146.22 SendMail.GetSMTPUserName 7021
- 146.25 SendMail.PrepareCURL 7024
- 146.33 SendMail.SetSMTPPassword 7037
- 146.34 SendMail.SetSMTPServer 7039

### 146.35.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

### 146.35.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 26

Created 3th September 2014, last changed 9th January 2017.

## 146.36 SendMail.SetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
146 SendMail	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SendMail.SetSubject"; EmailID; Text )

### Parameters

#### EmailID

The email reference number obtained using SendMail.CreateEmail function.

\$EmailID

#### Text

The new subject line.

"Hello World"

**Result** Returns OK or error.

### Description

If subject lines contains special characters, it is automatically encoded as UTF-8.

### Examples

Set subject line:

MBS( "SendMail.SetSubject"; \$Email; "Hello World" )

### See also

- [146.14 SendMail.CreateEmail](#) 7012
- [146.24 SendMail.GetSubject](#) 7023
- [146.25 SendMail.PrepareCURL](#) 7024
- [189.11 WinSendMail.CreateEmail](#) 8893
- [189.12 WinSendMail.GetSubject](#) 8895
- [189.19 WinSendMail.SetSubject](#) 8902

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send Email](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)

### 146.36.1 Blog Entries

- [Sending emails in FileMaker with MBS Plugin](#)

Created 3th September 2014, last changed 24th February 2018.



# Chapter 147

## SerialPort

Enumerate serial ports and send/receive data.

### 147.1 SerialPort.AvailableBytes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	4.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.AvailableBytes"; PortReference )

#### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns number or error.

#### Description

#### Examples

Queries bytes and reads them:

```
$count = MBS( "SerialPort.AvailableBytes"; $PortReference )  
$text = MBS( "SerialPort.Read"; $PortReference; $count; "windows" )
```

Read in loop as long as data comes in:

```
# read data until end  
Set Variable [ $data; Value:"" ]  
Loop  
Pause/Resume Script [ Duration (seconds): ,1 ]
```

```
# exit when no more data
Exit Loop If [ not (MBS( "SerialPort.AvailableBytes"; $port ) >0) ]
# read some data
Set Variable [ $newdata; Value:MBS( "SerialPort.Read"; $port; 10000; "windows" ) ]
Set Variable [ $data; Value:$data & $newdata ]
# next
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
```

### See also

- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.21 SerialPort.ReadByte 7073
- 147.22 SerialPort.ReadHex 7074

### 147.1.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr7](#)

Created 21st October 2014, last changed 30th November 2016.

## 147.2 SerialPort.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.4	Yes	Yes	No	No	No

MBS( "SerialPort.Clear"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK or error.

### Description

Reads all data from serial port.

### See also

- [147.4 SerialPort.Close](#) 7049
- [147.19 SerialPort.Open](#) 7064
- [147.20 SerialPort.Read](#) 7070

### 147.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr9](#)
- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 12nd September 2017, last changed 25th September 2018.

## 147.3 SerialPort.ClearDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.1	Yes	Yes	No	No	No

MBS( "SerialPort.ClearDataAvailableHandler"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK or error.

### Description

#### See also

- 128.3 PortMidi.ClearDataAvailableHandler 6451
- 147.19 SerialPort.Open 7064
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 157.6 Socket.ClearDataAvailableHandler 7307

### 147.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 16th April 2015, last changed 16th April 2015.

## 147.4 SerialPort.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.Close"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK on success.

### Description

#### Examples

Open port and close it:

```
$port = MBS( "SerialPort.Open"; "COM1" )
$r = MBS( "SerialPort.Write"; $port; "Hello" )
$r = MBS( "SerialPort.Close"; $port )
```

### See also

- [147.2 SerialPort.Clear](#) 7047
- [147.5 SerialPort.CloseAll](#) 7050
- [147.18 SerialPort.List](#) 7063
- [147.19 SerialPort.Open](#) 7064
- [147.20 SerialPort.Read](#) 7070
- [147.37 SerialPort.Write](#) 7091

### Example Databases

- [Serial Port](#)

#### 147.4.1 Blog Entries

- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.5 SerialPort.CloseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.CloseAll" )

**Result** Returns OK or error.

**Description**

**See also**

- 147.4 SerialPort.Close

7049

### 147.5.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 6th November 2015, last changed 6th November 2015.

## 147.6 SerialPort.GetBaudRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.1	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetBaudRate"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns baud rate as number or error message.

### Description

#### See also

- 147.10 SerialPort.GetDataBits 7055
- 147.19 SerialPort.Open 7064
- 147.25 SerialPort.SetBaudRate 7077

### 147.6.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.7 SerialPort.GetCTS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetCTS"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns current value (0 or 1) or error message.

### Description

If enabled, the CTS (clear-to-send) signal is monitored for output flow control. Than if CTS is turned off, output is suspended until CTS is sent again.

### See also

- 147.8 SerialPort.GetDSR 7053
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.



## 147.8 SerialPort.GetDSR

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetDSR"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns current value (0 or 1) or error message.

### Description

If enabled DSR (data-set-ready) signal is monitored for output flow control.

#### See also

- 147.7 SerialPort.GetCTS 7052
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.

## 147.9 SerialPort.GetDTR

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetDTR"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns current value (0 or 1) or error message.

### Description

#### See also

- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.

## 147.10 SerialPort.GetDataBits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.1	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetDataBits"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns data size as number or error message.

### Description

Value is 5, 6, 7 or 8.

#### See also

- 147.6 SerialPort.GetBaudRate 7051
- 147.11 SerialPort.GetParity 7056
- 147.13 SerialPort.GetStopBits 7058
- 147.19 SerialPort.Open 7064
- 147.31 SerialPort.SetDataBits 7084
- 147.34 SerialPort.SetStopBits 7087

### 147.10.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.11 SerialPort.GetParity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetParity"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns value or error.

#### Description

Can be 0 (off), 1 (odd) or 2 (even)

#### Examples

Queries parity:

MBS("SerialPort.GetParity"; \$SerialPort)

### See also

- 147.10 SerialPort.GetDataBits 7055
- 147.19 SerialPort.Open 7064
- 147.32 SerialPort.SetParity 7085

Created 6th February 2015, last changed 6th February 2015.

**147.12 SerialPort.GetRTS**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetRTS"; PortReference )

**Parameters****PortReference**

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns current value (0 or 1) or error message.

**Description****See also**

- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.

## 147.13 SerialPort.GetStopBits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetStopBits"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK or error.

### Description

Can be 1 or 2 on Mac and 1, 1.5 or 2 on Windows.

### Examples

Queries setting:

MBS("SerialPort.GetStopBits"; \$SerialPort)

### See also

- 147.10 SerialPort.GetDataBits 7055
- 147.19 SerialPort.Open 7064
- 147.31 SerialPort.SetDataBits 7084
- 147.34 SerialPort.SetStopBits 7087

Created 6th February 2015, last changed 6th February 2015.

## 147.14 SerialPort.GetXON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.GetXON"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns current value (0 or 1) or error message.

### Description

#### See also

- 147.7 SerialPort.GetCTS 7052
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.

## 147.15 SerialPort.HasLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.HasLine"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns 1, 0 or error.

### Description

The plugin checks the input buffer for a newline character.

#### See also

- 147.19 SerialPort.Open 7064
- 147.23 SerialPort.ReadLine 7075
- 147.24 SerialPort.Resume 7076
- 147.36 SerialPort.Suspend 7090

### 147.15.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 21st December 2016, last changed 21st December 2016.



## 147.16 SerialPort.IsSuspended

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.4	Yes	Yes	No	No	No

MBS( "SerialPort.IsSuspended"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns 1, 0 or error.

### Description

While suspended, we do not trigger event and clear incoming buffer regularly.

#### See also

- [147.19 SerialPort.Open](#) 7064
- [147.36 SerialPort.Suspend](#) 7090

### 147.16.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 12nd September 2017, last changed 17th October 2018.

## 147.17 SerialPort.LastError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.3	Yes	Yes	Yes	No	No

MBS( "SerialPort.LastError"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns error code.

#### Description

The error code is zero for no error.

On Windows you get the windows system error codes and on Mac OS X the unix system error codes.

#### See also

- 147.19 SerialPort.Open

7064

### 147.17.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.18 SerialPort.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.List" )

**Result** Returns the list of names.

### Description

On Windows can list ports with textual name.

When script calling this function runs on client in FileMaker Pro, you may see the ports of the machine your FileMaker Pro runs on. But if run on server side, you see the ports of the server.

### Examples

Get device list and pick first one:

```
$list = MBS( "SerialPort.List" )
$firstDevice = LeftValues($list; 1)
```

### See also

- [147.4 SerialPort.Close](#) 7049
- [147.19 SerialPort.Open](#) 7064
- [147.20 SerialPort.Read](#) 7070
- [147.37 SerialPort.Write](#) 7091

### Example Databases

- [Serial Port](#)

### 147.18.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr6](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)
- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 12nd March 2020.

## 147.19 SerialPort.Open

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.Open"; PortName { ; Index } )

### Parameters

#### PortName

The name of the serial port to open.

"COM1"

#### Index

Optional

In case you have several ports with same name, you can specify an index here. Zero for first port with given name, 1 for the second port with given name.

0

**Result** Returns the port reference value which you pass to other SerialPort functions.

### Description

You get the names from SerialPort.List function.

The port is opened with default settings.

Serial Port reference numbers are starting at 28000 and counting up for each new port.

Even if port is not showing in list, it may still open here, e.g. virtual COM ports on Windows.

You can open several ports with different connections, e.g. by calling SerialPort.Open once for each connection.

Version 9.2 introduced a workaround to make this work for port numbers >COM9 on Windows.

### Examples

Open port and close it:

```
$port = MBS( "SerialPort.Open"; "COM1" )
$r = MBS( "SerialPort.Write"; $port; "Hello" )
$r = MBS( "SerialPort.Close"; $port )
```

A script to measure at a specific scale:

```
# Open port
Set Variable [ $serialPort ; Value: MBS("SerialPort.Open"; Scale::Port) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to open serial port" ; $serialPort ]
Exit Script [ Text Result: ]
End If
# Send reset command
```

```

Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "@" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# Disable keyboard
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "K 3" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# Set scale to zero
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "Z" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# Set to measure in gramms
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "M21 1 0" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "M21 0 0" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# Send expected weight and tolerance
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "PMW REL "& Scale::WeightExpected & "
" & Scale::Tolerance & " " & Scale::Tolerance & " g" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
Set Variable [ $Counter ; Value: 1 ]
Set Variable [ $finished ; Value: 0 ]
Loop
Loop
# Wait for Answer
Set Variable [ $data ; Value: "" ]
Loop
Pause/Resume Script [ Duration (seconds): .01 ]
Set Variable [ $newdata ; Value: MBS("SerialPort.Read"; $serialPort; 1000) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $data ; Value: $data & $newData ]
End If
Exit Loop If [ Position($Data; "$"; 1; 1)>0 ]
End Loop
Set Variable [ $data ; Value: MBS("String.ReplaceNewline"; $data; 1) ]
If [ ValueCount ( $data ) = 1 ]
Set Variable [ $data ; Value: GetValue($data; 1) ]
End If
# Process Answer
If [ $data = "K A" ]
# Answer from keyboard turn off
# okay
Else If [ $data = "PMW A" ]
# Answer PMW
# okay

```

```

Else If [ $data = "K C 4" ]
# Return pressed on scale
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "S") ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# Wait for Answer
Set Variable [ $data ; Value: "" ]
Loop
Pause/Resume Script [ Duration (seconds): ,01 ]
Set Variable [ $newdata ; Value: MBS("SerialPort.Read"; $serialPort; 1000) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $data ; Value: $data & $newData ]
End If
Exit Loop If [ Position($Data; "$"; 1; 1)>0 ]
End Loop
Set Variable [ $data ; Value: MBS("String.ReplaceNewline"; $data; 1) ]
If [ ValueCount ( $data ) = 1 ]
Set Variable [ $data ; Value: GetValue($data; 1) ]
End If
# Process Answer
If [ Left($Data; 3) = "S S" ]
Set Variable [ $Data ; Value: Substitute($Data; ", "; "" ) ]
Set Variable [ $Data ; Value: Substitute($Data; " "; ", " ) ]
Set Variable [ $Weight ; Value: GetAsNumber( Middle($Data; 4; 20)) ]
If [ Position ( $data; "kg"; 1;1) >0 ]
Set Variable [ $Weight ; Value: $Weight * 1000 ]
End If
Set Field [ Scale::Status ; "Weight read: " & $Weight ]
Set Field [ Scale::WeightGemessen ; $Weight ]
If [ ($Weight >= Scale::WeightExpected - Scale::Tolerance) and ($Weight <= Scale::WeightExpected +
Scale::Tolerance) ]
Set Variable [ $finished ; Value: 1 ]
Show Custom Dialog [ "Thanks" ]
Exit Loop If [ 1 ]
Else
Show Custom Dialog [ "Please measure again" ]
End If
End If
Exit Loop If [ $finished ]
End If
Exit Loop If [ $finished ]
End Loop
Exit Loop If [ $finished ]
End Loop
# Enable keyboard
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "K 2") ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]

```

```

# Reset scale
Set Variable [ $r ; Value: MBS("SerialPort.Write"; $serialPort; "@" ) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 13) ]
Set Variable [ $r ; Value: MBS("SerialPort.WriteByte"; $serialPort; 10) ]
# short wait to let commands run to device
Pause/Resume Script [ Duration (seconds): ,01 ]
# close port
Set Variable [ $r ; Value: MBS("SerialPort.Close"; $serialPort) ]

```

Record weight in predefined field:

```

# Change to reflect actual Layout
Go to Layout [ "MPO201 Input Weight" (MPORawMaterialColourInputs_MPO RM inputs) ]
Set Variable [ $portList; Value:MBS("SerialPort.List") ]
Show Custom Dialog [ Title: "Serial Ports"; Message: $portList; Default Button: "OK", Commit: "Yes";
Button 2: "Cancel", Commit: "No" ]

If [ Get ( LastMessageChoice ) = 2 ]
Exit Script [ ]
End If

```

```

# Change to reflect actual COM port
Set Variable [ $port; Value:"COM4" ]
Set Variable [ $serialPort; Value:MBS("SerialPort.Open"; $port) ]

```

```

If [ MBS("IsError") ]
Show Custom Dialog [ Title: "Error"; Message: "Serial port error " & $serialPort; Default Button: "OK",
Commit: "Yes" ]
Exit Script [ ]
End If

```

```

Set Variable [ $baudSet; Value:MBS("SerialPort.SetBaudRate"; $serialPort; 9600) ]
Set Variable [ $count; Value:0 ]

```

// New Record/Request

```

Loop
Set Variable [ $newScaleData; Value:MBS("SerialPort.Read"; $serialPort; 1000) ]
Exit Loop If [ $newScaleData "" ]
Exit Loop If [ $count >100 ]
Pause/Resume Script [ Duration (seconds): .01 ]
Set Variable [ $count; Value:$count + 1 ]
End Loop

```

```

# Change to reflect fields
Set Field [ MPORawMaterialColourInputs_MPO RM inputs::mpoiw Input Weight Grams; $newScaleData
]
Set Field [ MPORawMaterialColourInputs_MPO RM inputs::mpoiw Input Weight Grams; Trim ( Left (

```

```
$newScaleData ; 9) ) ]
```

Commit Records/Requests

```
Set Variable [ $result; Value:MBS("SerialPort.Close"; $serialPort) ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ Title: "Error"; Message: "Serial port error " & $result; Default Button: "OK",  
Commit: "Yes" ]
```

```
Else
```

```
Show Custom Dialog [ Title: "Info"; Message: "Serial port closed " & $result; Default Button: "OK", Com-  
mit: "Yes" ]
```

```
End If
```

### See also

- [127.6 IsError](#) 6374
- [147.4 SerialPort.Close](#) 7049
- [147.26 SerialPort.SetCTS](#) 7078
- [147.29 SerialPort.SetDataAvailableEvaluate](#) 7081
- [147.31 SerialPort.SetDataBits](#) 7084
- [147.32 SerialPort.SetParity](#) 7085
- [147.35 SerialPort.SetXON](#) 7088
- [147.36 SerialPort.Suspend](#) 7090
- [147.38 SerialPort.WriteByte](#) 7093
- [147.39 SerialPort.WriteHex](#) 7094

### Example Databases

- [Serial Port](#)

### 147.19.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 9.2pr7](#)
- [MBS FileMaker Plugin, version 9.2pr6](#)
- [MBS FileMaker Plugin, version 8.3pr5](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)



- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 18th August 2014, last changed 6th May 2019.

## 147.20 SerialPort.Read

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.Read"; PortReference; length { ; Encoding } )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### length

Maximum number of bytes to read.

10

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text or error message.

### Description

The text returned may be shorter than length bytes.

See also SerialPort.AvailableBytes function.

### Examples

Read up to 8 bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "SerialPort.Read"; $port; 8; "windows" )
```

Read in loop as long as data comes in:

```
# read data until end
Set Variable [ $data; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
# exit when no more data
Exit Loop If [ not (MBS( "SerialPort.AvailableBytes"; $port ) >0) ]
# read some data
Set Variable [ $newdata; Value:MBS( "SerialPort.Read"; $port; 10000; "windows" ) ]
Set Variable [ $data; Value:$data & $newdata ]
# next
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
```

Record weight in predefined field:

```
# Change to reflect actual Layout
Go to Layout [ "MPO201 Input Weight" (MPORawMaterialColourInputs_MPO RM inputs) ]
Set Variable [ $portList; Value:MBS("SerialPort.List") ]
Show Custom Dialog [ Title: "Serial Ports"; Message: $portList; Default Button: "OK", Commit: "Yes";
Button 2: "Cancel", Commit: "No" ]

If [ Get ( LastMessageChoice ) = 2 ]
Exit Script [ ]
End If

# Change to reflect actual COM port
Set Variable [ $port; Value:"COM4" ]
Set Variable [ $serialPort; Value:MBS("SerialPort.Open"; $port) ]

If [ MBS("IsError") ]
Show Custom Dialog [ Title: "Error"; Message: "Serial port error " & $serialPort; Default Button: "OK",
Commit: "Yes" ]
Exit Script [ ]
End If

Set Variable [ $baudSet; Value:MBS("SerialPort.SetBaudRate"; $serialPort; 9600) ]
Set Variable [ $count; Value:0 ]

// New Record/Request

Loop
Set Variable [ $newScaleData; Value:MBS("SerialPort.Read"; $serialPort; 1000) ]
Exit Loop If [ $newScaleData "" ]
Exit Loop If [ $count >100 ]
Pause/Resume Script [ Duration (seconds): .01 ]
Set Variable [ $count; Value:$count + 1 ]
End Loop

# Change to reflect fields
Set Field [ MPORawMaterialColourInputs_MPO RM inputs::mpoiw Input Weight Grams; $newScaleData
]
Set Field [ MPORawMaterialColourInputs_MPO RM inputs::mpoiw Input Weight Grams; Trim ( Left (
$newScaleData ; 9) ) ]

Commit Records/Requests

Set Variable [ $result; Value:MBS("SerialPort.Close"; $serialPort) ]

If [ MBS("IsError") ]
Show Custom Dialog [ Title: "Error"; Message: "Serial port error " & $result; Default Button: "OK",
Commit: "Yes" ]
```

Else

Show Custom Dialog [ Title: "Info"; Message: "Serial port closed " & \$result; Default Button: "OK", Commit: "Yes" ]

End If

### See also

- [127.6 IsError](#) 6374
- [147.1 SerialPort.AvailableBytes](#) 7045
- [147.4 SerialPort.Close](#) 7049
- [147.18 SerialPort.List](#) 7063
- [147.19 SerialPort.Open](#) 7064
- [147.21 SerialPort.ReadByte](#) 7073
- [147.23 SerialPort.ReadLine](#) 7075
- [147.24 SerialPort.Resume](#) 7076
- [147.29 SerialPort.SetDataAvailableEvaluate](#) 7081
- [147.30 SerialPort.SetDataAvailableHandler](#) 7082

### 147.20.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)
- [MBS Filemaker Plugin, version 3.2pr6](#)
- [MBS Filemaker Plugin, version 3.2pr3](#)
- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 11st May 2018.

## 147.21 SerialPort.ReadByte

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.ReadByte"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns the byte value or an error message.

### Description

This is very useful for reading control characters which you can't easily put in a text in FileMaker. Like 13 for a LF (line feed) or 10 for CR (carriage return). See also SerialPort.AvailableBytes function.

### Examples

Read one byte:

```
$value = MBS( "SerialPort.ReadByte"; $port )
```

### See also

- [147.1 SerialPort.AvailableBytes](#) 7045
- [147.19 SerialPort.Open](#) 7064
- [147.20 SerialPort.Read](#) 7070
- [147.22 SerialPort.ReadHex](#) 7074
- [147.23 SerialPort.ReadLine](#) 7075
- [147.24 SerialPort.Resume](#) 7076
- [147.38 SerialPort.WriteByte](#) 7093

### 147.21.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)
- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 6th February 2015.

## 147.22 SerialPort.ReadHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.ReadHex"; PortReference; length )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### length

Maximum number of bytes to read.

10

**Result** Returns text encoded as hex or error message.

### Description

The text returned may be shorter than length bytes.  
See also SerialPort.AvailableBytes function.

### Examples

Read up to 8 bytes and return them as:

```
$value = MBS( "SerialPort.ReadHex"; $port; 8 )
```

### See also

- [147.1 SerialPort.AvailableBytes](#) 7045
- [147.19 SerialPort.Open](#) 7064
- [147.20 SerialPort.Read](#) 7070
- [147.21 SerialPort.ReadByte](#) 7073
- [147.23 SerialPort.ReadLine](#) 7075
- [147.24 SerialPort.Resume](#) 7076
- [147.39 SerialPort.WriteHex](#) 7094

### 147.22.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)
- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 6th February 2015.

## 147.23 SerialPort.ReadLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.ReadLine"; PortReference { ; Encoding } )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order. Pass hex or base64 to get text back encoded.  
UTF8

**Result** Returns text or error.

### Description

The plugin buffers input and reads text until first newline character. Returns text without that newline character.

#### See also

- 147.15 SerialPort.HasLine 7060
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.21 SerialPort.ReadByte 7073
- 147.22 SerialPort.ReadHex 7074
- 147.24 SerialPort.Resume 7076

### 147.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr4](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 21st December 2016, last changed 21st December 2016.

## 147.24 SerialPort.Resume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.4	Yes	Yes	No	No	No

MBS( "SerialPort.Resume"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK or error.

### Description

While suspended, we do not trigger event and clear incoming buffer regularly.

### See also

- 147.15 SerialPort.HasLine 7060
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.22 SerialPort.ReadHex 7074
- 147.23 SerialPort.ReadLine 7075
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.35 SerialPort.SetXON 7088
- 147.36 SerialPort.Suspend 7090

### 147.24.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 12nd September 2017, last changed 17th October 2018.



## 147.25 SerialPort.SetBaudRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.1	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetBaudRate"; PortReference; BaudRate )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### BaudRate

The new baud rate as number.  
9600

**Result** Returns OK or error message.

### Description

### Examples

Set the baud rate to 9600:

```
$r = MBS( "SerialPort.SetBaudRate"; $DeviceRef; 9600 )
```

### See also

- 147.6 SerialPort.GetBaudRate 7051
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.31 SerialPort.SetDataBits 7084

### 147.25.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.26 SerialPort.SetCTS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetCTS"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

0 to turn off, 1 to turn on.

1

**Result** Returns OK or error message.

### Description

If enabled, the CTS (clear-to-send) signal is monitored for output flow control. Than if CTS is turned off, output is suspended until CTS is sent again.

### Examples

Turn CTS mode on:

```
MBS( "SerialPort.SetCTS"; $SerialPort; 1 )
```

### See also

- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 24th February 2018.

**147.27 SerialPort.SetDSR**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetDSR"; PortReference; Value )

**Parameters****PortReference**

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Value**

0 to turn off, 1 to turn on.

1

**Result** Returns OK or error message.

**Description**

If enabled DSR (data-set-ready) signal is monitored for output flow control.

**Examples**

Turn DSR mode on:

```
MBS( "SerialPort.SetDSR"; $SerialPort; 1 )
```

**See also**

- 147.7 SerialPort.GetCTS 7052
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 24th February 2018.

## 147.28 SerialPort.SetDTR

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetDTR"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

0 to turn off, 1 to turn on.

1

**Result** Returns OK or error message.

### Description

### Examples

Turn DTR mode on:

```
MBS( "SerialPort.SetDTR"; $SerialPort; 1 )
```

### See also

- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.33 SerialPort.SetRTS 7086
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 24th February 2018.

## 147.29 SerialPort.SetDataAvailableEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	6.2	Yes	Yes	No	No	No

MBS( "SerialPort.SetDataAvailableEvaluate"; PortReference; Expression )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Expression

The expression to evaluate.  
"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

When new data arrives, this expression is evaluated, so you can call SerialPort.Read functions. Be aware that script may be called when just a few bytes are in the read buffer. So the data message you wait for may only be available partly. In that case, please read available bytes, check if whole packet/message arrived and if not, store read data for later and wait for next evaluation.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the serial port reference, so you can pass it to other functions if needed.

### See also

- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 157.54 Socket.SetDataAvailableEvaluate 7368

### 147.29.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 29th March 2016.

## 147.30 SerialPort.SetDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.1	Yes	Yes	No	No	No

MBS( "SerialPort.SetDataAvailableHandler"; PortReference; FileName; ScriptName )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fmp12"

#### ScriptName

The name of the script to run  
"DataAvailable"

**Result** Returns OK or error.

### Description

When new data arrives, this script is called, so you can call SerialPort.Read functions.

Be aware that script may be called when just a few bytes are in the read buffer. So the data message you wait for may only be available partly. In that case, please read available bytes, check if whole packet/message arrived and if not, store read data for later and wait for next script call.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Set data available handler script:

MBS( "SerialPort.SetDataAvailableHandler"; \$port; Get(FileName); "SerialPortDataAvailable" )

### See also

- 128.24 PortMidi.SetDataAvailableHandler 6476
- 147.3 SerialPort.ClearDataAvailableHandler 7048
- 147.19 SerialPort.Open 7064
- 147.20 SerialPort.Read 7070
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 157.55 Socket.SetDataAvailableHandler 7369

### 147.30.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr7](#)
- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 16th April 2015, last changed 12nd December 2016.

## 147.31 SerialPort.SetDataBits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.1	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetDataBits"; PortReference; size )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### size

The new setting.  
8

**Result** Returns OK or error message.

### Description

Value can only be 5, 6, 7 or 8.

### Examples

Set the data bits to 8:

```
$r = MBS( "SerialPort.SetDataBits"; $DeviceRef; 8 )
```

### See also

- [147.10 SerialPort.GetDataBits](#) 7055
- [147.13 SerialPort.GetStopBits](#) 7058
- [147.19 SerialPort.Open](#) 7064
- [147.25 SerialPort.SetBaudRate](#) 7077
- [147.32 SerialPort.SetParity](#) 7085
- [147.34 SerialPort.SetStopBits](#) 7087

### 147.31.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr10](#)
- [MBS Filemaker Plugin, version 3.1pr1](#)

Created 18th August 2014, last changed 18th August 2014.



## 147.32 SerialPort.SetParity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetParity"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

The new parity setting.

1

**Result** Returns OK or error.

### Description

Can be 0 (off), 1 (odd) or 2 (even)

#### Examples

Sets partity to odd:

```
MBS("SerialPort.SetParity"; 28001; 1)
```

Sets partity to even:

```
MBS("SerialPort.SetParity"; 28001; 2)
```

Sets partity to none:

```
MBS("SerialPort.SetParity"; 28001; 0)
```

### See also

- 147.11 SerialPort.GetParity 7056
- 147.19 SerialPort.Open 7064
- 147.31 SerialPort.SetDataBits 7084

Created 6th February 2015, last changed 6th February 2015.

## 147.33 SerialPort.SetRTS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetRTS"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

0 to turn off, 1 to turn on.

1

**Result** Returns OK or error message.

### Description

If set to 0, we disable RTS. If set to 1, we use normal handshaking to make sure buffers don't overflow/underflow.

### See also

- 147.7 SerialPort.GetCTS 7052
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.14 SerialPort.GetXON 7059
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.35 SerialPort.SetXON 7088

Created 18th August 2014, last changed 18th August 2014.

## 147.34 SerialPort.SetStopBits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	5.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetStopBits"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

The new setting.

2

**Result** Returns OK or error.

### Description

Can be 1 or 2 on Mac and 1, 1.5 or 2 on Windows.

### Examples

Set stop bits to be 1:

```
MBS("SerialPort.SetStopBits"; $SerialPort; 1)
```

Set stop bits to be 2:

```
MBS("SerialPort.SetStopBits"; $SerialPort; 2)
```

### See also

- 147.10 SerialPort.GetDataBits 7055
- 147.13 SerialPort.GetStopBits 7058
- 147.19 SerialPort.Open 7064
- 147.31 SerialPort.SetDataBits 7084

Created 6th February 2015, last changed 6th February 2015.

## 147.35 SerialPort.SetXON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.4	Yes	Yes	Yes	No	No

MBS( "SerialPort.SetXON"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

0 to turn off, 1 to turn on.

1

**Result** Returns OK or error message.

### Description

If set to 1, we use XON/XOFF flow control is used during reception and transmission.

### Examples

Turn XON/XOFF mode on:

```
MBS( "SerialPort.SetXON"; $SerialPort; 1 )
```

Turn XON/XOFF mode off:

```
MBS( "SerialPort.SetXON"; $SerialPort; 0 )
```

### See also

- 147.7 SerialPort.GetCTS 7052
- 147.8 SerialPort.GetDSR 7053
- 147.9 SerialPort.GetDTR 7054
- 147.12 SerialPort.GetRTS 7057
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076
- 147.26 SerialPort.SetCTS 7078
- 147.27 SerialPort.SetDSR 7079
- 147.28 SerialPort.SetDTR 7080
- 147.33 SerialPort.SetRTS 7086

147.35. SERIALPORT.SETXON

7089

Created 18th August 2014, last changed 24th February 2018.

## 147.36 SerialPort.Suspend

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	7.4	Yes	Yes	No	No	No

MBS( "SerialPort.Suspend"; PortReference )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

**Result** Returns OK or error.

### Description

While suspended, we do not trigger event and clear incoming buffer regularly.  
Please call SerialPort.Resume later.

### See also

- 147.15 SerialPort.HasLine 7060
- 147.16 SerialPort.IsSuspended 7061
- 147.19 SerialPort.Open 7064
- 147.24 SerialPort.Resume 7076

### 147.36.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 12nd September 2017, last changed 17th October 2018.

## 147.37 SerialPort.Write

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.Write"; PortReference; Text { ; Encoding } )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Text

The text to send.  
"Hello World"

#### Encoding

Optional  
The text encoding for text parameter. Default is native.  
"UTF8"

**Result** Returns the number of bytes written or an error message.

### Description

Be aware that text encoding conversion may result in different bytes than expected, so please verify on other side the text encoding matches the expectations.

### Examples

Write something:

```
MBS( "SerialPort.Write"; $port; "Hello World" )
```

Write something with DOS text encoding:

```
MBS( "SerialPort.Write"; $port; "Umlauts: äöü"; "DOS" )
```

Send set zero command to scale for MT-SICS (METTLER TOLEDO Standard Interface Command Set):

```
MBS( "SerialPort.Write"; $port; "Z" & Char(13) & Char(10) )
```

Send print weight command to scale for MT-SICS (METTLER TOLEDO Standard Interface Command Set):

```
MBS( "SerialPort.Write"; $port; "P" & Char(13) & Char(10) )
```

### See also

- 147.4 SerialPort.Close

- 147.18 SerialPort.List 7063
- 147.19 SerialPort.Open 7064
- 147.38 SerialPort.WriteByte 7093
- 147.39 SerialPort.WriteHex 7094

### Example Databases

- [Serial Port](#)

### 147.37.1 Blog Entries

- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 19th September 2019.



## 147.38 SerialPort.WriteByte

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.WriteByte"; PortReference; Value )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Value

The byte value to send. Range from 0 to 255.  
13

**Result** Returns the number of bytes written.

### Description

This is very useful for sending control characters which you can't easily put in a text in FileMaker. Like 13 for a LF (line feed) or 10 for CR (carriage return).

### Examples

Write a character:

MBS( "SerialPort.WriteByte"; \$port; 65 )

### See also

- [147.19 SerialPort.Open](#) 7064
- [147.21 SerialPort.ReadByte](#) 7073
- [147.37 SerialPort.Write](#) 7091
- [147.39 SerialPort.WriteHex](#) 7094

### Example Databases

- [Serial Port](#)

### 147.38.1 Blog Entries

- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 18th August 2014.

## 147.39 SerialPort.WriteHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
147 SerialPort	3.0	Yes	Yes	Yes	No	No

MBS( "SerialPort.WriteHex"; PortReference; Text )

### Parameters

#### PortReference

The reference number of the port. You get this number from SerialPort.Open when you open the port.  
\$port

#### Text

The text to send in hex encoding.  
"48656C6C6F"

**Result** Returns the number of bytes written or an error message.

### Description

You pass the text hex encoded. For example for "Hello" you pass "48656C6C6F".

### Examples

Write some text:

```
MBS( "SerialPort.WriteHex"; $port; "48656C6C6F" )
```

Send CRLF:

```
MBS( "SerialPort.WriteHex"; $port; "0C0A" )
```

Write escape P:

```
MBS("SerialPort.WriteHex"; $port ; "1B50" )
```

### See also

- 147.19 SerialPort.Open 7064
- 147.22 SerialPort.ReadHex 7074
- 147.37 SerialPort.Write 7091
- 147.38 SerialPort.WriteByte 7093

### Example Databases

- [Serial Port](#)

### 147.39.1 Blog Entries

- [More Text Encoding conversion for FileMaker](#)
- [Serial Port functions for MBS Filemaker Plugin](#)

Created 18th August 2014, last changed 14th June 2017.



# Chapter 148

## ServerSocket

Allow one FileMaker instance to receive queries from other FileMaker instances.

### 148.1 ServerSocket.Check

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.Check" )

**Result** Returns OK

#### Description

In a tight loop you can run this to keep sockets working.

For a FileMaker Server, it seems that you need to call this in a script so the plugin has a chance to do something.

#### See also

- 148.7 ServerSocket.Start 7104
- 148.8 ServerSocket.Stop 7106

Created 18th August 2014, last changed 18th August 2014.

## 148.2 ServerSocket.GetAllowedScripts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.GetAllowedScripts" )

**Result** Returns list of script names.

### Description

### Examples

Set and query:

```
$r = MBS( "ServerSocket.SetAllowedScripts"; "ServerSocket_PrintReceipt$ServerSocket_Notify" )
```

```
$l = MBS( "ServerSocket.GetAllowedScripts" )
```

### See also

- [148.3 ServerSocket.GetAllowedTypes](#) 7099
- [148.5 ServerSocket.SetAllowedScripts](#) 7102
- [148.6 ServerSocket.SetAllowedTypes](#) 7103

### 148.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 148.3 ServerSocket.GetAllowedTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.GetAllowedTypes" )

**Result** Returns list of type identifiers.

### Description

### Examples

Allow two types:

```
$r = MBS( "ServerSocket.SetAllowedTypes"; "SQL$Evaluate" )
```

```
$l = MBS( "ServerSocket.GetAllowedTypes" )
```

### See also

- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.5 ServerSocket.SetAllowedScripts 7102
- 148.6 ServerSocket.SetAllowedTypes 7103

### 148.3.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 148.4 ServerSocket.SendQuery

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.SendQuery"; Target; Port; Login; Type; Query )

### Parameters

#### Target

The target IP or name of the server. Can be an IP or a name.  
"localhost"

#### Port

The network port of the server to use.  
9000

#### Login

The login secret. Server will only answer if the logins match.  
"Hello"

#### Type

The type of the query. Can be MBSVersion, SQL, Evaluate or Script.  
"Evaluate"

#### Query

The query to use. Must match the type of query above. For Script calls please use filename:scriptname:parameter to run a script and use full file name with extension.  
"Get(AccountName)"

**Result** Returns result or error.

### Description

This has nothing to do with a FileMaker Server. The plugin starts a socket which answers queries, so the current FileMaker instance becomes a kind of server.

See example database for sample queries.

Queries can be SQL queries, expression evaluation or running scripts.

While you can send queries across the internet, we recommend to use a VPN connection to do so.

Version 6.3 now supports passing IPv4, IPv6, or a host name.

### Examples

Query a table with SQL:

```
MBS( "ServerSocket.SendQuery"; "FrontDeskMac.local"; 9000; "mysecret"; "SQL"; "SELECT JobID, Status FROM JobTable" )
```

Query the account name of the current user:

```
MBS( "ServerSocket.SendQuery"; "FrontDeskMac.local"; 9000; "mysecret"; "Evaluate"; "Get(AccountName)" )
```



)

Start a script:

```
MBS( "ServerSocket.SendQuery"; "FrontDeskMac.local"; 9000; "mysecret"; "Script"; "OrderDatabase:Print-LastOrder:5" )
```

### Example Databases

- [Network/ServerSocket/Send Query](#)

#### 148.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)
- [MBS FileMaker Plugin, version 6.0pr5](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)
- [MBS FileMaker Plugin, version 5.0pr6](#)

#### 148.4.2 FileMaker Magazin

- Ausgabe 3/2013, Seite 25
- Ausgabe 3/2013, Seite 24

Created 18th August 2014, last changed 31st October 2016.

## 148.5 ServerSocket.SetAllowedScripts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.SetAllowedScripts"; Scripts )

### Parameters

#### Scripts

Pass several texts here for the script names.

"ServerSocket\_PrintReceipt"

**Result** Returns number of scripts.

### Description

If this command is used, the plugin will only launch scripts with the names in this list.

We recommend to prefix the script names for use with ServerSockets, so you don't risk of having two scripts with same name.

### Examples

Allow two scripts:

MBS( "ServerSocket.SetAllowedScripts"; "ServerSocket\_PrintReceipt\$ServerSocket\_Notify" )

### See also

- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.3 ServerSocket.GetAllowedTypes 7099
- 148.6 ServerSocket.SetAllowedTypes 7103

### 148.5.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 148.6 ServerSocket.SetAllowedTypes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.4	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.SetAllowedTypes"; Types )

### Parameters

#### Types

Pass several texts here for the type names.

"SQL"

**Result** Returns number of allowed types.

### Description

Types include: MBSVersion, SQL, Evaluate or Script

If this command is used, the plugin will only perform the allowed query types.

We recommend to disable SQL if you don't need it.

### Examples

Allow two types:

MBS( "ServerSocket.SetAllowedTypes"; "SQL\$Evaluate" )

### See also

- 148.2 ServerSocket.GetAllowedScripts 7098
- 148.3 ServerSocket.GetAllowedTypes 7099
- 148.5 ServerSocket.SetAllowedScripts 7102

### 148.6.1 Blog Entries

- [MBS Filemaker Plugin, version 3.4pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 148.7 ServerSocket.Start

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.Start"; Port; Login; Flags )

### Parameters

#### Port

The network port of the server to use.  
9000

#### Login

The login secret. Server will only answer if the logins match.  
"Hello"

#### Flags

Pass sum of flag values.  
1+4

**Result** Returns OK or error.

### Description

You can send queries from FileMaker or other development tools. See examples for details.

This has nothing to do with a FileMaker Server. The plugin starts a socket which answers queries, so the current FileMaker instance becomes a kind of server.

On FileMaker Server it looks like you must have a paused script to give time to the plugin for processing requests.

With plugin version 3.3, we added FileMaker Go support. Please use Insert From URL Script Step with an URL like this: "http://" & Server & ":"& Port & "/" & Login & "/" & Type & "/" & Query. Target a text field for the result, disable to show a dialog and use "Select entire contents" option. As browsers cache requests (e.g. Internet Explorer), you may want to add a random value to the request in order to avoid caching due to using same URL.

Possible flag values:

- 1 Listen only for local connections.
- 2 Block HTTP Access from e.g. FileMaker Go or Webviewer.
- 4 Block requests from plugin with ServerSocket.Query.

FileMaker 13 Server does currently not like to execute scripts with 4.0 plugin.

### Examples

Listen for local connections on port 12345

148.7. *SERVERSOCKET.START* 7105  
MBS( "ServerSocket.Start"; 12345; "secret"; 1 )

#### See also

- 148.1 ServerSocket.Check 7097
- 148.8 ServerSocket.Stop 7106

#### Example Databases

- [Network/ServerSocket/Server](#)
- [Network/ServerSocket/ServerSocket from Webviewer/ServerSocket from Webviewer](#)
- [WebView/Javascript calls Filemaker Script/ServerSocket from Webviewer/ServerSocket from Webviewer](#)

#### 148.7.1 Blog Entries

- [FileMaker and WebViewer communication](#)
- [MBS Filemaker Plugin, version 3.3pr6](#)
- [MBS Filemaker Plugin, version 3.3pr1](#)

#### 148.7.2 FileMaker Magazin

- [Ausgabe 3/2013, Seite 24](#)

Created 18th August 2014, last changed 28th April 2016.

## 148.8 ServerSocket.Stop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
148 ServerSocket	3.2	Yes	Yes	Yes	Yes	Yes

MBS( "ServerSocket.Stop" )

**Result** Returns OK or error.

**Description**

**See also**

- 148.1 ServerSocket.Check 7097
- 148.7 ServerSocket.Start 7104

**Example Databases**

- [Network/ServerSocket/Server](#)

Created 18th August 2014, last changed 18th August 2014.

# Chapter 149

## ServiceProvider

Add service menu entries for Mac which callback to FileMaker.

### 149.1 ServiceProvider.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
149 ServiceProvider	4.4	Yes	No	No	No	No

MBS( "ServiceProvider.Install"; FileName; ScriptName { ; Force } )

#### Parameters

##### FileName

The name of the FileMaker File that contains the script.

"test.fp7"

##### ScriptName

The name of the script to run.

"MyScript"

##### Force

Optional

Asks system to update service menu now.

0

**Result** Returns OK or error.

#### Description

If you add right info.plist entries to the info.plist inside the FileMaker app, you register services.

The plugin starts a script when a service request is received.

Best call this function in the script called when solutions opens.

This function has been verified to work well for file and text services. Other types are also implemented, but

not tested.

see also:

<https://developer.apple.com/library/mac/documentation/Cocoa/Conceptual/SysServices/introduction.html>

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 149.2 ServiceProvider.Uninstall 7109
- 149.3 ServiceProvider.Value 7110

**Example Databases**

- [Mac only/Services for Mac OS X/ServiceProvider test](#)
- [Mac only/Services for Mac OS X/ServiceProvider](#)

Created 3th October 2014, last changed 27th January 2016.



## 149.2 ServiceProvider.Uninstall

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
149 ServiceProvider	4.4	Yes	No	No	No	No

MBS( "ServiceProvider.Uninstall" )

**Result** Returns OK or error.

### Description

This call is not required. Cleanup is done automatically when app exits.

### See also

- 149.1 ServiceProvider.Install

7107

Created 3th October 2014, last changed 3th October 2014.

## 149.3 ServiceProvider.Value

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
149 ServiceProvider	4.4	Yes	No	No	No	No

MBS( "ServiceProvider.Value"; Selector { ; Filename; DontRenderPreview } )

### Parameters

#### Selector

Which value to query. Can be URL, Text, RTF, HTML, Paths, PDF, Image, URL or Path.  
"Text"

#### Filename

Optional

Optionally, the file name to use for the container value when returning image or PDF.  
"output.pdf"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns value or error.

### Description

If you got a file, you can query file with Paths to get a list of all file paths as a list.  
For URLs, you get a list of all URLs when you pass "URLs".

### See also

- [149.1 ServiceProvider.Install](#)

7107

### Example Databases

- [Mac only/Services for Mac OS X/ServiceProvider test](#)
- [Mac only/Services for Mac OS X/ServiceProvider](#)

### 149.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 3th October 2014, last changed 9th March 2015.

# Chapter 150

## SharedMemory

Shared memory between several processes.

See Mutex functions to help on synchronizations.

### 150.1 SharedMemory.Exists

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
150 SharedMemory	10.1	Yes	Yes	Yes	Yes	No

MBS( "SharedMemory.Exists"; Name )

#### Parameters

##### Name

The name of the shared memory object.  
"test"

**Result** Returns 1, 0 or error.

#### Description

#### Examples

Check if shared memory object named test exists:

```
MBS( "SharedMemory.Exists"; "test" )
```

Example result: 0

Created 2nd February 2020, last changed 2nd February 2020.

## 150.2 SharedMemory.GetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
150 SharedMemory	10.1	Yes	Yes	Yes	Yes	No

MBS( "SharedMemory.GetValue"; Name )

### Parameters

#### Name

The name of the shared memory object.

"test"

**Result** Returns text value or error.

### Description

MBS Plugin provides SharedMemory functions to store UTF-8 text in shared memory, so one process can set it and other can read it, e.g. two versions of FileMaker Pro or two server processes.

### Examples

Query shared memory object:

```
MBS( "SharedMemory.GetValue"; "test")
```

### See also

- 150.3 SharedMemory.SetValue

7113

Created 2nd February 2020, last changed 2nd February 2020.

## 150.3 SharedMemory.SetValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
150 SharedMemory	10.1	Yes	Yes	Yes	Yes	No

MBS( "SharedMemory.SetValue"; Name; Value )

### Parameters

#### Name

The name of the shared memory object.

"test"

#### Value

The text value to store.

"Hello World"

**Result** Returns OK or error.

### Description

MBS Plugin provides SharedMemory functions to store UTF-8 text in shared memory, so one process can set it and other can read it, e.g. two versions of FileMaker Pro or two server processes.

The value is lost when computer restarts, but stays when application quits.

### Examples

Store text in shared memory:

```
MBS( "SharedMemory.SetValue"; "test"; "Hello World" )
```

### See also

- 150.2 SharedMemory.GetValue

7112

Created 2nd February 2020, last changed 2nd February 2020.



# Chapter 151

## Shell

Functions to run command line tools.

Run tools in background, send input text and receive output.

### 151.1 Shell.AddArgument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.AddArgument"; ShellRef; Argument { ; More Arguments } )

#### Parameters

##### ShellRef

The reference number from the shell.

\$shell

##### Argument

The new argument.

"-1"

##### More Arguments

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Add more parameters to add more arguments.

**Result** Returns OK or error.

#### Description

This argument is added to the list of arguments passed first on each call to Shell.Execute.

With version 8.3, you can add several arguments here.

#### Examples

Adds an argument:

```
MBS( "Shell.AddArgument"; $shell; "-v" )
```

Send email via Outlook.exe with options via command line:

```
Set Variable [ $app ; Value: "C:\Program Files (x86)\Microsoft Office\Office15\OUTLOOK.EXE" ]
Set Variable [ $attachment ; Value: "C:\Users\Administrator\Desktop\test.jpg" ]
Set Variable [ $to ; Value: "to@test.com" ]
Set Variable [ $subject ; Value: "Test Email" ]
Set Variable [ $cc ; Value: "copy@test.com" ]
Set Variable [ $body ; Value: "Hello World" ]
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "/c" ) ]
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "ipm.note" ) ]
If [ not IsEmpty ( $attachment ) ]
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "/a" ) ]
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; $attachment ) ]
End If
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "/m" ) ]
Set Variable [ $a1 ; Value: MBS( "Text.EncodeURLComponent"; $to; "UTF-8" ) ]
Set Variable [ $a2 ; Value: "?subject=" & MBS( "Text.EncodeURLComponent"; $subject; "UTF-8" ) ]
Set Variable [ $a3 ; Value: If ( Length ( $cc ) > 0 ; "& cc=" & MBS( "Text.EncodeURLComponent"; $cc; "UTF-8" ); "" ) ]
Set Variable [ $a4 ; Value: If ( Length ( $body ) > 0 ; "& body=" & MBS( "Text.EncodeURLComponent"; $body ; "UTF-8" ); "" ) ]
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; $a1 & $a2 & $a3 & $a4 ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; $app ) ]
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
```

Adds three arguments:

```
MBS( "Shell.AddArgument"; $shell; "-v"; "-r"; "-e" )
```

### See also

- 151.9 Shell.Execute 7125
- 151.12 Shell.GetArgument 7135
- 151.14 Shell.GetArguments 7137
- 151.27 Shell.New 7150
- 151.33 Shell.Release 7157
- 151.35 Shell.SetArguments 7159
- 167.36 Text.EncodeURLComponent 7954



**Example Databases**

- [Shell/Shell Ping](#)

**151.1.1 Blog Entries**

- [Tips for FileMaker Data Migration Tool](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 16th September 2018.

## 151.2 Shell.AddEnvironment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.AddEnvironment"; ShellRef; Name; Value )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Name

The name of the variable.

"PATH"

#### Value

The value of the environment variable.

"C:\test"

**Result** Returns OK or error.

### Description

### Examples

Try environment functions:

```
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
```

```
# set
```

```
Set Variable [ $s ; Value: MBS( "Shell.AddEnvironment"; $shell; "test"; "Hello" ) ]
```

```
# and query
```

```
Show Custom Dialog [ "Environment" ; MBS( "Shell.GetEnvironment"; $shell ) ]
```

```
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
```

### See also

- 151.6 Shell.ClearEnvironment 7122
- 151.23 Shell.GetEnvironment 7146
- 151.27 Shell.New 7150
- 151.33 Shell.Release 7157

Created 11st November 2017, last changed 24th February 2018.

**151.3 Shell.AvailableBytesError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.AvailableBytesError"; ShellRef )

**Parameters****ShellRef**

The reference number from the shell.

\$shell

**Result** Returns number or error.

**Description**

This allows you to check whether the child process wrote data in the error stream.

**See also**

- 151.4 Shell.AvailableBytesOutput

7120

Created 11st November 2017, last changed 11st November 2017.

## 151.4 Shell.AvailableBytesOutput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.AvailableBytesOutput"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns number or error.

### Description

This allows you to check whether the child process wrote data in the output stream.

### See also

- 151.3 Shell.AvailableBytesError

7119

Created 11st November 2017, last changed 11st November 2017.

## 151.5 Shell.ClearArguments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ClearArguments"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

#### See also

- 151.12 Shell.GetArgument 7135
- 151.14 Shell.GetArguments 7137
- 151.35 Shell.SetArguments 7159

Created 11st November 2017, last changed 11st November 2017.

## 151.6 Shell.ClearEnvironment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ClearEnvironment"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

If no environment values are set, the default environment is used.

### See also

- 151.2 Shell.AddEnvironment 7118
- 151.23 Shell.GetEnvironment 7146

Created 11st November 2017, last changed 11st November 2017.

## 151.7 Shell.CloseInput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	8.3	Yes	Yes	Yes	Yes	No

MBS( "Shell.CloseInput"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

If needed, you can close the input stream after writing to it to signal end of file to the application.

### 151.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 18th June 2018, last changed 18th June 2018.

## 151.8 Shell.CloseStreams

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	8.3	Yes	Yes	Yes	Yes	No

MBS( "Shell.CloseStreams"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

This closes input, error and output streams.

### 151.8.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)

Created 18th June 2018, last changed 18th June 2018.



## 151.9 Shell.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.Execute"; ShellRef; Executable { ; Additional Arguments } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Executable

The path to the executable. Should be full path to executable. On Windows, the system also searches path if you just specify a file name.

"/bin/ls"

#### Additional Arguments

Optional

Pass additional arguments to send.

"-v"

**Result** Returns OK or error.

### Description

Parameters set by SetArgument\* functions are passed first followed by any parameters you pass here.

On macOS, we use NSTask.

<https://developer.apple.com/documentation/foundation/nstask>

On Linux we use execve function.

<https://www.unix.com/man-page/linux/3/execve/>

On Windows we use CreateProcess function and we pass in a command line with the Executable parameter followed by all the arguments. If needed, we put them in quotes.

[https://msdn.microsoft.com/en-us/library/windows/desktop/ms682425\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/ms682425(v=vs.85).aspx)

If username is given for Windows, we use CreateProcessWithLogon function instead to provide login as a local user.

[https://msdn.microsoft.com/en-us/library/windows/desktop/ms682431\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/ms682431(v=vs.85).aspx)

If you just need to launch a file, please use Files.LaunchFile or Files.Launch.

You can run "/usr/bin/whoami" on Mac/Linux or "whoami.exe" on Windows to print the user who executes the shell tool.

For PowerShell scripts on Windows, you may need to check with the execution policy for the user account FileMaker is using or use an admin account. e.g. on FileMaker Server, may need to be installed as Admin user (not fmserver user).

### Examples

Run ffmpeg in shell to convert video to mp3 file:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Field [ Shell::Output ; "" ]
Set Field [ Shell::Error ; "" ]
Commit Records/Requests [ With dialog: Off ]
# Where the app is:
Set Variable [ $executable ; Value: "/Applications/ffmpegX.app/Contents/Resources/ffmpeg" ]
# option: overwrite file
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "-y" ) ]
# option: input file
Set Variable [ $s ; Value: MBS( "Shell.AddArgument"; $shell; "-i" ) ]
# Path to input file
Set Variable [ $InputFile ; Value: "/Users/cs/Desktop/movie.m4v" ]
# and output file
Set Variable [ $OutputFile ; Value: "/Users/cs/Desktop/sound.mp3" ]
# Run it!
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; $executable; $InputFile; $OutputFile) ]
Set Variable [ $error ; Value: "" ]
Set Variable [ $result ; Value: "" ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
# Loop while app runs and collect messages
Loop
# Wait a second or till it quits
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 1) ]
# And read output
Set Variable [ $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result & MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1) ]
# exit when done
Exit Loop If [ MBS( "Shell.IsRunning"; $shell) 1 ]
End Loop
# We are done
Commit Records/Requests [ With dialog: Off ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]

```

Query python version:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]

```

```

Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/python"; "-E"; "-c"; "import sys;print(sys.version_info);") ]
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 1) ]
Set Variable [ $error ; Value: MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1) ]
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]

```

Expand tar archive:

```

Set Variable [ $DestFolder ; Value: "/Users/cs/Desktop" ]
Set Variable [ $TarFile ; Value: "/Users/cs/Desktop/FNFOTES.tar " ]
# run tar
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/tar"; "-xv"; "-C"; $DestFolder; "-f"; $TarFile) ]
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 10) ]
Set Variable [ $error ; Value: MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1) ]
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]

```

Run a python script:

```

Set Variable [ $shell ; Value: MBS("Shell.new") ]
Set Variable [ $s ; Value: MBS("Shell.execute"; $shell; "/usr/local/bin/python3"; "/Users/morkus/MBSTest/MBS.py"; PythonMBSTest::Input) ]
Set Variable [ $s ; Value: MBS("Shell.wait"; $shell; 1) ]
Set Variable [ $error ; Value: MBS("Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result ; Value: MBS("Shell.ReadOutputText"; $shell ; "UTF-8") ]
Set Field [ PythonMBSTest::output ; $result ]

```

Run defaults to change preferences for Dock application:

```

Set Variable [ $error ; Value: "" ]
Set Variable [ $result ; Value: "" ]
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/defaults"; "write"; "com.apple.dock"; "persistent-apps"; "-array-add"; "<dict><key>tile-data</key><dict><key>file-data</key><dict><key>_CFURLStringBook.app</string><key>_CFURLStringType</key><integer>0</integer></dict></dict></dict>" ]
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 2) ]
Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result ; Value: $result & MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/killall"; "Dock") ]
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 2) ]

```

```

Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8" ) ]
Set Variable [ $result ; Value: $result & MBS( "Shell.ReadOutputText"; $shell; "UTF-8" ) ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1 ) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1 ) ]
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]

```

Start VPN on Mac:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/sbin/scutil"; "-nc"; "start"; "VPN Name" ) ]
Set Variable [ $error ; Value: "" ]
Set Variable [ $result ; Value: "" ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 2 ) ]
Set Variable [ $error ; Value: MBS( "Shell.ReadErrorText"; $shell; "UTF-8" ) ]
Set Variable [ $result ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8" ) ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
If [ Length ( $error ) >0 ]
Show Custom Dialog [ "VPN Start" ; $error & $s & $result ]
End If

```

Register FileMaker with Launch Services:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/System/Library/Frameworks/CoreServices.framework/Versions/A/Frameworks/LaunchServices.framework/Versions/A/Support/lsregister"; "-r"; "-f"; "/Applications/FileMaker Pro 16 Advanced/FileMaker Pro Advanced.app" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 5 ) ]
Set Variable [ $error ; Value: MBS( "Shell.ReadErrorText"; $shell; "UTF-8" ) ]
Set Variable [ $result ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8" ) ]
If [ Length ( $error ) >0 ]
Show Custom Dialog [ "Failed" ; $error ]
End If
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]

```

Zip files on FileMaker Cloud using Wait function waiting for 2 minutes maximum:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/zip"; "-r"; "/tmp/Logs.zip"; "/FileMakerData/Logs" ) ]

```

```

If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
Set Variable [ $running ; Value: MBS( "Shell.Wait"; $shell; 120) ]
Set Variable [ $error ; Value: MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $output ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
New Record/Request
Set Field [ MBS Test::Result ; $output ]
Set Field [ MBS Test::Error ; $error ]
Commit Records/Requests [ With dialog: On ]

```

Zip files on FileMaker Cloud using IsRunning in a loop waiting for 2 minutes maximum:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/zip"; "-r"; "/tmp/Logs.zip"; "/FileMakerData/Logs" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
Set Variable [ $error ; Value: "" ]
Set Variable [ $running ; Value: MBS( "Shell.IsRunning"; $shell) ]
Set Variable [ $output ; Value: "" ]
Set Variable [ $count ; Value: 0 ]
Loop
Set Variable [ $count ; Value: $count + 1 ]
Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $output ; Value: $output & MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Exit Loop If [ MBS( "Shell.IsRunning"; $shell) = 1 ]
Exit Loop If [ $count > 1200 ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $output ; Value: $output & MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
New Record/Request
Set Field [ MBS Test::Result ; $output ]
Set Field [ MBS Test::Error ; $error ]
Commit Records/Requests [ With dialog: On ]

```

Convert Word file using LibreOffice to PDF:

```

Set Variable [ $shell ; Value: MBS( "Shell.New" ) ] Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell;
"/Applications/LibreOffice.app/Contents/MacOS/soffice"; "-convert-to"; "pdf"; "-outdir"; "/Users/cs/Desktop";
"/Users/cs/Documents/test.doc" ) ] If [ MBS("IsError") ]

```

```
Show Custom Dialog [ "Failed to run" ; $s ]
Else
  Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 10) ]      Set Variable [ $error ; Value: MBS(
"Shell.ReadErrorText"; $shell; "UTF-8") ]      Set Variable [ $result ; Value: MBS( "Shell.ReadOutput-
Text"; $shell; "UTF-8") ]      Show Custom Dialog [ "Converted" ; $result & $& $error ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
```

Zip Files on Mac with current directory to get relative paths in zip archive:

```
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $Folder ; Value: MBS( "Folders.UserDesktop" ) ]
Set Variable [ $s ; Value: MBS( "Shell.SetCurrentDirectory"; $shell; $Folder) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "/usr/bin/zip"; "-r"; "-X"; "ziptest.zip"; "Test" ) ]
Set Variable [ $error ; Value: "" ]
Set Variable [ $result ; Value: "" ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
# Loop while app runs and collect messages
Loop
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 1) ]
Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8") ]
Set Variable [ $result ; Value: $result & MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1) ]
Exit Loop If [ MBS( "Shell.IsRunning"; $shell) = 1 ]
End Loop
Commit Records/Requests [ With dialog: Off ]
End If
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
```

Translate ffmpeg command line:

```
# ffmpeg -i "D:\Test\fmp\1901070400.mp4" -ss 00:00:05.435 -vframes 1 "D:\Test\fmp\1901070400.jpg"
```

```
MBS( "Shell.Execute"; $shell; "C:\ffmpeg\bin\ffmpeg.exe"; "-i"; "D:\Test\fmp\1901070400.mp4"; "-ss";
"00:00:05.435"; "-vframes"; "1"; "D:\Test\fmp\1901070400.jpg")
```

Run fmsadmin via Shell:

```
Set Variable [ $shell ; Value: MBS( "Shell.New" ) ]
Set Variable [ $s ; Value: MBS( "Shell.Execute"; $shell; "C:\Program Files\FileMaker\FileMaker Server\Database
Server\fmsadmin.exe"; "-v"; "-u"; "admin"; "-p"; "xxx" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to run" ; $s ]
Else
```

```
# Loop while app runs and collect messages
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 5) ]
Set Variable [ $result ; Value: MBS( "Shell.ReadOutputText"; $shell; "UTF-8") ]
Show Custom Dialog [ "Result" ; $result ]
End If
```

```
Set Variable [ $r ; Value: MBS("Shell.Release"; $shell) ]
```

Run shell command with several tools concated:

```
MBS( "Shell.Execute"; $shell; "/bin/sh"; "-c"; "diskutil list | grep /dev | awk ' { print $1 } '")
```

Run command in one Let statement:

```
Let ( [
// new Shell
shell = MBS( "Shell.New" );
// run command with parameters
r = MBS( "Shell.Execute"; shell; "/bin/ls"; "/" );
// wait for a result up to 5 seconds
r = MBS( "Shell.Wait"; shell; 5 );
// read output
error = MBS( "Shell.ReadErrorText"; shell; "UTF-8");
output = MBS( "Shell.ReadOutputText"; shell; "UTF-8");
// free shell
r = MBS("Shell.Release"; shell)
]
; output & error )
```

Run bat file with one parameter:

```
MBS( "Shell.Execute"; $shell; "C:\Users\Christian\Desktop\test.bat"; "123")
```

Rename file with cmd.exe on Windows:

```
MBS( "Shell.Execute"; $shell; "cmd"; "/c"; "ren C:\Users\Christian\Desktop\test.pdf test2.pdf")
```

### See also

- 82.8 Folders.UserDesktop 4235
- 127.6 IsError 6374
- 151.1 Shell.AddArgument 7115
- 151.27 Shell.New 7150
- 151.31 Shell.ReadErrorText 7154

- 151.32 Shell.ReadOutputText 7155
- 151.35 Shell.SetArguments 7159
- 151.36 Shell.SetArgumentsList 7160
- 151.48 Shell.WriteInputText 7173
- 167.59 Text.ReplaceNewline 7985

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.9.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Run fmsadmin from script](#)
- [Convert office documents to PDF with LibreOffice](#)
- [Tips for FileMaker Data Migration Tool](#)
- [MBS FileMaker Plugin, version 8.2pr8](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 2nd May 2020.



## 151.10 Shell.ExitCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ExitCode"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns number or error.

### Description

Not defined while the child process is still running.

Created 11st November 2017, last changed 11st November 2017.

## 151.11 Shell.GetApplicationName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetApplicationName"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

### See also

- 151.34 Shell.SetApplicationName

7158

Created 11st November 2017, last changed 11st November 2017.

## 151.12 Shell.GetArgument

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetArgument"; ShellRef; Index )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Index

The index of the argument to query. Range from 0 to Shell.GetArgumentCount-1.

0

**Result** Returns text or error.

### Description

#### See also

- 151.1 Shell.AddArgument 7115
- 151.5 Shell.ClearArguments 7121
- 151.13 Shell.GetArgumentCount 7136
- 151.14 Shell.GetArguments 7137
- 151.35 Shell.SetArguments 7159

Created 11st November 2017, last changed 11st November 2017.

## 151.13 Shell.GetArgumentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetArgumentCount"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns number or error.

### Description

#### See also

- 151.12 Shell.GetArgument 7135
- 151.14 Shell.GetArguments 7137
- 151.36 Shell.SetArgumentsList 7160

Created 11st November 2017, last changed 11st November 2017.

## 151.14 Shell.GetArguments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	9.3	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetArguments"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns list or error.

### Description

This is intended for debugging to check if you got all arguments.

#### See also

- [151.1 Shell.AddArgument](#) 7115
- [151.5 Shell.ClearArguments](#) 7121
- [151.12 Shell.GetArgument](#) 7135
- [151.13 Shell.GetArgumentCount](#) 7136
- [151.35 Shell.SetArguments](#) 7159
- [151.36 Shell.SetArgumentsList](#) 7160

### 151.14.1 Blog Entries

- [Neues vom MBS Plugin 9.3](#)
- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr7](#)

Created 18th July 2019, last changed 18th July 2019.

## 151.15 Shell.GetCompletedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	No	No	No

MBS( "Shell.GetCompletedEvaluate"; ShellRef )

(old name: Shell.GetEvaluate)

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

### See also

- [151.37 Shell.SetCompletedEvaluate](#)

7161

### 151.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 18th November 2017, last changed 17th November 2019.

## 151.16 Shell.GetCompletedScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	No	No	No

MBS( "Shell.GetCompletedScriptFileName"; ShellRef )

(old name: Shell.GetScriptFileName)

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns file name or error.

### Description

### See also

- 151.17 Shell.GetCompletedScriptName

7140

Created 18th November 2017, last changed 17th November 2019.

## 151.17 Shell.GetCompletedScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	No	No	No

MBS( "Shell.GetCompletedScriptName"; ShellRef )

(old name: Shell.GetScriptName)

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns script name or error.

### Description

### See also

- 151.16 Shell.GetCompletedScriptFileName 7139
- 151.38 Shell.SetCompletedScript 7162

Created 18th November 2017, last changed 17th November 2019.



**151.18 Shell.GetCurrentDirectory**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetCurrentDirectory"; ShellRef )

**Parameters****ShellRef**

The reference number from the shell.

\$shell

**Result** Returns path or error.

**Description**

This is the native path to use as current directory for the child process.

**See also**

- 132.4 Process.GetCurrentDirectory 6590
- 132.9 Process.SetCurrentDirectory 6595
- 151.39 Shell.SetCurrentDirectory 7163

Created 11st November 2017, last changed 11st November 2017.

## 151.19 Shell.GetDataAvailableEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	10.0	Yes	Yes	No	No	No

MBS( "Shell.GetDataAvailableEvaluate"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

#### See also

- 151.21 Shell.GetDataAvailableScriptName 7144
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 151.41 Shell.SetDataAvailableScript 7165
- 157.54 Socket.SetDataAvailableEvaluate 7368

### 151.19.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 17th November 2019, last changed 17th November 2019.

## 151.20 Shell.GetDataAvailableScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	10.0	Yes	Yes	No	No	No

MBS( "Shell.GetDataAvailableScriptFileName"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns file name or error.

### Description

#### See also

- 151.21 Shell.GetDataAvailableScriptName

7144

### 151.20.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 17th November 2019, last changed 17th November 2019.

## 151.21 Shell.GetDataAvailableScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	10.0	Yes	Yes	No	No	No

MBS( "Shell.GetDataAvailableScriptName"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns script name or error.

### Description

#### See also

- 151.19 Shell.GetDataAvailableEvaluate 7142
- 151.20 Shell.GetDataAvailableScriptFileName 7143
- 151.41 Shell.SetDataAvailableScript 7165

### 151.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 17th November 2019, last changed 17th November 2019.

## 151.22 Shell.GetDomain

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetDomain"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

### See also

- 151.42 Shell.SetDomain

7166

Created 11st November 2017, last changed 11st November 2017.

## 151.23 Shell.GetEnvironment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetEnvironment"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

Returns list with = as separator.

### See also

- 151.2 Shell.AddEnvironment 7118
- 151.6 Shell.ClearEnvironment 7122

Created 11st November 2017, last changed 11st November 2017.

## 151.24 Shell.GetPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetPassword"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

### See also

- 151.43 Shell.SetPassword

## 151.25 Shell.GetUsername

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.GetUsername"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns text or error.

### Description

#### See also

- 151.44 Shell.SetUsername

7168

Created 11st November 2017, last changed 11st November 2017.



## 151.26 Shell.IsRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.IsRunning"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns 1 or 0 or error.

### Description

Returns 1 if running or 0 if not.

Please use 8.2 or newer on FileMaker Cloud as Shell.Wait/Shell.IsRunning was broken there before.

### See also

- [151.9 Shell.Execute](#) 7125
- [151.32 Shell.ReadOutputText](#) 7155
- [151.47 Shell.Wait](#) 7171

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)

### 151.26.1 Blog Entries

- [Tips for FileMaker Data Migration Tool](#)
- [MBS FileMaker Plugin, version 8.2pr8](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 14th May 2018.

## 151.27 Shell.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.New" )

**Result** Returns number or error.

### Description

Please call Shell.Release later.

Technically the shell could run on iOS, but it does not due to sandboxing.

### See also

- [142.9 RunTask.NewTask](#) 6880
- [151.1 Shell.AddArgument](#) 7115
- [151.2 Shell.AddEnvironment](#) 7118
- [151.9 Shell.Execute](#) 7125
- [151.33 Shell.Release](#) 7157

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.27.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Run fmsadmin from script](#)
- [Convert office documents to PDF with LibreOffice](#)
- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 28th November 2017.

## 151.28 Shell.PeekErrorText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.PeekErrorText"; ShellRef { ; Encoding } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Encoding

Optional

The text encoding for result.

UTF8

**Result** Returns text or error.

### Description

Returns data in buffer without removing it.

You need to call Shell.ReadErrorText later to actually read the data and remove it from the buffer.

### See also

- 151.31 Shell.ReadErrorText

7154

### 151.28.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr2](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 11st November 2017, last changed 14th September 2018.

## 151.29 Shell.PeekOutputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.PeekOutputText"; ShellRef { ; Encoding } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Encoding

Optional

The text encoding for result.

UTF8

**Result** Returns text or error.

### Description

Returns data in buffer without removing it.

You need to call Shell.ReadOutputText later to actually read the data and remove it from the buffer.

### See also

- 151.32 Shell.ReadOutputText

7155

Created 11st November 2017, last changed 14th September 2018.

## 151.30 Shell.ProcessIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ProcessIdentifier"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns number or error.

### Description

Created 11st November 2017, last changed 11st November 2017.

## 151.31 Shell.ReadErrorText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ReadErrorText"; ShellRef { ; Encoding } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Encoding

Optional

The text encoding for result.

UTF8

**Result** Returns text or error.

### Description

When child process writes something to error stream, you can read it here.

#### See also

- [151.9 Shell.Execute](#) 7125
- [151.28 Shell.PeekErrorText](#) 7151
- [151.32 Shell.ReadOutputText](#) 7155

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.31.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Convert office documents to PDF with LibreOffice](#)
- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 10th September 2018.

## 151.32 Shell.ReadOutputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.ReadOutputText"; ShellRef { ; Encoding } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Encoding

Optional

The text encoding for result.

UTF8

**Result** Returns text or error.

### Description

When child process writes something to output stream, you can read it here.

See also Shell.ReadErrorText for reading error output.

### Examples

Loop and collect messages:

```

Set Variable [ $error ; Value: "" ]
Set Variable [ $result ; Value: "" ]
# Loop while app runs and collect messages
Loop
# Wait a second or till it quits
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 1 ) ]
# And read output
Set Variable [ $error ; Value: $error & MBS( "Shell.ReadErrorText"; $shell; "UTF-8" ) ]
Set Variable [ $result ; Value: $result & MBS( "Shell.ReadOutputText"; $shell; "UTF-8" ) ]
Set Field [ Shell::Error ; MBS( "Text.ReplaceNewline"; $error; 1 ) ]
Set Field [ Shell::Output ; MBS( "Text.ReplaceNewline"; $result; 1 ) ]
# exit when done
Exit Loop If [ MBS( "Shell.IsRunning"; $shell) = 1 ]
End Loop

```

### See also

- 151.9 Shell.Execute 7125
- 151.26 Shell.IsRunning 7149
- 151.29 Shell.PeekOutputText 7152

- 151.31 Shell.ReadErrorText 7154
- 151.47 Shell.Wait 7171
- 167.59 Text.ReplaceNewline 7985

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.32.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Run fmsadmin from script](#)
- [Convert office documents to PDF with LibreOffice](#)
- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 7th April 2020.



## 151.33 Shell.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.Release"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

#### See also

- [151.1 Shell.AddArgument](#) 7115
- [151.2 Shell.AddEnvironment](#) 7118
- [151.9 Shell.Execute](#) 7125
- [151.27 Shell.New](#) 7150

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.33.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Run fmsadmin from script](#)
- [Convert office documents to PDF with LibreOffice](#)
- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 11st November 2017.

## 151.34 Shell.SetApplicationName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetApplicationName"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

Only for Windows.

### See also

- 151.11 Shell.GetApplicationName

7134

Created 11st November 2017, last changed 11st November 2017.

## 151.35 Shell.SetArguments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetArguments"; ShellRef { ; Arguments } )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Arguments

Optional

The first argument. Please pass one parameter per argument to set.

**Result** Returns OK or error.

### Description

Pass as many arguments as needed.

This arguments define the list of arguments passed first on each call to Shell.Execute.

### Examples

Pass three arguments

```
MBS( "Shell.SetArguments"; $shell; "-v"; "-l"; "/Users/cs")
```

### See also

- 151.1 Shell.AddArgument 7115
- 151.5 Shell.ClearArguments 7121
- 151.9 Shell.Execute 7125
- 151.12 Shell.GetArgument 7135
- 151.14 Shell.GetArguments 7137
- 151.36 Shell.SetArgumentsList 7160

Created 11st November 2017, last changed 16th November 2017.

## 151.36 Shell.SetArgumentsList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetArgumentsList"; ShellRef; List )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### List

The list of arguments.

"-v\$-x\$a"

**Result** Returns OK or error.

### Description

This arguments define the list of arguments passed first on each call to Shell.Execute.

#### See also

- 151.9 Shell.Execute 7125
- 151.13 Shell.GetArgumentCount 7136
- 151.14 Shell.GetArguments 7137
- 151.35 Shell.SetArguments 7159

### Example Databases

- [Shell/Shell](#)

Created 11st November 2017, last changed 16th November 2017.

## 151.37 Shell.SetCompletedEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	No	No	No

MBS( "Shell.SetCompletedEvaluate"; ShellRef; Expression )

(old name: Shell.SetEvaluate)

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Expression

The expression to evaluate.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

#### See also

- 151.15 Shell.GetCompletedEvaluate 7138
- 151.38 Shell.SetCompletedScript 7162

### 151.37.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 18th November 2017, last changed 17th November 2019.

## 151.38 Shell.SetCompletedScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	No	No	No

MBS( "Shell.SetCompletedScript"; ShellRef; Filename; ScriptName )

(old name: Shell.SetScript)

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- [151.17 Shell.GetCompletedScriptName](#) 7140
- [151.37 Shell.SetCompletedEvaluate](#) 7161

### Example Databases

- [Shell/Terminal](#)

### 151.38.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 18th November 2017, last changed 17th November 2019.

## 151.39 Shell.SetCurrentDirectory

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetCurrentDirectory"; ShellRef; Path )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Path

The native path to the new directory.

"/Users/cs/Desktop"

**Result** Returns OK or error.

### Description

Keep empty for default, which is current directory of FileMaker.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Sets current directory to tmp:

MBS( "Shell.SetCurrentDirectory"; \$shell; "/tmp" )

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 132.4 Process.GetCurrentDirectory 6590
- 132.9 Process.SetCurrentDirectory 6595
- 151.9 Shell.Execute 7125
- 151.18 Shell.GetCurrentDirectory 7141

Created 11st November 2017, last changed 16th November 2017.

## 151.40 Shell.SetDataAvailableEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	10.0	Yes	Yes	No	No	No

MBS( "Shell.SetDataAvailableEvaluate"; ShellRef; Expression )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Expression

The expression to evaluate.

**Result** Returns OK or error.

### Description

#### See also

- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 151.19 Shell.GetDataAvailableEvaluate 7142
- 151.41 Shell.SetDataAvailableScript 7165
- 157.54 Socket.SetDataAvailableEvaluate 7368

### 151.40.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 17th November 2019, last changed 17th November 2019.



## 151.41 Shell.SetDataAvailableScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	10.0	Yes	Yes	No	No	No

MBS( "Shell.SetDataAvailableScript"; ShellRef; Filename; ScriptName )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- [151.19 Shell.GetDataAvailableEvaluate](#) 7142
- [151.21 Shell.GetDataAvailableScriptName](#) 7144
- [151.40 Shell.SetDataAvailableEvaluate](#) 7164

### Example Databases

- [Shell/Terminal](#)

#### 151.41.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 17th November 2019, last changed 17th November 2019.

## 151.42 Shell.SetDomain

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetDomain"; ShellRef; Domain )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Domain

The domain to use.

**Result** Returns OK or error.

### Description

Only for Windows.

### See also

- 151.22 Shell.GetDomain

7145

Created 11st November 2017, last changed 11st November 2017.

## 151.43 Shell.SetPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetPassword"; ShellRef; Password )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Password

The password text.

"xxx"

**Result** Returns OK or error.

### Description

Only for Windows.

### See also

- 151.24 Shell.GetPassword

## 151.44 Shell.SetUsername

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.SetUsername"; ShellRef; Username )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Username

The user name.

"cs"

**Result** Returns OK or error.

### Description

Only for Windows to run application with different login.

### See also

- 151.25 Shell.GetUsername

7148

Created 11st November 2017, last changed 11st November 2017.

## 151.45 Shell.Terminate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.Terminate"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns OK or error.

### Description

Force quits the process.

Created 11st November 2017, last changed 11st November 2017.

## 151.46 Shell.TerminationReason

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	No	Yes, macOS only	No	No

MBS( "Shell.TerminationReason"; ShellRef )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

**Result** Returns the reason the task was terminated.

### Description

Available in OS X v10.6 and later.

Returns 1 for exit and 2 for an uncaught signal.

Created 11st November 2017, last changed 11st November 2017.

## 151.47 Shell.Wait

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

MBS( "Shell.Wait"; ShellRef; Timeout )

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Timeout

The timeout in seconds on how long to wait.

3

**Result** Returns OK or error.

### Description

This blocks FileMaker for doing anything till the app is done or timeout happens.

Please use 8.2 or newer on FileMaker Cloud as Shell.Wait/Shell.IsRunning was broken there before.

### Examples

Wait 5 seconds or till the tool quit:

```
Set Variable [ $s ; Value: MBS( "Shell.Wait"; $shell; 5) ]
```

### See also

- [151.9 Shell.Execute](#) 7125
- [151.26 Shell.IsRunning](#) 7149
- [151.32 Shell.ReadOutputText](#) 7155

### Example Databases

- [Shell/Shell](#)

### 151.47.1 Blog Entries

- [Tip of the day: Shell Execute as one Let statement](#)
- [Run fmsadmin from script](#)
- [Convert office documents to PDF with LibreOffice](#)

- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)

Created 11st November 2017, last changed 27th August 2018.



## 151.48 Shell.WriteInputText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
151 Shell	7.5	Yes	Yes	Yes	Yes	No

```
MBS( "Shell.WriteInputText"; ShellRef; Text { ; Encoding } )
```

### Parameters

#### ShellRef

The reference number from the shell.

\$shell

#### Text

The text to send.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter.

"UTF-8"

**Result** Returns OK or error.

### Description

The child process and read this from the input stream.

Please make sure you use right line endings and encoding.

You must call Shell.Execute first to start the child process, before you send data.

### Examples

Sends text to shell:

```
MBS( "Shell.WriteInputText"; $shell; "Hello World"; "UTF-8")
```

### See also

- [151.9 Shell.Execute](#)

7125

### Example Databases

- [Shell/Shell Ping](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)

### 151.48.1 Blog Entries

- [Tips for FileMaker Data Migration Tool](#)

Created 11st November 2017, last changed 4th November 2019.

# Chapter 152

## Sign

Sign with Elliptic Curve or RSA.

Generate private and public keys, sign with private key and verify with public key. We can use Elliptic Curve Digital Signature Algorithm or RSA. See Certificates functions to manage keys and certificates.

### 152.1 ECKey.BuiltInCurves

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.BuiltInCurves" )

**Result** Returns list or error.

#### Description

Returns a list of curves with ID=Description format.

The list looks like this:

Created 9th October 2015, last changed 9th October 2015.

- 704 SECG/WTLS curve over a 112 bit prime field
- 705 SECG curve over a 112 bit prime field
- 706 SECG curve over a 128 bit prime field
- 707 SECG curve over a 128 bit prime field
- 708 SECG curve over a 160 bit prime field
- 709 SECG curve over a 160 bit prime field
- 710 SECG/WTLS curve over a 160 bit prime field
- 711 SECG curve over a 192 bit prime field
- 712 SECG curve over a 224 bit prime field
- 713 NIST/SECG curve over a 224 bit prime field
- 714 SECG curve over a 256 bit prime field
- 715 NIST/SECG curve over a 384 bit prime field
- 716 NIST/SECG curve over a 521 bit prime field
- 409 NIST/X9.62/SECG curve over a 192 bit prime field
- 410 X9.62 curve over a 192 bit prime field
- 411 X9.62 curve over a 192 bit prime field
- 412 X9.62 curve over a 239 bit prime field
- 413 X9.62 curve over a 239 bit prime field
- 414 X9.62 curve over a 239 bit prime field
- 415 X9.62/SECG curve over a 256 bit prime field
- 717 SECG curve over a 113 bit binary field
- 718 SECG curve over a 113 bit binary field
- 719 SECG/WTLS curve over a 131 bit binary field
- 720 SECG curve over a 131 bit binary field
- 721 NIST/SECG/WTLS curve over a 163 bit binary field
- 722 SECG curve over a 163 bit binary field
- 723 NIST/SECG curve over a 163 bit binary field
- 724 SECG curve over a 193 bit binary field
- 725 SECG curve over a 193 bit binary field
- 726 NIST/SECG/WTLS curve over a 233 bit binary field
- 727 NIST/SECG/WTLS curve over a 233 bit binary field
- 728 SECG curve over a 239 bit binary field
- 729 NIST/SECG curve over a 283 bit binary field
- 730 NIST/SECG curve over a 283 bit binary field
- 731 NIST/SECG curve over a 409 bit binary field
- 732 NIST/SECG curve over a 409 bit binary field
- 733 NIST/SECG curve over a 571 bit binary field
- 734 NIST/SECG curve over a 571 bit binary field
- 684 X9.62 curve over a 163 bit binary field
- 685 X9.62 curve over a 163 bit binary field
- 686 X9.62 curve over a 163 bit binary field
- 687 X9.62 curve over a 176 bit binary field
- 688 X9.62 curve over a 191 bit binary field
- 689 X9.62 curve over a 191 bit binary field
- 690 X9.62 curve over a 191 bit binary field
- 693 X9.62 curve over a 208 bit binary field
- 694 X9.62 curve over a 239 bit binary field
- 695 X9.62 curve over a 239 bit binary field
- 696 X9.62 curve over a 239 bit binary field

## 152.2 ECKEY.CanSign

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "ECKEY.CanSign"; ECKEY )

### Parameters

#### ECKEY

The reference number for the key.

\$Key

**Result** Returns 1, 0 or error.

### Description

Returns 1 if can can sign and 0 otherwise.

### 152.2.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr6](#)

Created 2nd May 2020, last changed 6th May 2020.

## 152.3 ECKey.Description

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Description"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns text or error.

### Description

For display to user.

### See also

- 60.11 CoreML.Description 1758
- 152.5 ECKey.Generate 7180
- 152.6 ECKey.PrivateKey 7182
- 152.7 ECKey.PublicKey 7183

### Example Databases

- [Encryption and Hash/ECKey Test](#)

### 152.3.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 30
- Ausgabe 6/2015, Seite 29

Created 9th October 2015, last changed 9th October 2015.

## 152.4 ECKEY.Duplicate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKEY.Duplicate"; ECKEY )

### Parameters

#### ECKEY

The reference number for the key.

\$Key

**Result** Returns key reference or error.

### Description

Please use ECKEY.Release later to free memory.

### See also

- 152.10 ECKEY.Release

7186

Created 9th October 2015, last changed 9th October 2015.

## 152.5 ECKey.Generate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Generate"; CurveID )

### Parameters

#### CurveID

The curve ID to use.

711

**Result** Returns reference number or error.

### Description

You can use ECKey.ReadPrivateKey and ECKey.ReadPublicKey functions to get the keys. Please use ECKey.Release later to free memory.

### Examples

Generate keys and store in fields:

```
Set Variable [ $key; Value:MBS("ECKey.Generate"; 711) ]
Set Field [ ECKey Test::KeyInfo; MBS("ECKey.Description"; $key) ]
Set Field [ ECKey Test::PrivateKey; MBS("ECKey.PrivateKey"; $key) ]
Set Field [ ECKey Test::PublicKey; MBS("ECKey.PublicKey"; $key) ]
Set Variable [ $r; Value:MBS("ECKey.Release"; $key) ]
```

### See also

- [152.3 ECKey.Description](#) 7178
- [152.6 ECKey.PrivateKey](#) 7182
- [152.7 ECKey.PublicKey](#) 7183
- [152.8 ECKey.ReadPrivateKey](#) 7184
- [152.9 ECKey.ReadPublicKey](#) 7185
- [152.10 ECKey.Release](#) 7186

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)



### 152.5.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 29

Created 9th October 2015, last changed 14th October 2015.

## 152.6 ECKey.PrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.PrivateKey"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns text or error.

### Description

Returned as hex encoded text.

### Examples

Generate keys and store in fields:

```
Set Variable [ $key; Value:MBS("ECKey.Generate"; 711) ]
Set Field [ ECKey Test::KeyInfo; MBS("ECKey.Description"; $key) ]
Set Field [ ECKey Test::PrivateKey; MBS("ECKey.PrivateKey"; $key) ]
Set Field [ ECKey Test::PublicKey; MBS("ECKey.PublicKey"; $key) ]
Set Variable [ $r; Value:MBS("ECKey.Release"; $key) ]
```

### See also

- [152.3 ECKey.Description](#) 7178
- [152.5 ECKey.Generate](#) 7180
- [152.7 ECKey.PublicKey](#) 7183
- [152.8 ECKey.ReadPrivateKey](#) 7184
- [152.10 ECKey.Release](#) 7186

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)

#### 152.6.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 29

Created 9th October 2015, last changed 14th October 2015.

## 152.7 ECKey.PublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.PublicKey"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns text or error.

### Description

Returned as hex encoded text.

### Examples

Generate keys and store in fields:

```
Set Variable [ $key; Value:MBS("ECKey.Generate"; 711) ]
Set Field [ ECKey Test::KeyInfo; MBS("ECKey.Description"; $key) ]
Set Field [ ECKey Test::PrivateKey; MBS("ECKey.PrivateKey"; $key) ]
Set Field [ ECKey Test::PublicKey; MBS("ECKey.PublicKey"; $key) ]
Set Variable [ $r; Value:MBS("ECKey.Release"; $key) ]
```

### See also

- [152.3 ECKey.Description](#) 7178
- [152.5 ECKey.Generate](#) 7180
- [152.6 ECKey.PrivateKey](#) 7182
- [152.9 ECKey.ReadPublicKey](#) 7185
- [152.10 ECKey.Release](#) 7186

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)

#### 152.7.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 29

Created 9th October 2015, last changed 14th October 2015.

## 152.8 ECKey.ReadPrivateKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.ReadPrivateKey"; KeyData )

### Parameters

#### KeyData

The hex encoded key data.

**Result** Returns reference number or error.

### Description

Please use ECKey.Release later to free memory.

### See also

- 152.5 ECKey.Generate 7180
- 152.6 ECKey.PrivateKey 7182
- 152.10 ECKey.Release 7186
- 49.18 PKey.GetPrivateKey 1399

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)

### 152.8.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 30

Created 9th October 2015, last changed 12nd October 2015.

## 152.9 ECKEY.ReadPublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKEY.ReadPublicKey"; KeyData; CurveID )

### Parameters

#### KeyData

The hex encoded key data.

#### CurveID

The curve ID to use.

711

**Result** Returns reference or error.

### Description

Please use ECKEY.Release later to free memory.

### See also

- 152.5 ECKEY.Generate 7180
- 152.7 ECKEY.PublicKey 7183
- 152.10 ECKEY.Release 7186
- 49.19 PKey.GetPublicKey 1400

### Example Databases

- [Encryption and Hash/ECKEY Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration](#)

### 152.9.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 30

Created 9th October 2015, last changed 12nd October 2015.

## 152.10 ECKey.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Release"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns OK or error.

### Description

#### See also

- 152.4 ECKey.Duplicate 7179
- 152.5 ECKey.Generate 7180
- 152.6 ECKey.PrivateKey 7182
- 152.7 ECKey.PublicKey 7183
- 152.8 ECKey.ReadPrivateKey 7184
- 152.9 ECKey.ReadPublicKey 7185
- 49.20 PKey.Release 1401

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)
- [Encryption and Hash/Solution Registration/Solution Registration](#)

### 152.10.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 31
- Ausgabe 6/2015, Seite 30
- Ausgabe 6/2015, Seite 29

Created 9th October 2015, last changed 9th October 2015.

## 152.11 ECKey.Sign

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Sign"; ECKey; Data )

### Parameters

#### ECKey

The reference number for the key.

\$Key

#### Data

The hex encoded data.

\$hash

**Result** Returns text or error.

### Description

We highly recommend to use a hash like SHA-512 to preprocess the data.

Returns the signature as hex text on success.

### See also

- 152.12 ECKey.Size

7188

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration Creator](#)

### 152.11.1 FileMaker Magazin

- Ausgabe 6/2015, Seite 30

Created 9th October 2015, last changed 9th October 2015.

## 152.12 ECKey.Size

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Size"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns number or error.

### Description

### See also

- 152.11 ECKey.Sign

7187

Created 9th October 2015, last changed 9th October 2015.



## 152.13 ECKey.Valid

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Valid"; ECKey )

### Parameters

#### ECKey

The reference number for the key.

\$Key

**Result** Returns 1, 0 or error.

### Description

Returns 1 on success and 0 otherwise.

### 152.13.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr6](#)

Created 2nd May 2020, last changed 6th May 2020.

## 152.14 ECKey.Verify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "ECKey.Verify"; ECKey; Data; SignatureData )

### Parameters

#### ECKey

The reference number for the key.

\$Key

#### Data

The hex encoded data.

\$hash

#### SignatureData

The hex encoded signature.

\$sig

**Result** Returns OK or error.

### Description

Returns OK on success. Returns error if data, signature and public key don't belong together.

We highly recommend to use a hashed value for the data parameter, e.g. use Hash.SHA512 function to get a 512bit hash for your data.

### See also

- [88.13 Hash.SHA512](#) 4876

### Example Databases

- [Encryption and Hash/ECKey Test](#)
- [Encryption and Hash/Solution Registration/Solution Registration](#)

#### 152.14.1 Blog Entries

- [MBS FileMaker Plugin, version 5.5pr4](#)

#### 152.14.2 FileMaker Magazin

- Ausgabe 6/2015, Seite 31
- Ausgabe 6/2015, Seite 30

Created 9th October 2015, last changed 9th October 2015.

**152.15 RSA.GeneratePrivateKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.GeneratePrivateKey" { ; Bits; Exp; Algorithm; PasswordType; PasswordData; PasswordEncoding } )

**Parameters****Bits**

Optional

The bit size. e.g. 1024, 2048, 4096, etc. Default is 4096.  
4096

**Exp**

Optional

The exponent to use. Default is 65537.  
65537

**Algorithm**

Optional

Which algorithm to use. Can be for example RC2, blowfish, AES128, AES192, AES256. See Encryption.Cipher.  
"AES-128-CFB"

**PasswordType**

Optional

The type of input for optional password. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

**PasswordData**

Optional

The actual input data for the password. Text, container or file path.  
"Hello World"

**PasswordEncoding**

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

**Result** Returns key as text or error.

**Description**

Returns the PEM formatted key as text.

As the PEM format contains base64 encoded DER data, you can remove header and footer line and use the result as base64 encoded DER key.

If you specify an algorithm and a key, we encrypt the PEM file. (New in 7.5)

### Examples

Generate keys:

```
Set Variable [ $privateKey; Value:MBS( "RSA.GeneratePrivateKey" ) ]
Set Variable [ $publickey; Value:MBS( "RSA.GetPublicKey"; "text"; $privateKey; "UTF-8" ) ]
Set Field [ Table::PrivateKey; $privateKey ]
Set Field [ Table::PublicKey; $publicKey ]
```

Generate key with text password:

```
MBS( "RSA.GeneratePrivateKey"; 4096; 65537; "AES-128-CBC"; "text"; "Hello" )
```

### See also

- [74.1 Encryption.Cipher](#) 3499
- [74.12 RSA.DecryptPrivateKey](#) 3523
- [74.13 RSA.EncryptPrivateKey](#) 3525
- [152.16 RSA.GetPublicKey](#) 7193
- [74.14 RSA.PrivateDecrypt](#) 3527
- [74.15 RSA.PrivateEncrypt](#) 3530
- [74.16 RSA.PublicDecrypt](#) 3533
- [74.17 RSA.PublicEncrypt](#) 3536

### Example Databases

- [Encryption and Hash/RSA Sign and Verify](#)

#### 152.15.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)
- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS FileMaker Plugin 6.2 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 12nd March 2016, last changed 15th October 2017.

## 152.16 RSA.GetPublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.GetPublicKey"; KeyType; KeyData { ; KeyEncoding; PasswordType; PasswordData; PasswordEncoding } )

### Parameters

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"/Users/cs/desktop/test.pem"

#### KeyEncoding

Optional

The text encoding for text input for the key. Parameter is ignored for other cases.

#### PasswordType

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.  
"Text"

#### PasswordData

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.  
"Hello World"

#### PasswordEncoding

Optional

The text encoding for text input. Parameter is ignored for other cases.  
"UTF-8"

**Result** Returns text or error.

### Description

You pass in private key and this function returns public key as PEM.  
Returns public key in PEM format as text.

You can create a new private key using `RSA.GeneratePrivateKey` function.

### See also

- 49.19 PKey.GetPublicKey

- 152.15 RSA.GeneratePrivateKey 7191
- 74.16 RSA.PublicDecrypt 3533
- 74.17 RSA.PublicEncrypt 3536

### Example Databases

- [Encryption and Hash/RSA Sign and Verify](#)

### 152.16.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 12nd March 2016, last changed 30th May 2016.

## 152.17 RSA.Sign

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.Sign"; Algorithm; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; PasswordType; PasswordData; PasswordEncoding; OutputType; OutputInfo )

### Parameters

#### Algorithm

Which algorithm to use. Can be MD4, MD5, SHA, SHA1, MDC2, RIPEMD160, SHA224, SHA256, SHA384 or SHA512.

"SHA512"

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### InputData

The actual input data. Text, container or file path.

"Hello World"

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

#### KeyType

The type of input for private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Path"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"/Users/cs/desktop/test.pem"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

#### PasswordType

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### PasswordData

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"Hello World"

#### PasswordEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**OutputType**

The output type. Can be Base64, Hex, Text, File, Path.  
"Hex"

**OutputInfo**

The addition info for output. For text it is the text encoding, for file container the file name and for path the actual native file path.  
""

**Result** Returns signature or error.

**Description**

Returns signature data in the format specified in OutputType.

Internally we make a hash of the data with given algorithm, open the private RSA key and do a RSA sign operation. We return the signature.

Optional you can pass a password to read password protected keys.

You pass data as triplet of type, data and encoding. For the types use:

Text: Pass text and encoding.

Data or File: Pass a container to read its content as data.

PDF: Pass a container containing a PDF document.

Container: Pass a container, which will be serialized.

Image: Pass a container containing an image, e.g. JPEG, TIFF, PNG, GIF, etc.

GIF: Pass a container containing a GIF document.

JPEG: Pass a container containing a JPEG document.

PNG: Pass a container containing a PNG document.

TIFF: Pass a container containing a TIFF document.

Path: Pass a file name as data. The file is read and it's content is used.

Hex: Pass a hex encoded value as text.

Hash: Pass the hex encoded hash to use instead of hashing data.

**Examples**

Sign data with private key file:

```
MBS( "RSA.Sign"; "SHA512";
"Text"; "Hello World. This is test data to sign."; "UTF8";
"Path";
"/Users/cs/Desktop/Sign and Verify/test.pem";
"UTF8";
"text"; "", "";
"hex"; "" )
```

How to create keys and test in command line on Mac OS X:

Create private key:



openssl genrsa -out test.pem 4096

Create public key:

openssl rsa -in test.pem -pubout -out test.pub

Sign datafile.txt:

openssl dgst -sha1 -sign test.pem -out signature.sha1 Create\Keys.rtf

Verify signature

openssl dgst -sha1 -verify test.pub -signature signature.sha1 Create\Keys.rtf

To encrypt the private key, use a command like this:

openssl genrsa -des3 -out test.pem 2048

Sign call with private key included as text:

```
MBS( "RSA.Sign"; "SHA512";
"Text"; "Hello World. This is test data to sign."; "UTF8";
"Text";
"—BEGIN RSA PRIVATE KEY—" & $&
"MIJJKQIBA AKCAgEAz71qzCQEpcV4BbB1+D0IKmjOy+gzxY8CqPAkZTzQhHw8UE9" & $&
"KrnAjWm8Ze+9TNMs0Ar3ttJzLwnY4+12I5L9H0HTsW4hrzZI8kv0GtS98KJxAJ+x" & $&
"7k6Om5N6ZQj/wgkBbR1PC+89k+IkVwvwQ9nLq9pLocEabvfeesIdEYqrpPc3K35O" & $&
"T1hcPY3B5ISUmLC51S9yGvJdnp8+7GWpthCL46SVtl0VUZkEQGDWNquvneCJD99L" & $&
"9TdWz0WV1S0ksjNNzEYCotKtco27AoL4wNoZkIAi0RbrfxPHZ8G2E9ZdDWmUkIKZ" & $&
"aE5YYAAIu57ZIBW7E2UqczkHh+qXnZ/wlH3mBh5R8+rC6Vvuw+ufxZbcIG2O/Lj" & $&
"L9UduSvFVw900JJeolmAWSchs4Ut/Gt15L3fHB8rB1UnkFOVpyZ/O712a/GmQbB" & $&
"sBYb/NLz0ATDF0yUW0cB/0+uyfhUiLHH3C47M7BJAKLZuHr4Sj+iNFgv3+tYypN" & $&
"nmEfeFwWUzRWmHqEAdagE5c22EJZ4a4jRcTWORD2CVzDFPCI5GuIe7BIUgEChUE" & $&
"Sr7fi6eN5q2YKmJ+ck+tH3JloJyVLt4/xb08JwYPRlKsnjZUAc/dWCsc5R9sGVMf" & $&
"NYmMpn2nR8iejw6zfkUE564zU8xNTNK4Qb6R9dR3JfHQ4/162hjZOhr4kx8CAwEA" & $&
"AQKCAgEAyD8ZJECp7k9j+2/nK+oeySfRCAMDbKsG8FvTaXbutNaguPVF0tIrce/" & $&
"oC8xNU3WQ5Be6e8AstX2KPdsSxqUrH2ilsTHWYKlXFIUsoxhrrwSWkvhc5o747kSB" & $&
"1cSP7LUL1+eJm8J4hAWX7ASJDI5zwmTBPmHKni72WTSmGpOmEvVuS9GLoPZWq8rq" & $&
"nOGj729jInmCrzDzR4TPfcYdim92uO+cINyZr52NOJVfyAFE3QRkWIvVfadjWZcE" & $&
"8BhUmKXV11PhFJyqLuMp4ijnqdZSkfQHK6/BP5SMQZq7bXHT7qrYV1hckev7Skae" & $&
"JGThfQkVdIOvILRwFQ3zVu05B9JFK6xUhtAthnyqwVbLSYK/F0yPUzayV6fWhtDB" & $&
"szBLUqEns/amvD1KztbbHkRWdETeT9DXwqpRUhyYcfs9GcdGZIDG/Js4hQkoaaf8" & $&
"Wag3B95H3EdQ9OfKqoc2coM1GyM3pKaUxOC03n59Qaiwc9MLvqimOAMyQrLiLaqQ" & $&
"nIv4eAMgHbJqKHPJ1AQSDLY4d56zYuHctPjv9dv0tk5dCgx4fBA9/0wQT0p1q/+f" & $&
"FZkTSCyfNjLLGOzr/fdFnw4vMQNtDfYEu9S+qnmJehJuFLuVdTCkO2V3K2ugAZjK" & $&
"01wkuw85Cuhxws9d1lRMeZlzyEZL6BB7a1QHvAFxaHCvc+aXcwkCggEBAPofx0Js" & $&
"8yWrpr0hJZcs/vxpVuuAd54fuY9eKkkQh/Ymwp7BeGUiarLQKBhusVrdXoNx2vYi" & $&
```

```

”d+8i0o2VQrltdpCdrbPTOF9icUwBpeO87SoFWCfuokA9xP8J8aCwSVVTtzFGoTcv” & §&
”HgfzUXXQNqquuUeCcC6irEDWviSZd07UVUut4HLtA29U8Sn4u9Po1RQTDfZrw7iz” & §&
”o3iqYs4fTa0YTp7lQgAQ+iHDPVKa/loKaeiZyXeo4l4YZfE0jCm3KKhYpQ2BPCZm” & §&
”J5KywDEQd2ZRZnkeQZiGFNp/9cfmB7HwErBSHyVlRfgEI+YY+h13h2EfV9k+H9fu” & §&
”JoO2qKhXkRBwK7UCggEBANSevovGNC0LRn0PFKvbNjUpjxccT/iX2AWylXSMyc5O” & §&
”40xpci/k+muqu6BWf940Fa4tcJBcAFlytYmQ4Fv1vIXn0fOqNqikJ8R24btFIKk” & §&
”K98KCsxgaFFn9GPa5WvGZCUCx8jisUy3/H50hqppvy8fb4REOI66Fhuhhkvb7j4” & §&
”K/Rv173cdlJrFoJ1NsTctvGfXiL/xJ4u9bY3VTZ6hZAB6x9UhHwi+naBkvyr6JY6” & §&
”1XPEmfWcAfGBXHM9r0ECTIle/QRciztA2/if1+pph50L+MXqA2kMHCGAYSXdjJUW” & §&
”PHUuncx8BE5Ss+HEgg0bhHpwi2JQ/IDPiv5iwrPax0AMCggEBAL4SLA+UT2lO+ZQ7” & §&
”fh9VeCdDvWOU6lFk9lO2T9u5zjgF2Ftf1ie0cbSUbgOzCl9sXYgxmzssIQuyCYD” & §&
”SQMz5aebwyYd+naxjjsd/XwEc409JnKh6vY6elr8qXtcuzl2Mn3lmFkhGwcbpcmL” & §&
”gh9OSonGG4203IUhKrkrThK/VFoANdHfvn555BHrDIDKLDHnEPMzjTXsfMsTX6YX” & §&
”L6XcFNK2kOMQA6Rog08krSirRTQWuXyPAAZVMBKNxf1lTCYxxqtui9D6TBQ0dcxT” & §&
”IQjFzsM3dM19BpfMKW/QpARZ1TncDgMS5lRGSqluTZLa5Cuv78gMZ5JITStGQQA8” & §&
”GuaM9wkCggEAG+4Sd8f8mKIvi0QM4hp0v30LF+0XMD+6F92CtoUYugIw55u+bT42” & §&
”CytJ7JUQTP8oje3YKI59WUKxR169hDb+odR3BvwoG/UcaDl5o6EMDkirjTigEB1” & §&
”06PFpCzGcGbgRtZbqi7lPX+5w17KRc20quST3ADf6NvFY8B5Cxbvdtfa5kw+2ej4” & §&
”/hCIL1P4ctnPimP1+MECcgkXK+2O2w4zN1yZJ09x6+CoaCLTTS/D6OAnpAKCevoY” & §&
”Y0IsA9Npjy+syhldQVJq08jMXJeaxGdCkXdUxpPgmAd3eTAXjoBOqBmJrmc7Mi2” & §&
”asRiCnJL7GasH7SQIME+GLLDmmoy/mETQwKCAQBkbiATEB+4XFaQTdDlhD8TkN2k” & §&
”cRvLdwHwMR/xDZhoDr35DBD+Mht/3eChSQoXkF13LFnaM24zWuJA5lP/4+yHsGIh” & §&
”psV5EEYpzJFg3APiMAixU9PaqIm6UPyIvD8XzIi/lBc2fpendKJ+BswaNMKM0gj” & §&
”hfZOXFo/XcirEeJB0b8i9e2OwpZx9JbxMhKSqL/D1hDGQ9S+dxMIu+ui55xLTR8Q” & §&
”Rxx/wyQffVZvQVH556A1Ubtln5MwmnQkXmRQnWk+HWPHUDF60Ghn5+RgZ3wjQbx8” & §&
”ilmfH0p2YN6/QTpH1EdPVCofcGDsxRmva9OYiUIPcNlt8Ro5g0akJh6IW5E1” & §&
”—END RSA PRIVATE KEY—” & §;
”UTF8”;
”text”; ””; ””;
”hex”; ”” )

```

Sign some text:

```

Set Field [ Table::Signature; MBS( "RSA.Sign"; Table::Algorithm; "Text"; Table::Text to Sign; "UTF8";
"text"; Table::PrivateKey; "UTF8"; "" ; "" ; "" ; "hex"; "" ) ]

```

## See also

- 152.18 RSA.Verify

7200

## Example Databases

- [Encryption and Hash/RSA Sign and Verify](#)

### 152.17.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 12nd March 2016, last changed 15th May 2018.

## 152.18 RSA.Verify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
152 Sign	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "RSA.Verify"; Algorithm; InputType; InputData; InputEncoding; KeyType; KeyData; KeyEncoding; SigType; SigData; SigEncoding { ; PasswordType; PasswordData; PasswordEncoding } )

### Parameters

#### Algorithm

Which algorithm to use. Can be MD4, MD5, SHA, SHA1, MDC2, RIPEMD160, SHA224, SHA256, SHA384 or SHA512.

"SHA512"

#### InputType

The type of input data. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### InputData

The actual input data. Text, container or file path.

"Hello World"

#### InputEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

#### KeyType

The type of input for private or public key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### KeyData

The actual input data for the key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"Hello World"

#### KeyEncoding

The text encoding for text input for the key. Parameter is ignored for other cases.

"UTF-8"

#### SigType

The type of input data for signature. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

#### SigData

The actual input data for signature. Text, container or file path.

"Hello World"

#### SigEncoding

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**PasswordType**

Optional

The type of input for the password of the private key. Can be Text, Container, Image, Path, PDF, Data, base64 or Hex.

"Text"

**PasswordData**

Optional

The actual input data for the password of the private key. Text, container or file path. Must not be longer than the maximum key length of the given algorithm. If key is too short, we pad it with zero bytes.

"Hello World"

**PasswordEncoding**

Optional

The text encoding for text input. Parameter is ignored for other cases.

"UTF-8"

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if signature is valid or 0 if not or an error if parameters are wrong.

Key can be the public or private key, but of course normally you use the public key.

A hash is created with given algorithm and verified with the signature.

Signature must be the string returned like from RSA.Sign function.

Optional you can pass a password to read password protected keys.

**Examples**

Verify with all data in files:

```
MBS( "RSA.Verify";
"SHA1";
"Path"; "/Users/cs/Desktop/Sign and Verify/Create Keys.rtf"; "";
"Path"; "/Users/cs/Desktop/Sign and Verify/test.pub"; "";
"Path"; "/Users/cs/Desktop/Sign and Verify/signature.sha1"; "";
"Text"; ""; "" )
```

Verify with passing signature as hex text:

```
MBS( "RSA.Verify";
"SHA512";
"Text"; "Hello World. This is test data to sign."; "UTF8";
"Path"; "/Users/cs/Desktop/Sign and Verify/test.pub"; "";
"Hex"; "CD603612768BD33F2C0C0DE1E71658F91914DCE083D96F0CE69490AE53F8711853D1589E08E67956812AA47B4F
BBBD4E4C454862F15B68F4DEDC2A58EC15CF1150405E5F92A679CDEC1266AE87B5E78F63C4F46FAFA56502BE6BB2
CCEE93882CECF43F427A7FC536ACD8E0D773D7BDD4BE9012B76FA628B27AA9EB521F8F42138858A6C8158FF9A46D
";
"Text"; ""; "" )
```

Verify some text:

```
Set Variable [ $r; Value:MBS( "RSA.Verify"; Table::Algorithm; "Text"; Table::Text to Sign; "UTF8"; "Text";  
Table::PublicKey; "UTF8"; "Hex"; Table::Signature ) ]  
If [ $r = 1 ]  
Show Custom Dialog [ "Signature valid" ]  
Else If [ $r = 0 ]  
Show Custom Dialog [ "Signature invalid" ]  
Else  
Show Custom Dialog [ "Error"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]  
End If
```

### See also

- 152.17 RSA.Sign 7195
- 167.57 Text.RemovePrefix 7982

### Example Databases

- [Encryption and Hash/RSA Sign and Verify](#)

#### 152.18.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr5](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 12nd March 2016, last changed 12nd March 2016.

# Chapter 153

## SmartCard

PCSC interface to SmartCard readers.

### 153.1 SmartCard.Available

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Available" )

**Result** Returns 1, 0 or error.

#### Description

Should always be available on Mac and Windows.

Returns 1 if available or 0 if not.

On a server it would read the smart card attached the to the server, not any client.

**See also**

- 153.12 SmartCard.Init 7216
- 153.23 SmartCard.Transmit 7233

#### 153.1.1 Blog Entries

- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 19th June 2016.

## 153.2 SmartCard.BeginTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.BeginTransaction"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns OK or error.

### Description

The function waits for the completion of all other transactions before it begins. After the transaction starts, all other applications are blocked from accessing the smart card while the transaction is in progress.

If a transaction is held on the card for more than five seconds with no operations happening on that card, then the card is reset. Calling any of the Smart Card and Reader Access Functions or Direct Card Access Functions on the card that is transacted results in the timer being reset to continue allowing the transaction to be used.

The BeginTransaction function is a smart card and reader access function. For more information about other access functions, see Smart Card and Reader Access Functions.

### See also

- 153.4 SmartCard.CancelTransaction 7206
- 153.8 SmartCard.EndTransaction 7211

Created 13th June 2016, last changed 19th June 2016.



## 153.3 SmartCard.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Cancel"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns OK or error.

### Description

The only requests that you can cancel are those that require waiting for external action by the smart card or user. Any such outstanding action requests will terminate with a status indication that the action was canceled. This is especially useful to force outstanding GetStatusChange calls to terminate.

### See also

- 153.5 SmartCard.Connect 7207
- 153.6 SmartCard.Control 7209

Created 13th June 2016, last changed 18th June 2016.

## 153.4 SmartCard.CancelTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.CancelTransaction"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns OK or error.

### Description

#### See also

- 153.2 SmartCard.BeginTransaction 7204
- 153.8 SmartCard.EndTransaction 7211

Created 13th June 2016, last changed 19th June 2016.

## 153.5 SmartCard.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Connect"; SmartCardContext; Reader; ShareMode; PreferredProtocols )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### Reader

The name of the reader that contains the target card.

\$reader

#### ShareMode

A flag that indicates whether other applications may form connections to the card. Can be integer or one of the following texts: Exclusive (1), Shared (2) or Direct (3).

"Exclusive"

#### PreferredProtocols

A number with bitmask of acceptable protocols for the connection or just the text name of the value for only one protocol. Pass T0 (1), T1 (2), T15 (8, not on Windows), Any (3), RAW (4).

1+2

**Result** Returns OK or error.

### Description

Establishes a connection (using a specific resource manager context) between the calling application and a smart card contained by a specific reader. If no card exists in the specified reader, an error is returned.

On success we have a connection to a smart card.

You can query SmartCard.GetActiveProtocol

### Examples

Connect

MBS( "SmartCard.Connect"; \$Context; \$Reader; "Shared"; "any" )

### See also

- 153.3 SmartCard.Cancel 7205
- 153.6 SmartCard.Control 7209
- 153.7 SmartCard.Disconnect 7210
- 153.9 SmartCard.GetActiveProtocol 7212

- 153.12 SmartCard.Init 7216
- 153.17 SmartCard.ReadFile 7224
- 153.18 SmartCard.Reconnect 7227
- 153.22 SmartCard.Status 7232
- 153.23 SmartCard.Transmit 7233

### Example Databases

- [CURL/WebServices/eID Auto/eID Auto v2](#)
- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

### 153.5.1 Blog Entries

- [Read patient name from Swiss Health Card](#)
- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 3th August 2016.

## 153.6 SmartCard.Control

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Control"; SmartCardContext; ControlCode; InputData; OutputSize )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### ControlCode

Control code for the operation. This value identifies the specific operation to be performed.

#### InputData

Hex encoded input data. Contains the data required to perform the operation.

#### OutputSize

The expected output size. This is the buffer size the plugin will use for receiving.

1024

**Result** Returns hex encoded data or error.

### Description

You can call it any time after a successful call to SmartCard.Connect and before a successful call to SmartCard.Disconnect. The effect on the state of the reader depends on the control code.

### See also

- 153.3 SmartCard.Cancel 7205
- 153.5 SmartCard.Connect 7207
- 153.7 SmartCard.Disconnect 7210

Created 13th June 2016, last changed 19th June 2016.

## 153.7 SmartCard.Disconnect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Disconnect"; SmartCardContext; Disposition )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### Disposition

Action to take on the card in the connected reader on close. Can be Leave, Reset, Unpower or Eject. "Eject"

**Result** Returns OK or error.

### Description

Terminates a connection previously opened between the calling application and a smart card in the target reader.

### Examples

Close it:

MBS( "SmartCard.Disconnect"; \$card; "leave")

### See also

- [153.5 SmartCard.Connect](#) 7207
- [153.6 SmartCard.Control](#) 7209
- [153.12 SmartCard.Init](#) 7216
- [153.17 SmartCard.ReadFile](#) 7224
- [153.18 SmartCard.Reconnect](#) 7227
- [153.22 SmartCard.Status](#) 7232
- [153.23 SmartCard.Transmit](#) 7233

### 153.7.1 Blog Entries

- [Read patient name from Swiss Health Card](#)
- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 3th August 2016.

## 153.8 SmartCard.EndTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.EndTransaction"; SmartCardContext; Disposition )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### Disposition

Action to take on the card in the connected reader on close. Can be Eject, Leave, Reset or Unpower. "Eject"

**Result** Returns OK or error.

### Description

Completes a previously declared transaction, allowing other applications to resume interactions with the card.

### See also

- 153.2 SmartCard.BeginTransaction 7204
- 153.4 SmartCard.CancelTransaction 7206

Created 13th June 2016, last changed 19th June 2016.

## 153.9 SmartCard.GetActiveProtocol

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.GetActiveProtocol"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns value or error.

### Description

The result is undefined, Raw, T0, T1 or T15.

### See also

- [153.5 SmartCard.Connect](#) 7207
- [153.12 SmartCard.Init](#) 7216
- [153.18 SmartCard.Reconnect](#) 7227
- [153.23 SmartCard.Transmit](#) 7233

### Example Databases

- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

#### 153.9.1 Blog Entries

- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 19th June 2016.



## 153.10 SmartCard.GetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.GetAttribute"; SmartCardContext; AttributeID )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### AttributeID

The ID of the attribute.

**Result** Returns hex text or error.

### Description

It does not affect the state of the reader, driver, or card.

The plugin first queries for size of attribute and on success queries again to get the data and return it as a hex encoded text.

### See also

- 153.20 SmartCard.SetAttribute

7229

Created 13th June 2016, last changed 19th June 2016.

Name	ID	Description
AtrString	590595	Answer to reset (ATR) string.
ChannelId	131344	Number encoded as 0xDDDDCCCC, where DDDD = data channel type and CCCC = channel number.
Characteristics	393552	Integer indicating which mechanical characteristics are supported. If zero, no special characteristics are supported.
CurrentBwt	524809	Current block waiting time.
CurrentClk	524802	Current clock rate, in kHz.
CurrentCwt	524810	Current character waiting time.
CurrentD	524804	Bit rate conversion factor.
CurrentEbcEncoding	524811	Current error block control encoding: 0 = longitudinal redundancy check (LRC), 1 = cyclical redundancy check (CRC)
CurrentF	524803	Clock conversion factor.
CurrentIfsc	524807	Current byte size for information field size card.
CurrentIfsd	524808	Current byte size for information field size device.
CurrentIoState	590594	Current IO state
CurrentN	524805	Current guard time.
CurrentProtocolType	524801	Integer encoded as 0xrrrrpppp where rrr is RFU and should be 0x000. pppp encodes the current protocol type. Whichever bit has been set indicates which ISO protocol is currently in use. (For example, if bit zero is set, T=0 protocol is in effect.)
CurrentW	524806	Current work waiting time.
DefaultClk	196897	Default clock rate, in kHz.
DefaultDataRate	196899	Default data rate, in bps.
DeviceFriendlyNameA	2147418115	Reader's display name. Windows ANSI encoding.
DeviceFriendlyNameW	2147418117	Reader's display name. Unicode encoding.
DeviceInUse	2147418114	Reserved for future use.
DeviceSystemNameA	2147418116	Reader's system name. Windows ANSI encoding.
DeviceSystemNameW	2147418118	Reader's system name. Unicode encoding.
DeviceUnit	2147418113	Instance of this vendor's reader attached to the computer. The first instance will be device unit 0, the next will be unit 1 (if it is the same brand of reader) and so on. Two different brands of readers will both have zero for this value.
EscAuthrequest	499717	Esc authentication request
EscCancel	499715	Esc cancel
EscReset	499712	Esc reset
ExtendedBwt	524812	Extended block wait time.
IccInterfaceStatus	590593	Single byte. Zero if smart card electrical contact is not active; nonzero if contact is active.
IccPresence	590592	Single byte indicating smart card presence: 0 = not present, 1 = card present but not swallowed (applies only if reader supports smart card swallowing), 2 = card present (and swallowed if reader supports smart card swallowing), 4 = card confiscated.
IccTypePerAtr	590596	Single byte indicating smart card type: 0 = unknown type, 1 = 7816 Asynchronous, 2 = 7816 Synchronous. Other values RFU.
MaxClk	196898	Maximum clock rate, in kHz.
MaxDataRate	196900	Maximum data rate, in bps.
MaxIfsd	196901	Maximum bytes for information file size device.
Maxinput	499719	Maximum input
PowerMgmtSupport	262449	Zero if device does not support power down while smart card is inserted. Nonzero otherwise.
ProtocolTypes	196896	Integer encoded as 0xrrrrpppp where rrr is RFU and should be 0x000. pppp encodes the supported protocol types. A '1' in a given bit position indicates support for the associated ISO protocol, so if bits zero and one are set, both T=0 and T=1 protocols are supported.
SupressT1IfsRequest	2147418119	Supress T1 information file size request.
UserAuthInputDevice	328002	User authentication input device
UserToCardAuthDevice	328000	User to card authentication device
VendorIfdSerialNo	65795	Vendor-supplied interface device serial number.
VendorIfdType	65793	Vendor-supplied interface device type (model designation of reader).
VendorIfdVersion	65794	Vendor-supplied interface device version (DWORD in the form 0xMMmmbbb where MM = major version, mm = minor version, and bbbb = build number).
VendorName	65792	Vendor name.

## 153.11 SmartCard.HeaderTemplate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.4	Yes	Yes	No	No	No

MBS( "SmartCard.HeaderTemplate"; Protocol )

### Parameters

#### Protocol

Which protocol you need a header. Can be T0, T1 or RAW.

"T1"

**Result** Returns OK or error.

### Description

#### Examples

Get T0 header:

MBS( "SmartCard.HeaderTemplate"; "T0" )

Get T1 header:

MBS( "SmartCard.HeaderTemplate"; "T1" )

### See also

- [153.16 SmartCard.ReadCertificate](#)

7223

### Example Databases

- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

#### 153.11.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr3](#)

Created 3th August 2016, last changed 18th November 2016.

## 153.12 SmartCard.Init

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Init" )

**Result** Returns SmartCard Context ID or error.

### Description

Returns the ID for other SmartCard functions.

Please call SmartCard.Release later.

### Examples

List readers:

```
Set Variable [ $c; Value:MBS( "SmartCard.Init" ) ]
Set Variable [ $readers; Value:MBS( "SmartCard.ListReaders"; $c ) ]
Set Variable [ $r; Value:MBS( "SmartCard.Release"; $c ) ]
Show Custom Dialog [ "Readers"; $readers ]
```

Connect and query value:

```
If [ MBS( "SmartCard.Available" ) = 1 ]
# Start a new session
Set Variable [ $SCContext; Value:MBS( "SmartCard.Init" ) ]
If [ MBS( "SmartCard.Valid"; $SCContext ) ]
# Query list of readers and pick first
Set Variable [ $SCReader; Value:GetValue ( MBS( "SmartCard.ListReaders"; $SCContext ) ; 1 ) ]
If [ MBS("IsError") = 0 ]
# Connect to card
Set Variable [ $SCConnect; Value:MBS( "SmartCard.Connect"; $SCContext ; $SCReader ; "Shared"; "any" ) ]
Set Variable [ $PProtocol; Value:MBS( "SmartCard.GetActiveProtocol"; $SCContext ) ]
If [ $SCConnect = "OK" ]
# Run a query
Set Variable [ $Result; Value:MBS( "SmartCard.Transmit"; $SCContext; "0200000008000000"; "00ca018202"; 512 ) ]
# Result is 4 bytes. Starts with C901 for Version 5.0 or C903 for Version 5.3
Show Custom Dialog [ "Version"; $result ]
# Disconnect
Set Variable [ $SCDisconnect; Value:MBS( "SmartCard.Disconnect"; $SCContext; "Leave" ) ]
Else
Show Custom Dialog [ "Error"; "No card available." ]
End If
End If
# End Card Session
Set Variable [ $SCRelease; Value:MBS( "SmartCard.Release" ; $SCContext ) ]
```

```

Else
Show Custom Dialog [ "Error"; "Failed to initialize" ]
End If
Else
Show Custom Dialog [ "Error"; "No SmartCard API on this OS." ]
End If

```

Query name from Swiss health card:

```

# Initialize smart card:
Set Variable [ $$SmartCard ; Value: MBS( "SmartCard.Init" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to initialize SmartCard" ; $$SmartCard ]
Exit Script [ Text Result: ]
End If
#
# Connect to a reader
Set Variable [ $reader ; Value: "Identiv SCR3310 uTrust 2700 R" ]
Set Variable [ $r ; Value: MBS( "SmartCard.Connect"; $$SmartCard; $Reader; "Shared"; "any" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect failed" ; $r ]
Exit Script [ Text Result: ]
End If
#
# Read file from smartcard with APDU protocol.
#
# Read record with name
Set Variable [ $result ; Value: MBS( "SmartCard.ReadFile"; $$SmartCard; "2F06" ) ]
If [ MBS("IsError") ]
Set Field [ Card::Status ; $result ]
Show Custom Dialog [ "Error" ; $result ]
Exit Script [ Text Result: ]
End If
# Pick result
Set Variable [ $filedata ; Value: Middle ( $result ; 5; Length($result) ) ]
#
# Split in values
Set Variable [ $json ; Value: MBS("SmartCard.SplitValues"; $FileData) ]
# Get item 128, which is full name
Set Variable [ $name ; Value: JSONGetElement ( $json ; "128" ) ]
Set Variable [ $nameList ; Value: Substitute($name; ", "; § ) ]
Set Variable [ $lastName ; Value: GetValue($nameList; 1) ]
Set Variable [ $firstName ; Value: GetValue($nameList; 2) ]
#
Show Custom Dialog [ "Name" ; $FirstName & " " & $LastName ]
Set Variable [ $r ; Value: MBS( "SmartCard.DisConnect"; $$SmartCard; "Eject" ) ]

```

**See also**

- [127.6 IsError](#) 6374
- [153.1 SmartCard.Available](#) 7203
- [153.5 SmartCard.Connect](#) 7207
- [153.7 SmartCard.Disconnect](#) 7210
- [153.9 SmartCard.GetActiveProtocol](#) 7212
- [153.17 SmartCard.ReadFile](#) 7224
- [153.21 SmartCard.SplitValues](#) 7230
- [153.23 SmartCard.Transmit](#) 7233
- [153.25 SmartCard.Valid](#) 7237
- [127.62 Version](#) 6446

**Example Databases**

- [CURL/WebServices/eID Auto/eID Auto v2](#)
- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

**153.12.1 Blog Entries**

- [Read patient name from Swiss Health Card](#)
- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 8th March 2019.

## 153.13 SmartCard.ListReaderGroups

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.ListReaderGroups"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns list or error.

### Description

Provides the list of reader groups that have previously been introduced to the system.

The groups may be SCard\$AllReaders, SCard\$DefaultReaders, SCard\$LocalReaders and SCard\$System-Readers.

### See also

- 153.14 SmartCard.ListReaders

7220

Created 13th June 2016, last changed 18th June 2016.

## 153.14 SmartCard.ListReaders

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.ListReaders"; SmartCardContext { ; Groups } )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### Groups

Optional

Optional a list of groups to search.

"SCard\$LocalReaders"

**Result** Returns OK or error.

### Description

### Examples

List readers:

```
Set Variable [ $c; Value:MBS( "SmartCard.Init" ) ]
Set Variable [ $readers; Value:MBS( "SmartCard.ListReaders"; $c ) ]
Set Variable [ $r; Value:MBS( "SmartCard.Release"; $c ) ]
Show Custom Dialog [ "Readers"; $readers ]
```

### See also

- [153.12 SmartCard.Init](#) 7216
- [153.13 SmartCard.ListReaderGroups](#) 7219
- [153.19 SmartCard.Release](#) 7228
- [153.23 SmartCard.Transmit](#) 7233

### Example Databases

- [CURL/WebServices/eID Auto/eID Auto v2](#)
- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)



### 153.14.1 Blog Entries

- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 18th June 2016.

## 153.15 SmartCard.PerformSignature

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	7.0	Yes	Yes	Yes	No	No

MBS( "SmartCard.PerformSignature"; SmartCardContext; DeviceType; Hash { ; ReturnType } )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### DeviceType

Which device to handle, so the plugin talks the right dialect. Currently supported cardos and acos.  
"cardos"

#### Hash

The input hash to sign. Length should be 40 hex characters, so it's decoded 20 bytes.

"0011223344556677889900112233445566778899"

#### ReturnType

Optional

What format to return the certificate. Can be Hex or Base64. Default is hex.

"Hex"

**Result** Returns result or error.

### Description

Convenience function which wraps a few calls to Transmit function.

With plugin version 7.1 the length of hash is variable.

This is function for atos Smartcards CardOS v5.0/5.3, which we needed for point of sales software in Austria. It may not work with your cards unless they have same protocol.

### Example Databases

- [SmartCard/SmartCard Signatures](#)

### 153.15.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr5](#)
- [MBS FileMaker Plugin, version 7.0pr4](#)

Created 18th January 2017, last changed 17th June 2018.

## 153.16 SmartCard.ReadCertificate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	7.0	Yes	Yes	Yes	No	No

MBS( "SmartCard.ReadCertificate"; SmartCardContext; DeviceType { ; ReturnType } )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### DeviceType

Which device to handle, so the plugin talks the right dialect. Currently supported cardos and acos.  
"cardos"

#### ReturnType

Optional

What format to return the certificate. Can be Hex or Base64. Default is hex.

"Hex"

**Result** Returns result or error.

### Description

Convenience function which wraps a few calls to Transmit function.

This is function for atos Smartcards CardOS v5.0/5.3, which we needed for point of sales software in Austria. It may not work with your cards unless they have same protocol.

#### See also

- [153.11 SmartCard.HeaderTemplate](#)

7215

### Example Databases

- [SmartCard/SmartCard Signatures](#)

#### 153.16.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr4](#)

Created 18th January 2017, last changed 17th June 2018.

## 153.17 SmartCard.ReadFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	8.5	Yes	Yes	Yes	No	No

MBS( "SmartCard.ReadFile"; SmartCardContext; FileID; ResultType )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### FileID

The fileID of the file to retrieve. Given as hex string.

"2F07"

#### ResultType

How to return data. Can be JPEG, Hex or Base64.

"Hex"

**Result** Returns data or error.

### Description

Returns data in desired encoding or error message.

The first two bytes (4 Hex characters) are status code.

For JPEG we remove status code to return only image.

For Swiss health cards, the relevant IDs are 2F06 and 2F07.

For Belgian EID:

```
4031  ID RN
4032  SGN RN
4033  ID Address
4034  SGN Address
4035  ID Photo
```

You find the IDs for files usually in documentation or your card!

For some cards you may first need to move down a hierarchy of folders to get an item via SmartCard.Transmit.

### Examples

Read file from smartcard with APDU protocol:

```
Set Variable [ $result ; Value: MBS( "SmartCard.ReadFile"; $$SmartCard; Card::FileID) ]
If [ MBS("IsError") ]
Set Field [ Card::Status ; $result ]
```

```
Show Custom Dialog [ "Error" ; $result ]
Else
Set Field [ Card::FileData ; $result ]
Set Field [ Card::Status ; "OK " & Left ( $result ; 4 ) ]
#
Perform Script [ Specified: From list ; "Split" ; Parameter: ]
End If
```

Query name from Swiss health card:

```
# Initialize smart card:
Set Variable [ $$SmartCard ; Value: MBS( "SmartCard.Init" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to initialize SmartCard" ; $$SmartCard ]
Exit Script [ Text Result: ]
End If
#
# Connect to a reader
Set Variable [ $reader ; Value: "Identiv SCR3310 uTrust 2700 R" ]
Set Variable [ $r ; Value: MBS( "SmartCard.Connect"; $$SmartCard; $reader; "Shared"; "any" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect failed" ; $r ]
Exit Script [ Text Result: ]
End If
#
# Read file from smartcard with APDU protocol.
#
# Read record with name
Set Variable [ $result ; Value: MBS( "SmartCard.ReadFile"; $$SmartCard; "2F06" ) ]
If [ MBS("IsError") ]
Set Field [ Card::Status ; $result ]
Show Custom Dialog [ "Error" ; $result ]
Exit Script [ Text Result: ]
End If
# Pick result
Set Variable [ $filedata ; Value: $result ]
#
# Split in values
Set Variable [ $json ; Value: MBS("SmartCard.SplitValues"; $filedata) ]
# Get item 128, which is full name
Set Variable [ $name ; Value: JSONGetElement ( $json ; "128" ) ]
Set Variable [ $nameList ; Value: Substitute($name; ", "; § ) ]
Set Variable [ $lastName ; Value: GetValue($nameList; 1) ]
Set Variable [ $firstName ; Value: GetValue($nameList; 2) ]
#
Show Custom Dialog [ "Name" ; $firstName & " " & $lastName ]
Set Variable [ $r ; Value: MBS( "SmartCard.DisConnect"; $$SmartCard; "Eject" ) ]
```

**See also**

- [127.6 IsError](#) 6374
- [153.5 SmartCard.Connect](#) 7207
- [153.7 SmartCard.Disconnect](#) 7210
- [153.12 SmartCard.Init](#) 7216
- [153.19 SmartCard.Release](#) 7228
- [153.21 SmartCard.SplitValues](#) 7230
- [153.23 SmartCard.Transmit](#) 7233

**Example Databases**

- [SmartCard/SmartCard ReadFile](#)

**153.17.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr2](#)
- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr1](#)
- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr6](#)
- [Read patient name from Swiss Health Card](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [New functions for smart card reading](#)

Created 19th October 2018, last changed 6th December 2019.

## 153.18 SmartCard.Reconnect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Reconnect"; SmartCardContext; ShareMode; PreferredProtocols; Initialization )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### ShareMode

A flag that indicates whether other applications may form connections to the card. Can be integer or one of the following texts: Exclusive (1), Shared (2) or Direct (3).

"Exclusive"

#### PreferredProtocols

A number with bitmask of acceptable protocols for the connection or just the text name of the value for only one protocol. Pass T0 (1), T1 (2), T15 (8, not on Windows), Any (3), RAW (4).

1+2

#### Initialization

Type of initialization that should be performed on the card. Can be Leave, Reset, Unpower or Eject.

"Reset"

**Result** Returns OK or error.

### Description

The Reconnect function reestablishes an existing connection between the calling application and a smart card. This function moves a card handle from direct access to general access, or acknowledges and clears an error condition that is preventing further access to the card.

On success we have a connection to a smart card.

You can query SmartCard.GetActiveProtocol

### See also

- 153.5 SmartCard.Connect 7207
- 153.7 SmartCard.Disconnect 7210
- 153.9 SmartCard.GetActiveProtocol 7212

Created 13th June 2016, last changed 19th June 2016.

## 153.19 SmartCard.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Release"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns OK or error.

### Description

Also frees any smart card object.

### See also

- 153.12 SmartCard.Init 7216
- 153.14 SmartCard.ListReaders 7220
- 153.17 SmartCard.ReadFile 7224
- 153.23 SmartCard.Transmit 7233

### 153.19.1 Blog Entries

- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 18th June 2016.



## 153.20 SmartCard.SetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.SetAttribute"; SmartCardContext; AttributeID; Value )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### AttributeID

The ID of the attribute.

#### Value

The hex encoded data to be set.

**Result** Returns OK or error.

### Description

It does not affect the state of the reader, reader driver, or smart card. Not all attributes are supported by all readers (nor can they be set at all times) as many of the attributes are under direct control of the transport protocol.

### See also

- 153.10 SmartCard.GetAttribute

7213

Created 13th June 2016, last changed 19th June 2016.

## 153.21 SmartCard.SplitValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	8.5	Yes	Yes	Yes	No	No

MBS( "SmartCard.SplitValues"; Input )

### Parameters

#### Input

The hex encoded input string.

**Result** Returns JSON or error.

#### Description

Files on smartcard can contain key/value data.

Returns JSON with an object containing numbers as text (key) and values as text.

Sample for JSON result:

```
{
  "128":  "MILLER, JOE",
  "130":  "19651201",
  "131":  "123456789012",
  "132":  "\u0001"
}
```

Starting with version 10.0 we hex encode binary data instead of assuming it's UTF-8.

### Examples

Split file data:

```
Set Variable [ $json ; Value: MBS("SmartCard.SplitValues"; Card::FileData) ]
If [ MBS("IsError") ]
Set Field [ Card::JSON ; "" ]
Else
Set Field [ Card::JSON ; MBS("JSON.Colorize"; $json) ]
End If
```

### See also

- 127.6 IsError 6374
- 102.16 JSON.Colorize 5334

153.21. SMARTCARD.SPLITVALUES	7231
• 153.12 SmartCard.Init	7216
• 153.17 SmartCard.ReadFile	7224

### Example Databases

- [SmartCard/SmartCard ReadFile](#)

### 153.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [Read patient name from Swiss Health Card](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)
- [New functions for smart card reading](#)

Created 19th October 2018, last changed 6th December 2019.

## 153.22 SmartCard.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Status"; SmartCardContext; Selector )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### Selector

Which value to query. Can be ReaderName, State, Protocol or ATR.

"State"

**Result** Returns value or error.

### Description

You can call it any time after a successful call to SmartCard.Connect and before a successful call to SmartCard.Disconnect. It does not affect the state of the reader or reader driver.

If you ask for State, the result is Absent, Present, Swallowed, Powered, Negotiable or Specific.

### Examples

Query reader name:

MBS( "SmartCard.Status"; \$SmartCardContext; "ReaderName" )

### See also

- 153.5 SmartCard.Connect 7207
- 153.7 SmartCard.Disconnect 7210

### Example Databases

- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

Created 13th June 2016, last changed 18th June 2016.

## 153.23 SmartCard.Transmit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Transmit"; SmartCardContext; SendHeader; SendBuffer; RecvLength )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

#### SendHeader

The hex encoded protocol header structure for the instruction. This buffer is in the format of an SCARD\_IO\_REQUEST structure, followed by the specific protocol control information (PCI). For the T=0, T=1, and Raw protocols, the PCI structure is constant. The smart card subsystem supplies a global T=0, T=1, or Raw PCI structure, which you can reference by using the symbols T0, T1, and RAW respectively. With version 7.0 or newer this can be empty to use default header.

"T1"

#### SendBuffer

The hex encoded data to be sent to the card. For T=0, the data parameters are placed into the address pointed to by pbSendBuffer according to the following structure:

Type name	Description	Byte Cla	The instruction class	Byte Ins	The instruction code	Byte P1	Parameter to the instruction	Byte P2	Parameter to the instruction	Byte P3	Size of I/O transfer

The data sent to the card should immediately follow the send buffer. In the special case where no data is sent to the card and no data is expected in return, P3 is not sent.

#### RecvLength

The number of bytes for the receiving buffer.

1024

**Result** Returns Receive Buffer or error.

### Description

Returns receive buffer hex encoded.

see also

[https://msdn.microsoft.com/en-us/library/windows/desktop/aa379804\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/aa379804(v=vs.85).aspx)

You can use SmartCard.TransmitReceiveHeader to return last Transmit's receive header.

### Examples

Query serial number of card:

MBS( "SmartCard.Transmit"; \$Context; "0200000008000000"; "00ca018108"; 8 )

Query version:

```
MBS( "SmartCard.Transmit"; $Context; "0200000008000000"; "00ca018202"; 2 )
```

Connect and query value:

```
If [ MBS( "SmartCard.Available" ) = 1 ]
# Start a new session
Set Variable [ $$SCContext; Value:MBS( "SmartCard.Init" ) ]
If [ MBS( "SmartCard.Valid"; $$SCContext ) ]
# Query list of readers and pick first
Set Variable [ $$SCReader; Value:GetValue ( MBS( "SmartCard.ListReaders"; $$SCContext ) ; 1 ) ]
If [ MBS("IsError") = 0 ]
# Connect to card
Set Variable [ $$SCConnect; Value:MBS( "SmartCard.Connect"; $$SCContext ; $$SCReader ; "Shared"; "any" )
]
Set Variable [ $PProtocol; Value:MBS( "SmartCard.GetActiveProtocol"; $$SCContext ) ]
If [ $$SCConnect = "OK" ]
# Run a query
Set Variable [ $Result; Value:MBS( "SmartCard.Transmit"; $$SCContext; "0200000008000000"; "00ca018202";
512 ) ]
# Result is 4 bytes. Starts with C901 for Version 5.0 or C903 for Version 5.3
Show Custom Dialog [ "Version"; $result ]
# Disconnect
Set Variable [ $$SCDisconnect; Value:MBS( "SmartCard.Disconnect"; $$SCContext; "Leave" ) ]
Else
Show Custom Dialog [ "Error"; "No card available." ]
End If
End If
# End Card Session
Set Variable [ $$SCRelease; Value:MBS( "SmartCard.Release" ; $$SCContext ) ]
Else
Show Custom Dialog [ "Error"; "Failed to initialize" ]
End If
Else
Show Custom Dialog [ "Error"; "No SmartCard API on this OS." ]
End If
```

Transmit select file commands to go into folder for EID cards:

```
# select folder 3F00
MBS( "SmartCard.Transmit"; 58001; "T1"; "00A4020C023F0000"; 200 )
# select subfolder DF 01
MBS( "SmartCard.Transmit"; 58001; "T1"; "00A4020C02DF0100"; 200 )
# now do readfile of 4031
```

**See also**

<i>153.23. SMARTCARD.TRANSMIT</i>	7235
• 127.6 IsError	6374
• 153.1 SmartCard.Available	7203
• 153.5 SmartCard.Connect	7207
• 153.9 SmartCard.GetActiveProtocol	7212
• 153.12 SmartCard.Init	7216
• 153.17 SmartCard.ReadFile	7224
• 153.19 SmartCard.Release	7228
• 153.24 SmartCard.TransmitReceiveHeader	7236
• 153.25 SmartCard.Valid	7237
• 127.62 Version	6446

### **Example Databases**

- [SmartCard/SmartCard ReadFile](#)

### **153.23.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr4](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)
- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 6th December 2019.

## 153.24 SmartCard.TransmitReceiveHeader

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.TransmitReceiveHeader"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns hex encoded data or error.

### Description

#### See also

- 153.23 SmartCard.Transmit

7233

Created 19th June 2016, last changed 19th June 2016.



## 153.25 SmartCard.Valid

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
153 SmartCard	6.3	Yes	Yes	Yes	No	No

MBS( "SmartCard.Valid"; SmartCardContext )

### Parameters

#### SmartCardContext

The smartcard context reference number.

\$SmartCardContext

**Result** Returns 1, 0 or error.

### Description

Value is 1 if valid or 0 if not.

### See also

- [153.12 SmartCard.Init](#) 7216
- [153.23 SmartCard.Transmit](#) 7233

### Example Databases

- [SmartCard/SmartCard ReadFile](#)
- [SmartCard/SmartCard Signatures](#)

### 153.25.1 Blog Entries

- [Talking to a SmartCard in FileMaker Pro](#)

Created 13th June 2016, last changed 18th June 2016.



# Chapter 154

## SNMP

Functions to query values via SNMP.

### 154.1 SNMP.Get

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
154 SNMP	3.1	Yes	No	Yes	Yes	No

MBS( "SNMP.Get"; Community; Target; ObjectID )

#### Parameters

##### Community

The community name to use.  
"public"

##### Target

The IP and port to connect to.  
"192.168.2.5:1234"

##### ObjectID

The object ID to use.  
"system.sysUpTime.0"

**Result** Returns the result or an error.

#### Description

Using version 1, no authentication and no security options.

#### Examples

Query uptime of demo server:

```
$r = MBS("SNMP.Get"; "demopublic"; "test.net-snmp.org"; "system.sysUpTime.0")
```

### 154.1.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS Filemaker Plugin, version 3.1pr1](#)

Created 18th August 2014, last changed 22nd May 2017.

## 154.2 SNMP.SetRetries

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
154 SNMP	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "SNMP.SetRetries"; value )

### Parameters

#### value

The new retries value. Pass -1 to use default.

2

**Result** Returns OK.

### Description

### Examples

Set to allow 2 retries and a timeout of 2 seconds:

```
MBS( "SNMP.SetRetries"; 2 )
```

```
MBS( "SNMP.SetTimeout"; 2000000 )
```

### See also

- [154.3 SNMP.SetTimeout](#)

7242

### 154.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 154.3 SNMP.SetTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
154 SNMP	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "SNMP.SetTimeout"; value )

### Parameters

#### value

The new timeout value. Pass -1 to use default.  
2000000

**Result** Returns OK.

### Description

Value is in microseconds (1 million microseconds per second)

### Examples

Set to allow 2 retries and a timeout of 2 seconds:

```
MBS( "SNMP.SetRetries"; 2 )
```

```
MBS( "SNMP.SetTimeout"; 2000000 )
```

### See also

- 104.31 LDAP.SetTimeOut 5489
- 154.2 SNMP.SetRetries 7241
- 160.12 SSH.GetTimeout 7620
- 160.27 SSH.SetTimeout 7638

### 154.3.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr5](#)

Created 18th August 2014, last changed 18th August 2014.

# Chapter 155

## Social

Functions to work with social networks on Mac, e.g. Twitter and Facebook.

### 155.1 Social.AccountProperty

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "Social.AccountProperty"; accountIdentifier; Selector )

#### Parameters

##### accountIdentifier

The ID for the account.

##### Selector

Which value to return. Can be identifier, accountDescription, username, credential, accountType or accountTypeIdentifier.

"username"

**Result** Returns value or error.

#### Description

Please use Social.Accounts function to find account identifiers.

#### Examples

List Twitter Accounts

```
Go to Layout [ "Accounts" (Accounts) ]
Delete All Records [ No dialog ]
Set Variable [ $list; Value:MBS( "Social.Accounts"; "Twitter" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error finding accounts"; $list ]
```

```
Else
Set Variable [ $count; Value:ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i; Value:1 ]
Loop
Set Variable [ $accountIdentifier; Value:GetValue ( $list ; $i ) ]
New Record/Request
Set Field [ Accounts::Identifier; MBS( "Social.AccountProperty"; $accountIdentifier; "Identifier" ) ]
Set Field [ Accounts::Description; MBS( "Social.AccountProperty"; $accountIdentifier; "Description" ) ]
Set Field [ Accounts::Username; MBS( "Social.AccountProperty"; $accountIdentifier; "username" ) ]
Set Field [ Accounts::Type; MBS( "Social.AccountProperty"; $accountIdentifier; "accountType" ) ]
Commit Records/Requests [ No dialog ]
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $count ]
End Loop
End If
End If
```

**See also**

- 127.6 IsError 6374
- 155.2 Social.Accounts 7245

**Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.



## 155.2 Social.Accounts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "Social.Accounts" { ; Type } )

### Parameters

#### Type

Optional

The type of accounts to find. If not provided or empty, all account types are used. Can be Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn. LinkedIn is macOS only and not available on iOS.

"Twitter"

**Result** Returns list of identifiers or error.

### Description

Works only on Mac OS X with 64-bit FileMaker.

Added iOS support for plugin version 7.3.

### Examples

List Twitter Accounts

```

Go to Layout [ "Accounts" (Accounts) ]
Delete All Records [ No dialog ]
Set Variable [ $list; Value:MBS( "Social.Accounts"; "Twitter" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error finding accounts"; $list ]
Else
Set Variable [ $count; Value:ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i; Value:1 ]
Loop
Set Variable [ $accountIdentifier; Value:GetValue ( $list ; $i ) ]
New Record/Request
Set Field [ Accounts::Identifier; MBS( "Social.AccountProperty"; $accountIdentifier; "Identifier" ) ]
Set Field [ Accounts::Description; MBS( "Social.AccountProperty"; $accountIdentifier; "Description" ) ]
Set Field [ Accounts::Username; MBS( "Social.AccountProperty"; $accountIdentifier; "username" ) ]
Set Field [ Accounts::Type; MBS( "Social.AccountProperty"; $accountIdentifier; "accountType" ) ]
Commit Records/Requests [ No dialog ]
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $count ]
End Loop
End If
End If

```

Post on Twitter:

```

Set Variable [ $accounts; Value:MBS( "Social.Accounts"; "Twitter" ) ]
Set Variable [ $accountIdentifier; Value:GetValue($accounts; 1) ]
If [ $accountIdentifier = "" ]
Show Custom Dialog [ "No Twitter account allowed?" ]
Else
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.AddParameter"; $request; "status"; Tweets::Message ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.SetAccount"; $request; $accountIdentifier ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Perform"; $request; Get(FileName); "TweetCompleted" ) ]
End If

```

**See also**

- 127.6 IsError 6374
- 155.1 Social.AccountProperty 7243
- 155.5 SocialRequest.AddParameter 7250
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264
- 155.18 SocialRequest.SetAccount 7267

**Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 12nd June 2017.

## 155.3 Social.HasAccessForAccountType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "Social.HasAccessForAccountType"; Type )

### Parameters

#### Type

The type of accounts to check. Can be Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn. "Twitter"

**Result** Returns 0, 1 or error.

### Description

Returns 1 if you have permissions. If it returns 0, please use Social.RequestAccessForAccountType function.

### Examples

Check permissions:

```
Set Variable [ $r; Value:MBS( "Social.HasAccessForAccountType"; "Twitter" ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Permissions"; "We do have permissions for Twitter." ]
Else If [ $r = 0 ]
Show Custom Dialog [ "Permissions"; "We don't have permissions for Twitter." ]
Else
Show Custom Dialog [ "Permissions"; "Failed to check: " & $r ]
End If
```

### See also

- 155.4 Social.RequestAccessForAccountType

7248

### Example Databases

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.

## 155.4 Social.RequestAccessForAccountType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "Social.RequestAccessForAccountType"; Type { ; Filename; ScriptName } )

### Parameters

#### Type

The type of accounts to checks. Can be Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn. LinkedIn is macOS only and not available on iOS.

"Twitter"

#### Filename

Optional

The database file name where the script is located.

"test.fmp12"

#### ScriptName

Optional

The script to call when access is decided.

"MyScript"

**Result** Returns OK or error.

### Description

Obtains permission, if necessary, from the user to access protected properties, and utilize accounts of a particular type in protected operations, for example OAuth signing.

The provided script is called (if provided) to inform about whether access is granted.

The parameter of the script is a list of values containing first the type of service, second granted or failed as keyword and third an error message.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Request permissions for Twitter:

```
Set Variable [ $r; Value:MBS( "Social.RequestAccessForAccountType"; "Twitter"; Get(Filename); "RequestAccessForAccountTypeCompleted" ) ]
```

### See also

- 155.3 Social.HasAccessForAccountType

**Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 11st June 2017.

## 155.5 SocialRequest.AddParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.AddParameter"; Request; Key; Value )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### Key

The name of the parameter.

"status"

#### Value

The value for this parameter.

"Hello World"

**Result** Returns OK or error.

### Description

### Examples

Post on Twitter:

```
Set Variable [ $accounts; Value:MBS( "Social.Accounts"; "Twitter" ) ]
Set Variable [ $accountIdentifier; Value:GetValue($accounts; 1) ]
If [ $accountIdentifier = "" ]
Show Custom Dialog [ "No Twitter account allowed?" ]
Else
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.AddParameter"; $request; "status"; Tweets::Message ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.SetAccount"; $request; $accountIdentifier ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Perform"; $request; Get(FileName); "TweetCompleted" ) ]
End If
```

Test parameters:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.AddParameter"; $request; "test"; "value" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.ClearParameter"; $request ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

155.5. *SOCIALREQUEST.ADDPARAMETER*

7251

**See also**

- 155.2 Social.Accounts 7245
- 155.7 SocialRequest.ClearParameter 7253
- 155.10 SocialRequest.GetParameterCount 7256
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264
- 155.17 SocialRequest.Release 7266
- 155.18 SocialRequest.SetAccount 7267

**Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.

## 155.6 SocialRequest.ClearMultipartData

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.ClearMultipartData"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

**Result** Returns OK or error.

### Description

Useful to recycle a request and fill in new data.

### See also

- 155.15 SocialRequest.New

7262

Created 28th August 2015, last changed 28th August 2015.



## 155.7 SocialRequest.ClearParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.ClearParameter"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns OK or error.

### Description

### Examples

Test parameters:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.AddParameter"; $request; "test"; "value" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.ClearParameter"; $request ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.5 SocialRequest.AddParameter 7250
- 155.10 SocialRequest.GetParameterCount 7256
- 155.15 SocialRequest.New 7262
- 155.17 SocialRequest.Release 7266

Created 28th August 2015, last changed 10th February 2016.

## 155.8 SocialRequest.GetAccount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetAccount"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns identifier or error.

### Description

#### See also

- 155.12 SocialRequest.GetResponse 7258
- 155.15 SocialRequest.New 7262
- 155.18 SocialRequest.SetAccount 7267

Created 28th August 2015, last changed 28th August 2015.

## 155.9 SocialRequest.GetMultiPartDataCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetMultiPartDataCount"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns number or error.

### Description

#### See also

- 155.15 SocialRequest.New

7262

Created 28th August 2015, last changed 28th August 2015.

## 155.10 SocialRequest.GetParameterCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetParameterCount"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns number or error.

### Description

### Examples

Test parameters:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.AddParameter"; $request; "test"; "value" ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.ClearParameter"; $request ) ]
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetParameterCount"; $Request ) ]
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.5 SocialRequest.AddParameter 7250
- 155.7 SocialRequest.ClearParameter 7253
- 155.15 SocialRequest.New 7262
- 155.17 SocialRequest.Release 7266

Created 28th August 2015, last changed 10th February 2016.

## 155.11 SocialRequest.GetRequestMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetRequestMethod"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns method or error.

### Description

Returns POST, GET, DELETE or PUT.

### Examples

Check request method:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
```

```
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetRequestMethod"; $Request ) ]
```

```
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.15 SocialRequest.New 7262
- 155.17 SocialRequest.Release 7266
- 155.19 SocialRequest.SetRequestMethod 7269

Created 28th August 2015, last changed 10th February 2016.

## 155.12 SocialRequest.GetResponse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetResponse"; Request; Selector { ; Encoding } )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### Selector

Which value to query. Can be Error, Response, StatusCode, URL, MIMETYPE, expectedContentLength, textEncodingName, suggestedFilename, StatusCodeText, Headers or a HTTP header field.

"Response"

#### Encoding

Optional

The text encoding for result in case you use "Response" for selector. Default is UTF-8.

UTF8

**Result** Returns value or error.

### Description

You can use this to query if the request was successful.

For a successful request, the error value is empty (no error sending) and StatusCode is 200 (no error in web service). The response text may be xml/json depending on service and have more details. MIMETYPE provides data type for the response, normally text/xml or application/json.

You can use Text.MimeTypeToFileExtension to find the file extension for mime type.

### Examples

Script triggered after tweeting finished:

```
Set Variable [ $request; Value:Get(ScriptParameter) ]
Set Field [ Tweets::Status; MBS( "SocialRequest.GetResponse"; $request; "StatusCode" ) ]
Set Field [ Tweets::Response; MBS( "SocialRequest.GetResponse"; $request; "Response" ) ]
Set Field [ Tweets::ErrorMessage; MBS( "SocialRequest.GetResponse"; $request; "Error" ) ]
Set Field [ Tweets::Headers; MBS( "SocialRequest.GetResponse"; $request; "Headers" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.8 SocialRequest.GetAccount 7254
- 155.14 SocialRequest.GetURL 7261
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264

<i>155.12. SOCIALREQUEST.GETRESPONSE</i>	7259
• 155.17 SocialRequest.Release	7266
• 167.47 Text.MimeTypeToFileExtension	7969

### **Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.

## 155.13 SocialRequest.GetServiceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetServiceType"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns type as text or error.

### Description

Returns Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn.

### Examples

Check service type:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
```

```
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetServiceType"; $Request ) ]
```

```
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.15 SocialRequest.New 7262
- 155.17 SocialRequest.Release 7266
- 155.20 SocialRequest.SetServiceType 7270

Created 28th August 2015, last changed 10th February 2016.



## 155.14 SocialRequest.GetURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.GetURL"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns URL as text or error.

### Description

The URL returns via SocialRequest.GetResponse may be different due to redirection.

### Examples

Check URL after creation:

```
Set Variable [ $request ; Value: MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
```

```
Show Custom Dialog [ "URL" ; MBS( "SocialRequest.GetURL"; $Request ) ]
```

```
Set Variable [ $r ; Value: MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.12 SocialRequest.GetResponse 7258
- 155.15 SocialRequest.New 7262
- 155.17 SocialRequest.Release 7266
- 155.21 SocialRequest.SetURL 7271

Created 28th August 2015, last changed 10th February 2016.

## 155.15 SocialRequest.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.New" { ; ServiceType; URL; RequestMethod } )

### Parameters

#### ServiceType

Optional

The service type to use. Can be Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn. LinkedIn is macOS only and not available on iOS.

"Twitter"

#### URL

Optional

The URL to use for this request. Depends on the webservice.

"https://api.twitter.com/1.1/statuses/update.json"

#### RequestMethod

Optional

What request method to use. Can be DELETE, PUT, POST or GET.

"POST"

**Result** Returns reference number or error.

### Description

This function is for easily query social web services like Twitter or Facebook by using the user account defined in system preferences. So you don't need to implement calling web service yourself and you don't need to ask user for credentials.

Please use SocialRequest.Release later to free request.

Added iOS support for plugin version 7.3.

### Examples

Post on Twitter:

```
Set Variable [ $accounts; Value:MBS( "Social.Accounts"; "Twitter" ) ]
Set Variable [ $accountIdentifier; Value:GetValue($accounts; 1) ]
If [ $accountIdentifier = "" ]
Show Custom Dialog [ "No Twitter account allowed?" ]
Else
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.AddParameter"; $request; "status"; Tweets::Message ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.SetAccount"; $request; $accountIdentifier ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Perform"; $request; Get(FileName); "TweetCompleted" ) ]
End If
```

**See also**

- 155.22 SocialRequest.addMultipartContainer 7272
- 155.7 SocialRequest.ClearParameter 7253
- 155.9 SocialRequest.GetMultiPartDataCount 7255
- 155.10 SocialRequest.GetParameterCount 7256
- 155.13 SocialRequest.GetServiceType 7260
- 155.16 SocialRequest.Perform 7264
- 155.17 SocialRequest.Release 7266
- 155.18 SocialRequest.SetAccount 7267
- 155.20 SocialRequest.SetServiceType 7270
- 155.21 SocialRequest.SetURL 7271

**Example Databases**

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 12nd June 2017.

## 155.16 SocialRequest.Perform

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.Perform"; Request; Filename; ScriptName )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script to call when access is decided.

"MyScript"

**Result** Returns OK or error.

### Description

Once request is done, you can query the result with SocialRequest.GetResponse function. The plugin calls the given script and passes the request reference number as parameter.

Function requires 64-bit Mac application, so please use FileMaker 14 or newer.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Post on Twitter:

```
Set Variable [ $accounts; Value:MBS( "Social.Accounts"; "Twitter" ) ]
Set Variable [ $accountIdentifier; Value:GetValue($accounts; 1) ]
If [ $accountIdentifier = "" ]
Show Custom Dialog [ "No Twitter account allowed?" ]
Else
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.AddParameter"; $request; "status"; Tweets::Message ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.SetAccount"; $request; $accountIdentifier ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Perform"; $request; Get(FileName); "TweetCompleted" ) ]
End If
```

Script triggered after tweeting finished:

## 155.16. SOCIALREQUEST.PERFORM

7265

```
Set Variable [ $request; Value:Get(ScriptParameter) ]
Set Field [ Tweets::Status; MBS( "SocialRequest.GetResponse"; $request; "StatusCode" ) ]
Set Field [ Tweets::Response; MBS( "SocialRequest.GetResponse"; $request; "Response" ) ]
Set Field [ Tweets::ErrorMessage; MBS( "SocialRequest.GetResponse"; $request; "Error" ) ]
Set Field [ Tweets::Headers; MBS( "SocialRequest.GetResponse"; $request; "Headers" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- [155.2 Social.Accounts](#) 7245
- [155.5 SocialRequest.AddParameter](#) 7250
- [155.12 SocialRequest.GetResponse](#) 7258
- [155.15 SocialRequest.New](#) 7262
- [155.17 SocialRequest.Release](#) 7266
- [155.18 SocialRequest.SetAccount](#) 7267

### Example Databases

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.

## 155.17 SocialRequest.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.Release"; Request )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**Result** Returns OK or error.

### Description

Frees all memory used for this request.

### Examples

Script triggered after tweeting finished:

```
Set Variable [ $request; Value:Get(ScriptParameter) ]
Set Field [ Tweets::Status; MBS( "SocialRequest.GetResponse"; $request; "StatusCode" ) ]
Set Field [ Tweets::Response; MBS( "SocialRequest.GetResponse"; $request; "Response" ) ]
Set Field [ Tweets::ErrorMessage; MBS( "SocialRequest.GetResponse"; $request; "Error" ) ]
Set Field [ Tweets::Headers; MBS( "SocialRequest.GetResponse"; $request; "Headers" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Release"; $request ) ]
```

### See also

- 155.5 SocialRequest.AddParameter 7250
- 155.7 SocialRequest.ClearParameter 7253
- 155.10 SocialRequest.GetParameterCount 7256
- 155.11 SocialRequest.GetRequestMethod 7257
- 155.12 SocialRequest.GetResponse 7258
- 155.13 SocialRequest.GetServiceType 7260
- 155.14 SocialRequest.GetURL 7261
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264

### Example Databases

- [Mac only/Tweet on Twitter](#)

Created 28th August 2015, last changed 10th February 2016.

## 155.18 SocialRequest.SetAccount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.SetAccount"; Request; accountIdentifier )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### accountIdentifier

The ID for the account.

**Result** Returns OK or error.

### Description

### Examples

Post on Twitter:

```
Set Variable [ $accounts; Value:MBS( "Social.Accounts"; "Twitter" ) ]
Set Variable [ $accountIdentifier; Value:GetValue($accounts; 1) ]
If [ $accountIdentifier = "" ]
Show Custom Dialog [ "No Twitter account allowed?" ]
Else
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json"; "POST" ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.AddParameter"; $request; "status"; Tweets::Message ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.SetAccount"; $request; $accountIdentifier ) ]
Set Variable [ $r; Value:MBS( "SocialRequest.Perform"; $request; Get(FileName); "TweetCompleted" ) ]
End If
```

### See also

- 155.2 Social.Accounts 7245
- 155.5 SocialRequest.AddParameter 7250
- 155.8 SocialRequest.GetAccount 7254
- 155.15 SocialRequest.New 7262
- 155.16 SocialRequest.Perform 7264

### Example Databases

- [Mac only/Tweet on Twitter](#)





**155.19 SocialRequest.SetRequestMethod**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.SetRequestMethod"; Request; RequestMethod )

**Parameters****Request**

The reference number for the social request as you got it from SocialRequest.New function.

\$request

**RequestMethod**

What request method to use. Can be DELETE, PUT, POST or GET.

"POST"

**Result** Returns OK or error.

**Description****Examples**

Sets request:

```
Set Variable [ $request; Value:MBS( "SocialRequest.New"; "Twitter"; "https://api.twitter.com/1.1/statuses/update.json" ) ]
```

```
Set Variable [ $r; Value:MBS( "SocialRequest.SetRequestMethod"; $request; "POST" ) ]
```

**See also**

- 155.11 SocialRequest.GetRequestMethod 7257
- 155.15 SocialRequest.New 7262

Created 28th August 2015, last changed 10th February 2016.

## 155.20 SocialRequest.SetServiceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.SetServiceType"; Request; ServiceType )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### ServiceType

The service type to use. Can be Twitter, Facebook, SinaWeibo, TencentWeibo or LinkedIn. LinkedIn is macOS only and not available on iOS.

"Twitter"

**Result** Returns OK or error.

### Description

#### See also

- 155.13 SocialRequest.GetServiceType 7260
- 155.15 SocialRequest.New 7262

Created 28th August 2015, last changed 11st June 2017.

**155.21 SocialRequest.SetURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.SetURL"; Request; URL )

**Parameters****Request**

The reference number for the social request as you got it from SocialRequest.New function.  
\$request

**URL**

The URL to use for this request. Depends on the webservice.  
"https://api.twitter.com/1.1/statuses/update.json"

**Result** Returns OK or error.

**Description****See also**

- 155.14 SocialRequest.GetURL 7261
- 155.15 SocialRequest.New 7262

Created 28th August 2015, last changed 28th August 2015.

## 155.22 SocialRequest.addMultipartContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.addMultipartContainer"; Request; Data; Name; MimeType; filename )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### Data

The container to get data from.

#### Name

The name for this parameter.

"image"

#### MimeType

The MIME type for this data.

"image/jpeg"

#### filename

The file name for this data.

"image.jpg"

**Result** Returns OK or error.

### Description

Specify a named MIME multi-part value. If you set parameters, the parameters will automatically be added as form data in the multi-part data.

You can use Text.FileExtensionToMimeType to find the mime type for a file extension.

### See also

- 155.23 SocialRequest.addMultipartText 7273
- 155.15 SocialRequest.New 7262
- 167.37 Text.FileExtensionToMimeType 7956

Created 28th August 2015, last changed 2nd October 2015.

## 155.23 SocialRequest.addMultipartText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
155 Social	5.3	Yes	No	No	No	Yes

MBS( "SocialRequest.addMultipartText"; Request; Text; Name; MimeType; filename )

### Parameters

#### Request

The reference number for the social request as you got it from SocialRequest.New function.

\$request

#### Text

The text to include in request.

"Hello World"

#### Name

The name for this parameter.

"status"

#### MimeType

The MIME type for this data.

"text/plain"

#### filename

The file name for this data.

"Hello.txt"

**Result** Returns OK or error.

### Description

Specify a named MIME multi-part value. If you set parameters, the parameters will automatically be added as form data in the multi-part data.

You can use Text.FileExtensionToMimeType to find the mime type for a file extension.

### See also

- 155.22 SocialRequest.addMultipartContainer 7272
- 155.15 SocialRequest.New 7262
- 167.37 Text.FileExtensionToMimeType 7956

Created 28th August 2015, last changed 2nd October 2015.



# Chapter 156

## SocialComposer

A panel for iOS to edit and post to social media.

You can post with text, URL and images to Facebook, Twitter, SinaWeibo and TencentWeibo.

### 156.1 SocialComposer.AddImageContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.AddImageContainer"; ImageContainer )

#### Parameters

##### ImageContainer

The container value containing the image.  
myTable::MyImage

**Result** Returns OK or error.

#### Description

Returns error if the additional image will not fit within the character space currently available, or if the sheet has already been presented to the user.

#### Examples

Adds an image:

```
Set Variable [ $r ; Value: MBS( "SocialComposer.AddImageContainer"; Placeholder::Attachment1) ]
```

#### See also

- 156.2 SocialComposer.AddImageFile

7277

- 156.13 SocialComposer.Present

### Example Databases

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.



## 156.2 SocialComposer.AddImageFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.AddImageFile"; Path )

### Parameters

#### Path

The native file path of the image file to add.

**Result** Returns OK or error.

### Description

Returns error if the additional image will not fit within the character space currently available, or if the sheet has already been presented to the user.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 156.1 SocialComposer.AddImageContainer 7275

Created 11st June 2017, last changed 11st June 2017.

## 156.3 SocialComposer.AddURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.AddURL"; URL )

### Parameters

#### URL

The URL to add.

"http://www.mbs-plugins.com"

**Result** Returns OK or error.

### Description

Returns error if the additional URL will not fit within the character space currently available, or if the sheet has already been presented to the user.

### Examples

Add an URL:

```
Set Variable [ $r ; Value: MBS( "SocialComposer.AddURL"; "http://www.mbs-plugins.com" ) ]
```

### See also

- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289
- 156.16 SocialComposer.Result 7293

### Example Databases

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.

## 156.4 SocialComposer.Dismiss

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.Dismiss" )

**Result** Returns OK or error.

### Description

Something you can call in a script to cancel the social creation.

### See also

- 107.5 MailComposer.Dismiss 5698
- 116.7 MessageComposer.Dismiss 6112
- 156.16 SocialComposer.Result 7293

Created 11st June 2017, last changed 11st June 2017.

## 156.5 SocialComposer.GetEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.GetEvaluate" )

**Result** Returns expression or error.

### Description

#### See also

- 107.9 MailComposer.GetEvaluate 5702
- 107.21 MailComposer.SetEvaluate 5715
- 116.8 MessageComposer.GetEvaluate 6113
- 116.18 MessageComposer.SetEvaluate 6124
- 156.6 SocialComposer.GetFileName 7281
- 156.18 SocialComposer.SetEvaluate 7295

Created 11st June 2017, last changed 11st June 2017.

**156.6 SocialComposer.GetFileName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.GetFileName" )

**Result** Returns text or error.

**Description****See also**

- 107.10 MailComposer.GetFileName 5703
- 116.9 MessageComposer.GetFileName 6114
- 156.5 SocialComposer.GetEvaluate 7280
- 156.8 SocialComposer.GetScriptName 7283
- 156.17 SocialComposer.ServiceType 7294
- 156.18 SocialComposer.SetEvaluate 7295

Created 11st June 2017, last changed 11st June 2017.

## 156.7 SocialComposer.GetInitialText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.GetInitialText" )

**Result** Returns text or error.

**Description**

**See also**

- 156.19 SocialComposer.SetInitialText

7296

Created 11st June 2017, last changed 11st June 2017.

## 156.8 SocialComposer.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.GetScriptName" )

**Result** Returns text or error.

### Description

### See also

- 107.12 MailComposer.GetScriptName 5705
- 116.12 MessageComposer.GetScriptName 6117
- 156.6 SocialComposer.GetFileName 7281
- 156.20 SocialComposer.SetScript 7297

Created 11st June 2017, last changed 11st June 2017.

## 156.9 SocialComposer.ImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.ImageCount" )

**Result** Returns number or error.

**Description**

**See also**

- 156.21 SocialComposer.URLCount

7299

Created 11st June 2017, last changed 11st June 2017.



## 156.10 SocialComposer.IsAvailableForServiceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.IsAvailableForServiceType"; Type )

### Parameters

#### Type

The social service type. Can be Facebook, Twitter, SinaWeibo or TencentWeibo.  
"Facebook"

**Result** Returns OK or error.

#### Description

Returns 1 if available or 0.

This function can be called before having a composer initialized.

#### Examples

Check for availability:

```
Set Variable [ $r ; Value: MBS( "SocialComposer.IsAvailableForServiceType"; Placeholder::Service ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't send message." ; "This iOS device is not configured to post on " & Placeholder::Service & "" ]
Exit Script [ Text Result: "failed" ]
End If
```

#### See also

- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289

#### Example Databases

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 18th June 2017.

## 156.11 SocialComposer.IsPresented

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.IsPresented" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if not.

### See also

- 107.15 MailComposer.IsPresented 5708
- 116.14 MessageComposer.IsPresented 6119
- 156.13 SocialComposer.Present 7289

Created 11st June 2017, last changed 11st June 2017.

## 156.12 SocialComposer.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.New"; Type )

### Parameters

#### Type

The social service type. Can be Facebook, Twitter, SinaWeibo or TencentWeibo.  
"Twitter"

**Result** Returns OK or error.

### Description

Please check with SocialComposer.IsAvailableForServiceType before whether it's available.  
Resets last error and clears last post content.  
There is only one message composer at all times, so starting a new one will clear last one.

### Examples

Post something to Twitter:

```
Set Variable [ $r ; Value: MBS( "SocialComposer.New"; "Twitter" ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS( "SocialComposer.SetInitialText"; "Greetings from FileMaker" ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddURL"; "http://www.mbs-plugins.com" ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.Present" ) ]
End If
```

### See also

- [127.6 IsError](#) 6374
- [107.16 MailComposer.New](#) 5709
- [156.3 SocialComposer.AddURL](#) 7278
- [156.10 SocialComposer.IsAvailableForServiceType](#) 7285
- [156.13 SocialComposer.Present](#) 7289
- [156.16 SocialComposer.Result](#) 7293
- [156.19 SocialComposer.SetInitialText](#) 7296
- [156.20 SocialComposer.SetScript](#) 7297

### Example Databases

- [iOS/iOS Social Posting](#)

7288

*CHAPTER 156. SOCIALCOMPOSER*

Created 11st June 2017, last changed 11st June 2017.

**156.13 SocialComposer.Present**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.Present" )

**Result** Returns OK or error.

**Description**

This will show the user interface and start the process.

Your script may call this in a script and than wait for the script trigger.

**Examples**

Make a posting:

```

Set Variable [ $r ; Value: MBS( "SocialComposer.IsAvailableForServiceType"; Placeholder::Service ) ]
If [ $r = 1 ]
Show Custom Dialog [ "Can't send message." ; "This iOS device is not configured to post on " & Placeholder::Service & "" ]
Exit Script [ Text Result: "failed" ]
End If
Set Variable [ $r ; Value: MBS( "SocialComposer.New"; Placeholder::Service ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.SetScript"; Get(FileName); "Sent" ) ]
If [ Length ( Placeholder::Text ) > 0 ]
Set Variable [ $r ; Value: MBS( "SocialComposer.SetInitialText"; Placeholder::Text ) ]
End If
If [ Length ( Placeholder::URL ) > 0 ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddURL"; Placeholder::URL ) ]
End If
If [ not IsEmpty ( Placeholder::Attachment1 ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddImageContainer"; Placeholder::Attachment1 ) ]
End If
If [ not IsEmpty ( Placeholder::Attachment2 ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddImageContainer"; Placeholder::Attachment2 ) ]
End If
If [ not IsEmpty ( Placeholder::Attachment3 ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddImageContainer"; Placeholder::Attachment3 ) ]
End If
Set Variable [ $r ; Value: MBS( "SocialComposer.Present" ) ]

```

Post something to Twitter:

```

Set Variable [ $r ; Value: MBS( "SocialComposer.New"; "Twitter" ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS( "SocialComposer.SetInitialText"; "Greetings from FileMaker" ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.AddURL"; "http://www.mbs-plugins.com" ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.Present" ) ]

```

End If

**See also**

- 127.6 `IsError` 6374
- 107.17 `MailComposer.Present` 5710
- 116.16 `MessageComposer.Present` 6121
- 156.3 `SocialComposer.AddURL` 7278
- 156.11 `SocialComposer.IsPresented` 7286
- 156.12 `SocialComposer.New` 7287
- 156.16 `SocialComposer.Result` 7293
- 156.19 `SocialComposer.SetInitialText` 7296
- 156.20 `SocialComposer.SetScript` 7297
- 156.21 `SocialComposer.URLCount` 7299

**Example Databases**

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.

## 156.14 SocialComposer.RemoveAllImages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.RemoveAllImages" )

**Result** Returns OK or error.

### Description

Returns error and does not perform an operation if the sheet has already been presented to the user.

### See also

- 156.15 SocialComposer.RemoveAllURLs

7292

Created 11st June 2017, last changed 11st June 2017.

## 156.15 SocialComposer.RemoveAllURLs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.RemoveAllURLs" )

**Result** Returns OK or error.

### Description

Returns error and does not perform an operation if the sheet has already been presented to the user.

### See also

- 156.14 SocialComposer.RemoveAllImages

7291

Created 11st June 2017, last changed 11st June 2017.



## 156.16 SocialComposer.Result

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.Result" )

**Result** Returns OK or error.

### Description

If email composer is not yet finished, the result is empty.  
Status can be Cancelled or Done.

### See also

- 107.18 MailComposer.Result 5712
- 116.17 MessageComposer.Result 6123
- 156.3 SocialComposer.AddURL 7278
- 156.4 SocialComposer.Dismiss 7279
- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289
- 156.21 SocialComposer.URLCount 7299

### Example Databases

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.

## 156.17 SocialComposer.ServiceType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.ServiceType" )

**Result** Returns value or error.

### Description

Currently can be Facebook, Twitter, SinaWeibo or TencentWeibo.

### See also

- 156.6 SocialComposer.GetFileName 7281
- 156.20 SocialComposer.SetScript 7297

Created 11st June 2017, last changed 11st June 2017.

**156.18 SocialComposer.SetEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.SetEvaluate"; Expression )

**Parameters****Expression**

The expression to evaluate.

**Result** Returns OK or error.

**Description**

In the script you can check with MailComposer.Result and MailComposer.Error what happened.

**See also**

- 107.6 MailComposer.Error 5699
- 107.9 MailComposer.GetEvaluate 5702
- 107.18 MailComposer.Result 5712
- 107.21 MailComposer.SetEvaluate 5715
- 116.8 MessageComposer.GetEvaluate 6113
- 116.18 MessageComposer.SetEvaluate 6124
- 156.5 SocialComposer.GetEvaluate 7280
- 156.6 SocialComposer.GetFileName 7281
- 156.20 SocialComposer.SetScript 7297

Created 11st June 2017, last changed 11st June 2017.

## 156.19 SocialComposer.SetInitialText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.SetInitialText"; Text )

### Parameters

#### Text

The initial text.

"Hello World"

**Result** Returns OK or error.

### Description

Returns error if the sheet has already been presented to the user.

You may supply text with a length greater than the service supports, and the sheet will allow the user to edit it accordingly.

### Examples

Set initial text:

Set Variable [ \$r ; Value: MBS( "SocialComposer.SetInitialText"; "Hello World" ) ]

### See also

- 156.7 SocialComposer.GetInitialText 7282
- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289

### Example Databases

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.

## 156.20 SocialComposer.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.SetScript"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The file name for the script to trigger.

"test.fmp12"

#### ScriptName

The script name of the script to launch.

"EmailComposerFinished"

#### Parameter

Optional

The parameter to pass to the script.

**Result** Returns OK or error.

### Description

In the script you can check with MailComposer.Result and MailComposer.Error what happened.

### Examples

Sets the script:

```
Set Variable [ $r ; Value: MBS( "SocialComposer.New"; Placeholder::Service ) ]
Set Variable [ $r ; Value: MBS( "SocialComposer.SetScript"; Get(FileName); "Sent" ) ]
```

### See also

- 107.6 MailComposer.Error 5699
- 107.18 MailComposer.Result 5712
- 107.23 MailComposer.SetScript 5717
- 116.21 MessageComposer.SetScript 6127
- 156.8 SocialComposer.GetScriptName 7283
- 156.12 SocialComposer.New 7287
- 156.13 SocialComposer.Present 7289
- 156.17 SocialComposer.ServiceType 7294
- 156.18 SocialComposer.SetEvaluate 7295

**Example Databases**

- [iOS/iOS Social Posting](#)

Created 11st June 2017, last changed 11st June 2017.

**156.21 SocialComposer.URLCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
156 SocialComposer	7.3	No	No	No	No	Yes

MBS( "SocialComposer.URLCount" )

**Result** Returns count or error.

**Description****See also**

- 156.9 SocialComposer.ImageCount 7284
- 156.13 SocialComposer.Present 7289
- 156.16 SocialComposer.Result 7293

Created 11st June 2017, last changed 11st June 2017.





# Chapter 157

## Socket

UDP and TCP sockets.

For higher level TCP/IP sockets with TLS support, please use CURL functions with `CURL.SendData` and `CURL.ReceiveData`.

### 157.1 `Socket.AcceptNewConnection`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.AcceptNewConnection"; SocketID )

#### Parameters

##### SocketID

The socket ID received by `Socket.Connect` function.  
\$sock

**Result** Returns new Socket ID or error message.

#### Description

#### Examples

In the script triggered for a new connection, connect a new socket:

```
Set Variable [ $sock; Value:Get(ScriptParameter) ]
Set Variable [ $newSock; Value:MBS("Socket.AcceptNewConnection"; $sock) ]
If [ GetAsNumber($newSock)>0 ]
Set Variable [ $r; Value:MBS("Socket.SetErrorHandler"; $newsock; Get(FileName); "SocketError") ]
Set Variable [ $r; Value:MBS("Socket.SetDataAvailableHandler"; $newsock; Get(FileName); "ReadSomething") ]
```

End If

**See also**

- 157.11 Socket.Connect 7313
- 157.25 Socket.Listen 7331
- 157.55 Socket.SetDataAvailableHandler 7369
- 157.58 Socket.SetErrorHandler 7373
- 157.63 Socket.SetNewConnectionEvaluate 7379
- 157.64 Socket.SetNewConnectionHandler 7380
- 157.65 Socket.SetNewConnectionURL 7382

**Example Databases**

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)

Created 18th August 2014, last changed 26th January 2016.

## 157.2 Socket.AddMembership

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.AddMembership"; SocketID; MultiAddress; InterfaceAddress )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### MultiAddress

The IPv4 address of the group to join.

#### InterfaceAddress

The IPv4 address of the network interface to use. Can be empty for any interface.

**Result** Returns OK or error.

### Description

Internally this uses IPPROTO\_IP/IP\_ADD\_MEMBERSHIP option.

Lasterror is set.

### See also

- 157.11 Socket.Connect 7313
- 157.12 Socket.DropMembership 7318

### 157.2.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 19th October 2017.

## 157.3 Socket.AvailableBytes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.AvailableBytes"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns number or error.

### Description

May not work for SSL sockets.

The buffer size of the socket is managed by the OS and can be several megabytes big if needed.

### Examples

Query available byte count:

```
MBS( "Socket.AvailableBytes"; $sock )
```

### See also

- 157.11 Socket.Connect

7313

### 157.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 17th March 2018.

**157.4 Socket.Check**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Check" )

**Result** Returns OK.

**Description**

The plugin checks regularly if there are new events for the socket and calls the right scripts. In a tight loop you can call this method to check sockets and have events dispatched. Normally you have no need to call this function.

**See also**

- 157.5 Socket.CheckAll 7306
- 157.30 Socket.Peek 7339

Created 29th March 2015, last changed 29th March 2015.

## 157.5 Socket.CheckAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.CheckAll" )

**Result** Returns list or error.

### Description

Returns a list of sockets and what to do. The list is always build using a reference number of a socket followed by an entry with the status. Status can be error, read, write, or accept. So when you get a socket with read status, you can read data from it. With write status you can write some data to it. With accept, you can start a new connection with the incoming request. In case of error status, the plugin closes the socket automatically.

Returns empty text if there is nothing to do.

### See also

- 157.4 Socket.Check 7305
- 157.10 Socket.CloseAll 7312
- 157.31 Socket.PeekAll 7340
- 157.35 Socket.ReadAll 7346

### Example Databases

- [Network/HTTP Server hosted](#)

Created 29th March 2015, last changed 29th November 2018.

## 157.6 Socket.ClearDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ClearDataAvailableHandler"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error message.

### Description

#### See also

- 128.3 PortMidi.ClearDataAvailableHandler 6451
- 147.3 SerialPort.ClearDataAvailableHandler 7048
- 157.11 Socket.Connect 7313
- 157.55 Socket.SetDataAvailableHandler 7369

Created 18th August 2014, last changed 18th August 2014.

## 157.7 Socket.ClearErrorHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ClearErrorHandler"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns OK or error message.

### Description

### See also

- 157.11 Socket.Connect 7313
- 157.58 Socket.SetErrorHandler 7373

Created 18th August 2014, last changed 18th August 2014.



## 157.8 Socket.ClearNewConnectionHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ClearNewConnectionHandler"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error message.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.64 Socket.SetNewConnectionHandler 7380

Created 19th March 2017, last changed 19th March 2017.

## 157.9 Socket.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Close"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error message.

### Description

### Examples

Disconnect socket:

```
If [ IsEmpty($$sock) ]
Else
Set Variable [ $r; Value:MBS("Socket.Close"; $$Sock) ]
Set Variable [ $$Sock; Value:"" ]
End If
```

### See also

- 157.10 Socket.CloseAll 7312
- 157.11 Socket.Connect 7313
- 157.19 Socket.IsClosed 7325
- 157.26 Socket.LocalIP 7333
- 157.27 Socket.LocalPort 7334
- 157.34 Socket.Read 7343
- 157.68 Socket.Write 7385
- 157.70 Socket.WriteHex 7388

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)

- [Network/SSL/TCP Sender SSL](#)
- [Network/SSL/TCP Socket SSL](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/TCP Send and Receive/TCP Sender](#)
- [Network/TCP Socket](#)

Created 18th August 2014, last changed 26th January 2016.

## 157.10 Socket.CloseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.CloseAll" )

**Result** Returns OK or error.

**Description**

**See also**

- [157.5 Socket.CheckAll](#) 7306
- [157.9 Socket.Close](#) 7310

**Example Databases**

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)

### 157.10.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 10th September 2014, last changed 10th September 2014.

## 157.11 Socket.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Connect"; IPorDomain; Port; Timeout { ; ProtocolPreference } )

### Parameters

#### IPorDomain

The IP or domain. For a domain name, the DNS server is queried to find an IP address.  
"127.0.0.1"

#### Port

The desired network port to connect to.  
80

#### Timeout

The connection timeout in seconds. Default depends on operation system and can be e.g. 90 seconds.  
5

#### ProtocolPreference

Optional

Pass 4 to connect via IPv4. Pass 6 to connect via IPv6. Default is to try whatever the DNS suggests first.  
4

**Result** Returns socket ID for other functions or error message.

### Description

You need to call Socket.Close later to release memory used for this socket.

Version 6.3 now supports passing IPv4, IPv6, or a host name.

### Examples

Connect to MonkeybreadSoftware website:

```
$sock = MBS( "Socket.Connect"; "monkeybreadsoftware.de"; 80 )
```

Connect to localhost website:

```
$sock = MBS( "Socket.Connect"; "127.0.0.1"; 80 )
```

Connect if needed and send something:

```
# connect if needed
If [ IsEmpty($$sock) ]
Set Variable [ $$sock; Value:MBS("Socket.Connect"; TCP Sender::TargetIP; TCP Sender::Port) ]
If [ MBS("IsError") ]
Set Field [ TCP Sender::Result; "Failed to create socket: " & $$sock ]
```

```

Exit Script [ ]
End If
Set Variable [ $r; Value:MBS("Socket.SetDataAvailableHandler"; $$sock; Get(FileName); "DataAvailable")
]
Set Variable [ $r; Value:MBS("Socket.SetErrorHandler"; $$sock; Get(FileName); "SocketError") ]
End If
# send some data
Set Variable [ $r; Value:MBS("Socket.Write"; $$sock; TCP Sender::Message; "UTF-8") ]
If [ GetAsNumber($r) = 0 ]
Set Field [ TCP Sender::Result; "Failed to Send: "& $r ]
Else
Set Field [ TCP Sender::Result; "Sent "& $r& " Bytes." ]
End If

```

Connect to IP and send command and wait for answer:

```

Set Variable [ $sock; Value:MBS("Socket.Connect";test::IP; 16128) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to connect" ]
Else
Set Variable [ $write; Value:MBS("Socket.WriteHex"; $sock; test::query) ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Field [ test::response; MBS("Socket.ReadHex"; $sock; 20) ]
Show Custom Dialog [ "Hex: " & test::response & $& "Text: " & MBS( "Text.DecodeFromHex"; test::re-
sponse) ]
Set Variable [ $sock; Value:MBS("Socket.Close"; $sock) ]
End If

```

Measure from a specific scale:

```

# Open port
Set Variable [ $sock ; Value: MBS("Socket.Connect"; Scale::IP, Scale::Port) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to open socket" ; $sock ]
Exit Script [ Text Result: ]
End If
# Send reset command
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "@" ) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Disable keyboard
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "K 3" ) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Set scale to zero
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "Z" ) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]

```

```

Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Set to measure in grams
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "M21 1 0") ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "M21 0 0") ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Send expected weight and tolerance
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "PMW REL "& Scale::WeightExpected & " " &
Scale::Tolerance & " " & Scale::Tolerance & " g") ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
Set Variable [ $Counter ; Value: 1 ]
Set Variable [ $finished ; Value: 0 ]
Loop
Loop
# Wait for Answer
Set Variable [ $data ; Value: "" ]
Loop
Pause/Resume Script [ Duration (seconds): .01 ]
Set Variable [ $newdata ; Value: MBS("Socket.Read"; $sock; 1000) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $data ; Value: $data & $newData ]
End If
Exit Loop If [ Position($Data; "$"; 1; 1)>0 ]
End Loop
Set Variable [ $data ; Value: MBS("String.ReplaceNewline"; $data; 1) ]
If [ ValueCount ( $data ) = 1 ]
Set Variable [ $data ; Value: GetValue($data; 1) ]
End If
# Process Answer
If [ $data = "K A" ]
# Answer from keyboard turn off
# okay
Else If [ $data = "PMW A" ]
# Answer PMW
# okay
Else If [ $data = "K C 4" ]
# Return pressed on scale
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "S") ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Wait for Answer
Set Variable [ $data ; Value: "" ]
Loop
Pause/Resume Script [ Duration (seconds): .01 ]
Set Variable [ $newdata ; Value: MBS("Socket.Read"; $sock; 1000) ]

```

```

If [ MBS("IsError") = 0 ]
Set Variable [ $data ; Value: $data & $newData ]
End If
Exit Loop If [ Position($Data; "$"; 1; 1)>0 ]
End Loop
Set Variable [ $data ; Value: MBS("String.ReplaceNewline"; $data; 1) ]
If [ ValueCount ( $data ) = 1 ]
Set Variable [ $data ; Value: GetValue($data; 1) ]
End If
# Process Answer
If [ Left($Data; 3) = "S S" ]
Set Variable [ $Data ; Value: Substitute($Data; ","; "" ) ]
Set Variable [ $Data ; Value: Substitute($Data; "" ; ",") ]
Set Variable [ $Weight ; Value: GetAsNumber( Middle($Data; 4; 20)) ]
If [ Position ( $data; "kg"; 1;1) >0 ]
Set Variable [ $Weight ; Value: $Weight * 1000 ]
End If
Set Field [ Scale::Status ; "Weight read: " & $Weight ]
Set Field [ Scale::WeightGemessen ; $Weight ]
If [ ($Weight >= Scale::WeightExpected - Scale::Tolerance) and ($Weight <= Scale::WeightExpected +
Scale::Tolerance) ]
Set Variable [ $finished ; Value: 1 ]
Show Custom Dialog [ "Thanks" ]
Exit Loop If [ 1 ]
Else
Show Custom Dialog [ "Please measure again" ]
End If
End If
Exit Loop If [ $finished ]
End If
Exit Loop If [ $finished ]
End Loop
Exit Loop If [ $finished ]
End Loop
# Enable keyboard
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "K 2") ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# Reset scale
Set Variable [ $r ; Value: MBS("Socket.Write"; $sock; "@" ) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 13) ]
Set Variable [ $r ; Value: MBS("Socket.WriteByte"; $sock; 10) ]
# short wait to let commands run to device
Pause/Resume Script [ Duration (seconds): .01 ]
# close port
Set Variable [ $r ; Value: MBS("Socket.Close"; $sock) ]

```



157.11. *SOCKET.CONNECT* 7317

**See also**

- 157.28 [Socket.NewTCPSocket](#) 7335
- 157.59 [Socket.SetErrorURL](#) 7375
- 157.60 [Socket.SetMulticastInterface](#) 7376
- 157.64 [Socket.SetNewConnectionHandler](#) 7380
- 157.67 [Socket.SetTimeToLive](#) 7384
- 157.44 [Socket.SSL.Connect](#) 7357
- 157.68 [Socket.Write](#) 7385
- 157.69 [Socket.WriteByte](#) 7387
- 157.71 [Socket.WriteMLLP](#) 7390
- 167.17 [Text.DecodeFromHex](#) 7928

**Example Databases**

- [Network/SSL/TCP Sender SSL](#)
- [Network/SSL/TCP Socket SSL](#)
- [Network/TCP Send and Receive/TCP Sender](#)
- [Network/TCP Socket](#)

**157.11.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)
- [MBS FileMaker Plugin, version 5.1pr3](#)

Created 18th August 2014, last changed 18th March 2018.

## 157.12 Socket.DropMembership

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.DropMembership"; SocketID; MultiAddress; InterfaceAddress )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### MultiAddress

The IPv4 address of the group to join.

#### InterfaceAddress

The IPv4 address of the network interface to use. Can be empty for any interface.

**Result** Returns OK or error.

### Description

Internally this uses IPPROTO\_IP/IP\_DROP\_MEMBERSHIP option.

Lasterror is set.

### See also

- 157.2 Socket.AddMembership 7303
- 157.11 Socket.Connect 7313

### 157.12.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 19th October 2017.

## 157.13 Socket.GetBroadcast

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetBroadcast"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns value or error.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.53 Socket.SetBroadcast 7367

### 157.13.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.

## 157.14 Socket.GetMulticastInterface

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetMulticastInterface"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns IP or error.

### Description

May return 0.0.0.0 to indicate all interfaces.

### See also

- 157.11 Socket.Connect 7313
- 157.16 Socket.GetMulticastTimeToLive 7322
- 157.60 Socket.SetMulticastInterface 7376

### 157.14.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 19th October 2017.

## 157.15 Socket.GetMulticastLoop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetMulticastLoop"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns value or error.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.61 Socket.SetMulticastLoop 7377

### 157.15.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.

## 157.16 Socket.GetMulticastTimeToLive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetMulticastTimeToLive"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns value or error.

### Description

Range from 0 to 255.

### See also

- 157.11 Socket.Connect 7313
- 157.14 Socket.GetMulticastInterface 7320
- 157.62 Socket.SetMulticastTimeToLive 7378

### 157.16.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.

## 157.17 Socket.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetTag"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns tag value or error.

### Description

See also Socket.SetTag.

With the tag, we allow you to associate a text with the socket, for example a record ID.

#### See also

- 157.11 Socket.Connect 7313
- 157.66 Socket.SetTag 7383

### 157.17.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 6th June 2018, last changed 6th June 2018.

## 157.18 Socket.GetTimeToLive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.GetTimeToLive"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns value or error.

### Description

Range from 0 to 255.

### See also

- 157.11 Socket.Connect 7313
- 157.67 Socket.SetTimeToLive 7384

### 157.18.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.



## 157.19 Socket.IsClosed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.IsClosed"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns 1, 0 or error.

### Description

MBS Plugin may close sockets that report an error.  
Returns 1 if closed, but not yet freed.

### See also

- 157.9 Socket.Close 7310
- 157.11 Socket.Connect 7313

### 157.19.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr1](#)

Created 29th November 2018, last changed 29th November 2018.

## 157.20 Socket.IsListening

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	9.0	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.IsListening"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns 1, 0 or error.

### Description

Returns 1 if listening, e.g. Socket.Listen was called.

### See also

- 157.11 Socket.Connect 7313
- 157.24 Socket.List 7330
- 157.25 Socket.Listen 7331

### 157.20.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr1](#)

Created 29th November 2018, last changed 28th November 2019.

## 157.21 Socket.LastError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.LastError"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns error code.

### Description

This is normally a platform dependent error code.

#### See also

- 157.11 Socket.Connect

7313

### 157.21.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 157.22 Socket.LastMessageIP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.LastMessageIP"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns IP of error message.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.23 Socket.LastMessagePort 7329
- 157.34 Socket.Read 7343
- 157.41 Socket.RemoteIP 7354

### Example Databases

- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Receiver](#)

Created 18th August 2014, last changed 18th August 2014.

**157.23 Socket.LastMessagePort**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.LastMessagePort"; SocketID )

**Parameters****SocketID**

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns port of error message.

**Description****See also**

- 157.11 Socket.Connect 7313
- 157.22 Socket.LastMessageIP 7328
- 157.42 Socket.RemotePort 7355

**Example Databases**

- [Network/UDP/UDP Receiver](#)

Created 18th August 2014, last changed 18th August 2014.

## 157.24 Socket.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.List" )

**Result** Returns list or error.

### Description

#### See also

- [157.20 Socket.IsListening](#) 7326
- [157.25 Socket.Listen](#) 7331
- [157.28 Socket.NewTCPSocket](#) 7335
- [157.29 Socket.NewUDPSocket](#) 7337
- [157.58 Socket.SetErrorHandler](#) 7373

### 157.24.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr6](#)

Created 1st May 2019, last changed 1st May 2019.

## 157.25 Socket.Listen

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Listen"; SocketID; Port { ; backlog } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Port

The port number to listen at.

8000

#### backlog

Optional

Available in MBS FileMaker Plugin 9.1 or newer.

The back log for connection. How many pending connections can be accepted on this socket. Once you call Socket.AcceptNewConnection, an entry is removed here. Default is 3.

3

**Result** Returns OK or error message.

### Description

For UDP Socket, the socket starts receiving packets.

For TCP Socket, the socket can accept connections which causes a script to be called. You set the script name with Socket.SetNewConnectionHandler. In the script you call Socket.AcceptNewConnection to get a new socket for the new connection.

Be aware that FileMaker Server does not allow the plugin to operate if no script is running. So if you use sockets there, make sure a script is running or paused while you expect an answer coming in.

### Examples

Listen to a given Port:

```
Set Variable [ $r; Value:MBS("Socket.Listen"; $$sock; 12345) ]
```

Create TCP Socket listening on a port:

```
Set Variable [ $$sock; Value:MBS("Socket.NewTCPSocket") ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
```

```
Exit Script [ ]
```

```
End If
```

```
Set Variable [ $r; Value:MBS("Socket.SetNewConnectionHandler"; $$sock; Get(FileName); "NewConnection") ]
```

```

Set Variable [ $r; Value:MBS("Socket.SetErrorHandler"; $$sock; Get(FileName); "SocketError") ]
Set Variable [ $r; Value:MBS("Socket.Listen"; $$sock; TCP Receiver::ListenPort) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
Exit Script [ ]
End If

```

**See also**

- [127.6 IsError](#) 6374
- [157.1 Socket.AcceptNewConnection](#) 7301
- [157.11 Socket.Connect](#) 7313
- [157.20 Socket.IsListening](#) 7326
- [157.24 Socket.List](#) 7330
- [157.28 Socket.NewTCPSocket](#) 7335
- [157.29 Socket.NewUDPSocket](#) 7337
- [157.58 Socket.SetErrorHandler](#) 7373
- [157.64 Socket.SetNewConnectionHandler](#) 7380

**Example Databases**

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Receiver](#)

**157.25.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr6](#)

Created 18th August 2014, last changed 4th March 2019.



## 157.26 Socket.LocalIP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.LocalIP"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error.

### Description

This is usually 0.0.0.0 for a brand new socket.

Can return IPv4 or IPv6 address.

Does not work on Windows 7 or older (requires Vista on Windows).

### Examples

Get local port and IP:

```
Set Variable [ $sock ; Value: MBS("Socket.Connect"; "monkeybreadsoftware.de"; 80) ]
```

```
Set Variable [ $$LocalPort ; Value: MBS( "Socket.LocalPort"; $sock ) ]
```

```
Set Variable [ $$LocalIP ; Value: MBS( "Socket.LocalIP"; $sock ) ]
```

```
Set Variable [ $r ; Value: MBS("Socket.Close"; $sock) ]
```

### See also

- 157.9 Socket.Close 7310
- 157.11 Socket.Connect 7313
- 157.27 Socket.LocalPort 7334

### 157.26.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr6](#)

Created 28th December 2017, last changed 28th December 2017.

## 157.27 Socket.LocalPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.LocalPort"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error.

### Description

This is usually 0 for a brand new socket.

Does not work on Windows 7 or older (requires Vista on Windows).

### Examples

Get local port and IP:

```
Set Variable [ $sock ; Value: MBS("Socket.Connect"; "monkeybreadsoftware.de"; 80) ]
```

```
Set Variable [ $$LocalPort ; Value: MBS( "Socket.LocalPort"; $sock ) ]
```

```
Set Variable [ $$LocalIP ; Value: MBS( "Socket.LocalIP"; $sock ) ]
```

```
Set Variable [ $r ; Value: MBS("Socket.Close"; $sock) ]
```

### See also

- 157.9 Socket.Close 7310
- 157.11 Socket.Connect 7313
- 157.26 Socket.LocalIP 7333

### 157.27.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr6](#)

Created 28th December 2017, last changed 28th December 2017.

## 157.28 Socket.NewTCPSocket

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.NewTCPSocket" { ; PreferIPv6 } )

### Parameters

#### PreferIPv6

Optional

Available in MBS FileMaker Plugin 8.4 or newer.

Pass 1 to get IPv6 or if not available IPv4. Pass 0 to get IPv4 or if not available IPv6. Default is 1 for preferring IPv6.

1

**Result** Returns a new socket ID or error message.

### Description

Socket reference numbers are starting at 29000 and counting up for each new socket.

If you call Socket.Connect, you don't need to use this method first as the connect function creates its own socket.

For MBS Plugin 8.3 or newer this may be IPv6 or IPv4 socket.

### Examples

Create TCP Socket listening on a port:

```
Set Variable [ $$sock; Value:MBS("Socket.NewTCPSocket") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
Exit Script [ ]
End If
Set Variable [ $r; Value:MBS("Socket.SetNewConnectionHandler"; $$sock; Get(FileName); "NewConnection") ]
Set Variable [ $r; Value:MBS("Socket.SetErrorHandler"; $$sock; Get(FileName); "SocketError") ]
Set Variable [ $r; Value:MBS("Socket.Listen"; $$sock; TCP Receiver::ListenPort) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
Exit Script [ ]
End If
```

### See also

- 127.6 IsError 6374
- 157.11 Socket.Connect 7313
- 157.24 Socket.List 7330

- 157.25 Socket.Listen 7331
- 157.29 Socket.NewUDPSocket 7337
- 157.58 Socket.SetErrorHandler 7373
- 157.64 Socket.SetNewConnectionHandler 7380

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)

### 157.28.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr3](#)
- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 18th August 2014, last changed 19th September 2018.

## 157.29 Socket.NewUDPsocket

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.NewUDPsocket" )

**Result** Returns a new socket ID or error message.

### Description

Socket reference numbers are starting at 29000 and counting up for each new socket. For use with broadcast, we create IPv4 here.

### Examples

Create a new UDP Socket:

```
Set Variable [ $$sock; Value:MBS("Socket.NewUDPsocket") ]
```

Create a new UDP socket for broadcast and listen on a port:

```
If [ not (GetAsNumber($$sock) >0) ]
```

```
Set Variable [ $$sock; Value:MBS("Socket.NewUDPsocket") ]
```

```
If [ GetAsNumber($$sock) = 0 ]
```

```
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
```

```
Exit Script [ ]
```

```
End If
```

```
End If
```

```
Set Variable [ $r; Value:MBS("Socket.Listen"; $$sock; UDP Broadcast::Port) ]
```

```
Set Field [ UDP Broadcast::Send Result ]
```

```
Set Variable [ $r; Value:MBS("Socket.SetDataAvailableHandler"; $$sock; Get(FileName); "ReadMessage") ]
```

```
Set Variable [ $r; Value:MBS("Socket.SetBroadcast"; $$sock; 1) ]
```

```
Set Variable [ $r; Value:MBS("Socket.SetMulticastLoop"; $$sock; 0) ]
```

### See also

- 157.24 Socket.List 7330
- 157.25 Socket.Listen 7331
- 157.28 Socket.NewTCPSocket 7335
- 157.53 Socket.SetBroadcast 7367
- 157.55 Socket.SetDataAvailableHandler 7369
- 157.61 Socket.SetMulticastLoop 7377

### Example Databases

- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Receiver](#)
- [Network/UDP/UDP Sender](#)

### 157.29.1 Blog Entries

- [UDP Broadcast for FileMaker](#)

Created 18th August 2014, last changed 21st June 2018.

## 157.30 Socket.Peek

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Peek"; SocketID; length { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### length

Maximum number of bytes to read.

10

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text or error message.

### Description

The text returned may be shorter than length bytes.

If you like to look into the whole buffer, please use Socket.PeekAll function.

### Examples

Read up to 8 bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.Read"; $sock; 8; "windows" )
```

### See also

- 157.4 Socket.Check 7305
- 157.11 Socket.Connect 7313
- 157.31 Socket.PeekAll 7340
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346

Created 18th August 2014, last changed 15th February 2019.

## 157.31 Socket.PeekAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.PeekAll"; SocketID { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text or error message.

### Description

This function will look how much is in read buffer and query all bytes inside.

### Examples

Read all bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.PeekAll"; $sock; "windows" )
```

### See also

- 157.5 Socket.CheckAll 7306
- 157.11 Socket.Connect 7313
- 157.30 Socket.Peek 7339
- 157.32 Socket.PeekAllHex 7341
- 157.33 Socket.PeekHex 7342
- 157.35 Socket.ReadAll 7346

### 157.31.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 12nd November 2015.



## 157.32 Socket.PeekAllHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.PeekAllHex"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns text encoded as hex or error message.

### Description

This function will look how much is in read buffer and query all bytes inside.

### Examples

Read all bytes and return them as:

```
$value = MBS( "Socket.ReadAllHex"; $port )
```

### See also

- 157.11 Socket.Connect 7313
- 157.31 Socket.PeekAll 7340
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348

### 157.32.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 11st September 2014.

## 157.33 Socket.PeekHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.PeekHex"; SocketID; length )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### length

Maximum number of bytes to read.

10

**Result** Returns text encoded as hex or error message.

### Description

The text returned may be shorter than length bytes.

If you like to look into the whole buffer, please use Socket.PeekAllHex function.

### Examples

Read up to 8 bytes and return them as:

```
$value = MBS( "Socket.ReadHex"; $port; 8 )
```

### See also

- 157.11 Socket.Connect 7313
- 157.30 Socket.Peek 7339
- 157.31 Socket.PeekAll 7340
- 157.32 Socket.PeekAllHex 7341
- 157.34 Socket.Read 7343
- 157.37 Socket.ReadHex 7349

Created 18th August 2014, last changed 15th February 2019.

## 157.34 Socket.Read

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Read"; SocketID; length { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### length

Maximum number of bytes to read.

10

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text or error message.

### Description

The text returned may be shorter than length bytes.

The buffer size of the socket is managed by the OS and can be several megabytes big if needed.

To read the whole input buffer, use Socket.ReadAll. To look into buffer without removing text, please use Socket.Peek function instead.

### Examples

Read up to 8 bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.Read"; $sock; 8; "windows" )
```

Connect to a HTTP Server and wait for answer:

```
Set Variable [ $r; Value:MBS("Trace") ]
```

```
Set Variable [ $sock; Value:MBS("Socket.Connect"; TCP Socket::DomainOrIP; 80) ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ "Error"; $sock ]
```

```
Exit Script [ ]
```

```
End If
```

```
Set Variable [ $request; Value:"GET "& TCP Socket::Path& " HTTP/1.0$Host: "& TCP Socket::Domain-OrIP& "$$" ]
```

```
Set Variable [ $request; Value:MBS("String.ReplaceNewline"; $request; 2) ]
```

```
Set Field [ TCP Socket::RequestUsed; $request ]
```

```

Set Variable [ $r; Value:MBS("Socket.Write"; $sock; $request) ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $data; Value:MBS("Socket.Read"; $sock; 1000) ]
Set Variable [ $data; Value:MBS("String.ReplaceNewline"; $data; 1) ]
Set Field [ TCP Socket::Result; $data ]
Set Variable [ $r; Value:MBS("Socket.Close"; $sock) ]

```

Read data and put in a new record:

```

Set Variable [ $r; Value:MBS("Socket.Read"; $$sock; 1500; "UTF-8") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error Reading"; $r ]
Else If [ Length($r) = 0 ]
Show Custom Dialog [ "Error Reading"; "No data available." ]
Else
New Record/Request
Set Field [ UDP Broadcast::Message Received; $r ]
Set Field [ UDP Broadcast::Sender; MBS("Socket.LastMessageIP"; $$sock) ]
Commit Records/Requests [ No dialog ]
End If

```

### See also

- 157.22 Socket.LastMessageIP 7328
- 157.32 Socket.PeekAllHex 7341
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353
- 157.54 Socket.SetDataAvailableEvaluate 7368
- 157.68 Socket.Write 7385

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)

- [Network/SSL/TCP Socket SSL](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/TCP Send and Receive/TCP Sender](#)
- [Network/TCP Socket](#)
- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Receiver](#)

### 157.34.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr3](#)

Created 18th August 2014, last changed 15th February 2019.

## 157.35 Socket.ReadAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadAll"; SocketID { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns OK or error.

### Description

This function will look how much is in read buffer and query all bytes inside.

May not work for SSL sockets.

The buffer size of the socket is managed by the OS and can be several megabytes big if needed. To look into buffer without removing text, please use Socket.PeekAll function instead.

### Examples

Read all bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.ReadAll"; $sock; "windows" )
```

### See also

- 157.5 Socket.CheckAll 7306
- 157.11 Socket.Connect 7313
- 157.30 Socket.Peek 7339
- 157.31 Socket.PeekAll 7340
- 157.32 Socket.PeekAllHex 7341
- 157.34 Socket.Read 7343
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349

157.35. *SOCKET.READALL*

7347

- 157.38 Socket.ReadLine
- 157.40 Socket.ReadMLLP

7350

7353

### **157.35.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 15th February 2019.

## 157.36 Socket.ReadAllHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadAllHex"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns text encoded as hex or error message.

### Description

This function will look how much is in read buffer and query all bytes inside.

### Examples

Read all bytes and return them as:

```
$value = MBS( "Socket.ReadAllHex"; $port; 8 )
```

### See also

- 157.11 Socket.Connect 7313
- 157.32 Socket.PeekAllHex 7341
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.37 Socket.ReadHex 7349
- 157.39 Socket.ReadLineHex 7352

### 157.36.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 11st September 2014.



**157.37 Socket.ReadHex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadHex"; SocketID; length )

**Parameters****SocketID**

The socket ID received by Socket.Connect function.

\$sock

**length**

Maximum number of bytes to read.

10

**Result** Returns text encoded as hex or error message.

**Description**

The text returned may be shorter than length bytes.

**Examples**

Read up to 8 bytes and return them as:

\$value = MBS( "Socket.ReadHex"; \$port; 8 )

**See also**

- 157.11 Socket.Connect 7313
- 157.33 Socket.PeekHex 7342
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.36 Socket.ReadAllHex 7348
- 157.38 Socket.ReadLine 7350
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353
- 157.70 Socket.WriteHex 7388

Created 18th August 2014, last changed 18th August 2014.

## 157.38 Socket.ReadLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadLine"; SocketID; Delimiter { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Delimiter

Which character to use as delimiter. Pass number from 0 to 255 for the byte to use. e.g. 13 for CR line ending. Special handling is done if you pass 1310 as delimiter to cover CRLF as a 2 byte delimiter.

13

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns OK or error.

### Description

The delimiter allows you to read from the buffer just one line. If two lines are in read buffer, we leave second line there for the next call.

### Examples

Read one line and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.Read"; $sock; 13; "windows" )
```

### See also

- 157.11 Socket.Connect 7313
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.37 Socket.ReadHex 7349
- 157.39 Socket.ReadLineHex 7352
- 157.40 Socket.ReadMLLP 7353

### 157.38.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 12nd November 2015.

## 157.39 Socket.ReadLineHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadLineHex"; SocketID; Delimiter )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Delimiter

Which character to use as delimiter. Pass number from 0 to 255 for the byte to use. e.g. 13 for CR line ending. Special handling is done if you pass 1310 as delimiter to cover CRLF as a 2 byte delimiter.

13

**Result** Returns OK or error.

### Description

The delimiter allows you to read from the buffer just one line. If two lines are in read buffer, we leave second line there for the next call.

### Examples

Read one line and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.Read"; $sock; 13; "windows" )
```

### See also

- 157.11 Socket.Connect 7313
- 157.34 Socket.Read 7343
- 157.36 Socket.ReadAllHex 7348
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350

### 157.39.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 11st September 2014, last changed 11st September 2014.

## 157.40 Socket.ReadMLLP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.ReadMLLP"; SocketID; length { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### length

Maximum number of bytes to read.

10

#### Encoding

Optional

The text encoding for result. Default is native.

UTF8

**Result** Returns text or error message.

### Description

The text returned may be shorter than length bytes.

This function waits until a packet is complete (end byte received) and returns the text in the message.

### Examples

Read up to 8 bytes and decode them from Windows text encoding into FileMaker:

```
$value = MBS( "Socket.ReadMLLP"; $sock; 8; "windows" )
```

### See also

- 157.11 Socket.Connect 7313
- 157.34 Socket.Read 7343
- 157.35 Socket.ReadAll 7346
- 157.37 Socket.ReadHex 7349
- 157.38 Socket.ReadLine 7350

Created 18th August 2014, last changed 12nd November 2015.

## 157.41 Socket.RemoteIP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.RemoteIP"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns IP or error message.

### Description

Only for TCP Sockets. For UDP Sockets, please use Socket.LastMessageIP.

### See also

- 157.11 Socket.Connect 7313
- 157.22 Socket.LastMessageIP 7328
- 157.42 Socket.RemotePort 7355

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)

Created 18th August 2014, last changed 18th August 2014.

## 157.42 Socket.RemotePort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.RemotePort"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Return port number or error message.

### Description

Only for TCP Sockets. For UDP Sockets, please use Socket.LastMessagePort.

### See also

- 157.11 Socket.Connect 7313
- 157.23 Socket.LastMessagePort 7329
- 157.41 Socket.RemoteIP 7354

### Example Databases

- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)

Created 18th August 2014, last changed 18th August 2014.

## 157.43 Socket.SSL.Accept

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.Accept"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error.

### Description

Calls internally Socket.SSL.Initialize if you did not yet call it.

### See also

- 157.11 Socket.Connect 7313
- 157.44 Socket.SSL.Connect 7357
- 157.46 Socket.SSL.Initialize 7359

Created 18th August 2014, last changed 18th August 2014.



## 157.44 Socket.SSL.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.Connect"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error.

### Description

Calls internally Socket.SSL.Initialize if you did not yet call it.

Instead of using this SSL socket, please consider letting CURL do the job: Use CURL.SetOptionConnectOnly to let CURL connect and then send data using CURL.SendData and CURL.SendText. For receiving, please use CURL.ReceiveData and CURL.ReceiveText. This gives you much more SSL options and proxy support.

### See also

- 62.147 CURL.ReceiveData 2006
- 62.148 CURL.ReceiveText 2008
- 62.153 CURL.SendData 2016
- 62.154 CURL.SendText 2018
- 62.187 CURL.SetOptionConnectOnly 2073
- 157.11 Socket.Connect 7313
- 157.43 Socket.SSL.Accept 7356
- 157.46 Socket.SSL.Initialize 7359

### Example Databases

- [Network/SSL/TCP Sender SSL](#)
- [Network/SSL/TCP Socket SSL](#)

Created 18th August 2014, last changed 10th April 2017.

## 157.45 Socket.SSL.GetMethod

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.GetMethod"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns OK on success.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.48 Socket.SSL.SetMethod 7361

Created 18th August 2014, last changed 18th August 2014.

## 157.46 Socket.SSL.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.Initialize"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

**Result** Returns OK or error.

### Description

First you need to create TCP socket and accept or connect.

Optionally you can call Socket.SSL.Prepare first.

After Socket.SSL.Initialize you can call Socket.SSL.Connect or Socket.SSL.Accept.

Instead of using this SSL socket, please consider letting CURL do the job: Use CURL.SetOptionConnectOnly to let CURL connect and than send data using CURL.SendData and CURL.SendText. For receiving, please use CURL.ReceiveData and CURL.ReceiveText. This gives you much more SSL options and proxy support.

### See also

- 62.147 CURL.ReceiveData 2006
- 62.148 CURL.ReceiveText 2008
- 62.153 CURL.SendData 2016
- 62.154 CURL.SendText 2018
- 62.187 CURL.SetOptionConnectOnly 2073
- 157.11 Socket.Connect 7313
- 157.43 Socket.SSL.Accept 7356
- 157.44 Socket.SSL.Connect 7357
- 157.47 Socket.SSL.Prepare 7360

### Example Databases

- [Network/SSL/TCP Sender SSL](#)
- [Network/SSL/TCP Socket SSL](#)

Created 18th August 2014, last changed 10th April 2017.

## 157.47 Socket.SSL.Prepare

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.Prepare"; SocketID )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

**Result** Returns OK or error.

### Description

#### See also

- 157.11 Socket.Connect 7313
- 157.46 Socket.SSL.Initialize 7359
- 157.48 Socket.SSL.SetMethod 7361

Created 18th August 2014, last changed 18th August 2014.

**157.48 Socket.SSL.SetMethod**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.SetMethod"; SocketID; Method )

**Parameters****SocketID**

The socket ID received by Socket.Connect function.

\$sock

**Method**

The new SSL method. Can be SSLv2, SSLv3, SSLv23, TLSv1.0, TLSv1.1, TLSv1.2 or DTLSv1.0. "SSLv2"

**Result** Returns OK or error.

**Description**

You first need to call Socket.SSL.Prepare to init SSL to the step where you can set method.

**See also**

- 157.11 Socket.Connect 7313
- 157.45 Socket.SSL.GetMethod 7358
- 157.47 Socket.SSL.Prepare 7360

Created 18th August 2014, last changed 18th August 2014.

## 157.49 Socket.SSL.UseCertificateFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.UseCertificateFile"; SocketID; Path; Type )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Path

The path to the certificate file.

\$path

#### Type

The type of the file. Can be "PEM" or "ASN1".

"PEM"

**Result** Returns OK on success or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 157.11 Socket.Connect 7313

Created 18th August 2014, last changed 5th September 2014.

**157.50 Socket.SSL.UsePrivateKeyFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SSL.UsePrivateKeyFile"; SocketID; Path; Type )

**Parameters****SocketID**

The socket ID received by Socket.Connect function.

\$sock

**Path**

The path to the certificate file.

\$path

**Type**

The type of the file. Can be "PEM" or "ASN1".

"PEM"

**Result** Returns OK on success or error.

**Description**

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

**See also**

- 124.2 Path.FileMakerPathToNativePath 6247
- 157.11 Socket.Connect 7313

Created 18th August 2014, last changed 5th September 2014.

## 157.51 Socket.SendMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SendMessage"; SocketID; IP; Port; Text { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### IP

The target IP or name.

"192.168.2.10"

#### Port

The target port to send to.

9000

#### Text

The text to send.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF8"

**Result** Returns the number of bytes written or an error message.

### Description

#### Examples

Write something:

```
MBS( "Socket.SendMessage"; $sock; "Hello World" )
```

Write something with DOS text encoding:

```
MBS( "Socket.SendMessage"; $sock; "Umlauts: äöü"; "DOS" )
```

Send UDP Package:

```
Set Variable [ $r; Value:MBS("Socket.SendMessage"; $$sock; UDP Broadcast::BroadcastAddress; UDP Broadcast::Port; UDP Broadcast::Message To Send; "UTF-8") ]
```

```
If [ GetAsNumber($r) = 0 ]
```

```
Set Field [ UDP Broadcast::Send Result; "Failed to Send: "&$r ]
```

```
Else
```



```
Set Field [ UDP Broadcast::Send Result; "Sent "& $r& " Bytes." ]
End If
```

Opens stream to Midi device and plays notes with time offsets:

```
Set Variable [ $DeviceName; Value:"Your device name" ]
If [ $$stream = "" ]
Set Variable [ $$stream; Value:MBS("PortMidi.OpenOutput"; $DeviceName; 100; 10) ]
If [ MBS("ISError") ]
Show Custom Dialog [ "Failed to open Device"; $$stream ]
End If
End If
# Send notes
Set Variable [ $ts; Value:MBS( "PortMidi.TimeStamp" ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 144; 48; 95; $ts ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 128; 48; 0; $ts + 500 ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 144; 50; 95; $ts + 1000 ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 128; 50; 0; $ts + 1500 ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 144; 52; 95; $ts + 2000 ) ]
Set Variable [ $r; Value:MBS("PortMidi.SendMessage"; $$stream; 128; 52; 0; $ts + 2500 ) ]
```

### See also

- 127.6 IsError 6374
- 128.15 PortMidi.OpenOutput 6464
- 128.19 PortMidi.SendMessage 6469
- 128.26 PortMidi.TimeStamp 6480
- 157.11 Socket.Connect 7313
- 157.52 Socket.SendMessageHex 7366

### Example Databases

- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Sender](#)

Created 18th August 2014, last changed 23th January 2017.

## 157.52 Socket.SendMessageHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SendMessageHex"; SocketID; IP; Port; Text )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### IP

The target IP or name.

"192.168.2.10"

#### Port

The target port to send to.

9000

#### Text

The text to send in hex encoding.

"48656C6C6F"

**Result** Returns the number of bytes written or an error message.

### Description

### Examples

Write some text:

MBS( "Socket.SendMessageHex"; \$sock; "48656C6C6F" )

### See also

- 157.11 Socket.Connect 7313
- 157.51 Socket.SendMessage 7364

Created 18th August 2014, last changed 22nd April 2015.

## 157.53 Socket.SetBroadcast

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetBroadcast"; SocketID; Value )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

#### Value

The new setting. 1 to enable to 0 to disable.  
1

**Result** Returns OK or error.

### Description

### Examples

Enable Broadcast Mode:

```
Set Variable [ $r; Value:MBS("Socket.SetBroadcast"; $$sock; 1) ]
```

### See also

- [157.11 Socket.Connect](#) 7313
- [157.13 Socket.GetBroadcast](#) 7319
- [157.29 Socket.NewUDPSocket](#) 7337

### Example Databases

- [Network/UDP/UDP Broadcast](#)

### 157.53.1 Blog Entries

- [UDP Broadcast for FileMaker](#)
- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 26th January 2016.

## 157.54 Socket.SetDataAvailableEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.2	Yes	Yes	No	No	Yes

MBS( "Socket.SetDataAvailableEvaluate"; SocketID; Expression )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

When new data arrives, this expression is evaluated, so you can call Socket.Read function.

Be aware that expression may be evaluated when just a few bytes are in the read buffer. So the data message you wait for may only be available partly. In that case, please read available bytes, check if whole packet/message arrived and if not, store read data for later and wait for next evaluation.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the socket reference, so you can pass it to other functions if needed.

### See also

- 128.23 PortMidi.SetDataAvailableEvaluate 6475
- 147.29 SerialPort.SetDataAvailableEvaluate 7081
- 151.19 Shell.GetDataAvailableEvaluate 7142
- 151.40 Shell.SetDataAvailableEvaluate 7164
- 157.11 Socket.Connect 7313
- 157.34 Socket.Read 7343
- 157.55 Socket.SetDataAvailableHandler 7369

### 157.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 24th November 2018.

## 157.55 Socket.SetDataAvailableHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	No	No	Yes

MBS( "Socket.SetDataAvailableHandler"; SocketID; FileName; ScriptName )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DataAvailable"

**Result** Returns OK or error message.

### Description

When new data arrives, this script is called, so you can call Socket.Read function.

Be aware that script may be called when just a few bytes are in the read buffer. So the data message you wait for may only be available partly. In that case, please read available bytes, check if whole packet/message arrived and if not, store read data for later and wait for next script call.

The script parameter is the ID of the socket. You can associate additional values with Socket.SetTag function to the socket and use them in the script triggered.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Set script to be triggered if data is available:

```
Set Variable [ $r; Value:MBS("Socket.SetDataAvailableHandler"; $$sock; Get(FileName); "ReadMessage") ]
```

### See also

- 128.24 PortMidi.SetDataAvailableHandler 6476
- 147.30 SerialPort.SetDataAvailableHandler 7082
- 157.1 Socket.AcceptNewConnection 7301

- 157.6 Socket.ClearDataAvailableHandler 7307
- 157.11 Socket.Connect 7313
- 157.29 Socket.NewUDPSocket 7337
- 157.34 Socket.Read 7343
- 157.54 Socket.SetDataAvailableEvaluate 7368
- 157.56 Socket.SetDataAvailableURL 7371
- 157.66 Socket.SetTag 7383

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/TCP Send and Receive/TCP Sender](#)
- [Network/UDP/UDP Broadcast](#)
- [Network/UDP/UDP Receiver](#)

Created 18th August 2014, last changed 27th March 2019.

## 157.56 Socket.SetDataAvailableURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetDataAvailableURL"; SocketID; URL )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with socket ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

#### See also

- 157.11 Socket.Connect 7313
- 157.55 Socket.SetDataAvailableHandler 7369

### 157.56.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 157.57 Socket.SetErrorEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.2	Yes	Yes	No	No	Yes

MBS( "Socket.SetErrorEvaluate"; SocketID; Expression )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

If the socket has an error, this expression is evaluated and you can react and close the socket.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the socket reference, so you can pass it to other functions if needed.

### See also

- 157.11 Socket.Connect

7313

### 157.57.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 17th June 2018.



## 157.58 Socket.SetErrorHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	No	No	Yes

MBS( "Socket.SetErrorHandler"; SocketID; FileName; ScriptName )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### FileName

The name of the FileMaker File that contains the script

"MyDatabase.fp7"

#### ScriptName

The name of the script to run

"SocketError"

**Result** Returns OK or error message.

### Description

If the socket has an error, this script is called and you can react and close the socket.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Create TCP Socket listening on a port:

```
Set Variable [ $$sock; Value:MBS("Socket.NewTCPSocket") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
Exit Script [ ]
End If
Set Variable [ $r; Value:MBS("Socket.SetNewConnectionHandler"; $$sock; Get(FileName); "NewConne-
tion") ]
Set Variable [ $r; Value:MBS("Socket.SetErrorHandler"; $$sock; Get(FileName); "SocketError") ]
Set Variable [ $r; Value:MBS("Socket.Listen"; $$sock; TCP Receiver::ListenPort) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create Socket"; $$sock ]
Exit Script [ ]
End If
```

### See also

- 127.6 IsError 6374
- 157.1 Socket.AcceptNewConnection 7301
- 157.7 Socket.ClearErrorHandler 7308
- 157.11 Socket.Connect 7313
- 157.24 Socket.List 7330
- 157.25 Socket.Listen 7331
- 157.28 Socket.NewTCPSocket 7335
- 157.64 Socket.SetNewConnectionHandler 7380

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/TCP Send and Receive/TCP Sender](#)

Created 18th August 2014, last changed 17th June 2018.

## 157.59 Socket.SetErrorURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetErrorURL"; SocketID; URL )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with socket ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

#### See also

- 157.11 Socket.Connect

7313

### 157.59.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 157.60 Socket.SetMulticastInterface

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetMulticastInterface"; SocketID; Interface )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Interface

The IPv4 for the interface.

"192.168.1.123"

**Result** Returns OK or error.

### Description

If interface is empty text, we connect to all interfaces.

#### See also

- 157.11 Socket.Connect 7313
- 157.14 Socket.GetMulticastInterface 7320
- 157.62 Socket.SetMulticastTimeToLive 7378

### 157.60.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 19th October 2017.

## 157.61 Socket.SetMulticastLoop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetMulticastLoop"; SocketID; Value )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

#### Value

The new setting. Either 1 to loop or 0 to not loop.  
1

**Result** Returns OK or error.

### Description

### Examples

Enable multicast loop:

```
Set Variable [ $r; Value:MBS("Socket.SetMulticastLoop"; $$sock; 0) ]
```

### See also

- [157.11 Socket.Connect](#) 7313
- [157.15 Socket.GetMulticastLoop](#) 7321
- [157.29 Socket.NewUDPSocket](#) 7337

### Example Databases

- [Network/UDP/UDP Broadcast](#)

### 157.61.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 26th January 2016.

## 157.62 Socket.SetMulticastTimeToLive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetMulticastTimeToLive"; SocketID; Value )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Value

The new time to live value.

5

**Result** Returns OK or error.

### Description

Range from 0 to 255.

#### See also

- 157.11 Socket.Connect 7313
- 157.16 Socket.GetMulticastTimeToLive 7322
- 157.60 Socket.SetMulticastInterface 7376

### 157.62.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.

## 157.63 Socket.SetNewConnectionEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.2	Yes	Yes	No	No	Yes

MBS( "Socket.SetNewConnectionEvaluate"; SocketID; Expression )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

"Let ( \$\$Done = 1 ; 1 )"

**Result** Returns OK or error.

### Description

This expression is evaluated for listening TCP Socket when new connections arrive so you can call Socket.AcceptNewConnection.

Be aware that FileMaker Server does not allow the plugin to operate if no script is running. So if you use sockets there, make sure a script is running or paused while you expect an answer coming in.

In the expression the text \$\$ID\$\$ will be replaced when evaluated with the socket reference, so you can pass it to other functions if needed.

### See also

- 157.1 Socket.AcceptNewConnection 7301
- 157.11 Socket.Connect 7313
- 157.64 Socket.SetNewConnectionHandler 7380

### 157.63.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)

Created 29th March 2016, last changed 17th June 2018.

## 157.64 Socket.SetNewConnectionHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	No	No	Yes

MBS( "Socket.SetNewConnectionHandler"; SocketID; FileName; ScriptName )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### FileName

The name of the FileMaker File that contains the script

"MyDatabase.fp7"

#### ScriptName

The name of the script to run

"NewConnection"

**Result** Returns OK or error message.

### Description

This script is called for listening TCP Socket when new connections arrive so you can call Socket.AcceptNewConnection.

Be aware that FileMaker Server does not allow the plugin to operate if no script is running. So if you use sockets there, make sure a script is running or paused while you expect an answer coming in.

The script parameter is the ID of the socket. You can associate additional values with Socket.SetTag function to the socket and use them in the script triggered.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- 157.1 Socket.AcceptNewConnection 7301
- 157.8 Socket.ClearNewConnectionHandler 7309
- 157.11 Socket.Connect 7313
- 157.25 Socket.Listen 7331
- 157.28 Socket.NewTCPSocket 7335
- 157.58 Socket.SetErrorHandler 7373



<i>157.64. SOCKET.SETNEWCONNECTIONHANDLER</i>	7381
• 157.63 Socket.SetNewConnectionEvaluate	7379
• 157.65 Socket.SetNewConnectionURL	7382
• 157.66 Socket.SetTag	7383

### **Example Databases**

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/TCP Send and Receive/TCP Receiver](#)

Created 18th August 2014, last changed 27th March 2019.

## 157.65 Socket.SetNewConnectionURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetNewConnectionURL"; SocketID; URL )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with socket ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

#### See also

- 157.1 Socket.AcceptNewConnection 7301
- 157.11 Socket.Connect 7313
- 157.64 Socket.SetNewConnectionHandler 7380

### 157.65.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 157.66 Socket.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetTag"; SocketID; value )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### value

The new tag value.

Get(RecordID)

**Result** Returns OK or error.

### Description

See also Socket.GetTag.

With the tag, we allow you to associate a text with the socket, for example a record ID.

### See also

- 157.11 Socket.Connect 7313
- 157.17 Socket.GetTag 7323
- 157.55 Socket.SetDataAvailableHandler 7369
- 157.64 Socket.SetNewConnectionHandler 7380

### 157.66.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 6th June 2018, last changed 6th June 2018.

## 157.67 Socket.SetTimeToLive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.SetTimeToLive"; SocketID; Value )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.  
\$sock

#### Value

The new time to live value.  
5

**Result** Returns OK or error.

### Description

Range from 0 to 255.

#### See also

- 157.11 Socket.Connect 7313
- 157.18 Socket.GetTimeToLive 7324

### 157.67.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 22nd August 2015, last changed 22nd August 2015.

## 157.68 Socket.Write

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.Write"; SocketID; Text { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Text

The text to send.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF8"

**Result** Returns the number of bytes written or an error message.

### Description

Returns number of bytes sent. It may take a few milliseconds till data arrives on the other socket.

### Examples

Write something:

```
MBS( "Socket.Write"; $sock; "Hello World" )
```

Write something with DOS text encoding:

```
MBS( "Socket.Write"; $sock; "Umlauts: äöü"; "DOS" )
```

Connect to a HTTP Server and wait for answer:

```
Set Variable [ $r; Value:MBS("Trace") ]
```

```
Set Variable [ $sock; Value:MBS("Socket.Connect"; TCP Socket::DomainOrIP; 80) ]
```

```
If [ MBS("IsError") ]
```

```
Show Custom Dialog [ "Error"; $sock ]
```

```
Exit Script [ ]
```

```
End If
```

```
Set Variable [ $request; Value:"GET "& TCP Socket::Path& " HTTP/1.0$Host: "& TCP Socket::Domain-OrIP& "$$" ]
```

```
Set Variable [ $request; Value:MBS("String.ReplaceNewline"; $request; 2) ]
```

```
Set Field [ TCP Socket::RequestUsed; $request ]
```

```
Set Variable [ $r; Value:MBS("Socket.Write"; $sock; $request) ]
```

```
Pause/Resume Script [ Duration (seconds): 1 ]
```

```

Set Variable [ $data; Value:MBS("Socket.Read"; $sock; 1000) ]
Set Variable [ $data; Value:MBS("String.ReplaceNewline"; $data; 1) ]
Set Field [ TCP Socket::Result; $data ]
Set Variable [ $r; Value:MBS("Socket.Close"; $sock) ]

```

Send set zero command to scale for MT-SICS (METTLER TOLEDO Standard Interface Command Set):

```
MBS( "Socket.Write"; $sock; "Z" & Char(13) & Char(10) )
```

Send print weight command to scale for MT-SICS (METTLER TOLEDO Standard Interface Command Set):

```
MBS( "Socket.Write"; $sock; "P" & Char(13) & Char(10) )
```

### See also

- [127.6 IsError](#) 6374
- [157.9 Socket.Close](#) 7310
- [157.11 Socket.Connect](#) 7313
- [157.34 Socket.Read](#) 7343
- [157.70 Socket.WriteHex](#) 7388
- [157.71 Socket.WriteMLLP](#) 7390
- [127.52 Trace](#) 6434

### Example Databases

- [Network/HTTP Server hosted](#)
- [Network/HTTP Server local](#)
- [Network/Socket Test/Socket Test](#)
- [Network/SSL/TCP Sender SSL](#)
- [Network/SSL/TCP Socket SSL](#)
- [Network/TCP Send and Receive/TCP Receiver](#)
- [Network/TCP Send and Receive/TCP Sender](#)
- [Network/TCP Socket](#)

Created 18th August 2014, last changed 19th September 2019.

**157.69 Socket.WriteByte**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.WriteByte"; SocketID; Value )

**Parameters****SocketID**

The socket ID received by Socket.Connect function.

\$sock

**Value**

The byte value. Range from 0 to 255.

13

**Result** Returns OK or error message.

**Description**

This is useful if you need to send single control bytes like message start or message end.

**See also**

- 157.11 Socket.Connect 7313
- 157.70 Socket.WriteHex 7388
- 157.71 Socket.WriteMLLP 7390

Created 18th August 2014, last changed 18th August 2014.

## 157.70 Socket.WriteHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.WriteHex"; SocketID; Text )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Text

The text to send in hex encoding.

"48656C6C6F"

**Result** Returns the number of bytes written or an error message.

### Description

You pass the text hex encoded. For example for "Hello" you pass "48656C6C6F".

### Examples

Write some text:

```
MBS( "Socket.WriteHex"; $sock; "48656C6C6F" )
```

Send some command:

```
// sends
// <STX><6><CMD_ON><channels><CHECKSUM><ETX>
// In Hex : 0x02 0x06 0x4f 0x07 0xa2 0x03
```

```
MBS( "Socket.WriteHex"; $sock; "02064F07A203" )
```

Connect to IP and send command and wait for answer:

```
Set Variable [ $sock; Value:MBS("Socket.Connect";test::IP; 16128) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to connect" ]
Else
Set Variable [ $write; Value:MBS("Socket.WriteHex"; $sock; test::query) ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Field [ test::response; MBS("Socket.ReadHex"; $sock; 20) ]
Show Custom Dialog [ "Hex: " & test::response & $& "Text: " & MBS( "Text.DecodeFromHex"; test::response) ]
Set Variable [ $sock; Value:MBS("Socket.Close"; $sock) ]
End If
```



157.70. *SOCKET.WRITEHEX*

7389

**See also**

- 127.6 IsError 6374
- 157.9 Socket.Close 7310
- 157.11 Socket.Connect 7313
- 157.34 Socket.Read 7343
- 157.37 Socket.ReadHex 7349
- 157.68 Socket.Write 7385
- 157.69 Socket.WriteByte 7387
- 157.71 Socket.WriteMLLP 7390
- 167.17 Text.DecodeFromHex 7928

**157.70.1 Blog Entries**

- [More Text Encoding conversion for FileMaker](#)

Created 18th August 2014, last changed 22nd March 2016.

## 157.71 Socket.WriteMLLP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
157 Socket	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Socket.WriteMLLP"; SocketID; Text { ; Encoding } )

### Parameters

#### SocketID

The socket ID received by Socket.Connect function.

\$sock

#### Text

The text to send.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF8"

**Result** Returns the number of bytes written or an error message.

### Description

This function wraps the given text into a MLLP packet by adding start and end bytes.

### Examples

Write something:

```
MBS( "Socket.WriteMLLP"; $sock; "Hello World" )
```

Write something with DOS text encoding:

```
MBS( "Socket.WriteMLLP"; $sock; "Umlauts: äöü"; "DOS" )
```

### See also

- 157.11 Socket.Connect 7313
- 157.68 Socket.Write 7385
- 157.69 Socket.WriteByte 7387
- 157.70 Socket.WriteHex 7388

Created 18th August 2014, last changed 12nd November 2015.

# Chapter 158

## Speech

Speak text on Mac, iOS & Windows.

Use SpeechRecognition functions on MacOS 10.15 or iOS 10 and newer to recognize text from audio files.

### 158.1 Speech.AvailableVoices

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	6.4	Yes	Yes	No	No	Yes

MBS( "Speech.AvailableVoices" { ; Mode } )

(old name: Text.Speak.AvailableVoices)

#### Parameters

##### Mode

Optional

Pass 1 to get list of identifiers. By default or pass 0 to get list of names.

0

**Result** Returns list or error.

#### Description

This returns the identifiers for voices.

#### Examples

Query voices:

MBS( "Speech.AvailableVoices" )

Created 2nd August 2016, last changed 13th July 2018.

## 158.2 Speech.IsPaused

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	8.3	Yes	Yes	No	No	Yes

MBS( "Speech.IsPaused" )

**Result** Returns boolean or error.

### Description

Returns 1 if paused or 0 if not.

### See also

- 158.4 Speech.Pause

7394

### 158.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 13th July 2018, last changed 13th July 2018.

## 158.3 Speech.IsSpeaking

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	7.5	Yes	Yes	No	No	Yes

MBS( "Speech.IsSpeaking" )

(old name: Text.IsSpeaking)

**Result** Returns 1, 0 or error.

### Description

Returns 1 if voice is speaking or 0 if not.

Created 17th October 2017, last changed 13th July 2018.

## 158.4 Speech.Pause

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	8.3	Yes	Yes	No	No	Yes

MBS( "Speech.Pause" )

**Result** Returns OK or error.

### Description

### Examples

Test pausing:

```
Variable setzen [ $r ; Wert: MBS( "Speech.Speak"; "Hello World, just a test" ) ]
Scriptpause setzen [ Dauer (Sekunden): 1 ]
Variable setzen [ $r ; Wert: MBS( "Speech.Pause" ) ]
Scriptpause setzen [ Dauer (Sekunden): 1 ]
Variable setzen [ $r ; Wert: MBS( "Speech.IsPaused" ) ]
Variable setzen [ $r ; Wert: MBS( "Speech.Resume" ) ]
```

### See also

- [158.2 Speech.IsPaused](#) 7392
- [158.5 Speech.Resume](#) 7395
- [158.6 Speech.Speak](#) 7396

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 158.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 13th July 2018, last changed 13th July 2018.

## 158.5 Speech.Resume

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	8.3	Yes	Yes	No	No	Yes

MBS( "Speech.Resume" )

**Result** Returns OK or error.

**Description**

**See also**

- 158.4 Speech.Pause

7394

**Example Databases**

- [Mac and iOS/MapKit/MapView BeeExample](#)

### 158.5.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 13th July 2018, last changed 13th July 2018.

## 158.6 Speech.Speak

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	6.3	Yes	Yes	No	No	Yes

MBS( "Speech.Speak"; Text { ; Voice; Wait; Volume; Rate } )

(old name: Text.Speak)

### Parameters

#### Text

The text to speak

"Hello World"

#### Voice

Optional

The voice to use. Can be empty to use default voice.

"Agnes"

#### Wait

Optional

Whether to wait for completion. Pass 1 to wait or 0 to speak while your script continues. Default is 0.

1

#### Volume

Optional

Available in MBS FileMaker Plugin 7.2 or newer.

The volume to use. Default is full volume. Range from 0.0 (silent) to 1.0 (full).

1.0

#### Rate

Optional

Available in MBS FileMaker Plugin 7.2 or newer.

The speak rate. Default 1.0 for normal speed. Range from 0.0 to 2.0. 2.0 would be double speed while 0.5 is half speed. If the voice doesn't support rate, you hear no difference!

1.0

**Result** Returns OK or error.

### Description

This is a function doing similar work as the speak script step in FileMaker.

If called with empty text, you can pass voice to test if voice exists. You get back OK if voice exists or an error if not.

If called without text, you stop existing speech.

Due to a bug in FM 13/14/15, the speak script step may freeze. This function is a suitable workaround until FileMaker fixes the issue.



You can use `Text.IsSpeaking` to check if asynchronously speaking is in use.

### Examples

Say Hello

```
MBS( "Speech.Speak"; "Hello World")
```

Count to 100:

```
Set Variable [ $i; Value:0 ]
Loop
Set Variable [ $i; Value:$i + 1 ]
Set Field [ Speak Test::Counter; $i ]
Set Variable [ $r; Value:MBS( "Speech.Speak"; $i; ""; 1 ) ]
Commit Records/Requests [ ]
Exit Loop If [ $i >100 ]
End Loop
```

Speak with Windows voice:

```
MBS( "Speech.Speak"; "Hello World"; "Microsoft Hedda Desktop - German"; 1)
```

Speak with half volume:

```
MBS( "Speech.Speak"; "Hallo Leute"; ""; 0; 0,5 )
```

Using embedded text commands on Mac:

```
# literal speaking
MBS( "Speech.Speak"; "Hello [ [ char LTRL ] ] cat [ [ char NORM ] ] cat."; ""; 1)
# use emphasis:
MBS( "Speech.Speak"; "Do [ [ emph + ] ] not [ [ emph - ] ] over tighten the screw.")

# see
# https://developer.apple.com/library/content/documentation/UserExperience/Conceptual/SpeechSynthesisProgrammingGuide/FineTuning/FineTuning.html
```

### See also

- 158.4 `Speech.Pause`

7394

### Example Databases

- [Mac and iOS/MapKit/MapView BeeExample](#)

Created 30th May 2016, last changed 13th July 2018.

## 158.7 SpeechRecognition.AuthorizationStatus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.AuthorizationStatus" )

**Result** Returns status or error.

### Description

Returns your app's current authorization to perform speech recognition.

The user can reject your app's request to perform speech recognition, but your request can also be denied if speech recognition is not supported on the device. The app can also change your app's authorization status at any time from the Settings app.

Value	Description
NotDetermined	The app's authorization status has not yet been determined.
Denied	The user denied your app's request to perform speech recognition.
Restricted	The device prevents your app from performing speech recognition.
Authorized	The user granted your app's request to perform speech recognition.

### Example Databases

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

**158.8 SpeechRecognition.Initialize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.Initialize" )

**Result** Returns OK or error.

**Description**

Returns OK on success for MacOS 10.15 and iOS 10 or newer.

**See also**

- 158.9 [SpeechRecognition.IsInitialized](#) 7400
- 158.10 [SpeechRecognition.Recognize](#) 7401

**Example Databases**

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

## 158.9 SpeechRecognition.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.IsInitialized" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if initialized.

### See also

- 158.8 [SpeechRecognition.Initialize](#) 7399

### Example Databases

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

## 158.10 SpeechRecognition.Recognize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.Recognize"; FilePath { ; Locale; Hint; requiresOnDeviceRecognition; contextualStrings } )

### Parameters

#### FilePath

The file path to the audio file to analyze.

"/Users/cs/Desktop/test.m4a"

#### Locale

Optional

The locale to use. Leave empty to use user's current locale.

"en-US"

#### Hint

Optional

The hint on what kind of speech recognition being performed Can be Search, Dictation, Confirmation or Unspecified. Default is Unspecified.

"Dictation"

#### requiresOnDeviceRecognition

Optional

Whether you require on device recognition. Pass 1 to require on device recognition or 0 for the case it doesn't matter.

1

#### contextualStrings

Optional

Phrases which should be recognized even if they are not in the system vocabulary.

"Monkeybread Software\$Plugin"

**Result** Returns text or error.

### Description

The plugin creates a new speech recognition request based on the given audio file. Then we let the system recognize the text and return it to you.

This may take a while and the plugin returns after a few seconds when work is done.

Requires MacOS 10.15 or iOS 10 or newer.

### See also

- 158.8 SpeechRecognition.Initialize

7399

### Example Databases

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

## 158.11 SpeechRecognition.RequestAuthorization

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.RequestAuthorization" )

**Result** Returns OK or error.

### Description

Asks the user to allow your app to perform speech recognition.

Call this method before performing any other tasks associated with speech recognition. This method executes asynchronously, returning shortly after you call it.

This may show a dialog and user may confirm later.

When your app's authorization status is NotDetermined, this method causes the system to prompt the user to grant or deny permission for your app to use speech recognition. The prompt includes the custom message you specify in the NSSpeechRecognitionUsageDescription key of your app's Info.plist file. The user's response is saved so that future calls to this method do not prompt the user again.

### Examples

Request authorization:

```
Set Variable [ $r; MBS( "SpeechRecognition.RequestAuthorization" ) ]
```

### Example Databases

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

## 158.12 SpeechRecognition.SupportedLocales

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.SupportedLocales" )

**Result** Returns list of locale identifiers or error.

### Description

Returns the set of locales that are supported by the speech recognizer.

This method returns the locales for which speech recognition is supported. Support for a locale does not guarantee that speech recognition is currently possible for that locale. For some locales, the speech recognizer requires an active Internet connection to communicate with Apple's servers. If the speech recognizer is currently unable to process requests, available returns false.

Speech recognition supports the same locales that are supported by the keyboard's dictation feature.

### Examples

Query locales

```
Set Variable [ $list; Value: MBS( "SpeechRecognition.SupportedLocales" ) ]
```

Example result: nl-NL

```
es-MX
fr-FR
zh-TW
it-IT
vi-VN
fr-CH
es-CL
en-ZA
ko-KR
ca-ES
ro-RO
en-PH
es-419
en-CA
en-SG
en-IN
en-NZ
it-CH
fr-CA
hi-IN
da-DK
de-AT
```



pt-BR  
yue-CN  
zh-CN  
sv-SE  
hi-IN-translit  
es-ES  
ar-SA  
hu-HU  
fr-BE  
en-GB  
ja-JP  
zh-HK  
fi-FI  
tr-TR  
nb-NO  
en-ID  
en-SA  
pl-PL  
ms-MY  
cs-CZ  
el-GR  
id-ID  
hr-HR  
en-AE  
he-IL  
ru-RU  
wuu-CN  
de-DE  
de-CH  
en-AU  
nl-BE  
th-TH  
pt-PT  
sk-SK  
en-US  
en-IE  
es-CO  
hi-Latn  
uk-UA  
es-US

### **Example Databases**

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

## 158.13 SpeechRecognition.SupportsOnDeviceRecognition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
158 Speech	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "SpeechRecognition.SupportsOnDeviceRecognition" { ; Locale } )

### Parameters

#### Locale

Optional

The locale to use. Leave empty to use user's current locale.

"en-US"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if supported or 0 if not.

### Examples

Check for on device recognition for US-English:

MBS( "SpeechRecognition.SupportsOnDeviceRecognition"; "en-US" )

### Example Databases

- [Mac and iOS/Speech Recognition](#)

Created 22nd August 2019, last changed 22nd August 2019.

# Chapter 159

## SQL

Connect to SQL databases and query data or run SQL commands.

Use this functions to connect to foreign databases. You can run queries, execute SQL statements and work with stored procedures. We support this database types: CubeSQL, Centura SQLBase, DB2, Firebird, Informix, InterBase, MariaDB, Microsoft Access, Microsoft SQL Server, MySQL, ODBC, Oracle Database Server, PostgreSQL, SQL Anywhere, SQLite, SQLCipher and Sybase.

If you look for SQL functions within FileMaker database, please check our FM SQL functions.

### 159.1 FM.SQL.InsertRecordsToSQL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 81 FMSQL 159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "FM.SQL.InsertRecordsToSQL"; SQLref; Connection; InsertTableName; FieldNames { ; StartRow; EndRow; Replace } )
```

#### Parameters

##### SQLref

The reference number returned by FM.SQL.Execute function.

\$SQLRef

##### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

##### InsertTableName

The name of the table to insert record into.

"Assets"

##### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.  
 "Model\$Names"

**StartRow**

Optional

The index of the start row. First row is 0. Pass -1 or nothing for default which is starting with row 0.  
 -1

**EndRow**

Optional

The index of the end row. First row is 0. Last Row would be FM.SQL.RowCount-1. Pass -1 to use all rows and the plugin will internally use RowCount-1.  
 -1

**Replace**

Optional

Available in MBS FileMaker Plugin 7.1 or newer.

Set to 1 to replace existing entries. Currently available for MySQL and databases with same syntax.  
 0

**Result** Returns OK or error.

**Description**

This function allows to easily copy a lot of records from a query in FileMaker database into a SQL database. Please provide field names in other table. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Reports an error if field name list doesn't match column count of the query result.

Function will fail if data types in source and dest fields do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For insert within FileMaker, please use FM.SQL.InsertRecords.

**Examples**

Insert Records to SQL database:

```
Set Variable [ $InsertResult; Value:MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $connection; $BaseTableName; $FieldNames) ]
```

Copy records to SQLite:

```
Set Variable [ $Connection ; Value: MBS("SQL.NewConnection") ]
# Tell plugin where SQLite library is
Set Variable [ $result ; Value: MBS("SQL.InternalSQLiteLibrary.Activate") ]
# Tell plugin we want to use SQLite
Set Variable [ $result ; Value: MBS("SQL.SetClient"; $Connection; "SQLite") ]
# Connect to database in read/write/create mode. Creates new file if none exists.
Set Variable [ $result ; Value: MBS("SQL.Connect"; $Connection; "/Users/cs/Desktop/mydatabase.sqlite") ]
```

```

If [ $result = "OK" ]
# Query records in FileMaker
Set Variable [ $Records ; Value: MBS( "FM.SQL.Execute"; Get(FileName); "SELECT FirstName, Last-
Name, Birthday FROM People" ) ]
# Transfer to other database
Set Variable [ $Records ; Value: MBS( "FM.SQL.InsertRecordsToSQL"; $Records; $Connection; "People";
"FirstName$LastName$Birthday" ) ]
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.Commit"; $Connection) ]
Set Variable [ $result2 ; Value: MBS( "FM.SQL.Release"; $Records ) ]
If [ $result = "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Show Custom Dialog [ "Record exported." ]
End If
End If
Set Variable [ $result2 ; Value: MBS("SQL.FreeConnection"; $Connection) ]

```

**See also**

- [81.26 FM.SQL.Execute](#) 4196
- [81.30 FM.SQL.InsertRecords](#) 4204
- [81.35 FM.SQL.RowCount](#) 4215
- [111.26 Matrix.InsertRecordsToSQL](#) 5896
- [159.7 SQL.Commit](#) 7416
- [159.8 SQL.Connect](#) 7418
- [159.10 SQL.Execute](#) 7425
- [159.19 SQL.FreeConnection](#) 7442
- [159.72 SQL.InsertRecords](#) 7519
- [159.73 SQL.InternalSQLiteLibrary.Activate](#) 7521

**Example Databases**

- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

**159.1.1 Blog Entries**

- [Query FileMaker records as JSON](#)

- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin 6.4 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.4pr3](#)

### 159.1.2 FileMaker Magazin

- [Ausgabe 3/2018, Seite 34](#)

Created 1st August 2016, last changed 7th November 2018.

## 159.2 SQL.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Cancel"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns "OK" or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_command.html](https://www.sqlapi.com/ApiDoc/class_s_a_command.html)

#### See also

- 159.82 SQL.NewCommand

7530

Created 18th August 2014, last changed 10th January 2020.

### 159.3 SQL.ClientVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ClientVersion"; Connection )

#### Parameters

##### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns client version number or error.

#### Description

The higher word contains the major client version (the XX value in the XX.YY version number); the lower word contains the minor client version (the YY value in the XX.YY version number).

If an DBMS client was not set calling ClientVersion method return an error.

#### See also

- 159.83 SQL.NewConnection

7534

Created 18th August 2014, last changed 18th August 2014.



**159.4 SQL.Close**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Close"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns "OK" or error message.

**Description**

Use the Close method to close the command explicitly.

A command will be implicitly closed in SQL.FreeCommand, so you don't have to call Close method explicitly.

**See also**

- 159.18 SQL.FreeCommand 7440
- 159.82 SQL.NewCommand 7530

Created 18th August 2014, last changed 13th January 2015.

## 159.5 SQL.CommandText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.CommandText"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** The command text or error message.

### Description

### Examples

Query command:

```
Set Variable [ $con ; Value: MBS( "SQL.NewConnection" ) ]
```

```
Set Variable [ $cmd ; Value: MBS( "SQL.NewCommand"; $con; "SELECT * FROM Table" ) ]
```

```
Show Custom Dialog [ MBS( "SQL.CommandText"; $cmd ) ]
```

### See also

- 159.6 SQL.CommandType 7415
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534
- 159.103 SQL.SetCommandText 7561

Created 18th August 2014, last changed 25th November 2017.

**159.6 SQL.CommandType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.CommandType"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns command type or error message.

**Description**

Returns one of the following values:

CmdUnknown	Command type is not defined. Library will detect command type automatically when needed.
CmdSQLStmt	Command is an SQL statement.
CmdSQLStmtRaw	Command is an SQL statement that mustn't be interpreted by SQLAPI++.
CmdStoredProc	Command is a stored procedure or a function.

see also

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_command.html](https://www.sqlapi.com/ApiDoc/class_s_a_command.html)

**See also**

- 159.5 SQL.CommandText 7414
- 159.82 SQL.NewCommand 7530
- 159.103 SQL.SetCommandText 7561

Created 18th August 2014, last changed 10th January 2020.

## 159.7 SQL.Commit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Commit"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns "OK" or error message.

### Description

Use Commit method to write transaction changes permanently to a database. It commits the work of all commands that associated with that connection.

All changes to the database since the last commit are made permanent and cannot be undone. Before a commit, all changes made since the start of the transaction can be rolled back using SQL.Rollback method.

### Examples

Run something in transaction:

```

$Command = MBS("SQL.NewCommand"; $Connection; "BEGIN TRANSACTION"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// create command
$Command = MBS("SQL.NewCommand"; $Connection; "some other SQL command here"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// create command
$Command = MBS("SQL.NewCommand"; $Connection; "some other SQL command here"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// commit changed
$result3 = MBS("SQL.Commit"; $Connection)

```

**See also**

<i>159.7. SQL.COMMIT</i>	7417
• 159.1 FM.SQL.InsertRecordsToSQL	7407
• 159.10 SQL.Execute	7425
• 159.18 SQL.FreeCommand	7440
• 159.71 SQL.InsertOrUpdateRecords	7516
• 159.82 SQL.NewCommand	7530
• 159.83 SQL.NewConnection	7534
• 159.89 SQL.Rollback	7542
• 159.109 SQL.SetParamAsContainer	7572
• 159.124 SQL.SetParamsWithJSON	7596
• 159.123 SQL.SetParamValues	7594

### **Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### **159.7.1 FileMaker Magazin**

- Ausgabe 1/2016, Seite 30
- Ausgabe 4/2015, Seite 16

Created 18th August 2014, last changed 25th October 2018.

## 159.8 SQL.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Connect"; Connection; DBString { ; Username; Password; Client } )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### DBString

Database connection string. Please specify port with comma after IP, not double colon.

"/test/database.db"

#### Username

Optional

The user name to use when establishing the connection.

""

#### Password

Optional

The password to use when establishing the connection.

""

#### Client

Optional

Optional, one of the following client values: CubeSQL, SQLAnywhere, ODBC, Oracle, SQLServer, Firebird, InterBase, SQLBase, DB2, Informix, Sybase, MySQL, PostgreSQL or SQLite.

"SQLite"

**Result** Returns "OK" or error message.

### Description

Be aware that for most database servers, you need to specify client library with SQL.SetConnectionOption.

For server scripting, please use one connection for each script running on server, so multiple scripts running at the same data don't access the same connection or command objects in memory. And each connection has its own transaction and error state.

see also

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_connection.html](https://www.sqlapi.com/ApiDoc/class_s_a_connection.html)

If you get a crash here on MacOS, please check if crash report says Code Signature Invalid. Then you may need to code sign the dylib yourself to match the code signature of your runtime application.

Connect to Microsoft Access, FileMaker Server (or Pro), Microsoft Visual FoxPro and others via ODBC.

**Examples**

Connect to an Oracle Database:

```
MBS("SQL.Connect"; $Connection; "MyDatabase"; "MyName"; "MyPass"; "Oracle")
```

Connect to a Microsoft SQL Server Database:

```
MBS("SQL.Connect"; $Connection; "MyServer\SQLEXPRESS@pubs"; ""; ""; "SQLServer")
```

Connect to a Sybase Database:

```
MBS("SQL.Connect"; $Connection; "MyServer@MyDatabase"; $name; $pass; "Sybase")
```

Connect to a DB2 Database:

```
MBS("SQL.Connect"; $Connection; "Server=myAddress:myPortNumber;Database=myDataBase;UID=myUser-  
name;PWD=myPassword; CurrentSchema=mySchema;"; ""; ""; "DB2")
```

Connect to a Informix Database:

```
MBS("SQL.Connect"; $Connection; "Database=myDataBase;Host=192.168.10.10;Server=db_engine_tcp;Ser-  
vice=1492;"; $user; $pass; "Informix")
```

Connect to a InterBase Database:

```
MBS("SQL.Connect"; $Connection; "MyServer:MyDatabase"; $name; $pass; "InterBase")
```

Connect to a SQLBase Database:

```
MBS("SQL.Connect"; $Connection; "MyDatabase"; $name; $pass; "SQLBase")
```

Connect to a MySQL Database:

```
MBS("SQL.Connect"; $Connection; "MyServer@MyDatabase"; $name; $pass; "MySQL")
```

Connect to a PostgreSQL Database:

```
MBS("SQL.Connect"; $Connection; "MyServer@MyDatabase"; $name; $pass; "PostgreSQL")
```

Connect to a ODBC Database (e.g. Microsoft Access):

```
MBS("SQL.Connect"; $Connection; "Driver= { Microsoft Access Driver (*.mdb, *.acldb) } ;Dbq=C:\my-  
database.acldb;Uid=Admin;Pwd="; $name; $pass; "ODBC")
```

Connect to a local SQLite Database:

```
MBS("SQL.Connect"; $Connection; "/Users/cs/Desktop/test.db"; ""; ""; "SQLite")
```

Connect to Visual FoxPro via ODBC:

```
MBS("SQL.Connect"; $Connection; "Driver= { Microsoft Visual FoxPro Driver } ;SourceType=DBC;SourceDB=c:\myvf-
pdb.dbc;Exclusive=No;NULL=NO;Collate=Machine;BACKGROUNDFETCH=NO;DELETED=NO;"; "";
""; "ODBC")
```

Connect to a new in memory SQLite Database:

```
MBS("SQL.Connect"; $Connection; ":memory:"; ""; ""; "SQLite")
```

Connect to a MySQL Database via path:

```
MBS("SQL.Connect"; $Connection; "/Applications/MAMP/tmp/mysql/mysql.sock@MyDatabase"; $name;
$pass; "MySQL")
```

Connect to Firebird Database:

```
# start a new connection
Set Variable [ $Connection; Value:MBS( "SQL.NewConnection" ) ]
# if you like set where to find the libraries
Set Variable [ $r; Value:MBS( "SQL.SetConnectionOption"; $Connection; "IBASE.LIBS"; "c:\Firebird\fb-
client.dll" ) ]
# connect to database
Set Variable [ $r; Value:MBS("SQL.Connect"; $Connection; "MyDatabase"; "MyName"; "MyPass"; "Fire-
bird") ]
```

Connect to PostgreSQL with timeout and ssl:

```
MBS("SQL.Connect"; $Connection; "127.0.0.1,5432@dbname=postgres connect_timeout=10 sslmode=re-
quire"; $name; $pass; "PostgreSQL")
```

Connect to Microsoft SQL Server from Mac via FreeTDS library:

```
Set Variable [ $Connection; Value:MBS("SQL.NewConnection" ) ]
# Tell plugin we want to use Microsoft SQL Server via ODBC
Set Variable [ $result; Value:MBS("SQL.SetClient"; $Connection; "ODBC") ]
# Tell plugin where freetds library is
Set Variable [ $path; Value: "/Users/cs/Desktop/libtdsodbc.dylib" ]
# Connect to database
Set Variable [ $result; Value:MBS("SQL.Connect"; $Connection; "DRIVER= { " & $path & " };Server=192.168.2.32;UID=SA
SION=7.2;Port=1433" ) ]
# or TDS_VERSION=8.0;
If [ $result "OK" ]
```



```
Show Custom Dialog [ "Error: " & $result ]
Set Variable [ $result; Value:MBS("SQL.FreeConnection"; $Connection) ]
Halt Script
End If
```

Connect to ODBC via data source name:

```
MBS("SQL.Connect"; $Connection; "DSN"; $name; $pass; "ODBC")
```

Connect to MySQL and run a query:

```
# Start a new connection
Set Variable [ $Connection; Value:MBS("SQL.NewConnection") ]
# Tell plugin where MySQL library is (put it where you like)
Set Variable [ $result; Value:MBS("SQL.SetConnectionOption"; $Connection; "MYSQL.LIBS"; "/Users/cs/Desktop/libmysqlclient.dylib") ]
# Connect to a mysql database:
Set Variable [ $result; Value:MBS("SQL.Connect"; $Connection; "192.168.11.51@Server_Config"; "user"; "password"; "MySQL") ]
If [ $result "OK" ]
# Connection failed
Show Custom Dialog [ "Error: " & $result ]
Set Variable [ $result; Value:MBS("SQL.FreeConnection"; $Connection) ]
Halt Script
Else
# Create a query:
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Server_Config where ServerName=:Name") ]
# If you use parameters, you can fill them here
Set Variable [ $r; Value:MBS("SQL.SetParamAsText"; $Command; "Name"; "MacMini") ]
# Execute it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
If [ $result "OK" ]
Set Field [ MySQL Query::Result; $result ]
Show Custom Dialog [ "Error: " & $result ]
Else
Set Variable [ $lines; Value:"" ]
Set Variable [ $fieldcount; Value:MBS("SQL.FieldCount"; $command) ]
Loop
# call FetchNext to get the next record
Set Variable [ $result; Value:MBS("SQL.FetchNext"; $Command) ]
Exit Loop If [ $result 1 ]
Set Variable [ $line; Value:"" ]
Set Variable [ $i; Value:1 ]
Loop
# We query field names and values to show them later
Set Variable [ $v; Value:MBS("SQL.GetFieldAsText"; $command; $i) ]
```

```

Set Variable [ $n; Value:MBS("SQL.GetFieldName"; $command; $i) ]
Set Variable [ $line; Value:$line & $n & ": " & $v & $]
Set Variable [ $i; Value:$i+1 ]
Exit Loop If [ $i >$fieldCount ]
End Loop
Set Variable [ $lines; Value:$lines & ($line & $) ]
End Loop
Set Variable [ $lines; Value:$lines & $]
Show Custom Dialog [ "Result from Query:"; $lines ]
End If
# Cleanup
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
End If
Set Variable [ $result2; Value:MBS("SQL.FreeConnection"; $Connection) ]

```

Connect to Microsoft SQL Server from Mac via FreeTDS library and point to library in connection string:

```

MBS("SQL.Connect"; $connection; "DRIVER=/Applications/FileMaker Pro 16 Advanced/libtdsodbc.dylib;Server=135.68.6
vorShip;PWD=xxx;Database=myDB;TDS_VERSION=7.2;Port=1433"; "ODBC")

```

### See also

- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 159.13 SQL.FetchNext 7432
- 159.16 SQL.FieldCount 7437
- 159.18 SQL.FreeCommand 7440
- 159.19 SQL.FreeConnection 7442
- 159.36 SQL.GetFieldAsText 7466
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534
- 159.114 SQL.SetParamAsText 7582
- 160.2 SSH.Connect 7605

### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft Access Execute](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)

- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### 159.8.1 **Blog Entries**

- [ODBC driver and MBS SQL Functions in FileMaker](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [Tip of the day: Connect to MySQL and run a query](#)
- [SQLite in memory databases](#)
- [Connecting to Microsoft Visual FoxPro](#)

### 159.8.2 **FileMaker Magazin**

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 29](#)
- [Ausgabe 1/2016, Seite 28](#)
- [Ausgabe 4/2015, Seite 16](#)

Created 18th August 2014, last changed 23th April 2020.

## 159.9 SQL.Disconnect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Disconnect"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns "OK" or error message.

### Description

#### See also

- 159.126 SQL.isConnected 7599
- 159.83 SQL.NewConnection 7534
- 160.3 SSH.Disconnect 7609
- 166.9 TAPI.Disconnect 7864

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)

Created 18th August 2014, last changed 18th August 2014.

## 159.10 SQL.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Execute"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns "OK" or error message.

### Description

Use the Execute method to execute the query or stored procedure specified in the command text. Execute method calls Prepare method implicitly if needed. If the command has input parameters, they should be bound before calling Execute method. Input parameters represented by param object. To bind input variables, use the SetParam commands.

A command (an SQL statement or procedure) can have a result set after executing. To check whether a result set exists use SQL.isResultSet method. If result set exists, a set of Field objects is created after command execution. Rows from the result set can be fetched one by one using SQL.FetchNext method. To get field description or value use Field method.

Output parameters represented by param objects. They are available after command execution.

### Examples

Executes a command:

```
MBS("SQL.Execute"; $Command)
```

Create a table:

```
// create comand
$Command = MBS("SQL.NewCommand"; $Connection; "CREATE TABLE Test(FirstName VARCHAR,
LastName VARCHAR, Birthday date, NumberOfOrders integer, TotalSales double)"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// commit changed
$result3 = MBS("SQL.Commit"; $Connection)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)
```

Run something in transaction:

```
$Command = MBS("SQL.NewCommand"; $Connection; "BEGIN TRANSACTION"
// run it
```

```

$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// create command
$Command = MBS("SQL.NewCommand"; $Connection; "some other SQL command here"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// create command
$Command = MBS("SQL.NewCommand"; $Connection; "some other SQL command here"
// run it
$result2 = MBS("SQL.Execute"; $Command)
// and free command
$result4 = MBS("SQL.FreeCommand"; $Command)

// commit changed
$result3 = MBS("SQL.Commit"; $Connection)

```

Call stored procedure sys.sp\_setapprole via ODBC connection to Microsoft SQL Server:

```

# connect via SQL to a Microsoft SQL Server
Set Variable [ $$Connection ; Value: MBS ( "SQL.NewConnection" ) ]
Set Variable [ $$SetToODBC ; Value: MBS ( "SQL.SetClient" ; $$Connection ; "ODBC" ) ]
Set Variable [ $ConnectResult ; Value: MBS ( "SQL.Connect" ; $$Connection ; "connection string" ; "user"
; "password" ; "ODBC" ) ]
If [ MBS("IsError") = 0 ]
# make a new command for the stored procedure
Set Variable [ $StoredProcedure ; Value: MBS ( "SQL.NewCommand" ; $$Connection ; "sys.sp_setapprole"
) ]
If [ MBS("IsError") = 0 ]
# for debugging query list of parameters
Set Variable [ $Params ; Value: MBS( "SQL.GetParamNameList"; $StoredProcedure) ]
# set parameters
Set Variable [ $RoleName ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@rolename" ;
"xxx" ) ]
Set Variable [ $Password ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@password" ; "yyy"
) ]
Set Variable [ $Cookie ; Value: MBS ( "SQL.SetParamAsBoolean" ; $StoredProcedure ; "@fCreateCookie"
; 1) ]
Set Variable [ $Encrypt ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@encrypt"; "none" )
]
Set Variable [ $Execute ; Value: MBS ( "SQL.Execute" ; $StoredProcedure ) ]
// #
If [ MBS("IsError") = 0 ]

```

```

# query results on success
Set Variable [ $ReturnValue ; Value: MBS ( "SQL.GetParamAsNumber" ; $StoredProcedure ; "@RETURN_VALUE" ) ]
Set Variable [ $cookie ; Value: MBS ( "SQL.GetParamAsText" ; $StoredProcedure ; "@cookie" ) ]
End If
Set Variable [ $FreeStoredProcedure ; Value: MBS ( "SQL.FreeCommand" ; $StoredProcedure ) ]
End If
Set Variable [ $FreeConnection ; Value: MBS ( "SQL.FreeConnection" ; $$Connection ) ]
End If

```

**See also**

- 81.26 FM.SQL.Execute 4196
- 81.29 FM.SQL.FieldType 4203
- 126.1 PHP.Execute 6355
- 159.83 SQL.NewConnection 7534
- 159.90 SQL.RowsAffected 7543
- 159.108 SQL.SetParamAsBoolean 7571
- 159.109 SQL.SetParamAsContainer 7572
- 159.113 SQL.SetParamAsNumber 7580
- 159.114 SQL.SetParamAsText 7582
- 160.5 SSH.Execute 7611

**Example Databases**

- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC to FileMaker/ODBC Test](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### 159.10.1 Blog Entries

- [Can FileMaker connect to a Microsoft Access database?](#)
- [Tip of the day: Connect to MySQL and run a query](#)
- [MBS FileMaker Plugin, version 5.1pr4](#)

### 159.10.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 30](#)
- [Ausgabe 2/2016, Seite 14](#)
- [Ausgabe 1/2016, Seite 29](#)
- [Ausgabe 4/2015, Seite 16](#)

Created 18th August 2014, last changed 10th October 2019.



**159.11 SQL.FetchFirst**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FetchFirst"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns 0, 1 or error message.

**Description**

Use SQL.FetchPrior, SQL.FetchFirst, SQL.FetchLast method to fetch rows from the scrollable result set. The scrollable result set option should be set before Command executed (SQLite and InterBase don't support this feature). See server specific notes to discover how SQLAPI supports the scrollable result set for certain DBMS.

To check whether a result set exists use SQL.isResultSet method.

Scrolling only works if enabled, so please call SQL.SetCommandOption function to enable it if needed.

Result is 1 on success or 0 on failure.

**Examples**

Fetch first record:

```
MBS("SQL.FetchFirst"; $Command)
```

Requests a scrollable record set:

```
MBS( "SQL.SetCommandOption"; $Command; "Scrollable"; "True" )
```

**See also**

- 159.12 SQL.FetchLast 7430
- 159.15 SQL.FetchPrior 7436
- 159.129 SQL.isResultSet 7602
- 159.82 SQL.NewCommand 7530
- 159.101 SQL.SetCommandOption 7558

Created 18th August 2014, last changed 24th April 2016.

## 159.12 SQL.FetchLast

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FetchLast"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns 0, 1 or error message.

### Description

Use SQL.FetchPrior, SQL.FetchFirst, SQL.FetchLast method to fetch rows from the scrollable result set. The scrollable result set option should be set before Command executed (SQLite and InterBase don't support this feature). See server specific notes to discover how SQLAPI++ supports the scrollable result set for certain DBMS.

To check whether a result set exists use SQL.isResultSet method.

Scrolling only works if enabled, so please call SQL.SetCommandOption function to enable it if needed. Result is 1 on success or 0 on failure.

### Examples

Fetch last record:

```
MBS("SQL.FetchLast"; $Command)
```

Requests a scrollable record set:

```
MBS( "SQL.SetCommandOption"; $Command; "Scrollable"; "True" )
```

### See also

- 159.11 SQL.FetchFirst 7429
- 159.13 SQL.FetchNext 7432
- 159.14 SQL.FetchPos 7435
- 159.15 SQL.FetchPrior 7436
- 159.129 SQL.isResultSet 7602
- 159.82 SQL.NewCommand 7530

159.12. *SQL.FETCHLAST*

7431

- 159.101 SQL.SetCommandOption

7558

Created 18th August 2014, last changed 24th April 2016.

## 159.13 SQL.FetchNext

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FetchNext"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns 0, 1 or error message.

### Description

Use FetchNext method to fetch row by row from the result set. You need to call it a first time to get to first row after you made a query.

To check whether a result set exists use SQL.isResultSet method.

Result is 1 on success or 0 on failure.

### Examples

Fetch next record:

```
MBS("SQL.FetchNext"; $Command)
```

Run command and fetch first record

```
// create command
$Command = MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test")
// run select
$result2 = MBS("SQL.Execute"; $Command)
// go to first row
$result3 = MBS("SQL.FetchNext"; $Command)
// result 3 is 1 if we got a record
// read first name field from result:
$firstname = MBS("SQL.GetFieldAsText"; $command; "FirstName")
// later release command
MBS("SQL.FreeCommand"; $Command)
```

Run a stored procedure:

```
# new command for calling our test procedure on a Microsoft SQL Server
Set Variable [ $command; MBS( "SQL.NewCommand"; $Connection; "dbo.Test" ) ]
# set a parameter
Set Variable [ $r; MBS( "SQL.SetParamAsNumber"; $Command; "Param1"; 7 ) ]
# execute query
```

### 159.13. *SQL.FETCHNEXT*

7433

```
Set Variable [ $r; MBS( "SQL.Execute"; $Command ) ]  
# fetch first record  
Set Variable [ $r; MBS( "SQL.FetchNext"; $Command ) ]  
# get result field  
Set Variable [ $result; MBS( "SQL.GetFieldAsText"; $Command; 1 ) ]
```

#### See also

- 159.8 *SQL.Connect* 7418
- 159.18 *SQL.FreeCommand* 7440
- 159.41 *SQL.GetFieldNameList* 7473
- 159.46 *SQL.GetFieldsAsJSON* 7480
- 159.45 *SQL.GetFieldValueList* 7478
- 159.70 *SQL.GetRecordsAsText* 7514
- 159.129 *SQL.isResultSet* 7602
- 159.82 *SQL.NewCommand* 7530
- 159.83 *SQL.NewConnection* 7534
- 159.113 *SQL.SetParamAsNumber* 7580

#### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft Access Execute](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)

#### 159.13.1 Blog Entries

- [Tip of the day: Connect to MySQL and run a query](#)

**159.13.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 28
- Ausgabe 3/2016, Seite 30
- Ausgabe 2/2016, Seite 14
- Ausgabe 1/2016, Seite 29

Created 18th August 2014, last changed 24th April 2016.

**159.14 SQL.FetchPos**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FetchPos"; Command; Offset { ; Relative } )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Offset**

The index/offset of the row. Zero based.  
1

**Relative**

Optional  
Pass 1 for relative movement.  
0

**Result** Returns 0, 1 or error message.

**Description**

You may need to request recordset to be scrollable to have this work. For that, please call MBS( "SQL.Set-CommandOption"; \$Command; "Scrollable"; "True" ) before doing the query.

Result is 1 on success or 0 on failure.

**See also**

- 159.12 SQL.FetchLast 7430
- 159.15 SQL.FetchPrior 7436
- 159.82 SQL.NewCommand 7530
- 159.101 SQL.SetCommandOption 7558

Created 6th May 2015, last changed 24th April 2016.

## 159.15 SQL.FetchPrior

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FetchPrior"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns 0, 1 or error message.

### Description

Use SQL.FetchPrior, SQL.FetchFirst, SQL.FetchLast method to fetch rows from the scrollable result set. The scrollable result set option should be set before Command executed (SQLite and InterBase don't support this feature). See server specific notes to discover how SQLAPI++ supports the scrollable result set for certain DBMS.

To check whether a result set exists use SQL.isResultSet method.

Scrolling only works if enabled, so please call SQL.SetCommandOption function to enable it if needed.

Result is 1 on success or 0 on failure.

### Examples

Fetch previous record:

```
MBS("SQL.FetchPrior"; $Command)
```

Requests a scrollable record set:

```
MBS( "SQL.SetCommandOption"; $Command; "Scrollable"; "True" )
```

### See also

- 159.11 SQL.FetchFirst 7429
- 159.12 SQL.FetchLast 7430
- 159.14 SQL.FetchPos 7435
- 159.129 SQL.isResultSet 7602
- 159.82 SQL.NewCommand 7530
- 159.101 SQL.SetCommandOption 7558

Created 18th August 2014, last changed 24th April 2016.



**159.16 SQL.FieldCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FieldCount"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns field count or error message.

**Description**

FieldCount method returns the number of fields created implicitly after the command execution if a result set exists.

**See also**

- 81.25 FM.SQL.CSV 4193
- 81.26 FM.SQL.Execute 4196
- 81.27 FM.SQL.Field 4199
- 81.28 FM.SQL.FieldCount 4201
- 81.29 FM.SQL.FieldType 4203
- 81.36 FM.SQL.Text 4217
- 111.42 Matrix.Text 5920
- 159.8 SQL.Connect 7418
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534

**Example Databases**

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [Third Party/FileMaker Snippet Storage](#)

### 159.16.1 Blog Entries

- **Tip of the day:** [Connect to MySQL and run a query](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.17 SQL.FreeAllConnections

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FreeAllConnections" )

**Result** Returns OK or error.

**Description**

**See also**

- [159.19 SQL.FreeConnection](#)

7442

**Example Databases**

- [Third Party/FileMaker Snippet Storage](#)

### 159.17.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr6](#)

Created 8th July 2016, last changed 8th July 2016.

## 159.18 SQL.FreeCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FreeCommand"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns "OK" or error message.

### Description

### Examples

Free command object:

MBS( "SQL.FreeCommand"; \$Command )

### See also

- 159.13 SQL.FetchNext 7432
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.68 SQL.GetParamsAsJSON 7510
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519
- 159.82 SQL.NewCommand 7530
- 159.87 SQL.ResetCommand 7540
- 159.109 SQL.SetParamAsContainer 7572
- 159.120 SQL.SetParamTypesValues 7589
- 159.123 SQL.SetParamValues 7594

### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft Access Execute](#)
- [SQL to other databases/Microsoft SQL Execute](#)

- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### **159.18.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr7](#)
- [Tip of the day: Connect to MySQL and run a query](#)

### **159.18.2 FileMaker Magazin**

- [Ausgabe 1/2016, Seite 30](#)
- [Ausgabe 4/2015, Seite 16](#)

Created 18th August 2014, last changed 7th December 2015.

## 159.19 SQL.FreeConnection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.FreeConnection"; Connection )

### Parameters

#### Connection

The command reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns "OK" or error message.

### Description

This closes the connection and frees all memory allocated for it.

### Examples

Free connection object:

MBS( "SQL.FreeConnection"; \$Connection )

### See also

- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 159.8 SQL.Connect 7418
- 159.10 SQL.Execute 7425
- 159.17 SQL.FreeAllConnections 7439
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.80 SQL.ListConnections 7528
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534
- 159.88 SQL.ResetConnection 7541
- 159.104 SQL.SetConnectionOption 7563

### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)

- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/ODBC to FileMaker/ODBC Test](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### **159.19.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [MBS FileMaker Plugin, version 9.3pr7](#)
- [Tip of the day: Connect to MySQL and run a query](#)

### **159.19.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 30](#)
- [Ausgabe 3/2016, Seite 29](#)
- [Ausgabe 1/2016, Seite 30](#)
- [Ausgabe 1/2016, Seite 28](#)
- [Ausgabe 4/2015, Seite 16](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.20 SQL.GetAutoCommit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetAutoCommit"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns text "Unknown", "On", "Off" or error message.

### Description

Function returns autocommit option state that was previously set by SQL.SetAutoCommit. Returns "Unknown" if no autocommit mode was set. In that case see DBMS specific documentation for default autocommit option used.

### See also

- 159.83 SQL.NewConnection 7534
- 159.99 SQL.SetAutoCommit 7555

### 159.20.1 FileMaker Magazin

- Ausgabe 1/2016, Seite 30

Created 18th August 2014, last changed 18th August 2014.



**159.21 SQL.GetCommandOption**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetCommandOption"; Command; Key )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Key**

A string key of the command option.

””

**Result** Returns value or error message.

**Description**

Call this method to get value(s) of server specific command options. See Server specific notes.

A command related option may be specified in either connection object or SACommand object. If it is specified in connection object it affects all the commands on that connection.

If an option is not specially assigned to the command object the Library takes this option from related connection object (see SQL.GetConnectionOption method). If an option is not specified in neither command nor connection objects, the Library takes the default option value.

see also

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_command.html](https://www.sqlapi.com/ApiDoc/class_s_a_command.html)

**See also**

- 159.22 SQL.GetCommandOptions 7446
- 159.24 SQL.GetConnectionOption 7448
- 159.82 SQL.NewCommand 7530
- 159.101 SQL.SetCommandOption 7558

Created 18th August 2014, last changed 10th January 2020.

## 159.22 SQL.GetCommandOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetCommandOptions"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns list or error.

### Description

#### See also

- [159.21 SQL.GetCommandOption](#) 7445
- [159.82 SQL.NewCommand](#) 7530
- [159.101 SQL.SetCommandOption](#) 7558

### 159.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.

## 159.23 SQL.GetCommandTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetCommandTag"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns text or error.

### Description

#### See also

- 159.82 SQL.NewCommand 7530
- 159.102 SQL.SetCommandTag 7560
- 159.103 SQL.SetCommandText 7561

### 159.23.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 11st September 2016, last changed 11st September 2016.

## 159.24 SQL.GetConnectionOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetConnectionOption"; Connection; Key )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### Key

A string key of the connection or command option.

””

**Result** Returns the value or error message.

### Description

Call this method to get value(s) of server specific connection or command options. See Server specific notes. If an option is not specified in connection objects, the Library takes the default option value.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_connection.html](https://www.sqlapi.com/ApiDoc/class_s_a_connection.html)

### See also

- 159.21 SQL.GetCommandOption 7445
- 159.25 SQL.GetConnectionOptions 7449
- 159.83 SQL.NewConnection 7534
- 159.104 SQL.SetConnectionOption 7563

Created 18th August 2014, last changed 10th January 2020.

**159.25 SQL.GetConnectionOptions**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetConnectionOptions"; Connection )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns list or error.

**Description****See also**

- 159.24 SQL.GetConnectionOption 7448
- 159.83 SQL.NewConnection 7534
- 159.104 SQL.SetConnectionOption 7563

**159.25.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.

## 159.26 SQL.GetConnectionTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetConnectionTag"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns text or error.

### Description

#### See also

- 159.83 SQL.NewConnection 7534
- 159.105 SQL.SetConnectionTag 7568

### 159.26.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 11st September 2016, last changed 11st September 2016.

**159.27 SQL.GetFieldAsBoolean**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsBoolean"; Command; Field )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Result** Returns value or error message.

**Description**

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

**See also**

- 159.31 SQL.GetFieldAsFloat 7456
- 159.48 SQL.GetParamAsBoolean 7483
- 159.82 SQL.NewCommand 7530
- 159.108 SQL.SetParamAsBoolean 7571

Created 18th August 2014, last changed 10th January 2020.

## 159.28 SQL.GetFieldAsContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsContainer"; Command; Field; FileName )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

#### FileName

The filename for the container. This will determinate the type of data to FileMaker.  
"test.jpg"

**Result** Returns container value or error.

### Description

If you can provide a file name, we can use it to auto detect the type of data and import it in the right format, e.g. add a preview for PDF or the image size for JPEG.

### Examples

Query image field value:

```
MBS( "SQL.GetFieldAsContainer"; $Command; "MyBlob"; $FileName )
```

### See also

- 159.49 SQL.GetParamAsContainer 7484
- 159.82 SQL.NewCommand 7530
- 159.109 SQL.SetParamAsContainer 7572

### 159.28.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 17th May 2016, last changed 17th May 2016.



**159.29 SQL.GetFieldAsDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsDate"; Command; Field )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Result** Returns date value or error message.

**Description**

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

**See also**

- 159.33 SQL.GetFieldAsNumber 7460
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.39 SQL.GetFieldIsNull 7470
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.44 SQL.GetFieldValue 7477
- 159.50 SQL.GetParamAsDate 7485
- 159.82 SQL.NewCommand 7530

**Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

### 159.29.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 18th August 2014, last changed 10th January 2020.

**159.30 SQL.GetFieldAsDateTime**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsDateTime"; Command; Field )

(old name: SQL.GetFieldAsTimestamp)

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Result** Returns date and time value or error message.

**Description**

Converts if needed.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

**See also**

- 159.29 SQL.GetFieldAsDate 7453
- 159.37 SQL.GetFieldAsTime 7468
- 159.38 SQL.GetFieldDataType 7469
- 159.51 SQL.GetParamAsDateTime 7486
- 159.82 SQL.NewCommand 7530
- 159.111 SQL.SetParamAsDateTime 7576

Created 18th August 2014, last changed 22nd January 2020.

## 159.31 SQL.GetFieldAsFloat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsFloat"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

**Result** Returns number or error message.

### Description

For integer values, you can use SQL.GetFieldAsNumber.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

For some databases, you get better precision, if you cast/convert to float data type in the SQL statement.

### Examples

Reads floating point value from field TotalSales into variable:

```
$x = MBS("SQL.GetFieldAsFloat"; $command; "TotalSales")
```

Reads floating point value from 2nd field into variable:

```
$x = MBS("SQL.GetFieldAsFloat"; $command; 2)
```

### See also

- 159.27 SQL.GetFieldAsBoolean 7451
- 159.29 SQL.GetFieldAsDate 7453
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.33 SQL.GetFieldAsNumber 7460
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464

<i>159.31. SQL.GETFIELDASFLOAT</i>	7457
• 159.36 SQL.GetFieldAsText	7466
• 159.37 SQL.GetFieldAsTime	7468
• 159.52 SQL.GetParamAsFloat	7487
• 159.82 SQL.NewCommand	7530

### **Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

Created 18th August 2014, last changed 10th January 2020.

## 159.32 SQL.GetFieldAsJPEG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsJPEG"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

**Result** Returns container value or error message.

### Description

Field must be a BLOB field. The plugin does not verify if the BLOB contains a valid JPEG image. See also SQL.GetFieldAsPDF and SQL.GetFieldAsPNG.

### Examples

Read field value of field "JPEGData" into variable:

```
$firstname = MBS("SQL.GetFieldAsJPEG"; $command; "JPEGData")
```

### See also

- 159.29 SQL.GetFieldAsDate 7453
- 159.31 SQL.GetFieldAsFloat 7456
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.39 SQL.GetFieldIsNull 7470
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.53 SQL.GetParamAsJPEG 7489
- 159.82 SQL.NewCommand 7530

### Example Databases

- [SQL to other databases/SQLite blob](#)

### 159.32.1 **Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.33 SQL.GetFieldAsNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsNumber"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

**Result** Returns number or error message.

### Description

For float values, you can use SQL.GetFieldAsFloat.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

### Examples

Reads floating point value from field Count into variable:

```
$x = MBS("SQL.GetFieldAsNumber"; $command; "Count")
```

Reads floating point value from 2nd field into variable:

```
$x = MBS("SQL.GetFieldAsNumber"; $command; 2)
```

### See also

- 159.29 SQL.GetFieldAsDate 7453
- 159.31 SQL.GetFieldAsFloat 7456
- 159.37 SQL.GetFieldAsTime 7468
- 159.39 SQL.GetFieldIsNull 7470
- 159.54 SQL.GetParamAsNumber 7491
- 159.82 SQL.NewCommand 7530

### Example Databases



- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

### **159.33.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr5](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 18th August 2014, last changed 10th January 2020.

## 159.34 SQL.GetFieldAsPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsPDF"; Command; Field { ; DontRenderPreview } )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Field

The name or one based index of the field.

\$Field

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns container value or error message.

### Description

Field must be a BLOB field. The plugin does not verify if the BLOB contains a valid PDF document.

See also SQL.GetFieldAsJPEG and SQL.GetFieldAsPNG.

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

### Examples

Read field value of field "PDFData" into variable:

```
$firstname = MBS("SQL.GetFieldAsPDF"; $command; "PDFData")
```

### See also

- 159.29 SQL.GetFieldAsDate 7453
- 159.31 SQL.GetFieldAsFloat 7456
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.46 SQL.GetFieldsAsJSON 7480

<i>159.34. SQL.GETFIELDASPDF</i>	7463
• 159.44 SQL.GetFieldValue	7477
• 159.55 SQL.GetParamAsPDF	7493
• 159.82 SQL.NewCommand	7530

### **159.34.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 17th August 2018.

## 159.35 SQL.GetFieldAsPNG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsPNG"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

**Result** Returns container value or error message.

### Description

Field must be a BLOB field. The plugin does not verify if the BLOB contains a valid PNG image. See also SQL.GetFieldAsJPEG and SQL.GetFieldAsPDF.

### Examples

Read field value of field "PNGData" into variable:

```
$firstname = MBS("SQL.GetFieldAsPNG"; $command; "PNGData")
```

### See also

- 159.31 SQL.GetFieldAsFloat 7456
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.34 SQL.GetFieldAsPDF 7462
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.39 SQL.GetFieldIsNull 7470
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.44 SQL.GetFieldValue 7477
- 159.56 SQL.GetParamAsPNG 7495
- 159.82 SQL.NewCommand 7530

### 159.35.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.36 SQL.GetFieldAsText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsText"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Field

The name or one based index of the field.

\$Field

**Result** Returns text or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

### Examples

Read field value of field "FirstName" into variable:

```
$firstname = MBS("SQL.GetFieldAsText"; $command; "FirstName")
```

Run a stored procedure:

```
# new command for calling our test procedure on a Microsoft SQL Server
Set Variable [ $command; MBS( "SQL.NewCommand"; $Connection; "dbo.Test" ) ]
# set a parameter
Set Variable [ $r; MBS( "SQL.SetParamAsNumber"; $Command; "Param1"; 7 ) ]
# execute query
Set Variable [ $r; MBS( "SQL.Execute"; $Command ) ]
# fetch first record
Set Variable [ $r; MBS( "SQL.FetchNext"; $Command ) ]
# get result field
Set Variable [ $result; MBS( "SQL.GetFieldAsText"; $Command; 1 ) ]
```

### See also

- 159.8 SQL.Connect 7418
- 159.10 SQL.Execute 7425
- 159.13 SQL.FetchNext 7432
- 159.29 SQL.GetFieldAsDate 7453

<i>159.36. SQL.GETFIELDASTEXT</i>	7467
• 159.31 SQL.GetFieldAsFloat	7456
• 159.39 SQL.GetFieldIsNull	7470
• 159.46 SQL.GetFieldsAsJSON	7480
• 159.57 SQL.GetParamAsText	7497
• 159.82 SQL.NewCommand	7530
• 159.113 SQL.SetParamAsNumber	7580

### **Example Databases**

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)

### **159.36.1 Blog Entries**

- [Tip of the day: Connect to MySQL and run a query](#)

### **159.36.2 FileMaker Magazin**

- [Ausgabe 3/2016, Seite 30](#)
- [Ausgabe 2/2016, Seite 14](#)
- [Ausgabe 1/2016, Seite 29](#)

Created 18th August 2014, last changed 10th January 2020.

## 159.37 SQL.GetFieldAsTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldAsTime"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Field

The name or one based index of the field.

\$Field

**Result** Returns time or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

### See also

- 159.29 SQL.GetFieldAsDate 7453
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.39 SQL.GetFieldIsNull 7470
- 159.42 SQL.GetFieldOption 7475
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.44 SQL.GetFieldValue 7477
- 159.58 SQL.GetParamAsTime 7498
- 159.82 SQL.NewCommand 7530

### 159.37.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 18th August 2014, last changed 10th January 2020.



**159.38 SQL.GetFieldDataType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldDataType"; Command; Field )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Result** The field type or error message.

**Description**

The field data type can be: Bool, Short, UShort, Long, ULong, Double, Numeric, DateTime, Interval, String, Bytes, LongBinary, LongChar, BLOB, CLOB, Cursor, SpecificToDBMS or unknown

**See also**

- 159.30 SQL.GetFieldAsDateTime 7455
- 159.59 SQL.GetParamDataType 7499
- 159.82 SQL.NewCommand 7530

Created 18th August 2014, last changed 13th January 2015.

## 159.39 SQL.GetFieldIsNull

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldIsNull"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Field

The name or one based index of the field.

\$Field

**Result** Returns 1 if the value of current object is NULL; otherwise 0.

### Description

#### See also

- 159.29 SQL.GetFieldAsDate 7453
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.33 SQL.GetFieldAsNumber 7460
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.36 SQL.GetFieldAsText 7466
- 159.37 SQL.GetFieldAsTime 7468
- 159.44 SQL.GetFieldValue 7477
- 159.61 SQL.GetParamIsNull 7501
- 159.82 SQL.NewCommand 7530

Created 18th August 2014, last changed 28th November 2019.

**159.40 SQL.GetFieldName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldName"; Command; Field )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Field**

The name or one based index of the field.

\$Field

**Result** Returns name or error message.

**Description****See also**

- 159.8 SQL.Connect 7418
- 159.29 SQL.GetFieldAsDate 7453
- 159.37 SQL.GetFieldAsTime 7468
- 159.41 SQL.GetFieldNameList 7473
- 159.44 SQL.GetFieldValue 7477
- 159.45 SQL.GetFieldValueList 7478
- 159.82 SQL.NewCommand 7530
- 159.83 SQL.NewConnection 7534

**Example Databases**

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)

### 159.40.1 Blog Entries

- [Tip of the day: Connect to MySQL and run a query](#)
- [MBS Filemaker Plugin, version 3.4pr1](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.41 SQL.GetFieldNameList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldNameList"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns list or error.

### Description

### Examples

Create a command, fill parameters and query names and values list:

```
# Create select
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test") ]
# Run it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
# get first row of result
Set Variable [ $result; Value:MBS("SQL.FetchNext"; $Command) ]
# Now query field names
Set Variable [ $FieldNames; Value:MBS("SQL.GetFieldNameList"; $Command) ]
# and field values of first row
Set Variable [ $FieldValues; Value:MBS("SQL.GetFieldValueList"; $Command) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.13 SQL.FetchNext 7432
- 159.40 SQL.GetFieldName 7471
- 159.44 SQL.GetFieldValue 7477
- 159.45 SQL.GetFieldValueList 7478
- 159.63 SQL.GetParamNameList 7503
- 159.82 SQL.NewCommand 7530

### Example Databases

- [SQL to other databases/Microsoft Access Execute](#)

### 159.41.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 8th April 2015, last changed 8th April 2015.

**159.42 SQL.GetFieldOption**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldOption"; Command; Field; Key )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Key**

A string key of the command option.  
""

**Result** Returns "OK" or error message.

**Description**

Call this method to get value(s) of server specific field options. See Server specific notes.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

**See also**

- 159.37 SQL.GetFieldAsTime 7468
- 159.43 SQL.GetFieldOptions 7476
- 159.64 SQL.GetParamOption 7505
- 159.82 SQL.NewCommand 7530
- 159.106 SQL.SetFieldOption 7569

Created 18th August 2014, last changed 10th January 2020.

## 159.43 SQL.GetFieldOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldOptions"; Command; Field )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Field

The name or one based index of the field.  
\$Field

**Result** Returns list or error.

### Description

#### See also

- 159.42 SQL.GetFieldOption 7475
- 159.65 SQL.GetParamOptions 7506
- 159.82 SQL.NewCommand 7530
- 159.106 SQL.SetFieldOption 7569

### 159.43.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.



**159.44 SQL.GetFieldValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldValue"; Command; Field )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Field**

The name or one based index of the field.

\$Field

**Result** Returns value or error.

**Description**

The value is converted to a FileMaker value with matching type.

BLOBs are returned as hex strings and not as container values (could be changed).

NULL values are returned as empty container values.

**See also**

- 159.29 SQL.GetFieldAsDate 7453
- 159.34 SQL.GetFieldAsPDF 7462
- 159.35 SQL.GetFieldAsPNG 7464
- 159.37 SQL.GetFieldAsTime 7468
- 159.39 SQL.GetFieldIsNull 7470
- 159.40 SQL.GetFieldName 7471
- 159.41 SQL.GetFieldNameList 7473
- 159.45 SQL.GetFieldValueList 7478
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530

**159.44.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 18th April 2015, last changed 20th April 2015.

## 159.45 SQL.GetFieldValueList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldValueList"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns list or error.

### Description

If value contains a new line or return character, we replace it with \n or \r.

### Examples

Create a command, fill parameters and query names and values list:

```
# Create select
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test") ]
# Run it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
# get first row of result
Set Variable [ $result; Value:MBS("SQL.FetchNext"; $Command) ]
# Now query field names
Set Variable [ $FieldNames; Value:MBS("SQL.GetFieldNameList"; $Command) ]
# and field values of first row
Set Variable [ $FieldValues; Value:MBS("SQL.GetFieldValueList"; $Command) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.13 SQL.FetchNext 7432
- 159.40 SQL.GetFieldName 7471
- 159.41 SQL.GetFieldNameList 7473
- 159.44 SQL.GetFieldValue 7477
- 159.67 SQL.GetParamValueList 7508
- 159.82 SQL.NewCommand 7530

### Example Databases

- [SQL to other databases/Microsoft Access Execute](#)

### **159.45.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr1](#)
- [MBS FileMaker Plugin, version 5.1pr4](#)

### **159.45.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 28
- Ausgabe 3/2016, Seite 30

Created 8th April 2015, last changed 8th April 2015.

## 159.46 SQL.GetFieldsAsJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetFieldsAsJSON"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns JSON or error.

### Description

Dates, Intervals and BLOBs get converted to text. Boolean, Integer, Numeric and Double types are converted to numbers in JSON. Boolean is passed through as boolean. Null or unknown field types are returned as NULL in JSON.

### Examples

Show records as JSON:

```
# Create select and run it
Set Variable [ $Command ; Value: MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test") ]
# Run it
Set Variable [ $result ; Value: MBS("SQL.Execute"; $Command) ]
If [ $result "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Loop
Set Variable [ $result ; Value: MBS("SQL.FetchNext"; $Command) ]
Exit Loop If [ $result = 1 ]
Show Custom Dialog [ "JSON" ; MBS( "SQL.GetFieldsAsJSON"; $Command ) ]
End Loop
End If
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.FreeCommand"; $Command) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.13 SQL.FetchNext 7432
- 159.18 SQL.FreeCommand 7440
- 159.32 SQL.GetFieldAsJPEG 7458
- 159.34 SQL.GetFieldAsPDF 7462

159.46. <i>SQL.GETFIELDSASJSON</i>	7481
• 159.35 <i>SQL.GetFieldAsPNG</i>	7464
• 159.36 <i>SQL.GetFieldAsText</i>	7466
• 159.37 <i>SQL.GetFieldAsTime</i>	7468
• 159.69 <i>SQL.GetRecordsAsJSON</i>	7512
• 159.82 <i>SQL.NewCommand</i>	7530

## **Example Databases**

- [SQL to other databases/SQLite fun](#)

### **159.46.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 11st March 2020.

## 159.47 SQL.GetIsolationLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetIsolationLevel"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns level name or error message.

### Description

Function returns isolation level that was previously set by SQL.SetIsolationLevel. Returns "Unknown" if no isolation level was set. In that case see DBMS specific documentation for default isolation level used.

Returns one of the following strings: ReadUncommitted, ReadCommitted, RepeatableRead, Serializable or Unknown.

### See also

- 159.83 SQL.NewConnection 7534
- 159.107 SQL.SetIsolationLevel 7570

Created 18th August 2014, last changed 18th August 2014.

**159.48 SQL.GetParamAsBoolean**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsBoolean"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns the value or error message.

**Description**

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

**Examples**

Query value of first parameter:

MBS( "SQL.GetParamAsBoolean"; \$Command; "# 0" )

**See also**

- 159.27 SQL.GetFieldAsBoolean 7451
- 159.52 SQL.GetParamAsFloat 7487
- 159.82 SQL.NewCommand 7530
- 159.108 SQL.SetParamAsBoolean 7571

Created 18th August 2014, last changed 10th January 2020.

## 159.49 SQL.GetParamAsContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsContainer"; Command; Param; FileName )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### FileName

The filename for the container. This will determinate the type of data to FileMaker.

"test.jpg"

**Result** Returns container value or error.

### Description

If you can provide a file name, we can use it to auto detect the type of data and import it in the right format, e.g. add a preview for PDF or the image size for JPEG.

### Examples

Query image param value:

MBS( "SQL.GetParamAsContainer"; \$Command; "MyBlob"; \$FileName )

### See also

- 159.28 SQL.GetFieldAsContainer 7452
- 159.82 SQL.NewCommand 7530
- 159.109 SQL.SetParamAsContainer 7572

### 159.49.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 17th May 2016, last changed 17th May 2016.



**159.50 SQL.GetParamAsDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsDate"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns the value or error message.

**Description**

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

**Examples**

Query value of first parameter:

MBS( "SQL.GetParamAsDate"; \$Command; "# 0" )

**See also**

- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.68 SQL.GetParamsAsJSON 7510
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576
- 159.112 SQL.SetParamAsFloat 7578
- 159.114 SQL.SetParamAsText 7582
- 159.115 SQL.SetParamAsTime 7584

Created 18th August 2014, last changed 10th January 2020.

## 159.51 SQL.GetParamAsDateTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsDateTime"; Command; Param )

(old name: SQL.GetParamAsTimestamp)

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns the value or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

### Examples

Query value of first parameter:

MBS( "SQL.GetParamAsDateTime"; \$Command; "# 0" )

### See also

- 159.30 SQL.GetFieldAsDateTime 7455
- 159.50 SQL.GetParamAsDate 7485
- 159.58 SQL.GetParamAsTime 7498
- 159.59 SQL.GetParamDataType 7499
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576
- 159.115 SQL.SetParamAsTime 7584

Created 18th August 2014, last changed 10th January 2020.

**159.52 SQL.GetParamAsFloat**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsFloat"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns the value or error message.

**Description**

For integer values, you can use SQL.GetParamAsNumber.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

**Examples**

Query value of first parameter:

MBS( "SQL.GetParamAsFloat"; \$Command; "# 0" )

**See also**

- 159.48 SQL.GetParamAsBoolean 7483
- 159.50 SQL.GetParamAsDate 7485
- 159.53 SQL.GetParamAsJPEG 7489
- 159.54 SQL.GetParamAsNumber 7491
- 159.55 SQL.GetParamAsPDF 7493
- 159.56 SQL.GetParamAsPNG 7495
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.112 SQL.SetParamAsFloat 7578

- 159.114 SQL.SetParamAsText

Created 18th August 2014, last changed 10th January 2020.

**159.53 SQL.GetParamAsJPEG**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsJPEG"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns container value or error message.

**Description**

Field must be a BLOB parameter. The plugin does not verify if the BLOB contains a valid JPEG image.

See also SQL.GetParamAsPDF and SQL.GetParamAsPNG.

**Examples**

Read field value of field "JPEGData" into variable:

```
$firstname = MBS("SQL.GetParamAsJPEG"; $command; "JPEGData")
```

Query value of first parameter:

```
MBS( "SQL.GetParamAsJPEG"; $Command; "# 0" )
```

**See also**

- 159.52 SQL.GetParamAsFloat 7487
- 159.55 SQL.GetParamAsPDF 7493
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.68 SQL.GetParamsAsJSON 7510
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574

- 159.114 SQL.SetParamAsText 7582
- 159.115 SQL.SetParamAsTime 7584

### 159.53.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.54 SQL.GetParamAsNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsNumber"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns the value or error message.

### Description

For float values, you can use SQL.GetParamAsFloat.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

### Examples

Query value of first parameter:

MBS( "SQL.GetParamAsNumber"; \$Command; "# 0" )

### See also

- 159.10 SQL.Execute 7425
- 159.33 SQL.GetFieldAsNumber 7460
- 159.50 SQL.GetParamAsDate 7485
- 159.52 SQL.GetParamAsFloat 7487
- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.82 SQL.NewCommand 7530
- 159.113 SQL.SetParamAsNumber 7580
- 159.115 SQL.SetParamAsTime 7584

### 159.54.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr5](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 18th August 2014, last changed 10th January 2020.



**159.55 SQL.GetParamAsPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsPDF"; Command; Param { ; DontRenderPreview } )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**DontRenderPreview**

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns container value or error message.

**Description**

Field must be a BLOB parameter. The plugin does not verify if the BLOB contains a valid PDF document. See also SQL.GetParamAsJPEG and SQL.GetParamAsPNG.

For PDF content: If you have a DynaPDF Pro license and DynaPDF functions initialized, this function can add previews for the PDF file on Windows and Linux. For MacOS, we make them with PDFKit.

**Examples**

Read field value of field "PDFData" into variable:

```
$firstname = MBS("SQL.GetParamAsPDF"; $command; "PDFData")
```

Query value of first parameter:

```
MBS( "SQL.GetParamAsPDF"; $Command; "# 0" )
```

**See also**

- 159.53 SQL.GetParamAsJPEG 7489
- 159.56 SQL.GetParamAsPNG 7495
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498

- 159.61 SQL.GetParamIsNull 7501
- 159.68 SQL.GetParamsAsJSON 7510
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.114 SQL.SetParamAsText 7582

### 159.55.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 4.3pr1](#)

Created 18th August 2014, last changed 17th August 2018.

## 159.56 SQL.GetParamAsPNG

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsPNG"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns container value or error message.

### Description

Field must be a BLOB parameter. The plugin does not verify if the BLOB contains a valid PNG image.  
See also SQL.GetParamAsJPEG and SQL.GetParamAsPDF.

### Examples

Read field value of field "PNGData" into variable:

```
$firstname = MBS("SQL.GetParamAsPNG"; $command; "PNGData")
```

Query value of first parameter:

```
MBS( "SQL.GetParamAsPNG"; $Command; "# 0" )
```

### See also

- 159.53 SQL.GetParamAsJPEG 7489
- 159.55 SQL.GetParamAsPDF 7493
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.68 SQL.GetParamsAsJSON 7510
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530

- 159.110 SQL.SetParamAsDate 7574
- 159.114 SQL.SetParamAsText 7582

### 159.56.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 13th January 2015.

**159.57 SQL.GetParamAsText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsText"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns the value or error message.

**Description**

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

**Examples**

Query value of first parameter:

MBS( "SQL.GetParamAsText"; \$Command; "# 0" )

**See also**

- 159.53 SQL.GetParamAsJPEG 7489
- 159.55 SQL.GetParamAsPDF 7493
- 159.56 SQL.GetParamAsPNG 7495
- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.112 SQL.SetParamAsFloat 7578
- 159.114 SQL.SetParamAsText 7582
- 159.115 SQL.SetParamAsTime 7584

Created 18th August 2014, last changed 10th January 2020.

## 159.58 SQL.GetParamAsTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamAsTime"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns the value or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_param.html](https://www.sqlapi.com/ApiDoc/class_s_a_param.html)

### Examples

Query value of first parameter:

MBS( "SQL.GetParamAsTime"; \$Command; "# 0" )

### See also

- 159.50 SQL.GetParamAsDate 7485
- 159.57 SQL.GetParamAsText 7497
- 159.64 SQL.GetParamOption 7505
- 159.68 SQL.GetParamsAsJSON 7510
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576
- 159.113 SQL.SetParamAsNumber 7580
- 159.115 SQL.SetParamAsTime 7584

Created 18th August 2014, last changed 10th January 2020.

## 159.59 SQL.GetParamDataType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamDataType"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** The parameter type or error message.

### Description

The parameter data type can be: Bool, Short, UShort, Long, ULong, Double, Numeric, DateTime, Interval, String, Bytes, LongBinary, LongChar, Blob, Clob, Cursor, SpecificToDBMS or unknown.

### Examples

Query data type of first parameter:

MBS( "SQL.GetParamDataType"; \$Command; "# 0" )

### See also

- 159.38 SQL.GetFieldDataType 7469
- 159.51 SQL.GetParamAsDateTime 7486
- 159.82 SQL.NewCommand 7530
- 159.116 SQL.SetParamDataType 7585

Created 18th August 2014, last changed 13th January 2015.

## 159.60 SQL.GetParamIsDefault

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamIsDefault"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns 1 if you called SQL.setParamDefault function; 0 otherwise.

### Description

#### See also

- 159.61 SQL.GetParamIsNull 7501
- 159.82 SQL.NewCommand 7530
- 159.117 SQL.SetParamDefault 7586

Created 18th August 2014, last changed 18th April 2015.



**159.61 SQL.GetParamIsNull**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamIsNull"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns 1 if the value of current object is NULL; otherwise 0.

**Description****See also**

- 159.50 SQL.GetParamAsDate 7485
- 159.53 SQL.GetParamAsJPEG 7489
- 159.54 SQL.GetParamAsNumber 7491
- 159.56 SQL.GetParamAsPNG 7495
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.60 SQL.GetParamIsDefault 7500
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530
- 159.118 SQL.SetParamNull 7587

Created 18th August 2014, last changed 28th November 2019.

## 159.62 SQL.GetParamName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamName"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** The name of the parameter or error message.

### Description

### Examples

Query name of first parameter:

MBS( "SQL.GetParamName"; \$Command; "# 0" )

### See also

- 159.10 SQL.Execute 7425
- 159.50 SQL.GetParamAsDate 7485
- 159.58 SQL.GetParamAsTime 7498
- 159.63 SQL.GetParamNameList 7503
- 159.66 SQL.GetParamValue 7507
- 159.67 SQL.GetParamValueList 7508
- 159.82 SQL.NewCommand 7530
- 159.118 SQL.SetParamNull 7587
- 159.122 SQL.SetParamValue 7592

Created 18th August 2014, last changed 13th January 2015.

**159.63 SQL.GetParamNameList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamNameList"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns list or error.

**Description****Examples**

Create a command, fill parameters and query names and values list:

```
# Create command for insert
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:1,:2,:3,:4,:5)") ]
# now fill some parameters
Set Variable [ $result; Value:MBS("SQL.SetParamAsText"; $Command; 1; SQLite fun::FirstName) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsText"; $Command; 2; SQLite fun::LastName) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsDate"; $Command; 3; SQLite fun::Birthday) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsNumber"; $Command; 4; SQLite fun::NumberOfOrders)
]
Set Variable [ $result; Value:MBS("SQL.SetParamAsFloat"; $Command; 5; SQLite fun::TotalSales) ]
# query list of parameter names:
Set Variable [ $ParameterNames; Value:MBS("SQL.GetParamNameList"; $Command) ]
# query list of parameter values:
Set Variable [ $ParameterValues; Value:MBS("SQL.GetParamValueList"; $Command) ]
```

**See also**

- 159.10 SQL.Execute 7425
- 159.41 SQL.GetFieldNameList 7473
- 159.62 SQL.GetParamName 7502
- 159.66 SQL.GetParamValue 7507
- 159.67 SQL.GetParamValueList 7508
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574

- 159.112 SQL.SetParamAsFloat 7578
- 159.113 SQL.SetParamAsNumber 7580
- 159.114 SQL.SetParamAsText 7582

### 159.63.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 8th April 2015, last changed 8th April 2015.

**159.64 SQL.GetParamOption**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamOption"; Command; Param; Key )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Key**

A string key of the command option.  
""

**Result** Returns OK or error.

**Description****See also**

- 159.42 SQL.GetFieldOption 7475
- 159.58 SQL.GetParamAsTime 7498
- 159.65 SQL.GetParamOptions 7506
- 159.82 SQL.NewCommand 7530
- 159.119 SQL.SetParamOption 7588

**159.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.

## 159.65 SQL.GetParamOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamOptions"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Result** Returns list or error.

### Description

#### See also

- 159.43 SQL.GetFieldOptions 7476
- 159.64 SQL.GetParamOption 7505
- 159.82 SQL.NewCommand 7530
- 159.119 SQL.SetParamOption 7588

### 159.65.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.

## 159.66 SQL.GetParamValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamValue"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns value or error.

### Description

The value is converted to a FileMaker value with matching type.

BLOBs are returned as hex strings and not as container values (could be changed).

NULL values are returned as empty container values.

### See also

- 159.44 SQL.GetFieldValue 7477
- 159.50 SQL.GetParamAsDate 7485
- 159.55 SQL.GetParamAsPDF 7493
- 159.56 SQL.GetParamAsPNG 7495
- 159.58 SQL.GetParamAsTime 7498
- 159.61 SQL.GetParamIsNull 7501
- 159.62 SQL.GetParamName 7502
- 159.63 SQL.GetParamNameList 7503
- 159.82 SQL.NewCommand 7530
- 159.122 SQL.SetParamValue 7592

### 159.66.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 18th April 2015, last changed 20th April 2015.

## 159.67 SQL.GetParamValueList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamValueList"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns list or error.

#### Description

If value contains a new line or return character, we replace it with \n or \r.

#### Examples

Create a command, fill parameters and query names and values list:

```
# Create command for insert
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:1,:2,:3,:4,:5)") ]
# now fill some parameters
Set Variable [ $result; Value:MBS("SQL.SetParamAsText"; $Command; 1; SQLite fun::FirstName) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsText"; $Command; 2; SQLite fun::LastName) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsDate"; $Command; 3; SQLite fun::Birthday) ]
Set Variable [ $result; Value:MBS("SQL.SetParamAsNumber"; $Command; 4; SQLite fun::NumberOfOrders)
]
Set Variable [ $result; Value:MBS("SQL.SetParamAsFloat"; $Command; 5; SQLite fun::TotalSales) ]
# query list of parameter names:
Set Variable [ $ParameterNames; Value:MBS("SQL.GetParamNameList"; $Command) ]
# query list of parameter values:
Set Variable [ $ParameterValues; Value:MBS("SQL.GetParamValueList"; $Command) ]
```

#### See also

- 159.45 SQL.GetFieldValueList 7478
- 159.62 SQL.GetParamName 7502
- 159.63 SQL.GetParamNameList 7503
- 159.66 SQL.GetParamValue 7507
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574
- 159.113 SQL.SetParamAsNumber 7580



<i>159.67. SQL.GETPARAMVALUELIST</i>	7509
• 159.114 SQL.SetParamAsText	7582
• 159.122 SQL.SetParamValue	7592
• 159.123 SQL.SetParamValues	7594

### **159.67.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr4](#)

Created 8th April 2015, last changed 8th April 2015.

## 159.68 SQL.GetParamsAsJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetParamsAsJSON"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns JSON or error.

### Description

Great function for debugging to check if parameters are set correctly.

Dates, Intervals and BLOBs get converted to text. Boolean, Integer, Numeric and Double types are converted to numbers in JSON. Boolean is passed through as boolean. Null or unknown field types are returned as NULL in JSON.

### Examples

Set parameters and show them:

```
# Create insert command with setting values
Set Variable [ $Command ; Value: MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:1,:2,:3,:4,:5)") ]
Set Variable [ $result ; Value: MBS("SQL.SetParamAsText"; $Command; 1; SQLite fun::FirstName) ]
Set Variable [ $result ; Value: MBS("SQL.SetParamAsText"; $Command; 2; SQLite fun::LastName) ]
Set Variable [ $result ; Value: MBS("SQL.SetParamAsDate"; $Command; 3; SQLite fun::Birthday) ]
Set Variable [ $result ; Value: MBS("SQL.SetParamAsNumber"; $Command; 4; SQLite fun::NumberO-
fOrders) ]
Set Variable [ $result ; Value: MBS("SQL.SetParamAsFloat"; $Command; 5; SQLite fun::TotalSales) ]
# Let us show instead of running it
Show Custom Dialog [ "JSON" ; MBS( "SQL.GetParamsAsJSON"; $Command ) ]
# cleanup
Set Variable [ $result2 ; Value: MBS("SQL.FreeCommand"; $Command) ]
```

### See also

- 159.18 SQL.FreeCommand 7440
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.50 SQL.GetParamAsDate 7485
- 159.53 SQL.GetParamAsJPEG 7489
- 159.55 SQL.GetParamAsPDF 7493

159.68. <i>SQL.GETPARAMSASJSON</i>	7511
• 159.57 <i>SQL.GetParamAsText</i>	7497
• 159.58 <i>SQL.GetParamAsTime</i>	7498
• 159.110 <i>SQL.SetParamAsDate</i>	7574
• 159.113 <i>SQL.SetParamAsNumber</i>	7580
• 159.124 <i>SQL.SetParamsWithJSON</i>	7596

## **Example Databases**

- [SQL to other databases/SQLite fun](#)

### **159.68.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 11st March 2020.

## 159.69 SQL.GetRecordsAsJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetRecordsAsJSON"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns JSON or error.

### Description

Each array entry contains a record converted to JSON.

Dates, Intervals and BLOBs get converted to text. Boolean, Integer, Numeric and Double types are converted to numbers in JSON. Boolean is passed through as boolean. Null or unknown field types are returned as NULL in JSON.

### Examples

Show record as JSON:

```
# Create select and run it
Set Variable [ $Command ; Value: MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test") ]
# Run it
Set Variable [ $result ; Value: MBS("SQL.Execute"; $Command) ]
If [ $result "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Show Custom Dialog [ "JSON" ; MBS( "SQL.GetRecordsAsJSON"; $Command ) ]
End If
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.FreeCommand"; $Command) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.18 SQL.FreeCommand 7440
- 159.46 SQL.GetFieldsAsJSON 7480
- 159.70 SQL.GetRecordsAsText 7514
- 159.82 SQL.NewCommand 7530

**Example Databases**

- [SQL to other databases/SQLite fun](#)

**159.69.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 11st March 2020.

## 159.70 SQL.GetRecordsAsText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.GetRecordsAsText"; Command { ; FieldDelimiter; RowDelimiter } )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### FieldDelimiter

Optional

The delimiter for between fields. Default is a tab character.

#### RowDelimiter

Optional

The delimiter between records. Default is newline character.

**Result** Returns text or error.

### Description

Don't call SQL.FetchNext before as this function will call it for you to loop over records.

Converts all field content to text.

If you just want one field, maybe you just select the required field with your select statement.

### Examples

Run and query result as text:

```
# Create select and run it
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Test") ]
# Run it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
If [ $result "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Show Custom Dialog [ "Inhalt"; MBS("SQL.GetRecordsAsText"; $command) ]
End If
# Cleanup
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.13 SQL.FetchNext 7432
- 159.18 SQL.FreeCommand 7440

<i>159.70. SQL.GETRECORDSASTEXT</i>	7515
• 159.69 SQL.GetRecordsAsJSON	7512
• 159.82 SQL.NewCommand	7530

### **159.70.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 10th August 2015, last changed 11st August 2015.

## 159.71 SQL.InsertOrUpdateRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	7.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "SQL.InsertOrUpdateRecords"; Command; InsertFileName; InsertTableName; FieldNames; PrimaryKeyDB1; PrimaryKeyFM1 { ; SecondaryKeyDB2; SecondaryKeyFM2; TertariyKeyDB3; TertariyKeyFM3 } )
```

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.  
Get(FileName)

#### InsertTableName

The name of the table to insert record into.  
"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.  
"Model"

#### PrimaryKeyDB1

The name of the primary key in the record set. Must be one of the columns in the record from SQL. If empty, we use primaryKeyFM1 here.  
"RowID"

#### PrimaryKeyFM1

The name of the primary key for the update statements. Must be one of the columns in the FileMaker table. If empty, we use primaryKeyDB1 here.  
"RowID"

#### SecondaryKeyDB2

Optional  
Available in MBS FileMaker Plugin 8.1 or newer.  
The name of the secondary key in the record set. Must be one of the columns in the record from SQL. If empty, we use primaryKeyFM2 here.  
"ClientID"

#### SecondaryKeyFM2

Optional  
Available in MBS FileMaker Plugin 8.1 or newer.  
The name of the secondary key for the update statements. Must be one of the columns in the FileMaker table. If empty, we use primaryKeyDB2 here.  
"ClientID"



**TertiaryKeyDB3**

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

The name of the tertiary key in the record set. Must be one of the columns in the record from SQL. If empty, we use primaryKeyFM3 here.

"CompanyID"

**TertiaryKeyFM3**

Optional

Available in MBS FileMaker Plugin 8.1 or newer.

The name of the tertiary key for the update statements. Must be one of the columns in the FileMaker table. If empty, we use primaryKeyDB3 here.

"CompanyID"

**Result** Returns list or error.**Description**

This function allows to easily copy a lot of records from SQL database into FileMaker table.

Please provide field names in FileMaker. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

This will not work for BLOBs as they are stored currently as hex encoded text only.

Function will fail if data types in FileMaker and other SQL database do not match for assignment. e.g. date and time fields will not work, only timestamp fields. Fixed in 10.2, so it may work now.

For copying record within FileMaker, please use FM.InsertRecordQuery or FM.SQL.InsertRecords functions.

Returns list with three values: Number of records inserted, number of records updated and number of errors. Primary key in FM must be defined as unique and validate always, so FileMaker properly reports a duplicate.

We first do a select to count how many we have and than do either insert or update. If insert returns duplicate error, we try update, too. Up to ten pairs of DB and FM keys are possible.

**Examples**

Insert or update records:

```
# get connection before.
```

```
# Create select and run it
```

```
Set Variable [ $Command ; Value: MBS("SQL.NewCommand"; $Connection; "SELECT RowID, FirstName, LastName, TotalSales, NumberOfOrders FROM Test") ]
```

```
# Run it
```

```
Set Variable [ $result ; Value: MBS("SQL.Execute"; $Command) ]
```

```
If [ $result "OK" ]
```

```
Show Custom Dialog [ "Error: " & $result ]
```

```

Else
Set Variable [ $result ; Value: MBS("SQL.InsertOrUpdateRecords"; $Command; Get(FileName); "SQLite
fun"; "PKey$FirstName$LastName$TotalSales$NumberOfOrders"; "RowID"; "PKey") ]
Show Custom Dialog [ "Records imported." & $& $& $result ]
End If
# Cleanup
Set Variable [ $result2 ; Value: MBS("SQL.FreeCommand"; $Command) ]
Set Variable [ $result2 ; Value: MBS("SQL.Commit"; $Connection) ]
Set Variable [ $result2 ; Value: MBS("SQL.FreeConnection"; $Connection) ]

```

### See also

- [81.10 FM.ExecuteSQL.LastErrorMessage](#) 4154
- [81.14 FM.InsertOrUpdateRecord](#) 4162
- [81.15 FM.InsertOrUpdateRecord2](#) 4165
- [81.18 FM.InsertRecord](#) 4173
- [81.20 FM.InsertRecordQuery](#) 4180
- [81.30 FM.SQL.InsertRecords](#) 4204
- [159.7 SQL.Commit](#) 7416
- [159.10 SQL.Execute](#) 7425
- [159.18 SQL.FreeCommand](#) 7440
- [159.72 SQL.InsertRecords](#) 7519

### 159.71.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)
- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr4](#)
- [MBS FileMaker Plugin, version 8.1pr2](#)
- [MBS FileMaker Plugin, version 8.1pr1](#)
- [MBS FileMaker Plugin, version 7.3pr3](#)

## 159.72 SQL.InsertRecords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InsertRecords"; Command; InsertFileName; InsertTableName; FieldNames { ; IgnoreDuplicates } )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### InsertFileName

The file name of where the insert table is inside. Can be empty to look for the table in all files.

Get(FileName)

#### InsertTableName

The name of the table to insert record into.

"Assets"

#### FieldNames

A list of field names for the insert. Empty entries in the list are ignored.

"Model"

#### IgnoreDuplicates

Optional

Available in MBS FileMaker Plugin 7.3 or newer.

If 1, ignores duplicates or with 0 or by default reports error for duplicates. If duplicates are found, the function returns number of duplicates instead of OK.

0

**Result** Returns number of duplicates, OK or error.

### Description

This function allows to easily copy a lot of records from SQL database into FileMaker table.

Please provide field names in FileMaker. The order has to match those in the record set.

Due to passing in new field names, you can even rearrange values from one column to other while copying.

In the SQL you can use functions for sums or join data from several tables together to fill a new table.

Use FM.ExecuteSQL.LastErrorMessage and FM.ExecuteSQL.LastError to see error message.

Reports an error if field name list doesn't match column count of the query result.

This will not work for BLOBs as they are stored currently as hex encoded text only.

Function will fail if data types in FileMaker and other SQL database do not match for assignment. e.g. date and time fields will not work, only timestamp fields.

For copying record within FileMaker, please use FM.InsertRecordQuery or FM.SQL.InsertRecords functions.

### Examples

Insert records to FileMaker from SQL database:

```

# Create select command and run it
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT FirstName, Last-
Name, Birthday, NumberOfOrders, TotalSales FROM Test") ]
# Run it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
If [ $result = "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Else
Set Variable [ $result; Value:MBS("SQL.InsertRecords"; $Command; Get(FileName) ;"SQLite fun"; "First-
Name$LastName$Birthday$NumberOfOrders$TotalSales") ]
Show Custom Dialog [ "Records imported."; $result ]
End If
# Cleanup
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]

```

### See also

- 81.8 FM.ExecuteSQL 4146
- 81.17 FM.InsertOrUpdateRecordQuery 4171
- 81.18 FM.InsertRecord 4173
- 81.20 FM.InsertRecordQuery 4180
- 81.30 FM.SQL.InsertRecords 4204
- 111.25 Matrix.InsertRecords 5894
- 159.10 SQL.Execute 7425
- 159.18 SQL.FreeCommand 7440
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.82 SQL.NewCommand 7530

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)

#### 159.72.1 Blog Entries

- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS FileMaker Plugin, version 7.2pr3](#)
- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 29th July 2015, last changed 18th May 2017.

**159.73 SQL.InternalSQLiteLibrary.Activate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.Activate" )

**Result** Returns OK or error.

**Description**

If you use this command, you don't need to provide sqlite3.dll or sqlite3.dylib yourself.

**Examples**

Activate the internal SQLite library if not already activated:

```
If [ MBS( "SQL.InternalSQLiteLibrary.Activated" ) = 1 ]
Set Variable [ $r; Value:MBS( "SQL.InternalSQLiteLibrary.Activate" ) ]
End If
```

**See also**

- [159.1 FM.SQL.InsertRecordsToSQL](#) 7407
- [159.74 SQL.InternalSQLiteLibrary.Activated](#) 7522
- [159.75 SQL.InternalSQLiteLibrary.Deactivate](#) 7523
- [159.76 SQL.InternalSQLiteLibrary.SourceID](#) 7524
- [159.77 SQL.InternalSQLiteLibrary.Version](#) 7525

**Example Databases**

- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

**159.73.1 Blog Entries**

- [Use JSON functions with SQLite](#)
- [Embedded SQLite and encryption](#)

Created 23th September 2015, last changed 23th September 2015.

## 159.74 SQL.InternalSQLiteLibrary.Activated

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.Activated" )

**Result** Returns 0 or 1.

### Description

Returns 1 if used and 0 if not.

### Examples

Activate the internal SQLite library if not already activated:

```
If [ MBS( "SQL.InternalSQLiteLibrary.Activated" ) = 1 ]
Set Variable [ $r; Value:MBS( "SQL.InternalSQLiteLibrary.Activate" ) ]
End If
```

### See also

- 159.73 SQL.InternalSQLiteLibrary.Activate 7521
- 159.75 SQL.InternalSQLiteLibrary.Deactivate 7523
- 159.76 SQL.InternalSQLiteLibrary.SourceID 7524
- 159.77 SQL.InternalSQLiteLibrary.Version 7525

Created 23th September 2015, last changed 23th September 2015.

## 159.75 **SQL.InternalSQLiteLibrary.Deactivate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.Deactivate" )

**Result** Returns OK or error.

### **Description**

You should normally never need to call this.

### **See also**

- 159.73 [SQL.InternalSQLiteLibrary.Activate](#) 7521
- 159.74 [SQL.InternalSQLiteLibrary.Activated](#) 7522
- 159.76 [SQL.InternalSQLiteLibrary.SourceID](#) 7524
- 159.77 [SQL.InternalSQLiteLibrary.Version](#) 7525

Created 23th September 2015, last changed 23th September 2015.

## 159.76 SQL.InternalSQLiteLibrary.SourceID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.SourceID" )

**Result** Returns text.

### Description

### Examples

Check the source ID:

MBS( "SQL.InternalSQLiteLibrary.SourceID" )

# e.g. 2015-07-29 20:00:57 cf538e2783e468bbc25e7cb2a9ee64d3e0e80b2f

### See also

- 159.73 SQL.InternalSQLiteLibrary.Activate 7521
- 159.74 SQL.InternalSQLiteLibrary.Activated 7522
- 159.75 SQL.InternalSQLiteLibrary.Deactivate 7523
- 159.77 SQL.InternalSQLiteLibrary.Version 7525

Created 23th September 2015, last changed 23th September 2015.



## 159.77 **SQL.InternalSQLiteLibrary.Version**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.Version" )

**Result** Returns version as text.

### Description

### Examples

Checks version:

MBS( "SQL.InternalSQLiteLibrary.Version" )

# e.g. "3.8.11.1"

### See also

- 159.73 [SQL.InternalSQLiteLibrary.Activate](#) 7521
- 159.74 [SQL.InternalSQLiteLibrary.Activated](#) 7522
- 159.75 [SQL.InternalSQLiteLibrary.Deactivate](#) 7523
- 159.76 [SQL.InternalSQLiteLibrary.SourceID](#) 7524
- 159.78 [SQL.InternalSQLiteLibrary.VersionNumber](#) 7526

Created 23th September 2015, last changed 23th September 2015.

## 159.78 SQL.InternalSQLiteLibrary.VersionNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.InternalSQLiteLibrary.VersionNumber" )

**Result** Returns number.

### Description

### Examples

Checks version:

```
MBS( "SQL.InternalSQLiteLibrary.VersionNumber" )  
# e.g. 3008011
```

### See also

- 159.77 SQL.InternalSQLiteLibrary.Version

7525

Created 23th September 2015, last changed 23th September 2015.

## 159.79 SQL.ListCommands

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ListCommands" )

**Result** Returns list or error.

### Description

This can help to see if there are any open commands left to close.

### Examples

List commands:

```
Set Variable [ $list; Value:MBS("SQL.ListCommands") ]
```

### See also

- 159.87 SQL.ResetCommand

7540

### 159.79.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 159.80 SQL.ListConnections

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ListConnections" )

**Result** Returns list or error.

### Description

This can help to see if there are any open connections left to close.

### Examples

List connections:

```
Set Variable [ $list; Value:MBS("SQL.ListConnections") ]
```

### See also

- [159.19 SQL.FreeConnection](#) 7442
- [159.83 SQL.NewConnection](#) 7534
- [159.88 SQL.ResetConnection](#) 7541

### 159.80.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 159.81 SQL.MySQL.InsertID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.MySQL.InsertID"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns the ID or error message.

### Description

see also

<http://dev.mysql.com/doc/refman/5.1/en/mysql-insert-id.html>

#### See also

- 159.83 SQL.NewConnection

7534

### 159.81.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 159.82 SQL.NewCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.NewCommand"; Connection { ; Command; CommandType; ID } )

### Parameters

#### Connection

The command reference number gained with SQL.NewConnection.

\$Connection

#### Command

Optional

This represents command text string (an SQL statement or a stored procedure name). If it is empty string, no command text is associated with the command, and you have to call SQL.SetCommandText method later.

"SELECT \* FROM Test"

#### CommandType

Optional

Type of a command. Can be CmdSQLStmt, CmdSQLStmtRaw or CmdStoredProc.

"CmdSQLStmt"

#### ID

Optional

The ID to use instead of default one. Must be unique. If none is provided, the plugin will create one.

**Result** Returns command reference number or error message.

### Description

Don't forget to free command with SQL.FreeCommand.

SQL command reference numbers are starting at 23000 and counting up for each new command.

For server scripting, please use one connection for each script running on server, so multiple scripts running at the same data don't access the same connection or command objects in memory. And each connection has its own transaction and error state.

### Examples

Creates a new command to create table:

```
MBS("SQL.NewCommand"; $Connection; "CREATE TABLE Test(FirstName VARCHAR, LastName VARCHAR, Birthday date, NumberOfOrders integer, TotalSales double)")
```

Run a stored procedure:

```
# new command for calling our test procedure on a Microsoft SQL Server
Set Variable [ $command; MBS( "SQL.NewCommand"; $Connection; "dbo.Test" ) ]
# set a parameter
```

```

Set Variable [ $r; MBS( "SQL.SetParamAsNumber"; $Command; "Param1"; 7 ) ]
# execute query
Set Variable [ $r; MBS( "SQL.Execute"; $Command ) ]
# fetch first record
Set Variable [ $r; MBS( "SQL.FetchNext"; $Command ) ]
# get result field
Set Variable [ $result; MBS( "SQL.GetFieldAsText"; $Command; 1 ) ]

```

New command with named parameters:

```

MBS("SQL.NewCommand"; $Connection; "update Documents set ProductNumber=:ProductNumber, Pub-
OptionNo=:PubOptionNo, DueInStock=:DueInStock, ProductTypeID=:ProductTypeID where DocID=:Do-
cID" )

```

Call stored procedure sys.sp\_setapprole via ODBC connection to Microsoft SQL Server:

```

# connect via SQL to a Microsoft SQL Server
Set Variable [ $$Connection ; Value: MBS ( "SQL.NewConnection" ) ]
Set Variable [ $$SetToODBC ; Value: MBS ( "SQL.SetClient" ; $$Connection ; "ODBC" ) ]
Set Variable [ $ConnectResult ; Value: MBS ( "SQL.Connect" ; $$Connection ; "connection string" ; "user"
; "password" ; "ODBC" ) ]
If [ MBS("IsError") = 0 ]
# make a new command for the stored procedure
Set Variable [ $StoredProcedure ; Value: MBS ( "SQL.NewCommand" ; $$Connection ; "sys.sp_setapprole"
) ]
If [ MBS("IsError") = 0 ]
# for debugging query list of parameters
Set Variable [ $Params ; Value: MBS( "SQL.GetParamNameList"; $StoredProcedure) ]
# set parameters
Set Variable [ $RoleName ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@rolename" ;
"xxx" ) ]
Set Variable [ $Password ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@password" ; "yyy"
) ]
Set Variable [ $Cookie ; Value: MBS ( "SQL.SetParamAsBoolean" ; $StoredProcedure ; "@fCreateCookie"
; 1 ) ]
Set Variable [ $Encrypt ; Value: MBS ( "SQL.SetParamAsText" ; $StoredProcedure ; "@encrypt"; "none" )
]
Set Variable [ $Execute ; Value: MBS ( "SQL.Execute" ; $StoredProcedure ) ]
// #
If [ MBS("IsError") = 0 ]
# query results on success
Set Variable [ $ReturnValue ; Value: MBS ( "SQL.GetParamAsNumber" ; $StoredProcedure ; "@RE-
TURN_VALUE" ) ]
Set Variable [ $cookie ; Value: MBS ( "SQL.GetParamAsText" ; $StoredProcedure ; "@cookie" ) ]
End If
Set Variable [ $FreeStoredProcedure ; Value: MBS ( "SQL.FreeCommand" ; $StoredProcedure ) ]
End If

```

```
Set Variable [ $FreeConnection ; Value: MBS ( "SQL.FreeConnection" ; $$Connection ) ]  
End If
```

**See also**

- 159.18 SQL.FreeCommand 7440
- 159.68 SQL.GetParamsAsJSON 7510
- 159.69 SQL.GetRecordsAsJSON 7512
- 159.70 SQL.GetRecordsAsText 7514
- 159.71 SQL.InsertOrUpdateRecords 7516
- 159.72 SQL.InsertRecords 7519
- 159.100 SQL.SetClient 7556
- 159.113 SQL.SetParamAsNumber 7580
- 159.120 SQL.SetParamTypesValues 7589
- 159.122 SQL.SetParamValue 7592

**Example Databases**

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft Access Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

**159.82.1 Blog Entries**

- [Can FileMaker connect to a Microsoft Access database?](#)
- [MBS FileMaker Plugin IDs](#)
- [Tip of the day: Connect to MySQL and run a query](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)
- [MBS Filemaker Plugin, version 3.0pr4](#)



### **159.82.2 FileMaker Magazin**

- Ausgabe 4/2016, Seite 28
- Ausgabe 3/2016, Seite 30
- Ausgabe 2/2016, Seite 14
- Ausgabe 1/2016, Seite 29
- Ausgabe 4/2015, Seite 16

Created 18th August 2014, last changed 10th October 2019.

## 159.83 SQL.NewConnection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.NewConnection" { ; ID } )

### Parameters

#### ID

Optional

The ID to use instead of default one. Must be unique. If none is provided, the plugin will create one.

**Result** An error or a connection reference number.

### Description

The Connection represents a database connection. You must have a connection before you can operate on the database - furthermore the connection needs to be connected. It is important to note that connection objects are not connected during construction - it is up to the user to explicitly call Connect method for the object after it is created and before it is used. Once connected, a connection object is normally shared by the other objects that require a connection (e.g. commands).

Use SQL.FreeConnection to release connection after you finished.

read also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_connection.html](https://www.sqlapi.com/ApiDoc/class_s_a_connection.html)

SQL connection reference numbers are starting at 22000 and counting up for each new connection.

### Examples

Create new connection

```
$Connection = MBS("SQL.NewConnection")
```

Connect to MySQL and run a query:

```
# Start a new connection
Set Variable [ $Connection; Value:MBS("SQL.NewConnection") ]
# Tell plugin where MySQL library is (put it where you like)
Set Variable [ $result; Value:MBS("SQL.SetConnectionOption"; $Connection; "MYSQL.LIBS"; "/Users/cs/Desktop/libmysqlclient.dylib") ]
# Connect to a mysql database:
Set Variable [ $result; Value:MBS("SQL.Connect"; $Connection; "192.168.11.51@Server_Config"; "user"; "password"; "MySQL") ]
If [ $result = "OK" ]
# Connection failed
Show Custom Dialog [ "Error: " & $result ]
```

```

Set Variable [ $result; Value:MBS("SQL.FreeConnection"; $Connection) ]
Halt Script
Else
# Create a query:
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "SELECT * FROM Server_Con-
fig where ServerName=:Name") ]
# If you use parameters, you can fill them here
Set Variable [ $r; Value:MBS("SQL.SetParamAsText"; $Command; "Name"; "MacMini") ]
# Execute it
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
If [ $result "OK" ]
Set Field [ MySQL Query::Result; $result ]
Show Custom Dialog [ "Error: " & $result ]
Else
Set Variable [ $lines; Value:"" ]
Set Variable [ $fieldcount; Value:MBS("SQL.FieldCount"; $command) ]
Loop
# call FetchNext to get the next record
Set Variable [ $result; Value:MBS("SQL.FetchNext"; $Command) ]
Exit Loop If [ $result 1 ]
Set Variable [ $line; Value:"" ]
Set Variable [ $i; Value:1 ]
Loop
# We query field names and values to show them later
Set Variable [ $v; Value:MBS("SQL.GetFieldAsText"; $command; $i) ]
Set Variable [ $n; Value:MBS("SQL.GetFieldName"; $command; $i) ]
Set Variable [ $line; Value:$line & $n & ": " & $v & $]
Set Variable [ $i; Value:$i+1 ]
Exit Loop If [ $i >$fieldCount ]
End Loop
Set Variable [ $lines; Value:$lines & ($line & $) ]
End Loop
Set Variable [ $lines; Value:$lines & $]
Show Custom Dialog [ "Result from Query: "; $lines ]
End If
# Cleanup
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
End If
Set Variable [ $result2; Value:MBS("SQL.FreeConnection"; $Connection) ]

```

**See also**

- 159.16 SQL.FieldCount 7437
- 159.19 SQL.FreeConnection 7442
- 159.26 SQL.GetConnectionTag 7450
- 159.36 SQL.GetFieldAsText 7466

- 159.80 SQL.ListConnections 7528
- 159.82 SQL.NewCommand 7530
- 159.88 SQL.ResetConnection 7541
- 159.105 SQL.SetConnectionTag 7568
- 159.107 SQL.SetIsolationLevel 7570
- 159.114 SQL.SetParamAsText 7582

### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/ODBC to FileMaker/ODBC Test](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### 159.83.1 Blog Entries

- [MBS FileMaker Plugin IDs](#)
- [Tip of the day: Connect to MySQL and run a query](#)
- [MBS FileMaker Plugin, version 6.4pr7](#)
- [Connecting to Microsoft Visual FoxPro](#)

### 159.83.2 FileMaker Magazin

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 29](#)
- [Ausgabe 1/2016, Seite 28](#)
- [Ausgabe 4/2015, Seite 15](#)

**159.84 SQL.Open**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Open"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns "OK" or error message.

**Description**

Use the Open method to open the command explicitly.

A command will be implicitly opened by any method that needs an open command, therefore you don't have to call it explicitly.

To test whether a command is opened use isOpened method.

**See also**

- 159.82 SQL.NewCommand

7530

Created 18th August 2014, last changed 13th January 2015.

## 159.85 SQL.ParamCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ParamCount"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns number of Parameters or error message.

### Description

#### See also

- 159.82 SQL.NewCommand

7530

Created 18th August 2014, last changed 13th January 2015.

## 159.86 SQL.Prepare

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Prepare"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

**Result** Returns "OK" or error message.

### Description

Prepare method compiles the command, but does not execute it. The method detects syntax errors in command text and verifies the existence of database objects.

Execute method calls Prepare method implicitly if needed, therefore you don't have to call it explicitly.

### See also

- 159.82 SQL.NewCommand

7530

Created 18th August 2014, last changed 13th January 2015.

## 159.87 SQL.ResetCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ResetCommand"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns "OK" or error message.

### Description

#### See also

- 159.18 SQL.FreeCommand 7440
- 159.79 SQL.ListCommands 7527
- 159.82 SQL.NewCommand 7530

Created 18th August 2014, last changed 13th January 2015.



**159.88 SQL.ResetConnection**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ResetConnection"; Connection )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns "OK" or error message.

**Description****See also**

- 159.19 SQL.FreeConnection 7442
- 159.80 SQL.ListConnections 7528
- 159.83 SQL.NewConnection 7534

**Example Databases**

- [Third Party/FileMaker Snippet Storage](#)

Created 18th August 2014, last changed 18th August 2014.

## 159.89 SQL.Rollback

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.Rollback"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns "OK" or error message.

### Description

Rollback method rolls back the database to the state it was in at the completion of the last commit operation.

All uncommitted work is undone.

Rollback method rolls back the work of all commands that associated with that connection.

To commit all changes made since the start of the transaction use SQL.Commit method.

### See also

- 159.7 SQL.Commit 7416
- 159.83 SQL.NewConnection 7534

### 159.89.1 FileMaker Magazin

- Ausgabe 1/2016, Seite 30

Created 18th August 2014, last changed 18th August 2014.

**159.90 SQL.RowsAffected**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.RowsAffected"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns number of rows or error message.

**Description**

Returns the number of rows affected by the last insert/update/delete command execution.  
This normally only works if enabled, so please call SQL.SetCommandOption function to enable it if needed.

You may need to define cursor to be scrollable or cached in order to get number of rows in a recordset (For SELECT).

**Examples**

Requests a scrollable record set:

```
MBS( "SQL.SetCommandOption"; $Command; "Scrollable"; "True" )
```

Query number of records found:

```
Set Variable [ $query ; Value: "SELECT ID, Name, ChangedTS FROM Trainings WHERE ChangedTS
>=:1 " ]
Set Variable [ $command ; Value: MBS("SQL.NewCommand"; $connection; $query ) ]
Set Variable [ $r; Value: MBS("SQL.SetParamAsDatetime"; $command; 1; $search_date ) ]
Set Variable [ $r; Value: MBS("SQL.SetCommandOption"; $Command; "Scrollable"; "True" ) ]
Set Variable [ $r ; Value: MBS("SQL.Execute"; $command ) ]
Set Variable [ $count ; MBS( "SQL.RowsAffected"; $Command ) ]
# read records
Set Variable [ $r ; Value: MBS("SQL.FreeCommand"; $command ) ]
```

**See also**

- 159.10 SQL.Execute 7425
- 159.18 SQL.FreeCommand 7440
- 159.82 SQL.NewCommand 7530
- 159.101 SQL.SetCommandOption 7558

- 159.110 SQL.SetParamAsDate 7574
- 159.111 SQL.SetParamAsDateTime 7576

**Example Databases**

- [Third Party/FileMaker Snippet Storage](#)

Created 18th August 2014, last changed 20th December 2019.

## 159.91 SQL.SQLite3.EnableLoadExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.EnableLoadExtension"; Connection; Enable )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

#### Enable

Pass 1 to enable or 0 to disable.  
1

**Result** Returns OK or error.

### Description

#### See also

- 159.83 SQL.NewConnection

7534

### 159.91.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr9](#)

Created 4th November 2014, last changed 4th November 2014.

## 159.92 SQL.SQLite3.LastInsertRowID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.LastInsertRowID"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns the ID or error message.

### Description

see also

[http://www.sqlite.org/c3ref/last\\_insert\\_rowid.html](http://www.sqlite.org/c3ref/last_insert_rowid.html)

#### See also

- 159.83 SQL.NewConnection

7534

### 159.92.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 159.93 SQL.SQLite3.MemoryHighwater

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.MemoryHighwater" { ; Reset } )

### Parameters

#### Reset

Optional

Whether to reset the high water mark. Pass 1 to reset.

1

**Result** Returns number or error.

### Description

Can be reset with reset parameter.

### 159.93.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 11st August 2017.

## 159.94 SQL.SQLite3.MemoryUsed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.MemoryUsed" )

**Result** Returns number or error.

### Description

This is memory allocated, but not yet freed.

### 159.94.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 11st August 2017.



## 159.95 SQL.SQLite3.ReKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.ReKey"; Connection; Key { ; Encoding } )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

#### Key

The new encryption key.  
"Hello World"

#### Encoding

Optional  
The text encoding for the key. Default is UTF-8.  
"UTF-8"

**Result** Returns OK or error.

### Description

An empty key decrypts the database.

Rekeying requires that every page of the database file be read, decrypted, reencrypted with the new key, then written out again. Consequently, rekeying can take a long time on a larger database.

Most SEE variants allow you to encrypt an existing database that was created using the public domain version of SQLite. This is not possible when using the authenticating version of the encryption extension in see-aes128-ccm. If you do encrypt a database that was created with the public domain version of SQLite, no nonce will be used and the file will be vulnerable to a chosen-plaintext attack. If you call SetKey() immediately after Open when you are first creating the database, space will be reserved in the database for a nonce and the encryption will be much stronger. If you do not want to encrypt right away, call SetKey() anyway, with an empty key, and the space for the nonce will be reserved in the database even though no encryption is done initially.

A public domain version of the SQLite library can read and write an encrypted database with an empty key. You only need the encryption extension if the key is non-empty.

### Examples

Change key to AES-256:

```
MBS( "SQL.SQLite3.ReKey"; $Connection; "aes256:" & $Key; "UTF-8" )
```

### See also

7550

- 159.83 SQL.NewConnection
- 159.96 SQL.SQLite3.SetKey

*CHAPTER 159. SQL*

7534

7551

Created 23th September 2015, last changed 12nd November 2015.

**159.96 SQL.SQLite3.SetKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SQLite3.SetKey"; Connection; Key { ; Encoding } )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Key**

The new encryption key.  
"Hello World"

**Encoding**

Optional  
The text encoding for the key. Default is UTF-8.  
"UTF-8"

**Result** Returns OK or error.

**Description**

This key is applied to the database after connecting. In case of an error, the plugin raises an exception. An empty key can be used for having no encryption.

The amount of key material actually used by the encryption extension depends on which variant of SEE you are using. With RC4, the first 256 byte of key are used. With the AES128, the first 16 bytes of the key are used. With AES256, the first 32 bytes of key are used.

If you specify a key that is shorter than the maximum key length, then the key material is repeated as many times as necessary to complete the key. If you specify a key that is larger than the maximum key length, then the excess key material is silently ignored.

The key must begin with an ASCII prefix to specify which algorithm to use. The prefix must be one of "rc4:", "aes128:", or "aes256:". The prefix is not used as part of the key sent into the encryption algorithm. So the real key should begin on the first byte after the prefix. If no prefix is given, we default to AES 128. To be compatible to Xojo (Real Studio), you can use AES128.

Make sure you pass right text encoding (or none for UTF-8). e.g. using "Müller" as key in text encoding Windows ANSI will not open a database which used that key in UTF-8 encoding.

**Examples**

Use an encryption key:

MBS( "SQL.SQLite3.SetKey"; \$Connection; "xxx" )

Clear encryption key:

```
MBS( "SQL.SQLite3.SetKey"; $Connection; "" )
```

Use an encryption key with UTF-8 and AES-256:

```
MBS( "SQL.SQLite3.SetKey"; $Connection; "aes256:" & $key; "UTF-8" )
```

### See also

- [159.83 SQL.NewConnection](#) 7534
- [159.95 SQL.SQLite3.ReKey](#) 7549

### 159.96.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)
- [Embedded SQLite and encryption](#)

Created 23th September 2015, last changed 12nd November 2015.

**159.97 SQL.ServerVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ServerVersion"; Connection )

**Parameters****Connection**

The connection reference number gained with `SQL.NewConnection`.

`$Connection`

**Result** Returns version number or error.

**Description**

The higher word contains the major server version (the XX value in the XX.YY version number); the lower word contains the minor server version (the YY value in the XX.YY version number).

**See also**

- 159.83 `SQL.NewConnection`

7534

Created 18th August 2014, last changed 18th August 2014.

## 159.98 SQL.ServerVersionString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.ServerVersionString"; Connection )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns version string or error.

### Description

A server version string may contain some useful information about server brand, configuration and so on. It is a good idea to display this information in all your applications.

### See also

- 159.83 SQL.NewConnection

7534

Created 18th August 2014, last changed 18th August 2014.

**159.99 SQL.SetAutoCommit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetAutoCommit"; Connection; AutoCommit )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.

\$Connection

**AutoCommit**

Whether to turn auto commit on or off. Can be "On" or "Off".

"On"

**Result** Returns "OK" or error message.

**Description**

If autocommit is on, the database is committed automatically after each SQL command. Otherwise, transaction is committed only after Commit calling.

**Examples**

Turn auto commit off:

MBS( "SQL.SetAutoCommit"; \$Connection; "off" )

**See also**

- 159.20 SQL.GetAutoCommit 7444
- 159.83 SQL.NewConnection 7534

**159.99.1 FileMaker Magazin**

- Ausgabe 1/2016, Seite 30

Created 18th August 2014, last changed 25th October 2018.

## 159.100 SQL.SetClient

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetClient"; Connection; Client )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### Client

The name of the database client to use.

"SQLite"

**Result** Returns "OK" on success.

### Description

You can set a client in Connect method, in this case you don't need to use setClient method. The main destination of this method is to connect to a server with no connection to a database (for example, to check a client availability and version). But if you are calling Connect method with no specified client you have to use setClient method before.

If you are calling setClient method when the connection is set to another client the previous connection will be disconnected and new client will be set.

Pass one of this values: CubeSQL, SQLAnywhere, ODBC, Oracle, SQLServer, Firebird, InterBase, SQLBase, DB2, Informix, Sybase, MySQL, PostgreSQL or SQLite. Connect to Microsoft Access, FileMaker Server (or Pro), Microsoft Visual FoxPro and others via ODBC.

Be aware that for most database servers, you need to specify client library with SQL.SetConnectionOption first.

### Examples

Sets client to be SQLite:

```
MBS( "SQL.SetClient"; $Connection; "SQLite" )
```

Sets client to be Oracle:

```
MBS( "SQL.SetClient"; $Connection; "Oracle" )
```

### See also

- 159.1 FM.SQL.InsertRecordsToSQL 7407
- 159.8 SQL.Connect 7418



159.100. <i>SQL.SETCLIENT</i>	7557
• 159.10 SQL.Execute	7425
• 159.82 SQL.NewCommand	7530
• 159.83 SQL.NewConnection	7534
• 159.104 SQL.SetConnectionOption	7563

### **Example Databases**

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft Access Execute](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/ODBC Query](#)
- [SQL to other databases/ODBC to FileMaker/ODBC Test](#)
- [SQL to other databases/SQL Export](#)
- [Third Party/FileMaker Snippet Storage](#)

### **159.100.1 Blog Entries**

- [ODBC driver and MBS SQL Functions in FileMaker](#)

### **159.100.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 29](#)
- [Ausgabe 1/2016, Seite 28](#)
- [Ausgabe 4/2015, Seite 15](#)

Created 18th August 2014, last changed 29th December 2019.

## 159.101 SQL.SetCommandOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetCommandOption"; Command; Key; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Key

A string key of the command option.

””

#### Value

The new value.

””

**Result** Returns "OK" or error message.

### Description

Call this method to set value(s) of server specific command options. See Server specific notes.

A command related option may be specified in either connection object or command object. If it is specified in connection object it affects all the commands on that connection.

If an option is not specially assigned to the command object the Library takes this option from related connection object (see SQL.GetCommandOption function). If an option is not specified in neither command nor connection objects, the Library takes the default option value.

SQL.SetCommandOption method is safe to use in cross-server applications. An option related to a particular server does not affect others.

see also

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_command.html](https://www.sqlapi.com/ApiDoc/class_s_a_command.html)

### Examples

Requests a scrollable record set:

```
MBS( "SQL.SetCommandOption"; $Command; "Scrollable"; "True" )
```

Store MySQL RecordSet locally:

```
MBS( "SQL.SetCommandOption"; $Command; "HandleResult"; "Store" )
```

Requests 100 rows to be prefetched:

```
MBS( "SQL.SetCommandOption"; $Command; "PreFetchRows"; "100" )
```

Set an option we may for ODBC to FileMaker:

```
MBS( "SQL.SetCommandOption"; $Command; "ODBCAddLongTextBufferSpace"; "false" )
// newer plugins automatically set it right when connecting to FileMaker
```

Allow multiple connections for Microsoft SQL Server:

```
MBS( "SQL.SetCommandOption"; $Command; "SQL_ATTR_CURSOR_TYPE"; "SQL_CURSOR_DYNAMIC" )
```

Set option for concurrency on MS SQL Server:

```
MBS( "SQL.SetCommandOption"; $Command; "SQL_ATTR_CONCURRENCY"; "SQL_CONCUR_READ-
ONLY" )
# Sets the statement concurrency attribute. See SQNCLI documentation for an additional information.
# Valid values: "SQL_CONCUR_READONLY", "SQL_CONCUR_VALUES", "SQL_CONCUR_ROWVER",
"SQL_CONCUR_LOCK".
```

### See also

- 159.11 [SQL.FetchFirst](#) 7429
- 159.12 [SQL.FetchLast](#) 7430
- 159.14 [SQL.FetchPos](#) 7435
- 159.15 [SQL.FetchPrior](#) 7436
- 159.21 [SQL.GetCommandOption](#) 7445
- 159.22 [SQL.GetCommandOptions](#) 7446
- 159.82 [SQL.NewCommand](#) 7530
- 159.90 [SQL.RowsAffected](#) 7543

### 159.101.1 Blog Entries

- [Prefetching records from databases](#)
- [Multiple recordsets with Microsoft SQL Server](#)

Created 18th August 2014, last changed 10th January 2020.

## 159.102 SQL.SetCommandTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetCommandTag"; Command; Tag )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Tag

The new tag value.

**Result** Returns OK or error.

### Description

This is a value where you can associate any value with the command.

#### See also

- 159.23 SQL.GetCommandTag 7447
- 159.82 SQL.NewCommand 7530
- 159.103 SQL.SetCommandText 7561

### 159.102.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 11st September 2016, last changed 11st September 2016.

**159.103 SQL.SetCommandText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetCommandText"; Command; CommandText { ; CommandType } )

**Parameters****Command**

The command reference number gained with `SQL.NewCommand`.

`$Command`

**CommandText**

A string that represents command text string (an SQL statement or a stored procedure name).

`"SELECT * FROM MyTable"`

**CommandType**

Optional

Type of command. Can be `CmdUnknown`, `CmdSQLStmt`, `CmdSQLStmtRaw` or `CmdStoredProc`. `CmdUnknown` is default.

`"CmdSQLStmtRaw"`

**Result** Returns "OK" or error message.

**Description**

Use `SQL.setCommandText` method to set the command text. Command text can also be set in `SQL.NewCommand`.

It's not necessary to set a command type explicitly, because it is defined automatically in terms of command text string. But if you still have any reason to do it, use one of the following values:

<code>CmdUnknown</code>	Command type is not defined. Library will detect command type automatically when needed.
<code>CmdSQLStmt</code>	Command is an SQL statement.
<code>CmdSQLStmtRaw</code>	Command is an SQL statement that mustn't be interpreted by <code>SQLAPI++</code> .
<code>CmdStoredProc</code>	Command is a stored procedure or a function.

To get command type use `SQL.CommandType` method.

If the command is an SQL statement and it has parameters, a set of parameter objects creates implicitly.

**See also**

- 159.5 `SQL.CommandText` 7414
- 159.6 `SQL.CommandType` 7415

7562

*CHAPTER 159. SQL*

- 159.23 SQL.GetCommandTag 7447
- 159.82 SQL.NewCommand 7530
- 159.102 SQL.SetCommandTag 7560

Created 18th August 2014, last changed 13th January 2015.

**159.104 SQL.SetConnectionOption**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetConnectionOption"; Connection; Key; Value )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Key**

A string key of the connection or command option.  
""

**Value**

The new option value.  
""

**Result** Returns "OK" or error message.

**Description**

Call this method to set value(s) of server specific connection or command options. See Server specific notes. SetOption method is safe to use in cross-server applications. An option related to a particular server does not affect others.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_connection.html](https://www.sqlapi.com/ApiDoc/class_s_a_connection.html)

**Examples**

Set Oracle client library path:

```
MBS( "SQL.SetConnectionOption"; $Connection; "OCI8.LIBS"; "c:\Oracle\oci.dll" )
```

Set Microsoft SQL Server client database provider:

```
MBS( "SQL.SetConnectionOption"; $Connection; "UseAPI"; "OLEDB" )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "SQLNCLI.LIBS"; "sqlsrv32.dll" )
```

Set Sybase Database libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "SYBINTL.LIBS"; "/sybase/libsybintl.so" )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "SYBCOMN.LIBS"; "/sybase/libsybcomn.so" )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "SYBTCL.LIBS"; "/sybase/libsybtcl.so" )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "SYBCT.LIBS"; "/sybase/libsybct.so" )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "SYBCS.LIBSS"; "/sybase/libsybcs.so" )
```

Set MySQL library:

```
# Windows
Set Variable [ $r; MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL.LIBS"; "c:\MySQL\libmysql.dll"
) ]
# Mac OS X
Set Variable [ $r; MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL.LIBS"; "/test/libmysqlclient.16.dylib"
) ]
```

Set DB2 libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "DB2CLI.LIBS"; "c:\DB2\db2cli.dll" )
```

Set Informix libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "INFCLI.LIBS"; "c:\Informix\ICLIT09B.DLL" )
```

Set InterBase/Firebird libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "IBASE.LIBS"; "c:\Firebird\fbclient.dll" )
```

Set SQLBase libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "SQLBASE.LIBS"; "c:\SQLBase\sqlwntm.dll" )
```

Set PostgreSQL libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "LIBPQ.LIBS"; "/usr/lib/libpq.dylib" )
```

Set ODBC libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "ODBC.LIBS"; "odbc32.dll" )
```

Set SQLite libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "SQLITE.LIBS"; "/usr/lib/libsqlite3.dylib" )
```

For SQLite, set flag to open database file read only:

```
MBS( "SQL.SetConnectionOption"; $Connection; "SQLiteVFSFlags"; "1" )
```

Set MySQL Timeouts:

```
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_OPT_CONNECT_TIMEOUT"; 10 )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_OPT_READ_TIMEOUT"; 10 )
```

```
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_OPT_WRITE_TIMEOUT"; 10 )
```



Connect to Microsoft SQL Server from Mac via FreeTDS library:

```
Set Variable [ $Connection; Value:MBS("SQL.NewConnection") ]
# Tell plugin we want to use Microsoft SQL Server via ODBC
Set Variable [ $result; Value:MBS("SQL.SetClient"; $Connection; "ODBC") ]
# Tell plugin where freetds library is
Set Variable [ $path; Value: "/Users/cs/Desktop/libtdsodbc.dylib" ]
# Connect to database
Set Variable [ $result; Value:MBS("SQL.Connect"; $Connection; "DRIVER= { " & $path & " };Server=192.168.2.32;Uid=SA
SION=7.2;Port=1433" ) ]
# or TDS_VERSION=8.0;
If [ $result "OK" ]
Show Custom Dialog [ "Error: " & $result ]
Set Variable [ $result; Value:MBS("SQL.FreeConnection"; $Connection) ]
Halt Script
End If
```

Set an option we need for ODBC to FileMaker:

```
MBS( "SQL.SetConnectionOption"; $Connection; "ODBCAddLongTextBufferSpace"; "false" )
```

```
// newer plugins automatically set it right when connecting to FileMaker
```

The MySQL SSL Cipher:

```
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_CIPHER"; "DHE-RSA-AES256-SHA" )
```

Requests 100 rows to be prefetched:

```
MBS( "SQL.SetConnectionOption"; $Connection; "PreFetchRows"; "100" )
# will propagate down to all commands on that connection.
```

Store MySQL RecordSet locally:

```
MBS( "SQL.SetConnectionOption"; $Connection; "HandleResult"; "Store" )
```

Set ODBC timeout property:

```
MBS( "SQL.SetConnectionOption"; $Connection; "SQL_ATTR_CONNECTION_TIMEOUT"; "10" )
```

Enable SSL for MySQL:

```
# all options optional, but you need at least one set to activate SSL.
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_KEY"; "/Users/cs/Desktop/key.pem" )
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_CERT"; "/Users/cs/Desktop/cert.pem" )
```

```

)
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_CA"; "/Users/cs/Desktop/cacert.pem"
)
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_CAPATH"; "" )
MBS( "SQL.SetConnectionOption"; $Connection; "MYSQL_SSL_CIPHER"; "DHE-RSA-AES256-SHA" )

```

Set connection timeout for CubeSQL:

```
MBS( "SQL.SetConnectionOption"; $Connection; "ConnectionTimeout"; "30" )
```

Set CubeSQL libraries:

```
MBS( "SQL.SetConnectionOption"; $Connection; "CUBESQL.LIBS"; "c:\CubeSQL\cubesql.dll" )
```

Set ODBC libraries on MacOS:

```
MBS( "SQL.SetConnectionOption"; $Connection; "ODBC.LIBS"; "/usr/lib/libiodbc.dylib" )
```

Droz Consulting

#### See also

- [159.8 SQL.Connect](#) 7418
- [159.19 SQL.FreeConnection](#) 7442
- [159.24 SQL.GetConnectionOption](#) 7448
- [159.25 SQL.GetConnectionOptions](#) 7449
- [159.83 SQL.NewConnection](#) 7534
- [159.100 SQL.SetClient](#) 7556

#### Example Databases

- [SQL to other databases/Firebird Query](#)
- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/Microsoft SQL Server Connect](#)
- [SQL to other databases/Microsoft SQL Server Query](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/MySQL Query](#)
- [SQL to other databases/SQL Export](#)
- [SQL to other databases/SQLite blob](#)

- [SQL to other databases/SQLite fun](#)
- [Third Party/FileMaker Snippet Storage](#)

### **159.104.1 Blog Entries**

- [ODBC driver and MBS SQL Functions in FileMaker](#)
- [CubeSQL Library for Mac](#)
- [MBS FileMaker Plugin, version 9.2pr1](#)
- [Prefetching records from databases](#)
- [Tip of the day: Connect to MySQL and run a query](#)
- [MBS Filemaker Plugin, version 4.3pr5](#)
- [SQL Connectivity for Filemaker](#)

### **159.104.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 28](#)
- [Ausgabe 3/2016, Seite 29](#)
- [Ausgabe 1/2016, Seite 28](#)
- [Ausgabe 4/2015, Seite 15](#)

Created 18th August 2014, last changed 23th April 2020.

## 159.105 SQL.SetConnectionTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	6.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetConnectionTag"; Connection; Tag )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.  
\$Connection

#### Tag

The new tag value.

**Result** Returns OK or error.

### Description

This is a value where you can associate any value with the connection.

#### See also

- 159.26 SQL.GetConnectionTag 7450
- 159.83 SQL.NewConnection 7534

### 159.105.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 11st September 2016, last changed 11st September 2016.

**159.106 SQL.SetFieldOption**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetFieldOption"; Command; Field; Key; Value )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Field**

The name or one based index of the field.  
\$Field

**Key**

A string key of the command option.  
""

**Value**

The new option value.  
""

**Result** Returns value or error message.

**Description**

Call this method to set value(s) of server specific field options. See Server specific notes.

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_field.html](https://www.sqlapi.com/ApiDoc/class_s_a_field.html)

**See also**

- 159.42 SQL.GetFieldOption 7475
- 159.43 SQL.GetFieldOptions 7476
- 159.82 SQL.NewCommand 7530
- 159.119 SQL.SetParamOption 7588

Created 18th August 2014, last changed 10th January 2020.

## 159.107 SQL.SetIsolationLevel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetIsolationLevel"; Connection; IsolationLevel )

### Parameters

#### Connection

The connection reference number gained with SQL.NewConnection.

\$Connection

#### IsolationLevel

The new isolation level. One of the following strings: ReadUncommitted, ReadCommitted, RepeatableRead or Serializable.

"ReadUncommitted"

**Result** Returns "OK" or error message.

### Description

see also:

[https://www.sqlapi.com/ApiDoc/class\\_s\\_a\\_connection.html](https://www.sqlapi.com/ApiDoc/class_s_a_connection.html)

#### See also

- 159.47 SQL.GetIsolationLevel 7482
- 159.83 SQL.NewConnection 7534

Created 18th August 2014, last changed 10th January 2020.

**159.108 SQL.SetParamAsBoolean**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsBoolean"; Command; Param; Value )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.

"1"

**Value**

The new value  
1

**Result** Returns "OK" or error message.

**Description****See also**

- 159.10 SQL.Execute 7425
- 159.27 SQL.GetFieldAsBoolean 7451
- 159.48 SQL.GetParamAsBoolean 7483
- 159.82 SQL.NewCommand 7530
- 159.112 SQL.SetParamAsFloat 7578

Created 18th August 2014, last changed 13th January 2015.

## 159.109 SQL.SetParamAsContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsContainer"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

\$image

**Result** Returns "OK" or error message.

### Description

#### Examples

Set parameter with ID = 1 to image

```
MBS("SQL.SetParamAsText"; $Command; 1; $image)
```

Set parameter JPEGData with image:

```
MBS("SQL.SetParamAsText"; $Command; "JPEGData"; $image)
```

Update BLOB field:

```
# Create update command to fill blob field:
```

```
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "UPDATE 'Test' SET My-Blob=:image WHERE ID=:id") ]
```

```
Set Variable [ $result; Value:MBS("SQL.SetParamAsText"; $Command; "id"; 123 ) ]
```

```
Set Variable [ $result; Value:MBS("SQL.SetParamAsContainer"; $Command; "image"; MyTable::MyImage) ]
```

```
# Run it
```

```
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
```

```
# Cleanup
```

```
Set Variable [ $result2; Value:MBS("SQL.Commit"; $Connection) ]
```

```
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
```



159.109. *SQL.SETPARAMASCONTAINER*

7573

**See also**

- 159.7 *SQL.Commit* 7416
- 159.10 *SQL.Execute* 7425
- 159.18 *SQL.FreeCommand* 7440
- 159.28 *SQL.GetFieldAsContainer* 7452
- 159.49 *SQL.GetParamAsContainer* 7484
- 159.82 *SQL.NewCommand* 7530
- 159.114 *SQL.SetParamAsText* 7582

**Example Databases**

- [SQL to other databases/SQLite blob](#)

**159.109.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr3](#)

Created 18th August 2014, last changed 22nd November 2018.

## 159.110 SQL.SetParamAsDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsDate"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

**Result** Returns "OK" or error message.

### Description

Reports an error for invalid date. Version 8.0 and newer set parameter to NULL if you pass empty value.

### Examples

Set parameter with ID 3 to a date value:

```
MBS("SQL.SetParamAsDate"; $Command; 3; $Birthday)
```

Set parameter with name "Date" to a date value:

```
MBS("SQL.SetParamAsDate"; $Command; "Date"; $Birthday)
```

### See also

- 159.50 SQL.GetParamAsDate 7485
- 159.56 SQL.GetParamAsPNG 7495
- 159.58 SQL.GetParamAsTime 7498
- 159.63 SQL.GetParamNameList 7503
- 159.82 SQL.NewCommand 7530
- 159.90 SQL.RowsAffected 7543
- 159.111 SQL.SetParamAsDateTime 7576
- 159.113 SQL.SetParamAsNumber 7580

159.110. <i>SQL.SETPARAMASDATE</i>	7575
• 159.114 SQL.SetParamAsText	7582
• 159.122 SQL.SetParamValue	7592

### **Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

### **159.110.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.6pr2](#)

Created 18th August 2014, last changed 11st December 2017.

## 159.111 SQL.SetParamAsDateTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsDateTime"; Command; Param; Value )

(old name: SQL.SetParamAsTimestamp)

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

#### Value

The new value

**Result** Returns "OK" or error message.

### Description

Reports an error for invalid date. Version 8.0 and newer set parameter to NULL if you pass empty value.

### See also

- 159.30 SQL.GetFieldAsDateTime 7455
- 159.50 SQL.GetParamAsDate 7485
- 159.51 SQL.GetParamAsDateTime 7486
- 159.58 SQL.GetParamAsTime 7498
- 159.82 SQL.NewCommand 7530
- 159.90 SQL.RowsAffected 7543
- 159.110 SQL.SetParamAsDate 7574
- 159.115 SQL.SetParamAsTime 7584
- 159.116 SQL.SetParamDataType 7585

### 159.111.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr2](#)
- [MBS Filemaker Plugin, version 4.3pr2](#)

159.111. *SQL.SETPARAMASDATETIME*

7577

Created 18th August 2014, last changed 31st January 2019.

## 159.112 SQL.SetParamAsFloat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsFloat"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.

"1"

#### Value

The new value  
123.456

**Result** Returns "OK" or error message.

### Description

For integer numbers, please use SQL.SetParamAsNumber.

### Examples

Set value for parameter with ID 5 to a floating point number:

```
MBS("SQL.SetParamAsFloat"; $Command; 5; $TotalSales)
```

Set value for parameter with name "Sales" to a floating point number:

```
MBS("SQL.SetParamAsFloat"; $Command; "Sales"; $TotalSales)
```

### See also

- 159.50 SQL.GetParamAsDate 7485
- 159.52 SQL.GetParamAsFloat 7487
- 159.57 SQL.GetParamAsText 7497
- 159.67 SQL.GetParamValueList 7508
- 159.82 SQL.NewCommand 7530
- 159.108 SQL.SetParamAsBoolean 7571
- 159.110 SQL.SetParamAsDate 7574

<i>159.112. SQL.SETPARAMASFLOAT</i>	7579
• 159.113 SQL.SetParamAsNumber	7580
• 159.114 SQL.SetParamAsText	7582
• 159.115 SQL.SetParamAsTime	7584

### **Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.113 SQL.SetParamAsNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsNumber"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

123

**Result** Returns "OK" or error message.

### Description

For floating point numbers, please use SQL.SetParamAsFloat.

### Examples

Sets an integer value for parameter with ID 4:

```
MBS("SQL.SetParamAsNumber"; $Command; 4; $NumberOfOrders)
```

Sets an integer value for parameter with name "NumberOfOrders":

```
MBS("SQL.SetParamAsNumber"; $Command; "NumberOfOrders"; $NumberOfOrders)
```

Run a stored procedure:

```
# new command for calling our test procedure on a Microsoft SQL Server
Set Variable [ $command; MBS( "SQL.NewCommand"; $Connection; "dbo.Test" ) ]
# set a parameter
Set Variable [ $r; MBS( "SQL.SetParamAsNumber"; $Command; "Param1"; 7 ) ]
# execute query
Set Variable [ $r; MBS( "SQL.Execute"; $Command ) ]
# fetch first record
Set Variable [ $r; MBS( "SQL.FetchNext"; $Command ) ]
# get result field
Set Variable [ $result; MBS( "SQL.GetFieldAsText"; $Command; 1 ) ]
```



159.113. *SQL.SETPARAMASNUMBER*

7581

**See also**

- 159.10 *SQL.Execute* 7425
- 159.13 *SQL.FetchNext* 7432
- 159.36 *SQL.GetFieldAsText* 7466
- 159.54 *SQL.GetParamAsNumber* 7491
- 159.63 *SQL.GetParamNameList* 7503
- 159.68 *SQL.GetParamsAsJSON* 7510
- 159.67 *SQL.GetParamValueList* 7508
- 159.110 *SQL.SetParamAsDate* 7574
- 159.112 *SQL.SetParamAsFloat* 7578
- 159.115 *SQL.SetParamAsTime* 7584

**Example Databases**

- [SQL to other databases/Microsoft SQL Execute](#)
- [SQL to other databases/MySQL example](#)
- [SQL to other databases/SQLite fun](#)

Created 18th August 2014, last changed 26th May 2017.

## 159.114 SQL.SetParamAsText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsText"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

"Hello World"

**Result** Returns "OK" or error message.

### Description

#### Examples

Set parameter with ID = 1 to text

```
MBS("SQL.SetParamAsText"; $Command; 1; $FirstName)
```

Set parameter Lastname with text:

```
MBS("SQL.SetParamAsText"; $Command; "Lastname"; $LastName)
```

Set Param with index 0 to FirstName field:

```
MBS("SQL.SetParamAsText"; $Command; "# 0"; SQLite fun::FirstName)
```

### See also

- 159.50 SQL.GetParamAsDate 7485
- 159.52 SQL.GetParamAsFloat 7487
- 159.53 SQL.GetParamAsJPEG 7489
- 159.55 SQL.GetParamAsPDF 7493
- 159.58 SQL.GetParamAsTime 7498

<i>159.114. SQL.SETPARAMASTEXT</i>	7583
• 159.63 SQL.GetParamNameList	7503
• 159.68 SQL.GetParamsAsJSON	7510
• 159.83 SQL.NewConnection	7534
• 159.110 SQL.SetParamAsDate	7574
• 159.112 SQL.SetParamAsFloat	7578

### **Example Databases**

- [SQL to other databases/MySQL example](#)
- [SQL to other databases/ODBC to FileMaker/ODBC Test](#)
- [SQL to other databases/SQLite blob](#)
- [SQL to other databases/SQLite fun](#)

#### **159.114.1 Blog Entries**

- [Tip of the day: Connect to MySQL and run a query](#)

Created 18th August 2014, last changed 13th January 2015.

## 159.115 SQL.SetParamAsTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamAsTime"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

**Result** Returns "OK" or error message.

### Description

#### See also

- 159.56 SQL.GetParamAsPNG 7495
- 159.57 SQL.GetParamAsText 7497
- 159.58 SQL.GetParamAsTime 7498
- 159.82 SQL.NewCommand 7530
- 159.111 SQL.SetParamAsDateTime 7576
- 159.112 SQL.SetParamAsFloat 7578
- 159.113 SQL.SetParamAsNumber 7580
- 159.114 SQL.SetParamAsText 7582
- 159.119 SQL.SetParamOption 7588
- 159.122 SQL.SetParamValue 7592

### 159.115.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)

Created 18th August 2014, last changed 13th January 2015.

**159.116 SQL.SetParamDataType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamDataType"; Command; Param; Datatype )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.  
"1"

**Datatype**

The new data type.  
"Short"

**Result** Returns "OK" or error message.

**Description**

The parameter data type can be: Bool, Short, UShort, Long, ULong, Double, Numeric, DateTime, Interval, String, Bytes, LongBinary, LongChar, Blob, CLob, Cursor, SpecificToDBMS or unknown.

**See also**

- 159.59 SQL.GetParamDataType 7499
- 159.82 SQL.NewCommand 7530
- 159.111 SQL.SetParamAsDateTime 7576

Created 18th August 2014, last changed 13th January 2015.

## 159.117 SQL.SetParamDefault

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamDefault"; Command; Param )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns "OK" or error message.

### Description

Forces DBMS API to use the default parameter value as the input value for an input or input/output parameter in a procedure.

If DBMS API does not support the concept of "default parameter values" in stored procedures, this setting will be ignored.

If you set this flag for the parameter that doesn't have a default value, the effect is DBMS defined (e.g. an error can be returned or NULL can be bound).

To cancel using the default parameter value you should call any other SetParam\* function to bind a parameter value.

To check whether this flag is set or not use SQL.GetParamIsDefault method.

### See also

- 159.60 SQL.GetParamIsDefault 7500
- 159.82 SQL.NewCommand 7530
- 159.122 SQL.SetParamValue 7592

Created 18th August 2014, last changed 13th January 2015.

**159.118 SQL.SetParamNull**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamNull"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

**Result** Returns "OK" or error message.

**Description****See also**

- 159.61 SQL.GetParamIsNull 7501
- 159.62 SQL.GetParamName 7502
- 159.82 SQL.NewCommand 7530
- 159.122 SQL.SetParamValue 7592

Created 18th August 2014, last changed 13th January 2015.

## 159.119 SQL.SetParamOption

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamOption"; Command; Param; Key; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.

"1"

#### Key

A string key of the command option.

""

#### Value

The new option value.

""

**Result** Returns OK or error.

### Description

#### See also

- 159.64 SQL.GetParamOption 7505
- 159.65 SQL.GetParamOptions 7506
- 159.82 SQL.NewCommand 7530
- 159.106 SQL.SetFieldOption 7569
- 159.115 SQL.SetParamAsTime 7584
- 159.121 SQL.SetParamUnknown 7591

### 159.119.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr10](#)

Created 20th September 2018, last changed 20th September 2018.



**159.120 SQL.SetParamTypesValues**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamTypesValues"; Command; Type; Value )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Type**

Pass one type parameter for each value. Type can be Default, Null, Unknown, Integer, Double, Text, Container, Boolean, Short, UShort, Long, ULONG, Date, Time or TimeStamp.

"Integer"

**Value**

Pass one parameter for each parameter.

"Hello"

**Result** Returns OK or error.

**Description**

Please pass a type and a value for each parameter.

Please match the number of parameters in your SQL query and their order.

If value is the result of FM.Null function in this plugin, the value is passed as NULL to the database.

**Examples**

Set 4 parameters:

```
MBS( "SQL.SetParamTypesValues"; $Command; "Text"; "Bob"; "Text"; "Miller"; "Date"; $BirthDay;
"BLOB"; MyTable::PersonPicture )
```

Export row

```
# create command
```

```
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:1,:2,:3,:4,:5)") ]
```

```
# fill all parameters
```

```
Set Variable [ $result; Value:MBS("SQL.SetParamTypesValues"; $Command; "Text"; SQLite fun::First-
Name; "Text"; SQLite fun::LastName; "Date"; SQLite fun::Birthday; "Integer"; SQLite fun::NumberO-
fOrders; "Double"; SQLite fun::TotalSales) ]
```

```
# Run it
```

```
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
```

```
# Cleanup
```

```
Set Variable [ $result2; Value:MBS("SQL.Commit"; $Connection) ]
```

```
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
```

**See also**

- 81.24 FM.NULL 4192
- 159.7 SQL.Commit 7416
- 159.10 SQL.Execute 7425
- 159.18 SQL.FreeCommand 7440
- 159.82 SQL.NewCommand 7530
- 159.122 SQL.SetParamValue 7592
- 159.123 SQL.SetParamValues 7594

Created 21st April 2015, last changed 21st April 2015.

**159.121 SQL.SetParamUnknown**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamUnknown"; Command; Param )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.

\$Command

**Param**

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix.  
e.g. "# 0" for first parameter.

"1"

**Result** Returns "OK" or error message.

**Description****See also**

- 159.82 SQL.NewCommand 7530
- 159.119 SQL.SetParamOption 7588

Created 18th August 2014, last changed 13th January 2015.

## 159.122 SQL.SetParamValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamValue"; Command; Param; Value )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Param

The parameter name or ID. Pass number for ID, a text with parameter name or the index with # prefix. e.g. "# 0" for first parameter.

"1"

#### Value

The new value

"Hello World"

**Result** Returns OK or error.

### Description

The value is passed in a matching SQL data type.

If value is the result of FM.Null function in this plugin, the value is passed as NULL to the database.

See also SQL.SetParamTypesValues.

### Examples

Set parameter with ID 1 to Hello:

```
MBS( "SQL.SetParamValue"; $command; 1; "Hello" )
```

Set parameter with ID 1 to NULL:

```
MBS( "SQL.SetParamValue"; $command; 1; MBS("FM.NULL"))
```

### See also

- 81.24 FM.NULL 4192
- 159.62 SQL.GetParamName 7502
- 159.66 SQL.GetParamValue 7507
- 159.67 SQL.GetParamValueList 7508
- 159.82 SQL.NewCommand 7530
- 159.110 SQL.SetParamAsDate 7574

<i>159.122. SQL.SETPARAMVALUE</i>	7593
• 159.115 SQL.SetParamAsTime	7584
• 159.118 SQL.SetParamNull	7587
• 159.120 SQL.SetParamTypesValues	7589
• 159.123 SQL.SetParamValues	7594

### **159.122.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 18th April 2015, last changed 21st April 2015.

## 159.123 SQL.SetParamValues

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamValues"; Command; Values )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### Values

Pass one parameter for each value.

"Hello"

**Result** Returns OK or error.

### Description

The values are passed in a matching SQL data type.

Please match the number of parameters in your SQL query and their order.

If value is the result of FM.Null function in this plugin, the value is passed as NULL to the database.

See also SQL.SetParamTypesValues.

### Examples

Set 4 parameters:

```
MBS( "SQL.SetParamValues"; $Command; "Bob"; "Miller"; $BirthDay; MyTable::PersonPicture )
```

Export row

```
# create command
```

```
Set Variable [ $Command; Value:MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-  
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:1,:2,:3,:4,:5)") ]
```

```
# fill all parameters
```

```
Set Variable [ $result; Value:MBS("SQL.SetParamValues"; $Command; SQLite fun::FirstName; SQLite  
fun::LastName; SQLite fun::Birthday; SQLite fun::NumberOfOrders; SQLite fun::TotalSales) ]
```

```
# Run it
```

```
Set Variable [ $result; Value:MBS("SQL.Execute"; $Command) ]
```

```
# Cleanup
```

```
Set Variable [ $result2; Value:MBS("SQL.Commit"; $Connection) ]
```

```
Set Variable [ $result2; Value:MBS("SQL.FreeCommand"; $Command) ]
```

### See also

- 81.24 FM.NULL 4192
- 159.7 SQL.Commit 7416

<i>159.123. SQL.SETPARAMVALUES</i>	7595
• 159.10 SQL.Execute	7425
• 159.18 SQL.FreeCommand	7440
• 159.66 SQL.GetParamValue	7507
• 159.67 SQL.GetParamValueList	7508
• 159.82 SQL.NewCommand	7530
• 159.120 SQL.SetParamTypesValues	7589
• 159.122 SQL.SetParamValue	7592

### **159.123.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr6](#)

Created 18th April 2015, last changed 21st April 2015.

## 159.124 SQL.SetParamsWithJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.SetParamsWithJSON"; Command; JSON )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.

\$Command

#### JSON

The JSON object with values for the items.

" { \"Index\": 123 } "

**Result** Returns OK or error.

### Description

If a parameter has a known type, we convert JSON to that type: Null, Double, Integer, String, Boolean.

If type of parameter is not known, we check JSON type and pass boolean, numbers or texts through.

Setting BLOB may not work with this function.

If JSON value is array or object, we encode as text and set field to text value.

Parameters not present in JSON are skipped.

### Examples

Run insert with JSON:

```
# Create insert command with setting values
Set Variable [ $Command ; Value: MBS("SQL.NewCommand"; $Connection; "INSERT INTO 'Test' (First-
Name, LastName, Birthday, NumberOfOrders, TotalSales) VALUES (:FirstName,:LastName,:Birthday,:Num-
berOfOrders,:TotalSales)") ]

# build some JSON
Set Variable [ $json ; Value: " { } " ]
Set Variable [ $json ; Value: MBS( "JSON.AddStringToObject"; $json; "FirstName"; SQLite fun::FirstName
) ]
Set Variable [ $json ; Value: MBS( "JSON.AddStringToObject"; $json; "LastName"; SQLite fun::LastName
) ]
Set Variable [ $json ; Value: MBS( "JSON.AddStringToObject"; $json; "Birthday"; SQLite fun::Birthday )
]
Set Variable [ $json ; Value: MBS( "JSON.AddNumberToObject"; $json; "NumberOfOrders"; SQLite
fun::NumberOfOrders ) ]
Set Variable [ $json ; Value: MBS( "JSON.AddNumberToObject"; $json; "TotalSales"; SQLite fun::Total-
Sales ) ]
Set Variable [ $result ; Value: MBS("SQL.SetParamsWithJSON"; $Command; $json) ]

# Run it
Show Custom Dialog [ "JSON" ; MBS( "SQL.GetParamsAsJSON"; $Command ) ]
```



```
Set Variable [ $result ; Value: MBS("SQL.Execute"; $Command) ]
```

```
# Cleanup
```

```
Set Variable [ $result2 ; Value: MBS("SQL.Commit"; $Connection) ]
```

```
Set Variable [ $result2 ; Value: MBS("SQL.FreeCommand"; $Command) ]
```

```
If [ $result "OK" ]
```

```
Show Custom Dialog [ "Error: " & $result ]
```

```
Else
```

```
Show Custom Dialog [ "Record exported." ]
```

```
End If
```

### See also

- 102.11 [JSON.AddNumberToObject](#) 5324
- 102.13 [JSON.AddStringToObject](#) 5328
- 159.7 [SQL.Commit](#) 7416
- 159.10 [SQL.Execute](#) 7425
- 159.18 [SQL.FreeCommand](#) 7440
- 159.68 [SQL.GetParamsAsJSON](#) 7510
- 159.82 [SQL.NewCommand](#) 7530

### Example Databases

- [SQL to other databases/SQLite fun](#)

#### 159.124.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 11st March 2020.

**159.125 SQL.isAlive**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.isAlive"; Connection )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.

\$Connection

**Result** Returns 1 if the database server is active and accessible; otherwise 0.

**Description**

This method uses the safe query execution for most supported DBMS-es. The query uses the well known database table or procedure (mysql\_ping is used for MySQL). If the query fails the method returns false.

**Examples**

Check alive status:

```
Set Variable [ $r; Value:MBS( "SQL.isAlive"; $Connection ) ]
```

**See also**

- 159.83 SQL.NewConnection

7534

Created 18th August 2014, last changed 17th May 2016.

**159.126 SQL.isConnected**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.isConnected"; Connection )

**Parameters****Connection**

The connection reference number gained with SQL.NewConnection.  
\$Connection

**Result** Returns 1 if connected; otherwise 0.

**Description****Examples**

Check connection status:

Set Variable [ \$r; Value:MBS( "SQL.isConnected"; \$Connection ) ]

**See also**

- 159.9 SQL.Disconnect 7424
- 159.83 SQL.NewConnection 7534

**Example Databases**

- [Third Party/FileMaker Snippet Storage](#)

Created 18th August 2014, last changed 17th May 2016.

**159.127 SQL.isExecuted**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.isExecuted"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns 1 if command was executed, else 0.

**Description****Examples**

Check execution status:

Set Variable [ \$r; Value:MBS( "SQL.isExecuted"; \$Connection ) ]

**See also**

- 159.10 SQL.Execute 7425
- 159.82 SQL.NewCommand 7530

Created 18th August 2014, last changed 17th May 2016.

**159.128 SQL.isOpened**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.isOpened"; Command )

**Parameters****Command**

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns 1 if the command object is opened; otherwise 0.

**Description****Examples**

Check open status:

Set Variable [ \$r; Value:MBS( "SQL.isOpen"; \$Connection ) ]

**See also**

- 159.82 SQL.NewCommand

Created 18th August 2014, last changed 17th May 2016.

## 159.129 SQL.isResultSet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
159 SQL	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "SQL.isResultSet"; Command )

### Parameters

#### Command

The command reference number gained with SQL.NewCommand.  
\$Command

**Result** Returns 1 if the result set exists; otherwise 0.

### Description

### Examples

Check result status:

```
Set Variable [ $r; Value:MBS( "SQL.isResultSet"; $Command ) ]
```

### See also

- 159.10 SQL.Execute 7425
- 159.11 SQL.FetchFirst 7429
- 159.12 SQL.FetchLast 7430
- 159.13 SQL.FetchNext 7432
- 159.15 SQL.FetchPrior 7436
- 159.82 SQL.NewCommand 7530

### 159.129.1 FileMaker Magazin

- Ausgabe 4/2016, Seite 28
- Ausgabe 3/2016, Seite 30
- Ausgabe 2/2016, Seite 14
- Ausgabe 1/2016, Seite 29

Created 18th August 2014, last changed 10th January 2017.

# Chapter 160

## SSH

Secure Shell connection to server.

Can be used to login remotely into a Linux or Mac OS X (or Windows) machine if there is a SSH server running and run various commands.

See CURL functions for doing file transfers via SFTP.

### 160.1 SSH.CloseChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

```
MBS( "SSH.CloseChannel"; SSH { ; Wait } )
```

#### Parameters

##### SSH

The SSH session reference number from the plugin.

\$ssh

##### Wait

Optional

Whether to wait if it takes longer. Default is 0.

1

**Result** Returns OK or error.

#### Description

This closes it now. Normally all channels are closed automatically when you release connection with SSH.Release.

#### Examples

Close channel:

```
Set Variable [ $r; Value:MBS( "SSH.CloseChannel"; $ssh ) ]
```

### See also

- 160.5 SSH.Execute 7611
- 160.7 SSH.FreeChannel 7615
- 160.17 SSH.New 7625
- 160.21 SSH.Release 7632

### Example Databases

- [Network/SSH](#)

Created 29th May 2016, last changed 12nd November 2017.



## 160.2 SSH.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Connect"; SSH; IP { ; Port; Timeout; ProtocolPreference } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### IP

The IP to connect to.

"192.168.1.123"

#### Port

Optional

The port number to connect to. Default is 22 which is standard port for ssh.

22

#### Timeout

Optional

The connection timeout in seconds for the TCP/IP connection. Default is 30 seconds.

30

#### ProtocolPreference

Optional

Pass 4 to connect via IPv4. Pass 6 to connect via IPv6. Default is to try whatever the DNS suggests first.

4

**Result** Returns OK or error.

### Description

Timeout defines timeout for connection in seconds. While waiting, the plugin yields time to other threads.

Version 6.3 now supports passing IPv4, IPv6, or a host name.

### Examples

Connect to IP:

```
Set Variable [ $r; Value:MBS( "SSH.Connect"; $ssh; "192.168.2.1" ) ]
```

Full example:

```
# Start a new SSH session
Set Variable [ $ssh; Value:MBS( "SSH.New" ) ]
# Connect to an IP
Set Variable [ $r; Value:MBS( "SSH.Connect"; $ssh; SSH::Host; SSH::Port ) ]
```

```

If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Run the session handshake.
Set Variable [ $r; Value:MBS( "SSH.SessionHandshake"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# We can show the hostkey. You can compare it to known hostkey.
Set Field [ SSH::HostKeyHash; MBS( "SSH.HostKey"; $ssh ) ]
# We query supported authentication ways
Set Variable [ $authuserlist; Value:MBS( "SSH.userauthlist"; $ssh; SSH::Username) ]
Set Field [ SSH::UserAuthList; $authuserlist ]
Set Variable [ $pos1; Value:Position ( $authuserlist ; "password"; 1; 1 ) ]
Set Variable [ $pos2; Value:Position ( $authuserlist ; "keyboard-interactive"; 1; 1 ) ]
Set Variable [ $pos3; Value:Position ( $authuserlist ; "publickey"; 1; 1 ) ]
If [ $pos1 >0 ]
# Authenticate with password
Set Variable [ $r; Value:MBS( "SSH.UserAuthPassword"; $ssh; SSH::Username; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
Else If [ $pos2 >0 ]
# Authenticate with answering question. Plugin passes password for answer.
Set Variable [ $r; Value:MBS( "SSH.UserAuthKeyboardInteractive"; $ssh; SSH::Username; SSH::Password
) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
Else If [ $pos3 >0 ]
# Authenticate with public key file
Set Variable [ $r; Value:MBS( "SSH.UserAuthPublicKey"; $ssh; SSH::Username; "your key path"; "your key
path"; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
End If
If [ MBS( "SSH.IsAuthenticated"; $ssh ) 1 ]
Show Custom Dialog [ "Authentication"; "no authenticated. Supported ways: " & $authuserlist ]
Else
# Start a new channel
Set Variable [ $r; Value:MBS( "SSH.OpenSession"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Execute a command
Set Variable [ $r; Value:MBS( "SSH.Execute"; $ssh; SSH::Command ) ]
If [ MBS("IsError") ]

```

```

Show Custom Dialog [ "Connect error"; $r ]
Else
# We read text in several chunks until no new text is coming any more:
Set Variable [ $text; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
# Read some text:
Set Variable [ $newtext; Value:MBS( "SSH.ReadText"; $ssh; 10000; "UTF8" ) ]
If [ MBS("iserror") = 0 ]
If [ Length($newText) >0 ]
Set Variable [ $text; Value:$text & $newText ]
End If
Exit Loop If [ Length($newText) = 0 ]
End If
End Loop
Set Field [ SSH::Result; $text ]
End If
End If
# Close channel
Set Variable [ $r; Value:MBS( "SSH.Close"; $ssh ) ]
# Disconnect
Set Variable [ $r; Value:MBS( "SSH.Disconnect"; $ssh ) ]
End If
End If
End If
# Release memory.
Set Variable [ $r; Value:MBS( "SSH.Release"; $ssh ) ]

```

**See also**

- 127.6 IsError 6374
- 159.8 SQL.Connect 7418
- 160.5 SSH.Execute 7611
- 160.16 SSH.IsAuthenticated 7624
- 160.20 SSH.ReadText 7630
- 160.21 SSH.Release 7632
- 160.24 SSH.SessionHandshake 7635
- 160.38 SSH.UserAuthKeyboardInteractive 7650
- 160.39 SSH.UserAuthList 7651
- 160.41 SSH.UserAuthPublicKey 7653

**Example Databases**

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

### 160.2.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS FileMaker Plugin 6.3 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 29th May 2016, last changed 4th December 2019.

## 160.3 SSH.Disconnect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Disconnect"; SSH; Description { ; Reason; Lang } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Description

Human readable reason for disconnection.

#### Reason

Optional

One of the Disconnect Reason values.

#### Lang

Optional

Localization string describing the language/encoding of the description provided.

**Result** Returns OK or error.

### Description

### Examples

Disconnect:

```
Set Variable [ $r; Value:MBS( "SSH.Disconnect"; $ssh ) ]
```

### See also

- 159.9 SQL.Disconnect 7424
- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.17 SSH.New 7625
- 166.9 TAPI.Disconnect 7864

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 30th May 2016.

## 160.4 SSH.EOF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.EOF"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns state or error.

### Description

Check if the remote host has sent an EOF status for the selected stream.

Returns 1 if the remote host has sent EOF, otherwise 0.

Created 29th May 2016, last changed 29th May 2016.

## 160.5 SSH.Execute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Execute"; SSH; Command )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Command

The command to execute.

"ls"

**Result** Returns OK or error.

### Description

### Examples

Run a command:

```
Set Variable [ $r; Value:MBS( "SSH.Execute"; $ssh; "whoami" ) ]
```

Full example:

```
# Start a new SSH session
Set Variable [ $ssh; Value:MBS( "SSH.New" ) ]
# Connect to an IP
Set Variable [ $r; Value:MBS( "SSH.Connect"; $ssh; SSH::Host; SSH::Port ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Run the session handshake.
Set Variable [ $r; Value:MBS( "SSH.SessionHandshake"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# We can show the hostkey. You can compare it to known hostkey.
Set Field [ SSH::HostKeyHash; MBS( "SSH.HostKey"; $ssh ) ]
# We query supported authentication ways
Set Variable [ $authuserlist; Value:MBS( "SSH.userauthlist"; $ssh; SSH::Username ) ]
Set Field [ SSH::UserAuthList; $authuserlist ]
Set Variable [ $pos1; Value:Position ( $authuserlist ; "password"; 1; 1 ) ]
Set Variable [ $pos2; Value:Position ( $authuserlist ; "keyboard-interactive"; 1; 1 ) ]
Set Variable [ $pos3; Value:Position ( $authuserlist ; "publickey"; 1; 1 ) ]
If [ $pos1 >0 ]
```

```

# Authenticate with password
Set Variable [ $r; Value:MBS( "SSH.UserAuthPassword"; $ssh; SSH::Username; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
Else If [ $pos2 >0 ]
# Authenticate with answering question. Plugin passes password for answer.
Set Variable [ $r; Value:MBS( "SSH.UserAuthKeyboardInteractive"; $ssh; SSH::Username; SSH::Password
) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
Else If [ $pos3 >0 ]
# Authenticate with public key file
Set Variable [ $r; Value:MBS( "SSH.UserAuthPublicKey"; $ssh; SSH::Username; "your key path"; "your key
path"; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
End If
If [ MBS( "SSH.IsAuthenticated"; $ssh ) = 1 ]
Show Custom Dialog [ "Authentication"; "no authenticated. Supported ways: " & $authuserlist ]
Else
# Start a new channel
Set Variable [ $r; Value:MBS( "SSH.OpenSession"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Execute a command
Set Variable [ $r; Value:MBS( "SSH.Execute"; $ssh; SSH::Command ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# We read text in several chunks until no new text is coming any more:
Set Variable [ $text; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
# Read some text:
Set Variable [ $newtext; Value:MBS( "SSH.ReadText"; $ssh; 10000; "UTF8" ) ]
If [ MBS("iserror") = 0 ]
If [ Length($newText) >0 ]
Set Variable [ $text; Value:$text & $newText ]
End If
Exit Loop If [ Length($newText) = 0 ]
End If
End Loop
Set Field [ SSH::Result; $text ]
End If

```



## 160.5. *SSH.EXECUTE*

7613

```
End If
# Close channel
Set Variable [ $r; Value:MBS( "SSH.CloseChannel"; $ssh ) ]
# Disconnect
Set Variable [ $r; Value:MBS( "SSH.Disconnect"; $ssh ) ]
End If
End If
End If
# Release memory.
Set Variable [ $r; Value:MBS( "SSH.Release"; $ssh ) ]
```

### See also

- 126.1 PHP.Execute 6355
- 160.2 SSH.Connect 7605
- 160.14 SSH.HostKey 7622
- 160.16 SSH.IsAuthenticated 7624
- 160.18 SSH.OpenSession 7628
- 160.21 SSH.Release 7632
- 160.24 SSH.SessionHandshake 7635
- 160.38 SSH.UserAuthKeyboardInteractive 7650
- 160.39 SSH.UserAuthList 7651
- 160.40 SSH.UserAuthPassword 7652

### Example Databases

- [Network/SSH](#)

Created 29th May 2016, last changed 12nd November 2017.

## 160.6 SSH.Flush

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Flush"; SSH { ; Mode } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Mode

Optional

What to flush. Can be empty, "stdout", "stderr", "all" or "ExtendedData".

"stdout"

**Result** Returns OK or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.7 SSH.FreeChannel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.FreeChannel"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

This is done automatically when you release the connection with SSH.Release or you start a new channel with SSH.OpenSession.

#### See also

- 160.1 SSH.CloseChannel 7603
- 160.18 SSH.OpenSession 7628
- 160.21 SSH.Release 7632

Created 29th May 2016, last changed 7th June 2016.

## 160.8 SSH.GetExitState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetExitState"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns state or error.

### Description

Returns the exit code raised by the process running on the remote host at the other end of the named channel. Note that the exit status may not be available if the remote end has not yet set its status to closed. Returns 0 on failure, otherwise the Exit Status reported by remote host.

Created 29th May 2016, last changed 29th May 2016.

## 160.9 SSH.GetIP

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetIP"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns IP or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.10 SSH.GetPort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetPort"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns number or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.11 SSH.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetTag"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns value or error.

### Description

There is only a tag if set one with SSH.SetTag before.

#### See also

- 160.26 SSH.SetTag

Created 29th May 2016, last changed 7th June 2016.

## 160.12 SSH.GetTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetTimeout"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns value or error.

### Description

#### See also

- 154.3 SNMP.SetTimeout 7242
- 160.27 SSH.SetTimeout 7638

Created 29th May 2016, last changed 29th May 2016.



## 160.13 SSH.GetUserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.GetUserName"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns user name or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.14 SSH.HostKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.HostKey"; SSH { ; Selector } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Selector

Optional

What value to return. Default is hex. hex: Return the key hex encoded. base64: Return key as base 64 encoded. length: Length of key in bytes. type: RSA or DSS or unknown.

"type"

**Result** Returns text or error.

### Description

### Examples

Query length of key:

```
MBS( "SSH.HostKey"; $SSH; "length")
```

Query type of key:

```
MBS( "SSH.HostKey"; $SSH; "type")
```

### See also

- [160.2 SSH.Connect](#) 7605
- [160.5 SSH.Execute](#) 7611
- [160.17 SSH.New](#) 7625

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 12nd November 2017.

**160.15 SSH.HostKeyHash**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.HostKeyHash"; SSH { ; Type } )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**Type**

Optional

Which type to return. Can be MD5 or SHA1. SHA1 is default if empty or not provided.

"SHA1"

**Result** Returns text or error.

**Description**

MD5 is 16 bytes, so 32 hex characters. SHA1 is 20 bytes, so 40 hex characters.

Added SHA256 for MBS Plugin 9.5 with 32 bytes.

Created 7th June 2016, last changed 18th September 2019.

## 160.16 SSH.IsAuthenticated

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.IsAuthenticated"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns state or error.

### Description

Returns 1 if authenticated or 0 if not.

### See also

- [160.2 SSH.Connect](#) 7605
- [160.5 SSH.Execute](#) 7611
- [160.17 SSH.New](#) 7625

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 29th May 2016.

**160.17 SSH.New**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.New" )

**Result** Returns reference number or error.

**Description**

Please use SSH.Release later to free memory.

If you just need SSH file transfers, please use CURL functions.

**Examples**

New session and later free it:

```
Set Variable [ $ssh; Value:MBS( "SSH.New" ) ]
# later
Set Variable [ $r; Value:MBS( "SSH.Release"; $ssh ) ]
```

Full example:

```
# Start a new SSH session
Set Variable [ $ssh; Value:MBS( "SSH.New" ) ]
# Connect to an IP
Set Variable [ $r; Value:MBS( "SSH.Connect"; $ssh; SSH::Host; SSH::Port ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Run the session handshake.
Set Variable [ $r; Value:MBS( "SSH.SessionHandshake"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# We can show the hostkey. You can compare it to known hostkey.
Set Field [ SSH::HostKeyHash; MBS( "SSH.HostKey"; $ssh ) ]
# We query supported authentication ways
Set Variable [ $authuserlist; Value:MBS( "SSH.userauthlist"; $ssh; SSH::Username ) ]
Set Field [ SSH::UserAuthList; $authuserlist ]
Set Variable [ $pos1; Value:Position ( $authuserlist ; "password"; 1; 1 ) ]
Set Variable [ $pos2; Value:Position ( $authuserlist ; "keyboard-interactive"; 1; 1 ) ]
Set Variable [ $pos3; Value:Position ( $authuserlist ; "publickey"; 1; 1 ) ]
If [ $pos1 >0 ]
# Authenticate with password
Set Variable [ $r; Value:MBS( "SSH.UserAuthPassword"; $ssh; SSH::Username; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
```

```

End If
Else If [ $pos2 >0 ]
# Authenticate with answering question. Plugin passes password for answer.
Set Variable [ $r; Value:MBS( "SSH.UserAuthKeyboardInteractive"; $ssh; SSH::Username; SSH::Password
) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
Else If [ $pos3 >0 ]
# Authenticate with public key file
Set Variable [ $r; Value:MBS( "SSH.UserAuthPublicKey"; $ssh; SSH::Username; "your key path"; "your key
path"; SSH::Password ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End If
End If
If [ MBS( "SSH.IsAuthenticated"; $ssh ) = 1 ]
Show Custom Dialog [ "Authentication"; "no authenticated. Supported ways: " & $authuserlist ]
Else
# Start a new channel
Set Variable [ $r; Value:MBS( "SSH.OpenSession"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# Execute a command
Set Variable [ $r; Value:MBS( "SSH.Execute"; $ssh; SSH::Command ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
Else
# We read text in several chunks until no new text is coming any more:
Set Variable [ $text; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
# Read some text:
Set Variable [ $newtext; Value:MBS( "SSH.ReadText"; $ssh; 10000; "UTF8" ) ]
If [ MBS("iserror") = 0 ]
If [ Length($newText) >0 ]
Set Variable [ $text; Value:$text & $newText ]
End If
Exit Loop If [ Length($newText) = 0 ]
End If
End Loop
Set Field [ SSH::Result; $text ]
End If
End If
# Close channel
Set Variable [ $r; Value:MBS( "SSH.CloseChannel"; $ssh ) ]
# Disconnect

```

## 160.17. SSH.NEW

7627

```
Set Variable [ $r; Value:MBS( "SSH.Disconnect"; $ssh ) ]  
End If  
End If  
End If  
# Release memory.  
Set Variable [ $r; Value:MBS( "SSH.Release"; $ssh ) ]
```

### See also

- [127.6 IsError](#) 6374
- [160.3 SSH.Disconnect](#) 7609
- [160.5 SSH.Execute](#) 7611
- [160.14 SSH.HostKey](#) 7622
- [160.20 SSH.ReadText](#) 7630
- [160.21 SSH.Release](#) 7632
- [160.24 SSH.SessionHandshake](#) 7635
- [160.38 SSH.UserAuthKeyboardInteractive](#) 7650
- [160.39 SSH.UserAuthList](#) 7651
- [160.40 SSH.UserAuthPassword](#) 7652

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 12nd November 2017.

## 160.18 SSH.OpenSession

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.OpenSession"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

You need to be connected with your session.

### Examples

Open Session:

Set Variable [ \$r; Value:MBS( "SSH.OpenSession"; \$ssh ) ]

### See also

- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.7 SSH.FreeChannel 7615
- 160.17 SSH.New 7625

### Example Databases

- [Network/SSH](#)

Created 29th May 2016, last changed 30th May 2016.



**160.19 SSH.ReadHex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.ReadHex"; SSH; length { ; Stream } )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**length**

Maximum number of bytes to read.

10

**Stream**

Optional

Which stream to read. Can be stdout or stderr. Stdout is default if parameter is empty or missing.

"StdOut"

**Result** Returns text encoded as hex or error message.

**Description**

The text returned may be shorter than length bytes.

**See also**

- 160.20 SSH.ReadText

## 160.20 SSH.ReadText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.ReadText"; SSH { ; length; Encoding; Stream } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### length

Optional

Maximum number of bytes to read.

10

#### Encoding

Optional

The text encoding for result. Default is UTF-8.

UTF8

#### Stream

Optional

Which stream to read. Can be stdout or stderr. Stdout is default if parameter is empty or missing.

"StdOut"

**Result** Returns text or error message.

### Description

The text returned may be shorter than length bytes.

### Examples

Read all text:

```
# We read text in several chunks until no new text is coming any more:
Set Variable [ $text; Value:"" ]
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
# Read some text:
Set Variable [ $newtext; Value:MBS( "SSH.ReadText"; $ssh; 10000; "UTF8" ) ]
If [ MBS("iserror") = 0 ]
If [ Length($newText) >0 ]
Set Variable [ $text; Value:$text & $newText ]
End If
Exit Loop If [ Length($newText) = 0 ]
End If
End Loop
Set Field [ SSH::Result; $text ]
```

160.20. *SSH.READTEXT*

7631

**See also**

- 127.6 IsError 6374
- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.17 SSH.New 7625
- 160.19 SSH.ReadHex 7629

**Example Databases**

- [Network/SSH](#)

Created 29th May 2016, last changed 27th May 2017.

## 160.21 SSH.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Release"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

If needed the channel, session and socket is closed.

### See also

- 102.67 JSON.Release 5409
- 160.1 SSH.CloseChannel 7603
- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.7 SSH.FreeChannel 7615
- 160.17 SSH.New 7625
- 194.30 XML.Release 9454

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 29th May 2016.

## 160.22 SSH.RequestPTY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.RequestPTY"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Note that this does not make sense for all channel types and may be ignored by the server despite returning success.

Created 29th May 2016, last changed 29th May 2016.

## 160.23 SSH.SendEOF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.SendEOF"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Tell the remote host that no further data will be sent on the specified channel. Processes typically interpret this as a closed stdin descriptor.

Created 29th May 2016, last changed 29th May 2016.

## 160.24 SSH.SessionHandshake

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.SessionHandshake"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

You may want to set timeout with SSH.SetTimeout function.

### Examples

Do session handshake:

```
Set Variable [ $r; Value:MBS( "SSH.SessionHandshake"; $ssh ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Connect error"; $r ]
End if
```

### See also

- [127.6 IsError](#) 6374
- [160.2 SSH.Connect](#) 7605
- [160.5 SSH.Execute](#) 7611
- [160.17 SSH.New](#) 7625
- [160.27 SSH.SetTimeout](#) 7638

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 4th December 2019.

## 160.25 SSH.SetEnv

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.SetEnv"; SSH; Name; Value )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Name

The name of the variable.

"test"

#### Value

The value for the variable.

"test"

**Result** Returns OK or error.

### Description

Created 29th May 2016, last changed 29th May 2016.



## 160.26 SSH.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.SetTag"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

The tag value allows you to associate any value with the session, e.g. a record ID.

#### See also

- 160.11 SSH.GetTag

Created 29th May 2016, last changed 29th May 2016.

**160.27 SSH.SetTimeout**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.SetTimeout"; SSH; Timeout )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**Timeout**

The new timeout value in milliseconds.

30000

**Result** Returns OK or error.

**Description****See also**

- 154.3 SNMP.SetTimeout 7242
- 160.12 SSH.GetTimeout 7620
- 160.24 SSH.SessionHandshake 7635
- 160.37 SSH.Tunnel.SetKeepAlive 7649

Created 29th May 2016, last changed 29th May 2016.

## 160.28 SSH.Shell

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Shell"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.29 SSH.Tunnel.BytesReceived

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.BytesReceived"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns number or error.

### Description

Created 22nd October 2018, last changed 22nd October 2018.

## 160.30 SSH.Tunnel.BytesSent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.BytesSent"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns number or error.

### Description

Created 22nd October 2018, last changed 22nd October 2018.

## 160.31 SSH.Tunnel.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.Cancel"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

This sets cancel flag, but cancelling happens asynchronous, so please check running flag later.

Tunnel is automatically cancelled when session is closed.

### See also

- 160.32 SSH.Tunnel.Cancelled

7643

### Example Databases

- [Network/SSH Tunnel](#)

Created 22nd October 2018, last changed 22nd October 2018.

## 160.32 SSH.Tunnel.Cancelled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.Cancelled"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns 1, 0 or error.

### Description

#### See also

- 160.31 SSH.Tunnel.Cancel

Created 22nd October 2018, last changed 22nd October 2018.

## 160.33 SSH.Tunnel.GetKeepAlive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.GetKeepAlive"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns 1 or 0 or error.

### Description

Value is 1 to send keep-alive packets to avoid TCP/IP timeouts.

### See also

- 160.37 SSH.Tunnel.SetKeepAlive

7649

### 160.33.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 11st March 2020.



## 160.34 SSH.Tunnel.Messages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.Messages"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns text or error.

### Description

We log messages so you can see what is going on and check the messages if things are not working well.

### 160.34.1 Blog Entries

- [SSH tunnel in FileMaker](#)

Created 22nd October 2018, last changed 22nd October 2018.

## 160.35 SSH.Tunnel.Run

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.Run"; SSH; RemoteHost; RemotePort; LocalHost; LocalPort )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### RemoteHost

The remote host to forward to. Can be IP or domain name.

"monkeybreadsoftware.de"

#### RemotePort

The destination port to connect to.

80

#### LocalHost

The local interface to listen on.

"127.0.0.1"

#### LocalPort

The local port to listen on.

8000

**Result** Returns OK or error.

### Description

Please create, connect and authenticate a session for use as a tunnel.

For best result, please don't use the same session for other things while tunnel is running.

The tunnel allows currently one connection through it, e.g. run one tunnel per MySQL connection to go through the tunnel. If you need multiple tunnels, please create multiple SSH connections.

The MBS Plugin can spin of a new preemptive thread to run a tunnel to forward a SSH connection from local socket to remote server via SSH tunnel.

This works well e.g. for database access with MySQL.

By using our own thread, we are not blocking or blocked by your FileMaker scripts.

### See also

- 160.36 SSH.Tunnel.Running

7648

### Example Databases

- [Network/SSH Tunnel](#)

### 160.35.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr3](#)
- [SSH tunnel in FileMaker](#)

Created 22nd October 2018, last changed 22nd October 2018.

## 160.36 SSH.Tunnel.Running

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.Running"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns boolean or error.

### Description

Returns 1 if running or 0 if not.

### See also

- 160.35 SSH.Tunnel.Run

7646

Created 22nd October 2018, last changed 22nd October 2018.

## 160.37 SSH.Tunnel.SetKeepAlive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.Tunnel.SetKeepAlive"; SSH; Value )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Value

The new setting. Pass 1 to enable keep-alive or 0 to disable.

1

**Result** Returns OK or error.

### Description

If set to 1, TCP keep alive probes will be sent to avoid TCP/IP timeouts.

Set to 0 (default behavior) to disable keep alive probes.

See also SSH.SetTimeout.

### Examples

Enable keep alive:

Set Variable [ \$r; Value: MBS( "SSH.Tunnel.SetKeepAlive"; \$SSH; 1 ) ]

### See also

- 160.27 SSH.SetTimeout 7638
- 160.33 SSH.Tunnel.GetKeepAlive 7644

### 160.37.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr1](#)

Created 11st March 2020, last changed 19th April 2020.

## 160.38 SSH.UserAuthKeyboardInteractive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.UserAuthKeyboardInteractive"; SSH; Username; Password )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Username

Name of user to attempt plain password authentication for.

"cs"

#### Password

Password to use for authenticating username.

"test"

**Result** Returns OK or error.

### Description

The server will send question to plugin and plugin answers with the given password.

### Examples

Login interactively:

```
Set Variable [ $r; Value:MBS( "SSH.UserAuthKeyboardInteractive"; $ssh; SSH::Username; SSH::Password ) ]
```

### See also

- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.17 SSH.New 7625

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 30th May 2016.

**160.39 SSH.UserAuthList**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.UserAuthList"; SSH; Username )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**Username**

Username which will be used while authenticating. Note that most server implementations do not permit attempting authentication with different usernames between requests. Therefore this must be the same username you will use on later userauth calls.

"cs"

**Result** Returns OK or error.

**Description**

Send a SSH\_USERAUTH\_NONE request to the remote host. Unless the remote host is configured to accept none as a viable authentication scheme (unlikely), it will return SSH\_USERAUTH\_FAILURE along with a listing of what authentication schemes it does support. In the unlikely event that none authentication succeeds, this method will return "". This case may be distinguished from a failing case by examining Authenticated.

**Examples**

Query authentication list:

Set Variable [ \$authuserlist; Value:MBS( "SSH.userauthlist"; \$ssh; SSH::Username) ]

**See also**

- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.17 SSH.New 7625

Created 29th May 2016, last changed 30th May 2016.

## 160.40 SSH.UserAuthPassword

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.UserAuthPassword"; SSH; Username; Password )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Username

Name of user to attempt plain password authentication for.

"cs"

#### Password

Password to use for authenticating username.

"test"

**Result** Returns OK or error.

### Description

Attempt basic password authentication. Note that many SSH servers which appear to support ordinary password authentication actually have it disabled and use Keyboard Interactive authentication (routed via PAM or another authentication backed) instead.

### Examples

Login with password:

```
Set Variable [ $r; Value:MBS( "SSH.UserAuthPassword"; $ssh; SSH::Username; SSH::Password ) ]
```

### See also

- [160.2 SSH.Connect](#) 7605
- [160.5 SSH.Execute](#) 7611
- [160.17 SSH.New](#) 7625

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 29th May 2016, last changed 30th May 2016.



## 160.41 SSH.UserAuthPublicKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.UserAuthPublicKey"; SSH; Username; PublicKey; PrivateKey; Passphrase )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Username

user name to authenticate as.

"cs"

#### PublicKey

The public key. Optional. Pass empty text if you only have private key.

""

#### PrivateKey

The private key. A PEM encoded private key file stored in memory.

#### Passphrase

Passphrase to use when decoding privatekey.

**Result** Returns OK or error.

### Description

Attempt public key authentication using a PEM encoded private key file stored in text variable or field.

### Examples

Login with keys:

```
Set Variable [ $r; Value: MBS( "SSH.UserAuthPublicKey"; $ssh; "cs"; "";  
"—BEGIN RSA PRIVATE KEY—"  
MIIEpQIBAAKCAQEAzXhH+HE2k8bpRvm4q9TlbD7B7/p2I0NXmVDz1CULU1FqN2OC$  
Q+3sUIUxWS2Fbyt5eTWeM5FkiYJyofjy6S+AK8C9+LmTS1NpMra8i4hnlGhwIfKk$  
LnzxmECgYEA1hopk2yfGXZg8yMYKdRD1JToH0QDxpIRHjHFy17eKbj79opB6zfU$  
WuCgiy1S0oNZfM/5gzYrUCBSdjbpk23rN3JqKI8J9/E2Ry7q4z0uVIRuQUS6mBnn$  
+r6DhI+hCQP7nR5APxJkLPdOCAnMKfjvEcvVwtcIAVz7sljR53J3e/A=$  
—END RSA PRIVATE KEY—"; "" ) ]
```

### See also

- 160.2 SSH.Connect 7605
- 160.5 SSH.Execute 7611
- 160.17 SSH.New 7625

- 160.42 SSH.UserAuthPublicKeyFile

### Example Databases

- [Network/SSH Tunnel](#)
- [Network/SSH](#)

Created 8th June 2016, last changed 20th June 2016.

## 160.42 SSH.UserAuthPublicKeyFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.UserAuthPublicKeyFile"; SSH; Username; PublicKey; PrivateKey { ; Passphrase } )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

#### Username

user name to authenticate as.

"cs"

#### PublicKey

Path of the public key file. (e.g. /etc/ssh/hostkey.pub). Optional. Pass empty text if you only have private key.

"/Users/cs/Desktop/id\_rsa.pub"

#### PrivateKey

Path of the private key file. (e.g. /etc/ssh/hostkey)

"/Users/cs/Desktop/id\_rsa"

#### Passphrase

Optional

Passphrase to use when decoding privatekey. Can be empty.

""

**Result** Returns OK or error.

### Description

Attempt public key authentication using a PEM encoded private key file stored on disk.

### Examples

Login with public key:

```
Set Variable [ $r; Value:MBS( "SSH.UserAuthPublicKeyFile"; $ssh; SSH::Username; "your key path"; "your key path"; SSH::Password ) ]
```

Login with keys:

```
Set Variable [ $r; Value: MBS( "SSH.UserAuthPublicKeyFile"; $ssh; SSH::Username; "/Users/cs/Desktop/id_rsa.pub"; "/Users/cs/Desktop/id_rsa"; SSH::Password ) ]
```

### See also

- 160.41 SSH.UserAuthPublicKey



## 160.43 SSH.WaitClosed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.WaitClosed"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Enter a temporary blocking state until the remote host closes the named channel. Typically sent after Close in order to examine the exit status.

Created 29th May 2016, last changed 29th May 2016.

## 160.44 SSH.WaitEOF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.WaitEOF"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

## 160.45 SSH.WaitSocket

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.WaitSocket"; SSH )

### Parameters

#### SSH

The SSH session reference number from the plugin.

\$ssh

**Result** Returns OK or error.

### Description

Created 29th May 2016, last changed 29th May 2016.

**160.46 SSH.WriteHex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.WriteHex"; SSH; Text { ; Stream } )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**Text**

The text to send in hex encoding.

"48656C6C66"

**Stream**

Optional

Which stream to write. Can be stdout or stderr. Stdout is default if parameter is empty or missing.

"StdOut"

**Result** Returns the number of bytes written or an error message.

**Description**

You pass the text hex encoded. For example for "Hello" you pass "48656C6C66".

**See also**

- 160.47 SSH.WriteText

7661

Created 29th May 2016, last changed 1st June 2016.



**160.47 SSH.WriteText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
160 SSH	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SSH.WriteText"; SSH; Text { ; Encoding; Stream } )

**Parameters****SSH**

The SSH session reference number from the plugin.

\$ssh

**Text**

The text to send.

"Hello World"

**Encoding**

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Stream**

Optional

Which stream to write. Can be stdout or stderr. Stdout is default if parameter is empty or missing.

"StdOut"

**Result** Returns the number of bytes written or an error message.

**Description****See also**

- 160.46 SSH.WriteHex



# Chapter 161

## StoreKit

In-app purchases in the Mac/iOS App Store

### 161.1 StoreKit.AddPayment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.AddPayment"; productIdentifier { ; quantity } )

#### Parameters

##### **productIdentifier**

The product identifier.

1234

##### **quantity**

Optional

The quantity of the product. Default is 1.

1

**Result** Returns OK or error.

#### Description

When a payment request is added to the queue, the payment queue processes that request with the Apple App Store and arranges for payment from the user. When that transaction is complete or if a failure occurs, the payment queue sends the payment transaction object that encapsulates the request to all transaction observers.

Use StoreKit.Transactions later to query status.

#### Examples

Start order of item:

```
Set Variable [ $r ; Value: MBS( "StoreKit.AddPayment"; "123"; 1 ) ]
```

**See also**

- 161.15 StoreKit.Transactions

7678

**161.1.1 Blog Entries**

- [Working on new Store Kit functions](#)

Created 22nd April 2018, last changed 22nd April 2018.

## 161.2 StoreKit.CanMakePayments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.CanMakePayments" )

**Result** Returns 1 or 0.

### Description

Returns 1 if the user is allowed to authorize payment. 0 if they do not have permission.

An iPhone can be restricted from accessing the Apple App Store. For example, parents can restrict their children's ability to purchase additional content. Your application should confirm that the user is allowed to authorize payments before adding a payment to the queue. Your application may also want to alter its behavior or appearance when the user is not allowed to authorize payments.

### Examples

Check status:

Set Variable [ \$r ; Value: MBS( "StoreKit.CanMakePayments" ) ]

Created 22nd April 2018, last changed 22nd April 2018.

## 161.3 StoreKit.FinishTransaction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.FinishTransaction"; TransactionID )

### Parameters

#### TransactionID

The ID of the transaction.

**Result** Returns OK or error.

### Description

Your application should call this method on pending transaction to finish them. Calling StoreKit.FinishTransaction on a transaction removes it from the queue. Your application should call finishTransaction only after it has successfully processed the transaction and unlocked the functionality purchased by the user. Calling StoreKit.FinishTransaction on a transaction that is in the Purchasing state returns an error.

### 161.3.1 Blog Entries

- [Working on new Store Kit functions](#)

Created 22nd April 2018, last changed 22nd April 2018.

**161.4 StoreKit.InvalidProductIdentifiers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.InvalidProductIdentifiers" )

**Result** Returns list or error.

**Description**

Please call StoreKit.QueryProducts first to query products and wait for StoreKit.ProductRequestRunning returning 0.

**See also**

- 161.8 StoreKit.QueryProducts

7671

Created 22nd April 2018, last changed 22nd April 2018.

## 161.5 StoreKit.IsProductViewVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.IsProductViewVisible" )

**Result** Returns 1 or 0.

### Description

Created 22nd April 2018, last changed 22nd April 2018.



## 161.6 StoreKit.ProductQueryRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.ProductQueryRunning" )

**Result** Returns 1 or 0.

### Description

Returns 1 if query started by StoreKit.QueryProducts is still running in background.

### See also

- 161.8 StoreKit.QueryProducts

## 161.7 StoreKit.Products

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.Products" )

**Result** Returns JSON or error.

### Description

Please call StoreKit.QueryProducts first to query products and wait for StoreKit.ProductRequestRunning returning 0.

The JSON contains an array of products and each product has the following values: localizedDescription, localizedTitle, priceLocale, price, productIdentifier, downloadable and formattedPrice.

### Examples

Queries list of products:

```
Set Variable [ $products ; Value: MBS( "StoreKit.Products" ) ]
```

### See also

- 161.8 StoreKit.QueryProducts

7671

### 161.7.1 Blog Entries

- [Working on new Store Kit functions](#)

Created 22nd April 2018, last changed 22nd April 2018.

## 161.8 StoreKit.QueryProducts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.QueryProducts" )

**Result** Returns OK or error.

### Description

Your app uses an StoreKit.QueryProducts and StoreKit.Products to present localized prices and other information to the user without having to maintain that list of product information itself.

Please call in start script of solution, so a few seconds later when you want to call StoreKit.Products the information is available.

### Examples

Query for two products:

Set Variable [ \$r ; Value: MBS( "StoreKit.QueryProducts"; "123\$456" ) ]

### See also

- [161.4 StoreKit.InvalidProductIdentifiers](#) 7667
- [161.6 StoreKit.ProductQueryRunning](#) 7669
- [161.7 StoreKit.Products](#) 7670

### 161.8.1 Blog Entries

- [Working on new Store Kit functions](#)

Created 22nd April 2018, last changed 23th April 2018.

## 161.9 StoreKit.RequestReview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	No	No	No	No	Yes

MBS( "StoreKit.RequestReview" )

**Result** Returns OK or error.

### Description

Tells StoreKit to ask the user to rate or review your app, if appropriate. Works asynchronously, so function returns immediately and starts dialog later.

Although you should call this method when it makes sense in the user experience flow of your app, the actual display of a rating/review request view is governed by App Store policy. Because this method may or may not present an alert, it's not appropriate to call it in response to a button tap or other user action.

### Note

When you call this method while your app is still in development mode, a rating/review request view is always displayed so that you can test the user interface and experience. However, this method has no effect when you call it in an app that you distribute using TestFlight.

When you call this method in your shipping app and a rating/review request view is displayed, the system handles the entire process for you. In addition, you can continue to include a persistent link in the settings or configuration screens of your app that deep-links to your App Store product page. To automatically open a page on which users can write a review in the App Store, append the query parameter `action=write-review` to your product URL.

### 161.9.1 Blog Entries

- [Let users review your FileMaker iOS application](#)

Created 22nd April 2018, last changed 22nd April 2018.

## 161.10 StoreKit.RestoreCompletedTransactions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.RestoreCompletedTransactions" { ; Username } )

### Parameters

#### Username

Optional

An opaque identifier for the user's account on your system.

**Result** Returns OK or error.

### Description

Your application calls this method to restore transactions that were previously finished so that you can process them again. For example, your application would use this to allow a user to unlock previously purchased content onto a new device.

When you create a new product to be sold in your store, you choose whether that product can be restored or not. See the In-App Purchase Programming Guide for more information.

The payment queue will deliver a new transaction for each previously completed transaction that can be restored. Each transaction includes a copy of the original transaction.

### See also

- 161.12 StoreKit.SetRestoreCompletedTransactionsTrigger

7675

Created 22nd April 2018, last changed 22nd April 2018.

## 161.11 StoreKit.SetProductViewFinishedTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	No	No	No	No	Yes

MBS( "StoreKit.SetProductViewFinishedTrigger"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

Parameter to pass.

**Result** Returns OK or error.

### Description

Script is triggered when the dialog showed via StoreKit.ShowProductView finished.

### See also

- 161.14 StoreKit.ShowProductView

7677

Created 22nd April 2018, last changed 22nd April 2018.

**161.12 StoreKit.SetRestoreCompletedTransactionsTrigger**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.SetRestoreCompletedTransactionsTrigger"; Filename; ScriptName )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

Parameter is either OK or the error from restoring.

**See also**

- 161.10 StoreKit.RestoreCompletedTransactions

7673

Created 22nd April 2018, last changed 22nd April 2018.

## 161.13 StoreKit.SetUpdatedTransactionsTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.SetUpdatedTransactionsTrigger"; Filename; ScriptName { ; Parameter } )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

#### Parameter

Optional

Parameter to pass.

**Result** Returns OK or error.

### Description

This method may be called often when something changes on the transactions. So you can check if they still match your state and process changes.

Created 22nd April 2018, last changed 22nd April 2018.



## 161.14 StoreKit.ShowProductView

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	No	No	No	No	Yes

MBS( "StoreKit.ShowProductView"; iTunesItemIdentifier )

### Parameters

#### iTunesItemIdentifier

The ID of the product to show. Must be a number.  
1234

**Result** Returns OK or error.

### Description

Be aware that this works asynchronously and the functions returns directly while the dialog shows later. It App Store doesn't return information, nothing happens.

### Examples

Show product page for FileMaker Go 16:

```
Set Variable [ $r ; Value: MBS( "StoreKit.ShowProductView"; 1097917885 ) ]
```

### See also

- 161.11 StoreKit.SetProductViewFinishedTrigger

7674

Created 22nd April 2018, last changed 23th April 2018.

## 161.15 StoreKit.Transactions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
161 StoreKit	8.2	Yes	No	No	No	Yes

MBS( "StoreKit.Transactions" )

**Result** Returns JSON or error.

### Description

For each transaction, you find values for transactionState, error, payment, originalTransaction, transactionDate and transactionIdentifier. State can be Purchasing, Purchased, Failed, Restored or Deferred.

### Examples

Queries list of transactions:

Set Variable [ \$transactions; Value: MBS( "StoreKit.Transactions" ) ]

### See also

- 161.1 StoreKit.AddPayment

7663

### 161.15.1 Blog Entries

- [Working on new Store Kit functions](#)

Created 22nd April 2018, last changed 22nd April 2018.

# Chapter 162

## SyntaxColoring

Control the syntax coloring in script and calculation editor.

Various Mac IDE enhancements for FileMaker script workspace.

### 162.1 SyntaxColoring.AddContextMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	9.5	Yes	No	No	No	No

```
MBS( "SyntaxColoring.AddContextMenuCommand"; Title; Expression; InstallWhen { ; keyEquivalent; KeyEquivalentModifierMask } )
```

#### Parameters

##### Title

The title for the menu command. If multi line, we build submenus based on the path described. If title is just "-", we add a separator.

"MyCommands\$Hello"

##### Expression

The expression to evaluate in FileMaker when menu command is choosen.

##### InstallWhen

Whether to enable only if selection is present. 0: always on 1: need no row selected 2: need exactly one row selected 3: need one or more rows selected 4: need all rows selected

Add 8 to allow for discontinuous selections (in version 10.0 or later).

0

##### keyEquivalent

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

The key equivalent. Is shown right in the menu and can be pressed while menu is open.  
"T"

### KeyEquivalentModifierMask

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

The menu items's keyboard equivalent modifiers. NSShiftKeyMask is a valid modifier for any key equivalent in mask. This allows you to specify key-equivalents such as Command-Shift-1 that are consistent across all keyboards. However, with a few exceptions (such as the German "ß" character), a lowercase character with NSShiftKeyMask is interpreted the same as the uppercase character without that mask. For example, Command-Shift-c and Command-C are considered to be identical key equivalents.

NSShiftKeyMask 131072 Shift Key NSControlKeyMask 262144 Control Key NSAlternateKeyMask 524288 Alternate/Option Key NSCommandKeyMask 1048576 Command Key  
524288 + 131072

**Result** Returns OK or error.

### Description

Given commands are added to contextual menu in Script Workspace when right clicking on script steps. Commands are stored in preferences file and can be removed via SyntaxColoring.ClearContextMenuCommands function.

If you use Clipboard.GetFileMakerData and Clipboard.SetFileMakerData functions, you can get the XML for the current step. You may want to use Menubar.RunMenuCommand to run cut/copy/paste/delete commands from the FileMaker menu with the respective command IDs: 57635 for cut, 57634 for copy, 57637 for paste, 57632 for delete and 57642 for select all.

Possible uses include commands

- to add new script steps.
- to check scripts for errors.
- to search and replace things
- to add common snippets, possibly using SQL or text file functions to read the XML for them.
- to pass script steps as XML to external tools.

Use SyntaxColoring.RemoveContextMenuCommand to remove one or SyntaxColoring.ClearContextMenuCommands to clear all.

### Examples

Add a greeting command:

```
MBS( "SyntaxColoring.AddContextMenuCommand"; "Greeting"; "MBS(\\"Msgbox\\"; \\"Hello World\\")";
0 )
```

Add a rename command for variable:

```
MBS( "SyntaxColoring.AddContextMenuCommand";
"Rename $I to $counter";
"Let ( [ r = MBS( \"Menubar.RunMenuCommand\"; 57634 /* copy */ ); xml = MBS( \"Clipboard.GetFileMakerData\"; \"ScriptStep\" ); xml = Substitute ( xml; \"$i\"; \"$counter\" ); r = MBS( \"Clipboard.SetFileMakerData\"; \"ScriptStep\"; xml ); r = MBS( \"Menubar.RunMenuCommand\"; 57637 /* paste */ )
]; \"\"); 0 )
```

Add an insert loop command:

```
MBS( "SyntaxColoring.AddContextMenuCommand";
"Insert For Loop";
"Let ( [
xml = \"<fmxmlsnippet type=\\\"FMObjectList\\\"><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"><Text>loop counting up from 1 to $count</Text></Step><Step enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA [ \\\"/* add count here */\\\" ] ] ></Calculation></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$count</Name></Step><Step enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$index</Name></Step><Step enable=\\\"True\\\" id=\\\"68\\\" name=\\\"If\\\"><Calculation><! [ CDATA [ $index $count ] ] ></Calculation></Step><Step enable=\\\"True\\\" id=\\\"71\\\" name=\\\"Loop\\\"></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"><Text>your script steps here</Text></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"><Text>next</Text></Step><Step enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA [ $index + 1 ] ] ></Calculation></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$index</Name></Step><Step enable=\\\"True\\\" id=\\\"72\\\" name=\\\"Exit Loop If\\\"><Calculation><! [ CDATA [ $index >$count ] ] ></Calculation></Step><Step enable=\\\"True\\\" id=\\\"73\\\" name=\\\"End Loop\\\"></Step><Step enable=\\\"True\\\" id=\\\"70\\\" name=\\\"End If\\\"></Step></fmxmlsnippet>\";
r = MBS( \"Clipboard.SetFileMakerData\"; \"ScriptStep\"; xml );
r = MBS( \"Menubar.RunMenuCommand\"; 57637 /* paste */ )
]; \"\"); 0 )
```

Add a search and replace command:

```
MBS( "SyntaxColoring.AddContextMenuCommand";
"Search and Replace";
"Let ( [
/* ask for search text via dialog */
ResetResult = MBS( \"Dialog.Reset\" );
ClearResult = MBS( \"Dialog.ClearFields\" );
MessageResult = MBS( \"Dialog.SetMessage\"; \"Search and replace in script:\" );
InfoResult = MBS( \"Dialog.SetInformativeText\"; \"Search text can include XML tags.\" );
Field1Result = MBS( \"Dialog.AddField\"; \"Search for:\" );
Field2Result = MBS( \"Dialog.AddField\"; \"Replace with:\" );
```



```
& \".txt\" );
\"UTF-8\"
)"; 0 )
```

Add separator item:

```
MBS( "SyntaxColoring.AddContextMenuCommand"; "-"; "-"; 0 )
```

// needs version 10.0 of the plugin.

Add function header:

```
MBS( "SyntaxColoring.AddContextMenuCommand";
"Insert function header";
"Let ( [
xml = \"<fmxmlsnippet type=\\\"FMObjectList\\\"><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"><Text>Description</Text></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"><Text>Author</Text></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"><Text>Modifications</Text></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"></Step><Step enable=\\\"True\\\" id=\\\"85\\\" name=\\\"Allow User Abort\\\"><Set
state=\\\"False\\\"></Set></Step><Step enable=\\\"True\\\" id=\\\"86\\\" name=\\\"Set Error
Capture\\\"><Set state=\\\"True\\\"></Set></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"></Step><Step enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Cal-
culation><! [ CDATA [ Get(ScriptParameter) ] ] ></Calculation></Value><Repetition><Calculation><!
[ CDATA [ 1 ] ] ></Calculation></Repetition><Name>$param</Name></Step><Step enable=\\\"True\\\"
id=\\\"89\\\" name=\\\"# (comment)\\\"></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"#
(comment)\\\"></Step><Step enable=\\\"True\\\" id=\\\"89\\\" name=\\\"# (comment)\\\"></Step><Step
enable=\\\"True\\\" id=\\\"141\\\" name=\\\"Set Variable\\\"><Value><Calculation><! [ CDATA
[ \\\"\\\" ] ] ></Calculation></Value><Repetition><Calculation><! [ CDATA [ 1 ] ] ></Calcula-
tion></Repetition><Name>$result</Name></Step><Step enable=\\\"True\\\" id=\\\"103\\\" name=\\\"Exit
Script\\\"><Calculation><! [ CDATA [ $result ] ] ></Calculation></Step></fmxmlsnippet>\";
r = MBS( \"Clipboard.SetFileMakerData\"; \"ScriptStep\"; xml );
r = MBS( \"MenuBar.RunMenuCommand\"; 57637 /* paste */ )
]; \"\"); 0 )
```

Add command to paste snippet from folder picked by dialog:

// put snippets as xml files into ~/Library/Application Support/FileMaker/Snippets folder.

```
MBS( "SyntaxColoring.AddContextMenuCommand";
"Insert snippet from snippet folder";
"Let( [
Path = MBS( \"Path.AddPathComponent\"; MBS( \"Folders.UserHome\" ); \"Library\"; \"Application
Support\"; \"FileMaker\"; \"Snippets\" );
Files = MBS( \"Files.List\"; Path; 1+4 );
Names = MBS( \"List.RemovePostfix\"; Files; \".xml\"; 1 );
r = MBS( \"ListDialog.Reset\" ) & MBS( \"ListDialog.AddItemToList\"; Names; Files ) & MBS( \"List-
```

```
Dialog.SetPrompt\"; \ "Choose snippet to insert:\ " );
answer = MBS( \ "ListDialog.ShowDialog\ " );
r = If(answer = \ "OK\ "; MBS( \ "Clipboard.SetFileMakerData\ "; \ "ScriptStep\ "; MBS( \ "Text.ReadFile\ "; MBS( \ "Path.AddPathComponent\ "; Path; MBS( \ "ListDialog.GetSelectedTag\ " )); \ "UTF-8\ ") ) & MBS( \ "Menubar.RunMenuCommand\ "; 57637 /* paste */ ) ] ; 0 )
```

Add duplicate context menu entry:

```
MBS( "SyntaxColoring.AddContextMenuCommand"; "Duplicate";
"Let ( [ r = MBS( \ "Menubar.RunMenuCommand\ "; 49182 /* duplicate */ ) ] ; \ "\ " ); 3 )
```

### See also

- 106.2 ListDialog.AddItemToList 5649
- 106.25 ListDialog.Reset 5672
- 106.37 ListDialog.SetPrompt 5684
- 115.5 Menubar.RunMenuCommand 6099
- 124.1 Path.AddPathComponent 6243
- 145.11 ScriptWorkspace.ScriptText 6973
- 162.11 SyntaxColoring.Clear 7701
- 162.12 SyntaxColoring.ClearContextMenuCommands 7702
- 162.46 SyntaxColoring.ListContextMenuCommand 7738
- 162.49 SyntaxColoring.RemoveContextMenuCommand 7741

### Example Databases

- [Mac only/Script Workspace Context Menu Commands](#)

#### 162.1.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr2](#)
- [Formatting and error checking expressions in FileMaker](#)
- [MBS FileMaker Plugin, version 9.6pr1](#)
- [Insert snippet for FileMaker on Windows](#)



- [MBS FileMaker Plugin 9.5 video](#)
- [Add a search and replace command for FileMaker Script Workspace](#)
- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)

Created 18th October 2019, last changed 9th January 2020.

## 162.2 SyntaxColoring.AddTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.AddTag"; Selector; Text; Color )

### Parameters

#### Selector

What item to color with this tag. Can be ScriptStep, Function, Variable or Formula.  
"Formula"

#### Text

The name of the item. Up to five words from the left name of the command.  
"If"

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html.  
"red"

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.  
Works with FileMaker 11 or newer.

Default tags defined for script steps:

Possible tag names for syntax coloring in calculations:

Some color names you can use for syntax coloring:

Black, Gray, DarkGray, LightGray, Blue, Brown, Cyan, Green, Magenta, Orange, Purple, Red, Yellow, White, alternateSelectedControlColor, alternateSelectedControlTextColor, controlBackgroundColor, controlColor, controlDarkShadowColor, controlHighlightColor, controlLightHighlightColor, controlShadowColor, controlTextColor, disabledControlTextColor, gridColor, headerColor, headerTextColor, highlightColor, keyboardFocusIndicatorColor, knobColor, scrollBarColor, secondarySelectedControlColor, selectedControlColor, selectedControlTextColor, selectedKnobColor, selectedMenuItemColor, selectedMenuItemTextColor, selectedTextBackgroundColor, selectedTextColor, shadowColor, textBackgroundColor, textColor, windowBackgroundColor, windowFrameColor, windowFrameTextColor, Cantaloupe, Honeydew, Spindrift, Sky, Lavender, Carnation, Licorice, Snow, Salmon, Banana, Flora, Ice, Orchid, Bubblegum, Lead, Mercury, Tangerine, Lime, "Sea Foam", Aqua, Grape, Strawberry, Tungsten, Silver, Maraschino, Lemon, Spring, Turquoise, Blueberry, Magenta, Iron, Magnesium, Mocha, Fern, Moss, Ocean, Eggplant, Maroon, Steel, Aluminum, Cayenne, Asparagus, Clover, Teal, Midnight, Plum, Tin and Nickel.

### Examples

Enable coloring for set variable script step in German:

Sonst	blue
Sonst,	blue
Wenn	blue
Ende	blue
Schleife	teal
Verlasse	teal
If	blue
Else	blue
End If	blue
Loop	teal
End Loop	teal
Exit Loop	teal
Si	blue
Simon	blue
Fin de si	blue
Boucle	teal
Fin de Boucle	teal
commented formula	red

```
MBS( "SyntaxColoring.AddTag"; "ScriptStep"; "Variable setzen"; "# FF0000" )
```

Set blue color for round bracket:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "round bracket color"; "blue" )
```

Set green color for equal sign:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "equal bracket color"; "green" )
```

Set green color for plus sign:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "plus sign color"; "# 00FF00" )
```

Enable coloring for set variable script step for missing field:

```
MBS( "SyntaxColoring.AddTag"; "ScriptStep"; "*<Missing Field>*"; "# FF0000" )
```

Color Hole() function blue in formulas:

```
MBS( "SyntaxColoring.AddTag"; "Function"; "Hole"; "blue" )
```

Color variable \$\$UserID blue in formulas:

```
MBS( "SyntaxColoring.AddTag"; "Variable"; "$$UserID"; "blue" )
```

Name	Default
round bracket color	blue
square bracket color	purple
curly bracket color	purple
wrong bracket color	red
text color	teal
variable color	plum
tilde variable color	-
underscore variable color	-
cent variable color	-
plus sign color	-
minus sign color	-
function color	-
and sign color	-
slash sign color	-
star sign color	-
paragraph sign color	-
caret sign color	-
equal sign color	-
not equal sign color	-
bigger sign color	-
smaller sign color	-
bigger equal sign color	-
smaller equal sign color	-
number color	-
comment color	-
function color	-
and color	-
or color	-
not color	-
xor color	-
field color	-

Color all other functions in light red:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "function color"; "Salmon" )
```

Set comment color to gray:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "comment color"; "gray" )
```

Set color for undefined variables in script to red:

```
MBS( "SyntaxColoring.AddTag"; "ScriptStep"; "undefined variable color"; "red" )
```

Set color for tilde variable names:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "tilde variable color"; "green" )
```

Set color for underscore variable names:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "underscore variable color"; "red" )
```

Set color for cent variable names:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "cent variable color"; "green" )
```

Set color for field names:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "field color"; "blue" )
```

Set color for and:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "and color"; "red" )
```

Set comment script steps to be dark green:

```
MBS( "SyntaxColoring.AddTag"; "ScriptStep"; "# "; "# 007700" )
```

Color red all values starting with comment:

```
MBS( "SyntaxColoring.AddTag"; "ScriptStep"; "**Value: /**"; "red" )
```

Set color for global variables:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "global variable color"; "# ff69b4" )
```

Set color for <>in formula:

```
MBS( "SyntaxColoring.AddTag"; "Formula"; "smaller bigger sign color"; "# 0000FF" )
```

### See also

- 162.11 SyntaxColoring.Clear 7701
- 162.18 SyntaxColoring.Enable 7709
- 162.21 SyntaxColoring.Format 7712
- 162.38 SyntaxColoring.GetTag 7729
- 162.39 SyntaxColoring.GetTags 7730

- 162.50 SyntaxColoring.RemoveTag

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

### 162.2.1 Blog Entries

- [Different colors for variables in FileMaker](#)
- [Formatting and error checking expressions in FileMaker](#)
- [MBS FileMaker Plugin, version 9.5pr2](#)
- [MBS Filemaker Plugin, version 3.0pr7](#)
- [Syntax Coloring Improvements](#)

### 162.2.2 FileMaker Magazin

- [Ausgabe 5/2015, Seite 31](#)

Created 18th August 2014, last changed 7th October 2019.

## 162.3 SyntaxColoring.CheckVariableDeclaration.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Disable" )

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.

Works with FileMaker 11 or newer.

Checking variable declarations can only be enabled in FileMaker Pro, not in server or runtime versions.

This setting can be set via the preferences dialog, too.

### Examples

Enable or disable checking variable declarations:

If (Enable)

```
Set Variable [ $r; MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" ) ]
```

else

```
Set Variable [ $r; MBS( "SyntaxColoring.CheckVariableDeclaration.Disable" ) ]
```

end if

Declare variable via comment:

```
# Declare variables via comment as plugin has no way to know easily that $test is defined here
```

```
# @parameter $param1
```

```
# @parameter $param2
```

```
Set Variable [ $r ; Value: Let ( [ parameters = Get(ScriptParameter); $param1 = GetValue(parameters; 1);
```

```
$param2 = GetValue(parameters; 2) ] ; 1 ) ]
```

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits 7696
- 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable 7697
- 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable 7698
- 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits 7700

Created 18th August 2014, last changed 15th December 2019.

## 162.4 SyntaxColoring.CheckVariableDeclaration.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.

Works with FileMaker 11 or newer.

Checking variable declarations can only be enabled in FileMaker Pro, not in server or runtime versions.

By default this is off. It takes some additional CPU time for drawing the script and not everyone may want to have it on. Of course the extra work for the CPU should not be noticeable to the developer. Variable names declared inside Let commands are not recognized.

May only work in Advanced version of FileMaker.

You can declare variables in comment when writing @param, @variable or @constant in the comment followed by variable name.

### Examples

Enable or disable checking variable declarations:

```
If (Enable)
Set Variable [ $r; MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" ) ]
else
Set Variable [ $r; MBS( "SyntaxColoring.CheckVariableDeclaration.Disable" ) ]
end if
```

Use @variable to declare variable:

```
# Declare variable via comment as plugin has no way to know easily that $test is defined here
# @variable $test
Insert Current Time [ Select ; Target: $test ]
```

Declare variable via comment:

```
# Declare variables via comment as plugin has no way to know easily that $test is defined here
# @parameter $param1
# @parameter $param2
Set Variable [ $r ; Value: Let ( [ parameters = Get(ScriptParameter); $param1 = GetValue(parameters; 1);
$param2 = GetValue(parameters; 2) ] ; 1 ) ]
```

### See also

- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable



<i>162.4. SYNTAXCOLORING.CHECKVARIABLEDECLARATION.ENABLE</i>	7693
• 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled	7694
• 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits	7696
• 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable	7698
• 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits	7700
• 162.16 SyntaxColoring.CopyButton.SetEnabled	7706
• 162.42 SyntaxColoring.LineNumbers.Enable	7733
• 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled	7744
• 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled	7750
• 162.68 SyntaxColoring.SetScriptHighlightColor	7762

### **162.4.1 Blog Entries**

- [Goodies video from FMValencia conference](#)
- [Checking Variable Declarations in FileMaker with MBS Plugin](#)
- [New Text for unknown variables in scripts](#)
- [MBS Filemaker Plugin, version 3.5pr7](#)

Created 18th August 2014, last changed 15th December 2019.

## 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Enabled" )

**Result** Returns 1 if checking variable declarations are enabled and 0 if not.

### Description

### Examples

Check if enabled:

```
Set Variable [ $emab; MBS( "SyntaxColoring.CheckVariableDeclaration.Enabled" ) ]
```

Enable all the plugin enhancements for FileMaker:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptGoTOBox.SetEnabled"; 1)
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )
MBS( "SyntaxColoring.LineNumbers.Enable" )
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

Use @variable to declare variable:

```
# Declare variable via comment as plugin has no way to know easily that $test is defined here
# @variable $test
Insert Current Time [ Select ; Target: $test ]
```

Declare variable via comment:

```
# Declare variables via comment as plugin has no way to know easily that $test is defined here
# @parameter $param1
# @parameter $param2
Set Variable [ $r ; Value: Let ( [ parameters = Get(ScriptParameter); $param1 = GetValue(parameters; 1);
$param2 = GetValue(parameters; 2) ] ; 1 ) ]
```

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits 7696
- 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable 7698

<i>162.5. SYNTAXCOLORING.CHECKVARIABLEDECLARATION.ENABLED</i>	7695
• 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled	7699
• 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits	7700
• 162.16 SyntaxColoring.CopyButton.SetEnabled	7706
• 162.42 SyntaxColoring.LineNumbers.Enable	7733
• 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled	7744
• 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled	7750
• 162.68 SyntaxColoring.SetScriptHighlightColor	7762

Created 18th August 2014, last changed 15th December 2019.

## 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.2	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.GetLimits" )

**Result** Returns list or error.

### Description

By default this returns 500 and 2000 as we look up to 500 lines up for variable declaration and don't check scripts with 2000 or more lines.

### See also

- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable 7691
- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits 7700

Created 2nd May 2020, last changed 6th May 2020.

## 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.1	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Notification.Disable" )

**Result** Returns OK or error.

### Description

#### See also

- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable 7691
- 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable 7698
- 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled 7699

Created 2nd February 2017, last changed 2nd February 2017.

## 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.1	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Notification.Enable" )

**Result** Returns OK or error.

### Description

If enabled, the plugin will notify you automatically about missing variables.

### See also

- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable 7691
- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable 7697
- 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled 7699

Created 2nd February 2017, last changed 2nd February 2017.

## 162.9 SyntaxColoring.CheckVariableDeclaration.Notification.Enabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.1	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.Notification.Enabled" )

**Result** Returns 0, 1 or error.

### Description

If enabled, the plugin will notify you automatically about missing variables.

### See also

- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.7 SyntaxColoring.CheckVariableDeclaration.Notification.Disable 7697
- 162.8 SyntaxColoring.CheckVariableDeclaration.Notification.Enable 7698

Created 2nd February 2017, last changed 2nd February 2017.

## 162.10 SyntaxColoring.CheckVariableDeclaration.SetLimits

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.2	Yes	No	No	No	No

MBS( "SyntaxColoring.CheckVariableDeclaration.SetLimits" { ; Limit1; Limit2 } )

### Parameters

#### Limit1

Optional

How many lines to look up.

500

#### Limit2

Optional

How long a script may be to not be checked at all.

2000

**Result** Returns OK or error.

### Description

By default this returns 500 and 2000 as we look up to 500 lines up for variable declaration and don't check scripts with 2000 or more lines.

Script workspace gets slower if we check >500 lines on every change made.

### Examples

Set higher limits:

```
MBS( "SyntaxColoring.CheckVariableDeclaration.SetLimits"; 600; 2400 )
```

### See also

- 162.3 SyntaxColoring.CheckVariableDeclaration.Disable 7691
- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.6 SyntaxColoring.CheckVariableDeclaration.GetLimits 7696

Created 2nd May 2020, last changed 6th May 2020.



## 162.11 SyntaxColoring.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.Clear" )

**Result** Returns OK on success.

### Description

### Examples

Clears all rules:

MBS( "SyntaxColoring.Clear" )

### See also

- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [162.2 SyntaxColoring.AddTag](#) 7686
- [162.21 SyntaxColoring.Format](#) 7712
- [162.38 SyntaxColoring.GetTag](#) 7729

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

### 162.11.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 162.12 SyntaxColoring.ClearContextMenuCommands

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	9.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ClearContextMenuCommands" )

**Result** Returns OK or error.

### Description

You can use SyntaxColoring.RemoveContextMenuCommand to remove just one command.

### See also

- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [162.46 SyntaxColoring.ListContextMenuCommand](#) 7738
- [162.49 SyntaxColoring.RemoveContextMenuCommand](#) 7741

### Example Databases

- [Mac only/Script Workspace Context Menu Commands](#)

### 162.12.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 18th October 2019, last changed 20th October 2019.

## 162.13 SyntaxColoring.ContextualMenuEnabled.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.0	Yes	No	No	No	No

MBS( "SyntaxColoring.ContextualMenuEnabled.GetEnabled" )

**Result** Returns 0, 1 or error.

**Description**

**See also**

- 162.14 SyntaxColoring.ContextualMenuEnabled.SetEnabled

7704

### 162.13.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 11st January 2016, last changed 11st January 2016.

## 162.14 SyntaxColoring.ContextualMenuEnabled.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.0	Yes	No	No	No	No

MBS( "SyntaxColoring.ContextualMenuEnabled.SetEnabled"; Value )

### Parameters

#### Value

The new setting: 1 to enable or 0 to disable.

**Result** Returns OK or error.

### Description

The plugin provides a Copy Table Content command for all FileMaker tables.

Unless FileMaker has it's own contextual menu.

This setting can be set via the preferences dialog, too.

### See also

- [162.13 SyntaxColoring.ContextualMenuEnabled.GetEnabled](#)

7703

### 162.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr6](#)

Created 11st January 2016, last changed 11st November 2019.

## 162.15 SyntaxColoring.CopyButton.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.2	Yes	No	No	No	No

MBS( "SyntaxColoring.CopyButton.GetEnabled" )

**Result** Returns value or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- [162.16 SyntaxColoring.CopyButton.SetEnabled](#) 7706
- [162.78 SyntaxColoring.ZoomButton.GetEnabled](#) 7773
- [162.79 SyntaxColoring.ZoomButton.SetEnabled](#) 7774

### 162.15.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr1](#)

Created 20th May 2015, last changed 10th October 2015.

## 162.16 SyntaxColoring.CopyButton.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.2	Yes	No	No	No	No

MBS( "SyntaxColoring.CopyButton.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to show button or 0 to disable.

1

**Result** Returns OK or error.

### Description

MBS Plugin offers to add a script button on Mac OS X and this function sets the preferences on whether it's visible or not.

This setting can be set via the preferences dialog, too.

### Examples

Enable button:

```
MBS( "SyntaxColoring.CopyButton.SetEnabled"; 1 )
```

Disable copy button:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 0)
```

Enable all the plugin enhancements for FileMaker:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptGoToBox.SetEnabled"; 1)
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )
MBS( "SyntaxColoring.LineNumbers.Enable" )
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.15 SyntaxColoring.CopyButton.GetEnabled 7705
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744

<i>162.16. SYNTAXCOLORING.COPYBUTTON.SETENABLED</i>	7707
• 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled	7750
• 162.68 SyntaxColoring.SetScriptHighlightColor	7762
• 162.78 SyntaxColoring.ZoomButton.GetEnabled	7773
• 162.79 SyntaxColoring.ZoomButton.SetEnabled	7774

### **162.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.2pr1](#)

Created 20th May 2015, last changed 11st November 2019.

## 162.17 SyntaxColoring.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.Disable" )

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions. Works with FileMaker 11 or newer.

Syntax color can only be enabled in FileMaker Pro, not in server or runtime versions. See also SyntaxColoring.Enable.

Disabling colors also disables line numbers and script search.

### Examples

Enable or disable syntax coloring:

```
If (Enable)
Set Variable [ $r; MBS( "SyntaxColoring.Enable" ) ]
else
Set Variable [ $r; MBS( "SyntaxColoring.Disable" ) ]
end if
```

### See also

- [162.18 SyntaxColoring.Enable](#) 7709
- [162.19 SyntaxColoring.Enabled](#) 7710

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

#### 162.17.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr1](#)

Created 18th August 2014, last changed 15th June 2016.



## 162.18 SyntaxColoring.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.Enable" )

**Result** Returns OK on success.

### Description

Our color syntax code is very careful. It registers a callback to change the color just before FileMaker draws a text in the table in script editor. If future FileMaker versions, change something there, it's most likely the plugin will simply stop coloring and FileMaker works as before.

Settings are saved in preferences files and you can use different settings in different FileMaker versions.

Works with FileMaker 11 or newer.

Syntax color can only be enabled in FileMaker Pro, not in server or runtime versions.

See also [SyntaxColoring.Disable](#).

This setting can be set via the preferences dialog, too.

### Examples

Enable or disable syntax coloring:

If (Enable)

Set Variable [ \$r; MBS( "SyntaxColoring.Enable" ) ]

else

Set Variable [ \$r; MBS( "SyntaxColoring.Disable" ) ]

end if

### See also

- [162.2 SyntaxColoring.AddTag](#) 7686
- [162.17 SyntaxColoring.Disable](#) 7708
- [162.19 SyntaxColoring.Enabled](#) 7710
- [162.21 SyntaxColoring.Format](#) 7712
- [162.38 SyntaxColoring.GetTag](#) 7729

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

Created 18th August 2014, last changed 11st November 2019.

## 162.19 SyntaxColoring.Enabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.Enabled" )

**Result** Returns 1 if syntax coloring is enabled and 0 if not.

### Description

See also SyntaxColoring.Enable and SyntaxColoring.Disable.

### Examples

Check if enabled:

```
Set Variable [ $emab; MBS( "SyntaxColoring.Enabled" ) ]
```

### See also

- [162.17 SyntaxColoring.Disable](#) 7708
- [162.18 SyntaxColoring.Enable](#) 7709

### 162.19.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr7](#)

Created 18th August 2014, last changed 17th November 2014.

## 162.20 SyntaxColoring.FactoryDefaults

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.FactoryDefaults" )

**Result** Returns OK on success.

### Description

This only applies the color rules. You may still need to enable other features like copy button.

### Examples

Resets syntax coloring to defaults:

MBS( "SyntaxColoring.FactoryDefaults" )

### 162.20.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)
- [MBS Filemaker Plugin, version 3.0pr6](#)
- [MBS Filemaker Plugin, version 3.0pr5](#)

Created 18th August 2014, last changed 23th June 2016.

## 162.21 SyntaxColoring.Format

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.Format"; Text; Copy )

### Parameters

#### Text

The formula text to format.

"5+6+cos(\$test)"

#### Copy

Pass 1 to copy result to clipboard. This preserves links and all formatting.

**Result** Returns formatted text.

### Description

### Examples

Format a line:

```
$r = MBS( "SyntaxColoring.Format"; "5+6+cos($test)" )
```

### See also

- [162.2 SyntaxColoring.AddTag](#) 7686
- [162.11 SyntaxColoring.Clear](#) 7701
- [162.18 SyntaxColoring.Enable](#) 7709
- [162.38 SyntaxColoring.GetTag](#) 7729
- [162.39 SyntaxColoring.GetTags](#) 7730

### Example Databases

- [Utility functions/Evaluate](#)

### 162.21.1 Blog Entries

- [Formatting and error checking expressions in FileMaker](#)
- [MBS FileMaker Plugin, version 9.6pr1](#)
- [Define hot keys for functions in the FileMaker development](#)
- [MBS Filemaker Plugin, version 3.0pr10](#)

Created 18th August 2014, last changed 12nd December 2016.

## 162.22 SyntaxColoring.GetAddFindbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	8.0	Yes	No	No	No	No

MBS( "SyntaxColoring.GetAddFindbars" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 162.59 SyntaxColoring.SetAddFindbars

7753

### 162.22.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 21st December 2017.

## 162.23 SyntaxColoring.GetBlackFieldPicker

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.GetBlackFieldPicker" )

**Result** Returns 1, 0 or error.

### Description

#### See also

- [162.30 SyntaxColoring.GetResizeFieldPicker](#) 7721
- [162.60 SyntaxColoring.SetBlackFieldPicker](#) 7754
- [162.67 SyntaxColoring.SetResizeFieldPicker](#) 7761

### 162.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 20th September 2017.

## 162.24 SyntaxColoring.GetFontName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetFontName" )

**Result** Returns text or error.

### Description

#### See also

- [162.25 SyntaxColoring.GetFontSize](#) 7716
- [162.61 SyntaxColoring.SetFontName](#) 7755
- [162.62 SyntaxColoring.SetFontSize](#) 7756

### 162.24.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 25th January 2020, last changed 25th January 2020.

## 162.25 SyntaxColoring.GetFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetFontSize" )

**Result** Returns number or error.

### Description

Size is zero for default. Range should be 11 to 18.

### See also

- [162.24 SyntaxColoring.GetFontName](#) 7715
- [162.27 SyntaxColoring.GetMinCalcFontSize](#) 7718
- [162.61 SyntaxColoring.SetFontName](#) 7755
- [162.62 SyntaxColoring.SetFontSize](#) 7756

### 162.25.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS Filemaker Plugin, version 3.5pr9](#)

Created 28th January 2020, last changed 30th January 2020.



## 162.26 SyntaxColoring.GetFormulasWithLinks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.0	Yes	No	No	No	No

MBS( "SyntaxColoring.GetFormulasWithLinks" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 162.63 SyntaxColoring.SetFormulasWithLinks

7757

### 162.26.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 23th November 2019, last changed 23th November 2019.

## 162.27 SyntaxColoring.GetMinCalcFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.2	Yes	No	No	No	No

MBS( "SyntaxColoring.GetMinCalcFontSize" )

**Result** Returns number or error.

### Description

### See also

- 162.25 SyntaxColoring.GetFontSize 7716
- 162.64 SyntaxColoring.SetMinCalcFontSize 7758

### 162.27.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)

Created 19th April 2017, last changed 19th April 2017.

## 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.3	Yes	No	Yes, macOS only	No	No

MBS( "SyntaxColoring.GetRelationGraphSearchBoxPreferredSize" )

**Result** Returns number or error.

### Description

Default is 0 which leaves it to the plugin to pick a size.

### See also

- 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize 7759

### 162.28.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 3th June 2016, last changed 3th June 2016.

## 162.29 SyntaxColoring.GetRememberColumnWidths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	8.5	Yes	No	No	No	No

MBS( "SyntaxColoring.GetRememberColumnWidths" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 162.66 SyntaxColoring.SetRememberColumnWidths

7760

### 162.29.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 27th October 2018, last changed 27th October 2018.

## 162.30 SyntaxColoring.GetResizeFieldPicker

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.GetResizeFieldPicker" )

**Result** Returns 1, 0 or error.

### Description

#### See also

- [162.23 SyntaxColoring.GetBlackFieldPicker](#) 7714
- [162.60 SyntaxColoring.SetBlackFieldPicker](#) 7754
- [162.67 SyntaxColoring.SetResizeFieldPicker](#) 7761

### 162.30.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 20th September 2017.

## 162.31 SyntaxColoring.GetScriptHighlightColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.GetScriptHighlightColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123\$234\$56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

### Examples

Query color:

MBS("SyntaxColoring.GetScriptHighlightColor")

### See also

- [162.32 SyntaxColoring.GetScriptIfColor](#) 7723
- [162.33 SyntaxColoring.GetScriptLoopColor](#) 7724
- [162.34 SyntaxColoring.GetScriptSearchColor](#) 7725
- [162.68 SyntaxColoring.SetScriptHighlightColor](#) 7762
- [162.71 SyntaxColoring.SetScriptSearchColor](#) 7766

### 162.31.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 9th October 2015, last changed 13th June 2018.

## 162.32 SyntaxColoring.GetScriptIfColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetScriptIfColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123\$234\$56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

#### See also

- [162.31 SyntaxColoring.GetScriptHighlightColor](#) 7722
- [162.33 SyntaxColoring.GetScriptLoopColor](#) 7724
- [162.34 SyntaxColoring.GetScriptSearchColor](#) 7725
- [162.69 SyntaxColoring.SetScriptIfColor](#) 7764
- [162.70 SyntaxColoring.SetScriptLoopColor](#) 7765
- [162.71 SyntaxColoring.SetScriptSearchColor](#) 7766

### 162.32.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 13th June 2018.

## 162.33 SyntaxColoring.GetScriptLoopColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetScriptLoopColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123\$234\$56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

#### See also

- 162.31 SyntaxColoring.GetScriptHighlightColor 7722
- 162.32 SyntaxColoring.GetScriptIfColor 7723
- 162.34 SyntaxColoring.GetScriptSearchColor 7725
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.70 SyntaxColoring.SetScriptLoopColor 7765
- 162.71 SyntaxColoring.SetScriptSearchColor 7766

### 162.33.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 13th June 2018.



## 162.34 SyntaxColoring.GetScriptSearchColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetScriptSearchColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123\$234\$56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

#### See also

- [162.31 SyntaxColoring.GetScriptHighlightColor](#) 7722
- [162.32 SyntaxColoring.GetScriptIfColor](#) 7723
- [162.33 SyntaxColoring.GetScriptLoopColor](#) 7724
- [162.68 SyntaxColoring.SetScriptHighlightColor](#) 7762
- [162.69 SyntaxColoring.SetScriptIfColor](#) 7764
- [162.70 SyntaxColoring.SetScriptLoopColor](#) 7765
- [162.71 SyntaxColoring.SetScriptSearchColor](#) 7766

### 162.34.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 13th June 2018.

## 162.35 SyntaxColoring.GetShowFieldAndTableIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.GetShowFieldAndTableIDs" )

**Result** Returns 1, 0 or error.

**Description**

**See also**

- 162.72 SyntaxColoring.SetShowFieldAndTableIDs

7767

### 162.35.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 20th September 2017.

## 162.36 SyntaxColoring.GetShowLayoutIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.5	Yes	No	No	No	No

MBS( "SyntaxColoring.GetShowLayoutIDs" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if enabled or 0 if not.

### See also

- [162.37 SyntaxColoring.GetShowScriptIDs](#) 7728
- [162.73 SyntaxColoring.SetShowLayoutIDs](#) 7768
- [162.74 SyntaxColoring.SetShowScriptIDs](#) 7769

### 162.36.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 20th October 2017.

## 162.37 SyntaxColoring.GetShowScriptIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.GetShowScriptIDs" )

**Result** Returns 1, 0 or error.

### Description

#### See also

- [162.36 SyntaxColoring.GetShowLayoutIDs](#) 7727
- [162.73 SyntaxColoring.SetShowLayoutIDs](#) 7768
- [162.74 SyntaxColoring.SetShowScriptIDs](#) 7769

### 162.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 20th September 2017.

## 162.38 SyntaxColoring.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.GetTag"; Text )

### Parameters

#### Text

The name of the item. Up to five words from the left name of the command.  
"If"

**Result** Returns the color in hex style (e.g. # FF0000 for red)

### Description

### Examples

Queries the color for plus sign:

MBS( "SyntaxColoring.GetTag"; "+" )

### See also

- [162.2 SyntaxColoring.AddTag](#) 7686
- [162.11 SyntaxColoring.Clear](#) 7701
- [162.18 SyntaxColoring.Enable](#) 7709
- [162.21 SyntaxColoring.Format](#) 7712
- [162.39 SyntaxColoring.GetTags](#) 7730
- [162.50 SyntaxColoring.RemoveTag](#) 7742

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

### 162.38.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 162.39 SyntaxColoring.GetTags

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.GetTags" )

**Result** Returns newline separated line of tag names.

### Description

### Examples

Shows all rules in a dialog:

```
Show Dialog [ "SyntaxColoring"; MBS( "SyntaxColoring.GetTags" ) ]
```

### See also

- [162.2 SyntaxColoring.AddTag](#) 7686
- [162.21 SyntaxColoring.Format](#) 7712
- [162.38 SyntaxColoring.GetTag](#) 7729
- [162.50 SyntaxColoring.RemoveTag](#) 7742

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

### 162.39.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 162.40 SyntaxColoring.GetUseBoldFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.GetUseBoldFont" )

**Result** Returns 1, 0 or error.

### Description

The MBS Plugin uses bold font for brackets in syntax coloring, so you see it better.

You can disable that as some people have problems with brackets being invisible due to font problems.

### See also

- 162.75 SyntaxColoring.SetUseBoldFont

7770

Created 29th January 2016, last changed 29th January 2016.

## 162.41 SyntaxColoring.LineNumbers.Disable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.LineNumbers.Disable" )

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.

Works with FileMaker 11 or newer.

Line numbers can only be enabled in FileMaker Pro, not in server or runtime versions.

This setting can be set via the preferences dialog, too.

### Examples

Enable or disable Line Numbers:

If (Enable)

Set Variable [ \$r; MBS( "SyntaxColoring.LineNumbers.Enable" ) ]

else

Set Variable [ \$r; MBS( "SyntaxColoring.LineNumbers.Disable" ) ]

end if

### See also

- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.43 SyntaxColoring.LineNumbers.Enabled 7735
- 162.44 SyntaxColoring.LineNumbers.GetColor 7736
- 162.45 SyntaxColoring.LineNumbers.SetColor 7737

Created 18th August 2014, last changed 11st November 2019.



## 162.42 SyntaxColoring.LineNumbers.Enable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.LineNumbers.Enable" )

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.

Works with FileMaker 11 or newer.

Line numbers can only be enabled in FileMaker Pro, not in server or runtime versions.

This setting can be set via the preferences dialog, too.

### Examples

Enable or disable line numbers:

If (Enable)

Set Variable [ \$r; MBS( "SyntaxColoring.LineNumbers.Enable" ) ]

else

Set Variable [ \$r; MBS( "SyntaxColoring.LineNumbers.Disable" ) ]

end if

Enable all the plugin enhancements for FileMaker:

MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)

MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)

MBS("SyntaxColoring.ScriptGoTOBox.SetEnabled"; 1)

MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)

MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )

MBS( "SyntaxColoring.LineNumbers.Enable" )

MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.41 SyntaxColoring.LineNumbers.Disable 7732
- 162.43 SyntaxColoring.LineNumbers.Enabled 7735
- 162.44 SyntaxColoring.LineNumbers.GetColor 7736
- 162.45 SyntaxColoring.LineNumbers.SetColor 7737

- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762

Created 18th August 2014, last changed 11st November 2019.

**162.43 SyntaxColoring.LineNumbers.Enabled**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.LineNumbers.Enabled" )

**Result** Returns 1 if line numbers are enabled and 0 if not.

**Description****Examples**

Check if enabled:

Set Variable [ \$emab; MBS( "SyntaxColoring.LineNumbers.Enabled" ) ]

**See also**

- 162.41 SyntaxColoring.LineNumbers.Disable 7732
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.44 SyntaxColoring.LineNumbers.GetColor 7736
- 162.45 SyntaxColoring.LineNumbers.SetColor 7737

Created 18th August 2014, last changed 18th August 2014.

## 162.44 SyntaxColoring.LineNumbers.GetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.LineNumbers.GetColor" { ; ReturnAsNumbers } )

### Parameters

#### ReturnAsNumbers

Optional

Available in MBS FileMaker Plugin 8.3 or newer.

Pass 1 to return color as list of red, green and blue, e.g. "123§234§56" Pass 0 (default) for return as hex value, e.g. "7788FF".

0

**Result** Returns color or error.

### Description

Color is returned in hex notation like with HTML. e.g. "# 123456"

#### See also

- 162.41 SyntaxColoring.LineNumbers.Disable 7732
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.43 SyntaxColoring.LineNumbers.Enabled 7735
- 162.45 SyntaxColoring.LineNumbers.SetColor 7737

### 162.44.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)
- [MBS Filemaker Plugin, version 3.5pr3](#)

Created 18th August 2014, last changed 13th June 2018.

## 162.45 SyntaxColoring.LineNumbers.SetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.5	Yes	No	No	No	No

MBS( "SyntaxColoring.LineNumbers.SetColor"; Color )

### Parameters

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html. "red"

**Result** Returns OK or error.

### Description

May not take effect until you close and reopen some windows with line numbers.

### Examples

use gray color:

MBS( "SyntaxColoring.LineNumbers.SetColor"; "gray" )

### See also

- 162.41 SyntaxColoring.LineNumbers.Disable 7732
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.43 SyntaxColoring.LineNumbers.Enabled 7735
- 162.44 SyntaxColoring.LineNumbers.GetColor 7736

### 162.45.1 Blog Entries

- [MBS Filemaker Plugin, version 3.5pr3](#)

Created 18th August 2014, last changed 18th August 2014.

## 162.46 SyntaxColoring.ListContextMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.0	Yes	No	No	No	No

MBS( "SyntaxColoring.ListContextMenuCommand" )

**Result** Returns list or error.

### Description

If command titles contain a newline, we replace it with §in the result.

### See also

- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [162.12 SyntaxColoring.ClearContextMenuCommands](#) 7702
- [162.49 SyntaxColoring.RemoveContextMenuCommand](#) 7741

### 162.46.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 5th December 2019, last changed 5th December 2019.

## 162.47 SyntaxColoring.RelationshipGraphSearchBox.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.RelationshipGraphSearchBox.GetEnabled" )

**Result** Returns value or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- 162.48 SyntaxColoring.RelationshipGraphSearchBox.SetEnabled

7740

Created 10th October 2015, last changed 11st October 2015.

## 162.48 SyntaxColoring.RelationshipGraphSearchBox.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.RelationshipGraphSearchBox.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to show button or 0 to disable.

1

**Result** Returns OK or error.

### Description

MBS Plugin offers to add a search box on Mac OS X to the relation graph and this function sets the preferences on whether it's added or not.

This setting can be set via the preferences dialog, too.

### Examples

Disables search box:

```
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 0)
```

Enables search box:

```
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
```

### See also

- 162.47 SyntaxColoring.RelationshipGraphSearchBox.GetEnabled

7739

Created 10th October 2015, last changed 11st November 2019.



## 162.49 SyntaxColoring.RemoveContextMenuCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	9.5	Yes	No	No	No	No

MBS( "SyntaxColoring.RemoveContextMenuCommand"; Title )

### Parameters

#### Title

The title for the menu command.

"MyCommands\$Hello"

**Result** Returns OK or error.

### Description

#### See also

- [162.1 SyntaxColoring.AddContextMenuCommand](#) 7679
- [162.12 SyntaxColoring.ClearContextMenuCommands](#) 7702
- [162.46 SyntaxColoring.ListContextMenuCommand](#) 7738

### Example Databases

- [Mac only/Script Workspace Context Menu Commands](#)

### 162.49.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 19th October 2019, last changed 19th October 2019.

## 162.50 SyntaxColoring.RemoveTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	3.0	Yes	No	No	No	No

MBS( "SyntaxColoring.RemoveTag"; Text )

### Parameters

#### Text

The name of the item. Up to five words from the left name of the command.  
"If"

**Result** Returns OK on success.

### Description

Settings are saved in preferences files and you can use different settings in different FileMaker versions.  
Works with FileMaker 11 or newer.

### Examples

Disable coloring for set variable script step in German:

MBS( "SyntaxColoring.RemoveTag"; "Variable setzen" )

### See also

- 162.2 SyntaxColoring.AddTag 7686
- 162.38 SyntaxColoring.GetTag 7729
- 162.39 SyntaxColoring.GetTags 7730

### Example Databases

- [Mac only/SyntaxColoring for Mac](#)

Created 18th August 2014, last changed 12nd September 2019.

## 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptGoToBox.GetEnabled" )

**Result** Returns value or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled 7748
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750

Created 10th October 2015, last changed 10th October 2015.

## 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptGoToBox.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to show button or 0 to disable.

1

**Result** Returns OK or error.

### Description

MBS Plugin offers to add a go to box on Mac OS X to the script editor and this function sets the preferences on whether it's added or not.

Does not work if Syntax Highlighting is off.

This setting can be set via the preferences dialog, too.

### Examples

Disables go to box:

```
MBS("SyntaxColoring.ScriptGoToBox.SetEnabled"; 0)
```

Enables the go to box:

```
MBS("SyntaxColoring.ScriptGoToBox.SetEnabled"; 1)
```

Enable all the plugin enhancements for FileMaker:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptGoTOBox.SetEnabled"; 1)
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )
MBS( "SyntaxColoring.LineNumbers.Enable" )
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.42 SyntaxColoring.LineNumbers.Enable 7733

<i>162.52. SYNTAXCOLORING.SCRIPTGOTOBOX.SETENABLED</i>	7745
• 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled	7743
• 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled	7748
• 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled	7750
• 162.68 SyntaxColoring.SetScriptHighlightColor	7762

### **162.52.1 FileMaker Magazin**

- Ausgabe 5/2015, Seite 31

Created 10th October 2015, last changed 11st November 2019.

## 162.53 SyntaxColoring.ScriptIfLoopHighlight.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptIfLoopHighlight.GetEnabled" )

**Result** Returns 0, 1 or error.

**Description**

**See also**

- 162.54 SyntaxColoring.ScriptIfLoopHighlight.SetEnabled

7747

### 162.53.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 22nd November 2016, last changed 22nd November 2016.

## 162.54 SyntaxColoring.ScriptIfLoopHighlight.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptIfLoopHighlight.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Default is enabled.

This setting can be set via the preferences dialog, too.

### Examples

Turn if/loop highlighting on:

```
MBS( "SyntaxColoring.ScriptIfLoopHighlight.SetEnabled"; 1 )
```

Turn if/loop highlighting off:

```
MBS( "SyntaxColoring.ScriptIfLoopHighlight.SetEnabled"; 0 )
```

### See also

- 162.53 SyntaxColoring.ScriptIfLoopHighlight.GetEnabled

7746

### 162.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 22nd November 2016, last changed 11st November 2019.

## 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptSearchBox.GetEnabled" )

**Result** Returns value or error.

### Description

Returns 1 if enabled or 0 if disabled.

### See also

- 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled 7743
- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.56 SyntaxColoring.ScriptSearchBox.GetText 7749
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.58 SyntaxColoring.ScriptSearchBox.SetText 7752

Created 10th October 2015, last changed 10th October 2015.



## 162.56 SyntaxColoring.ScriptSearchBox.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptSearchBox.GetText" )

**Result** Returns text or error.

### Description

### Examples

Query value:

Show Custom Dialog [ "search" ; MBS( "SyntaxColoring.ScriptSearchBox.GetText" ) ]

### See also

- 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled 7748
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.58 SyntaxColoring.ScriptSearchBox.SetText 7752

### 162.56.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptSearchBox.SetEnabled"; Value )

### Parameters

#### Value

The new setting. Pass 1 to show button or 0 to disable.

1

**Result** Returns OK or error.

### Description

MBS Plugin offers to add a search box on Mac OS X to the script editor and this function sets the preferences on whether it's added or not.

This setting can be set via the preferences dialog, too.

### Examples

Disables search box:

```
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 0)
```

Enables search box:

```
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
```

Enable all the plugin enhancements for FileMaker:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptGoToBox.SetEnabled"; 1)
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )
MBS( "SyntaxColoring.LineNumbers.Enable" )
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

### See also

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.51 SyntaxColoring.ScriptGoToBox.GetEnabled 7743

<i>162.57. SYNTAXCOLORING.SCRIPTSEARCHBOX.SETENABLED</i>	7751
• 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled	7744
• 162.55 SyntaxColoring.ScriptSearchBox.GetEnabled	7748
• 162.56 SyntaxColoring.ScriptSearchBox.GetText	7749
• 162.58 SyntaxColoring.ScriptSearchBox.SetText	7752
• 162.68 SyntaxColoring.SetScriptHighlightColor	7762

Created 10th October 2015, last changed 11st November 2019.

## 162.58 SyntaxColoring.ScriptSearchBox.SetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ScriptSearchBox.SetText"; Text )

### Parameters

#### Text

The new search text.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Set text and run search:

```
Set Variable [ $r ; Value: MBS( "SyntaxColoring.ScriptSearchBox.SetText"; "hello" ) ]
```

### See also

- [162.55 SyntaxColoring.ScriptSearchBox.GetEnabled](#) 7748
- [162.56 SyntaxColoring.ScriptSearchBox.GetText](#) 7749
- [162.57 SyntaxColoring.ScriptSearchBox.SetEnabled](#) 7750

### 162.58.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 12nd November 2017, last changed 12nd November 2017.

## 162.59 SyntaxColoring.SetAddFindbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	8.0	Yes	No	No	No	No

MBS( "SyntaxColoring.SetAddFindbars"; Value )

### Parameters

#### Value

The new setting. Can be 1 or 0.

1

**Result** Returns OK or error.

### Description

The plugin watches Command-F and if you are focussed on a scrollable text view, we can show the find bar from macOS. That's a standard feature of macOS and we just enable it.

It can be that FileMaker does not draw everything perfectly as we add a control to the view hierarchy. Also the find bar is probably not designed to be running in a modal dialog. Still it is helpful.

This option also enables to copy the content of the field with formatting using Command-Option-C.

This setting can be set via the preferences dialog, too.

### See also

- 162.22 SyntaxColoring.GetAddFindbars

7713

### 162.59.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr5](#)

Created 21st December 2017, last changed 11st November 2019.

## 162.60 SyntaxColoring.SetBlackFieldPicker

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.SetBlackFieldPicker"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Our plugin can on macOS optionally make the field picker black to better read text.

Also applied for settings panel for buttons, popover and button bar.

This setting can be set via the preferences dialog, too.

### See also

- [162.23 SyntaxColoring.GetBlackFieldPicker](#) 7714
- [162.30 SyntaxColoring.GetResizeFieldPicker](#) 7721
- [162.67 SyntaxColoring.SetResizeFieldPicker](#) 7761

### 162.60.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 11st November 2019.

## 162.61 SyntaxColoring.SetFontName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetFontName"; FontName )

### Parameters

#### FontName

The new font name to use. Pass empty text to disable feature.  
"JetBrains Mono"

**Result** Returns OK or error.

### Description

Our plugin replaces the font used in script workspace and calculation dialog with the given font. After setting font you may need to restart FileMaker before script workspace applies the new font.

Works for FileMaker 16 and newer.

You may need to restart FileMaker to see the change!

### See also

- [162.24 SyntaxColoring.GetFontName](#) 7715
- [162.25 SyntaxColoring.GetFontSize](#) 7716
- [162.62 SyntaxColoring.SetFontSize](#) 7756

### 162.61.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 25th January 2020, last changed 28th January 2020.

## 162.62 SyntaxColoring.SetFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetFontSize"; FontSize )

### Parameters

#### FontSize

The new font size.

12

**Result** Returns OK or error.

### Description

Size is zero for default. Range should be 11 to 18.

Works for FileMaker 16 and newer.

You may need to restart FileMaker to see the change!

### See also

- [162.24 SyntaxColoring.GetFontName](#) 7715
- [162.25 SyntaxColoring.GetFontSize](#) 7716
- [162.61 SyntaxColoring.SetFontName](#) 7755
- [162.64 SyntaxColoring.SetMinCalcFontSize](#) 7758

### 162.62.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)
- [MBS Filemaker Plugin, version 3.5pr9](#)

Created 28th January 2020, last changed 30th January 2020.



## 162.63 SyntaxColoring.SetFormulasWithLinks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	10.0	Yes	No	No	No	No

MBS( "SyntaxColoring.SetFormulasWithLinks"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

#### See also

- [162.26 SyntaxColoring.GetFormulasWithLinks](#)

7717

### 162.63.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)

Created 23th November 2019, last changed 28th November 2019.

## 162.64 SyntaxColoring.SetMinCalcFontSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.2	Yes	No	No	No	No

MBS( "SyntaxColoring.SetMinCalcFontSize"; FontSize )

### Parameters

#### FontSize

The new minimum font size. Range 0 (off) to 30.  
16

**Result** Returns OK or error.

### Description

The plugin will apply this font size setting when formatting the text in the formula fields. You may need to actually click in the field and press a key to activate it. This setting can be set via the preferences dialog, too.

### Examples

Use 14 point big font:

```
MBS( "SyntaxColoring.SetMinCalcFontSize"; 14 )
```

Turn off by using 0:

```
MBS( "SyntaxColoring.SetMinCalcFontSize"; 0 )
```

### See also

- 162.27 SyntaxColoring.GetMinCalcFontSize 7718
- 162.62 SyntaxColoring.SetFontSize 7756

### 162.64.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr3](#)

Created 19th April 2017, last changed 11st November 2019.

## 162.65 SyntaxColoring.SetRelationGraphSearchBoxPreferredSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.3	Yes	No	Yes, macOS only	No	No

MBS( "SyntaxColoring.SetRelationGraphSearchBoxPreferredSize"; Size )

### Parameters

#### Size

The preferred size of the search box.

200

**Result** Returns OK or error.

### Description

This setting can be set via the preferences dialog, too.

### Examples

Request 500 pixel width:

MBS( "SyntaxColoring.SetRelationGraphPreferredSize"; 500 )

### See also

- 162.28 SyntaxColoring.GetRelationGraphSearchBoxPreferredSize

7719

### 162.65.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr2](#)

Created 3th June 2016, last changed 11st November 2019.

## 162.66 SyntaxColoring.SetRememberColumnWidths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	8.5	Yes	No	No	No	No

MBS( "SyntaxColoring.SetRememberColumnWidths"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable. Default is 1 to enable.

1

**Result** Returns OK or error.

### Description

This setting can be set via the preferences dialog, too.

### Examples

Disable column width saving:

```
MBS( "SyntaxColoring.SetRememberColumnWidths"; 0 )
```

Enable column width saving:

```
MBS( "SyntaxColoring.SetRememberColumnWidths"; 1 )
```

### See also

- 162.29 SyntaxColoring.GetRememberColumnWidths

7720

### 162.66.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr4](#)

Created 27th October 2018, last changed 11st November 2019.

## 162.67 SyntaxColoring.SetResizeFieldPicker

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.SetResizeFieldPicker"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Our plugin can on macOS optionally make the field picker resizable. You can than make it bigger and better read long field names.

Also applied for settings panel for buttons, popover and button bar on FileMaker 16.

This setting can be set via the preferences dialog, too.

### See also

- 162.23 SyntaxColoring.GetBlackFieldPicker 7714
- 162.30 SyntaxColoring.GetResizeFieldPicker 7721
- 162.60 SyntaxColoring.SetBlackFieldPicker 7754

### 162.67.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 11st November 2019.

## 162.68 SyntaxColoring.SetScriptHighlightColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	5.4	Yes	No	No	No	No

MBS( "SyntaxColoring.SetScriptHighlightColor"; Color )

### Parameters

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html.  
"red"

**Result** Returns OK or error.

### Description

If a color is set, the MBS Plugin overlays the selections in FileMaker script editor with this color.

Set to nothing to clear color.

Only for FileMaker 14 and newer.

Does not work if Syntax Highlighting is off.

### Examples

Set to red with hex color:

```
MBS("SyntaxColoring.SetScriptHighlightColor"; "# FF0000")
```

Set to dark blue:

```
MBS("SyntaxColoring.SetScriptHighlightColor"; "blue")
```

Set to red:

```
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# FF8888" )
```

Set to blue:

```
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

Enable all the plugin enhancements for FileMaker:

```
MBS("SyntaxColoring.CopyButton.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptSearchBox.SetEnabled"; 1)
MBS("SyntaxColoring.ScriptGoTOBox.SetEnabled"; 1)
MBS("SyntaxColoring.RelationGraphSearchBox.SetEnabled"; 1)
MBS( "SyntaxColoring.CheckVariableDeclaration.Enable" )
MBS( "SyntaxColoring.LineNumbers.Enable" )
MBS( "SyntaxColoring.SetScriptHighlightColor"; "# CCCCFF" )
```

162.68. SYNTAXCOLORING.SETSCRIPTHIGHLIGHTCOLOR 7763

**See also**

- 162.4 SyntaxColoring.CheckVariableDeclaration.Enable 7692
- 162.5 SyntaxColoring.CheckVariableDeclaration.Enabled 7694
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.31 SyntaxColoring.GetScriptHighlightColor 7722
- 162.34 SyntaxColoring.GetScriptSearchColor 7725
- 162.42 SyntaxColoring.LineNumbers.Enable 7733
- 162.52 SyntaxColoring.ScriptGoToBox.SetEnabled 7744
- 162.57 SyntaxColoring.ScriptSearchBox.SetEnabled 7750
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.71 SyntaxColoring.SetScriptSearchColor 7766

### 162.68.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr1](#)

### 162.68.2 FileMaker Magazin

- Ausgabe 5/2015, Seite 30

Created 9th October 2015, last changed 11st November 2019.

## 162.69 SyntaxColoring.SetScriptIfColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetScriptIfColor"; Color )

### Parameters

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html. "red"

**Result** Returns OK or error.

### Description

Uses to highlight the script lines (if, endif and else) for the current if block if one of those steps is selected. Set to nothing to use default color.

Does not work if Syntax Highlighting is off.

### Examples

Set to red:

MBS( "SyntaxColoring.SetScriptIfColor"; "# FF8888" )

### See also

- 162.32 SyntaxColoring.GetScriptIfColor 7723
- 162.33 SyntaxColoring.GetScriptLoopColor 7724
- 162.34 SyntaxColoring.GetScriptSearchColor 7725
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762
- 162.70 SyntaxColoring.SetScriptLoopColor 7765
- 162.71 SyntaxColoring.SetScriptSearchColor 7766

### 162.69.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 1st February 2016.



## 162.70 SyntaxColoring.SetScriptLoopColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetScriptLoopColor"; Color )

### Parameters

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html.  
"red"

**Result** Returns OK or error.

### Description

Uses to highlight the script lines (loop, end loop and exif loop if) for the current loop if one of those steps is selected.

Set to nothing to use default color.

Does not work if Syntax Highlighting is off.

### Examples

Set to red:

MBS( "SyntaxColoring.SetScriptLoopColor"; "# FF8888" )

### See also

- 162.32 SyntaxColoring.GetScriptIfColor 7723
- 162.33 SyntaxColoring.GetScriptLoopColor 7724
- 162.34 SyntaxColoring.GetScriptSearchColor 7725
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.71 SyntaxColoring.SetScriptSearchColor 7766

### 162.70.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 1st February 2016.

## 162.71 SyntaxColoring.SetScriptSearchColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetScriptSearchColor"; Color )

### Parameters

#### Color

The color value. Can be one of a few english color names or "# 123456" notation like in html. "red"

**Result** Returns OK or error.

### Description

Uses to highlight the script lines matching the current search terms.

Set to nothing to use default color.

Does not work if Syntax Highlighting is off.

### Examples

Set to red:

MBS( "SyntaxColoring.SetScriptSearchColor"; "# FF8888" )

### See also

- 162.31 SyntaxColoring.GetScriptHighlightColor 7722
- 162.32 SyntaxColoring.GetScriptIfColor 7723
- 162.33 SyntaxColoring.GetScriptLoopColor 7724
- 162.34 SyntaxColoring.GetScriptSearchColor 7725
- 162.68 SyntaxColoring.SetScriptHighlightColor 7762
- 162.69 SyntaxColoring.SetScriptIfColor 7764
- 162.70 SyntaxColoring.SetScriptLoopColor 7765

### 162.71.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 1st February 2016, last changed 1st February 2016.

## 162.72 SyntaxColoring.SetShowFieldAndTableIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.SetShowFieldAndTableIDs"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Our plugin can optionally show checkboxes for field and table IDs in database design dialog.

You can check them to show a column with IDs. As querying IDs can take a while, we make those checkboxes and have them off by default.

If IDs can not be found, we show a question mark.

If between two IDs one is missing, we add a star.

Please report sample databases which do not show them so we can fix issues.

This setting can be set via the preferences dialog, too.

### See also

- [162.35 SyntaxColoring.GetShowFieldAndTableIDs](#)

7726

### 162.72.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 11st November 2019.

## 162.73 SyntaxColoring.SetShowLayoutIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.5	Yes	No	No	No	No

MBS( "SyntaxColoring.SetShowLayoutIDs"; Value )

### Parameters

#### Value

The new setting.

1

**Result** Returns OK or error.

### Description

Pass 1 to enable or 0 to disable.

This setting can be set via the preferences dialog, too.

### See also

- [162.36 SyntaxColoring.GetShowLayoutIDs](#) 7727
- [162.37 SyntaxColoring.GetShowScriptIDs](#) 7728
- [162.74 SyntaxColoring.SetShowScriptIDs](#) 7769

### 162.73.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)

Created 19th October 2017, last changed 28th November 2019.

## 162.74 SyntaxColoring.SetShowScriptIDs

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.4	Yes	No	No	No	No

MBS( "SyntaxColoring.SetShowScriptIDs"; Value )

### Parameters

#### Value

The new setting. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Our plugin can optionally show script IDs in the script workspace.

The plugin adds an extra column with ID. If the ID can't be queried for any reason, you should see a question mark.

This setting can be set via the preferences dialog, too.

### See also

- [162.36 SyntaxColoring.GetShowLayoutIDs](#) 7727
- [162.37 SyntaxColoring.GetShowScriptIDs](#) 7728
- [162.73 SyntaxColoring.SetShowLayoutIDs](#) 7768

### 162.74.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 20th September 2017, last changed 11st November 2019.

## 162.75 SyntaxColoring.SetUseBoldFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	6.1	Yes	No	No	No	No

MBS( "SyntaxColoring.SetUseBoldFont"; Value )

### Parameters

#### Value

The new setting. Pass 1 to use bold or 0 to keep normal font.

1

**Result** Returns OK or error.

### Description

The MBS Plugin uses bold font for brackets in syntax coloring, so you see it better.

You can disable that as some people have problems with brackets being invisible due to font problems.

This may happen more often on asian character sets like Japanese where OS X uses different fonts.

### Examples

Disable bold font:

```
MBS( "SyntaxColoring.SetUseBoldFont"; 0 )
```

Enable bold font:

```
MBS( "SyntaxColoring.SetUseBoldFont"; 1 )
```

### See also

- 162.40 SyntaxColoring.GetUseBoldFont

7731

### 162.75.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr1](#)

Created 29th January 2016, last changed 30th January 2016.

## 162.76 SyntaxColoring.ShowTextPositions.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	9.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ShowTextPositions.GetEnabled" )

**Result** Returns 1, 0 or error.

### Description

The MBS Plugin can show text position and selection length for calculation dialog or custom functions dialog.

Can be enabled/disabled in preferences dialog, too.

### See also

- 162.77 SyntaxColoring.ShowTextPositions.SetEnabled

7772

### 162.76.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)

Created 18th October 2019, last changed 18th October 2019.

## 162.77 SyntaxColoring.ShowTextPositions.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	9.5	Yes	No	No	No	No

MBS( "SyntaxColoring.ShowTextPositions.SetEnabled"; Value )

### Parameters

#### Value

The new value. Pass 1 to enable or 0 to disable.

**Result** Returns OK or error.

### Description

The MBS Plugin can show text position and selection length for calculation dialog or custom functions dialog.

Can be enabled/disabled in preferences dialog, too.

Text positions are only enabled by the plugin if the advanced tools in FileMaker preferences are enabled, so they don't show up for ordinary people just installing FileMaker Pro.

### See also

- [162.76 SyntaxColoring.ShowTextPositions.GetEnabled](#) 7771

### 162.77.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr4](#)
- [MBS Plugin shows text position and selection in FileMaker](#)

Created 18th October 2019, last changed 27th December 2019.



## 162.78 SyntaxColoring.ZoomButton.GetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.2	Yes	No	No	No	No

MBS( "SyntaxColoring.ZoomButton.GetEnabled" )

**Result** Returns 1, 0 or error.

### Description

#### See also

- 162.15 SyntaxColoring.CopyButton.GetEnabled 7705
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.79 SyntaxColoring.ZoomButton.SetEnabled 7774

Created 19th April 2017, last changed 19th April 2017.

## 162.79 SyntaxColoring.ZoomButton.SetEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
162 SyntaxColoring	7.2	Yes	No	No	No	No

MBS( "SyntaxColoring.ZoomButton.SetEnabled"; State )

### Parameters

#### State

The new enabled state. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

The MBS Plugin adds zoom controls to FileMaker's script workspace.

This setting can be set via the preferences dialog, too.

### See also

- 162.15 SyntaxColoring.CopyButton.GetEnabled 7705
- 162.16 SyntaxColoring.CopyButton.SetEnabled 7706
- 162.78 SyntaxColoring.ZoomButton.GetEnabled 7773

Created 19th April 2017, last changed 11st November 2019.

# Chapter 163

## System

Global functions affecting the computer system.

### 163.1 System.Logout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
163 System	3.1	Yes	Yes	Yes	No	No

MBS( "System.Logout" )

**Result** Returns OK or error number.

#### Description

It is possible that user or other application stops the logout process.

Operation will run asynchronously. The function returns immediately and logout process starts a second later.

#### Example Databases

- [Shutdown](#)

#### 163.1.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 21st May 2018.

## 163.2 System.Restart

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
163 System	3.1	Yes	Yes	Yes	No	No

MBS( "System.Restart" )

**Result** Returns OK or error number.

### Description

It is possible that user or other application stops the shutdown process.

Operation will run asynchronously. The function returns immediately and shutdown process starts a second later.

### Example Databases

- [Shutdown](#)

### 163.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 21st May 2018.

## 163.3 System.Shutdown

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
163 System	3.1	Yes	Yes	Yes	No	No

MBS( "System.Shutdown" )

**Result** Returns OK or error number.

### Description

It is possible that user or other application stops the shutdown process.

Operation will run asynchronously. The function returns immediately and shutdown process starts a second later.

### See also

- [127.31 Plugin.LimitFunction](#) 6405
- [127.40 Plugin.SetFunctions](#) 6417

### Example Databases

- [Shutdown](#)

### 163.3.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 21st May 2018.

## 163.4 System.Sleep

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
163 System	3.1	Yes	Yes	Yes	No	No

MBS( "System.Sleep" )

**Result** Returns OK or error number.

### Description

It is possible that user or other application stops the sleep process.

Operation will run asynchronously. The function returns immediately and sleep starts a second later.

### Example Databases

- [Shutdown](#)

### 163.4.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 21st May 2018.

# Chapter 164

## SystemInfo

Query system information details.

### 164.1 SystemInfo.ADSystemInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo 104 LDAP	9.3	No	Yes	No	No	No

MBS( "SystemInfo.ADSystemInfo" )

**Result** Returns JSON or error.

#### Description

This call may take a second if a query needs to be sent to server.

Returns JSON with details including UserName, ComputerName, SiteName, DomainShortName, DomainDNSName, ForestDNSName, PDCRoleOwner, SchemaRoleOwner, IsNativeMode, DCName and DCSiteName.

The result is an empty JSON object in case of no Active Directory in use.

#### Examples

Query Active Directory details on Windows:

MBS( "SystemInfo.ADSystemInfo" )

Example result: {

"UserName": "CN=John Doe,OU=2SH User,DC=2SXXX,DC=2S",

"ComputerName": "CN=2SMBP16W10,CN=Computers,DC=2SXXX,DC=2S",

"SiteName": "Default-First-Site-Name",

"DomainShortName": "2SXXX",

"DomainDNSName": "2SXXX.2S",

"ForestDNSName": "2SXXX.2S",

"PDCRoleOwner": "CN=NTDS Settings,CN=2SDCERP,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=2SXXX,DC=2S"

```
"SchemaRoleOwner": "CN=NTDS Settings,CN=2SDCERP,CN=Servers,CN=Default-First-Site-Name,CN=Sites,CN=Configuration,DC=example,DC=com",
"IsNativeMode": true,
"DCName": "2SDCSTORAGE.2SXXX.2S",
"DCSiteName": "Default-First-Site-Name"
}
```

**See also**

- [104.5 LDAP.Bind](#) 5449
- [164.31 SystemInfo.SystemFont](#) 7812

**164.1.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr2](#)

Created 4th June 2019, last changed 18th October 2019.



## 164.2 SystemInfo.AvailableRAM

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.AvailableRAM" )

**Result** Returns byte count.

### Description

See also SystemInfo.AvailableRAM and App.MemoryUsed.

### Examples

Show RAM available:

```
Set Variable [ $a; Round(MBS("SystemInfo.AvailableRAM") / 1024 / 1024 / 1024; 1) ]
Set Variable [ $b; Round(MBS("SystemInfo.PhysicalRAM") / 1024 / 1024 / 1024; 1) ]
Show Custom Dialog [ $a & " of " & $b & " GB free." ]
```

### See also

- 35.9 App.MemoryUsed 929
- 164.29 SystemInfo.PhysicalRAM 7810

### 164.2.1 FileMaker Magazin

- Ausgabe 6/2018, Seite 23

Created 18th August 2014, last changed 18th January 2018.

### 164.3 SystemInfo.CPUBrandString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.CPUBrandString" )

**Result** Returns brand or empty text.

#### Description

If it is an Intel x86 Chip or something compatible, you get strings like this: "Intel(R) Core(TM) i7 CPU M 620 @ 2.67GHz".

on FileMaker Cloud with a small EC2 instance, e.g. "Intel(R) Xeon(R) CPU E5-2676 v3 @ 2.40GHz"

#### Examples

Shows CPU Brand String:

Show Custom Dialog [ "Info"; MBS( "SystemInfo.CPUBrandString" ) ]

Created 18th August 2014, last changed 3th October 2016.

## 164.4 SystemInfo.ComputerName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.ComputerName" )

**Result** Returns name or error.

### Description

### Examples

Shows computer name:

Show Custom Dialog [ MBS("SystemInfo.ComputerName") ]

### See also

- [164.5 SystemInfo.DomainName](#)

7784

### 164.4.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr5](#)
- [Filemaker Notes](#)

Created 18th August 2014, last changed 18th August 2014.

## 164.5 SystemInfo.DomainName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.DomainName" )

**Result** Returns error or text.

### Description

Mac supported added in plugin version 4.5.

The name may not be set for a computer.

See also SystemInfo.HostDNSName and SystemInfo.HostName.

### Examples

Shows Domainname:

```
Show Custom Dialog [ "Info"; MBS( "SystemInfo.DomainName" ) ]
```

### See also

- 164.4 SystemInfo.ComputerName 7783
- 164.8 SystemInfo.HostDNSName 7787
- 164.9 SystemInfo.HostName 7788

Created 18th August 2014, last changed 24th February 2016.

## 164.6 SystemInfo.DoubleClickTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.DoubleClickTime" )

**Result** Returns number with double click time.

### Description

You can use that value to determine if two mouse clicks should be handled as a double click or as two single clicks.

### Examples

Queries double click time:

```
$r = MBS( "SystemInfo.DoubleClickTime" )
```

### 164.6.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 164.7 SystemInfo.HardDiscSerial

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.HardDiscSerial" )

**Result** Returns text with serial number or empty text.

### Description

Can be empty if no serial number exists, the plugin fails to query it, e.g. due to missing permissions.

### Examples

Shows hard disk serial:

Show Custom Dialog [ "Info"; MBS( "SystemInfo.HardDiscSerial" ) ]

### 164.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr8](#)
- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 18th August 2014, last changed 12nd May 2017.

## 164.8 SystemInfo.HostDNSName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.HostDNSName" )

**Result** Returns name or error.

### Description

See also SystemInfo.DomainName and SystemInfo.HostName.

### See also

- 164.5 SystemInfo.DomainName 7784
- 164.9 SystemInfo.HostName 7788

### 164.8.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 27th November 2014, last changed 28th November 2014.

## 164.9 SystemInfo.HostName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.HostName" )

**Result** Returns name or error.

### Description

See also SystemInfo.HostDNSName and SystemInfo.DomainName.

With FileMaker Cloud (Linux) the result may be just the IP if no hostname is configured, e.g. "ip-172-31-21-142"

### Examples

Shows host name:

```
Show Custom Dialog [ MBS("SystemInfo.HostName") ]
```

### See also

- 164.5 SystemInfo.DomainName 7784
- 164.8 SystemInfo.HostDNSName 7787
- 164.27 SystemInfo.OSName 7808
- 164.33 SystemInfo.UserName 7814

### 164.9.1 Blog Entries

- [MBS FileMaker Plugin registration dialogs](#)

Created 18th August 2014, last changed 3th October 2016.



## 164.10 SystemInfo.IdleTime

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	3.3	Yes	Yes	No	No	No

MBS( "SystemInfo.IdleTime" )

(old name: SystemInfo.MacGlobalIdleTime)

**Result** Returns value or error.

### Description

This time comes from HID system and informs you how long no mouse or keyboard has been used. You can check this regularly in a timer script and do things like an auto logout.

If you use EventMonitor.Install function, this function may be better with remote control. With remote controlled PC, the local mouse and keyboard devices are not used, so the HID idle time is high. But with event monitor we see events from user and can reset idle counter.

### Examples

Shows idle time:

```
Pause/Resume Script [ Duration (seconds): 2 ]
Show Custom Dialog [ "Info"; MBS( "SystemInfo.IdleTime" ) ]
```

### See also

- [76.4 EventMonitor.Install](#) 3550
- [164.32 SystemInfo.Time](#) 7813

### 164.10.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr4](#)

Created 18th August 2014, last changed 19th March 2017.

## 164.11 SystemInfo.Is64bitWindows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.Is64bitWindows" )

**Result** Returns 1 or 0.

### Description

Returns 1 if you are in a 32-bit app running on a 64-bit windows.  
Returns 0 otherwise, e.g. 64-bit app on 64-bit Windows.

See also Is64bit function to know if you are in a 64-bit application.

### Examples

Shows 64-bit Windows:

```
Show Custom Dialog [ "Info"; MBS( "SystemInfo.Is64bitWindows" ) ]
```

### See also

- 127.4 Is64bit

6372

Created 18th August 2014, last changed 12nd May 2017.

## 164.12 SystemInfo.IsAdminUser

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.IsAdminUser" )

**Result** Returns 0 or 1.

### Description

Returns 1 for admin or 0 for non admin.

Normally you should not need to know, because you try what you plan to do and see if you get a permission error. Than you can report that error.

### Examples

Checks for admin account:

```
$r = MBS( "SystemInfo.IsAdminUser" )
```

### 164.12.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr4](#)

Created 18th June 2015, last changed 18th June 2015.

## 164.13 SystemInfo.MACAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.MACAddress" )

**Result** The MAC Address string.

### Description

### Examples

Shows MAC address:

Show Custom Dialog [ "Info"; MBS( "SystemInfo.MACAddress" ) ]

### Example Databases

- [Utility functions/Generate and Verify License Key](#)

### 164.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr8](#)

Created 18th August 2014, last changed 24th February 2016.

## 164.14 SystemInfo.MacAppDarkMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	9.5	Yes	No	No	No	No

MBS( "SystemInfo.MacAppDarkMode" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if application runs in dark mode.

### Examples

Query dark mode values:

```
MBS( "SystemInfo.MacSystemDarkMode" ) & §& MBS( "SystemInfo.MacAppDarkMode" )
```

### See also

- [164.23 SystemInfo.MacSystemDarkMode](#)

7802

### 164.14.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 28th October 2019, last changed 28th October 2019.

## 164.15 SystemInfo.MacBoardID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	9.4	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacBoardID" )

**Result** Returns text or error.

### Description

e.g. "Mac-1234567890123456"

### See also

- [164.20 SystemInfo.MacModel](#) 7799
- [164.24 SystemInfo.MacUUID](#) 7803

### 164.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 10th September 2019, last changed 10th September 2019.

**164.16 SystemInfo.MacBugFixVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacBugFixVersion" )

**Result** The minor version number.

**Description**

In Mac OS X 10.4.17 this would be the decimal value 17.

**Examples**

Shows Mac OS Version:

```
Show Custom Dialog [ "OS Version"; MBS( "SystemInfo.MacMajorVersion" ) & "." & MBS( "System-Info.MacMinorVersion" ) & "." & MBS( "SystemInfo.MacBugfixVersion" ) ]
```

**See also**

- 164.18 SystemInfo.MacMajorVersion 7797
- 164.19 SystemInfo.MacMinorVersion 7798
- 164.21 SystemInfo.MacROMBootVersion 7800

Created 18th August 2014, last changed 24th February 2016.

## 164.17 SystemInfo.MacHasHardwareAcceleratedCoreImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacHasHardwareAcceleratedCoreImage" )

### Description

Created 18th August 2014, last changed 18th August 2014.



## 164.18 SystemInfo.MacMajorVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacMajorVersion" )

**Result** The major version number.

### Description

In Mac OS X 10.4.17 this would be the decimal value 10.

### Examples

Shows Mac OS Version:

```
Show Custom Dialog [ "OS Version"; MBS( "SystemInfo.MacMajorVersion" ) & "." & MBS( "System-Info.MacMinorVersion" ) & "." & MBS( "SystemInfo.MacBugfixVersion" ) ]
```

### See also

- 164.16 SystemInfo.MacBugFixVersion 7795
- 164.19 SystemInfo.MacMinorVersion 7798
- 164.21 SystemInfo.MacROMBootVersion 7800
- 164.37 SystemInfo.WinMajorVersion 7818
- 164.38 SystemInfo.WinMinorVersion 7819

Created 18th August 2014, last changed 24th February 2016.

## 164.19 SystemInfo.MacMinorVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacMinorVersion" )

**Result** The minor version number.

### Description

In Mac OS X 10.4.17 this would be the decimal value 4.

### Examples

Shows Mac OS Version:

```
Show Custom Dialog [ "OS Version"; MBS( "SystemInfo.MacMajorVersion" ) & "." & MBS( "System-Info.MacMinorVersion" ) & "." & MBS( "SystemInfo.MacBugfixVersion" ) ]
```

### See also

- 164.16 SystemInfo.MacBugFixVersion 7795
- 164.18 SystemInfo.MacMajorVersion 7797
- 164.21 SystemInfo.MacROMBootVersion 7800
- 164.36 SystemInfo.WinCSDVersion 7817
- 164.37 SystemInfo.WinMajorVersion 7818
- 164.38 SystemInfo.WinMinorVersion 7819

Created 18th August 2014, last changed 24th February 2016.

## 164.20 SystemInfo.MacModel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacModel" )

### Description

e.g. "MacBookPro2,2"

### Examples

Check for Mac Model:

Show Custom Dialog [ "Mac Model?" ; MBS( "SystemInfo.MacModel" ) ]

### See also

- 164.15 SystemInfo.MacBoardID 7794
- 164.24 SystemInfo.MacUUID 7803

Created 18th August 2014, last changed 25th November 2019.

## 164.21 SystemInfo.MacROMBootVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	9.4	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacROMBootVersion" )

**Result** Returns text or error.

### Description

e.g. "220.270.99.0.0 (iBridge: 16.16.6571.0.0,0)"

### See also

- [164.16 SystemInfo.MacBugFixVersion](#) 7795
- [164.18 SystemInfo.MacMajorVersion](#) 7797
- [164.19 SystemInfo.MacMinorVersion](#) 7798

### 164.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 10th September 2019, last changed 10th September 2019.

## 164.22 SystemInfo.MacSerialNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacSerialNumber" )

### Description

This is a unique ID for each Mac. You can see this number by choosing "About this Mac" from the Apple menu, and then selecting more information.

### Examples

Check for serial number:

```
Show Custom Dialog [ "Mac SerialNumber?" ; MBS( "SystemInfo.MacSerialNumber" ) ]
```

Created 18th August 2014, last changed 25th November 2019.

## 164.23 SystemInfo.MacSystemDarkMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	9.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacSystemDarkMode" )

**Result** Returns OK or error.

### Description

Returns 1 if system runs in dark mode.

The application may not run in dark mode, even if system has dark mode.

### Examples

Query dark mode values:

```
MBS( "SystemInfo.MacSystemDarkMode" ) & §& MBS( "SystemInfo.MacAppDarkMode" )
```

### See also

- 164.14 SystemInfo.MacAppDarkMode

7793

### 164.23.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 28th October 2019, last changed 28th October 2019.

## 164.24 SystemInfo.MacUUID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacUUID" )

### Description

This is a unique ID for a the Mac system. In its canonical form, a UUID consists of 32 hexadecimal digits, displayed in 5 groups separated by hyphens, in the form 8-4-4-4-12 for a total of 36 characters. For example: 550e8400-e29b-41d4-a716-446655440000

### Examples

Shows Mac UUID:

Show Custom Dialog [ "Mac UUID"; MBS( "SystemInfo.MacUUID" ) ]

### See also

- 164.15 SystemInfo.MacBoardID 7794
- 164.20 SystemInfo.MacModel 7799

### Example Databases

- [Utility functions/Generate and Verify License Key](#)

Created 18th August 2014, last changed 24th February 2016.

## 164.25 SystemInfo.MacVRAMSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.MacVRAMSize" )

### Description

Created 18th August 2014, last changed 18th August 2014.



## 164.26 SystemInfo.NetworkStats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	10.0	Yes	No	Yes, macOS only	No	No

MBS( "SystemInfo.NetworkStats"; Name )

### Parameters

#### Name

The name of the interface to query. Can be empty for array of all interfaces. Pass "sum" to sum up all counters.

"en0"

**Result** Returns OK or error.

#### Description

Returns JSON array of objects, each with the following keys:

Name, PhysicalType, Type, MTU, Baudrate, InputPackets, InputErrors, OutputPackets, OutputErrors, Collisions, InputBytes, OutputBytes, InputMulticasts, OutputMulticasts.

Type is the type of device which includes 1 for ethernet and 6 for Wifi.

Baudrate	The linespeed.
Collisions	The number of collisions on csma interfaces.
InputBytes	Total number of octets received.
InputErrors	The number of input errors on interface.
InputMulticasts	The number of packets received via multicast.
InputPackets	The number of packets received.
MTU	The maximum transmission unit.
Name	The name of the interface.
OutputBytes	Total number of octets sent.
OutputErrors	The number of output errors.
OutputMulticasts	The number of packets sent via multicast.
OutputPackets	The number of packets sent.
PhysicalType	The physical network type. e.g., AUI, Thinnet, 10base-T, etc
Type	The network type.

### Examples

Query statistics for all interfaces:

MBS( "SystemInfo.NetworkStats" )

Example result: [

```
{
  "Name": "lo0",
  "PhysicalType": 24,
  "Type": 24,
  "MTU": 16384,
  "Baudrate": 0,
  "InputPackets": 1211504,
  "InputErrors": 0,
  "OutputPackets": 1211504,
  "OutputErrors": 0,
  "Collisions": 0,
  "InputBytes": 424215552,
  "OutputBytes": 424215552,
  "InputMulticasts": 866700,
  "OutputMulticasts": 0
},
...
]
```

Query statistics for en0, first ethernet card:

```
MBS( "SystemInfo.NetworkStats"; "en0" )
```

Example result: {

```
"Name": "en0",
"PhysicalType": 6,
"Type": 6,
"MTU": 1500,
"Baudrate": 112050000,
"InputPackets": 3349997,
"InputErrors": 0,
"OutputPackets": 9122258,
"OutputErrors": 28815,
"Collisions": 0,
"InputBytes": 2294099968,
"OutputBytes": 9673651200,
"InputMulticasts": 67811,
"OutputMulticasts": 0
}
```

Query sum of statistics:

```
MBS( "SystemInfo.NetworkStats"; "sum" )
```

Example result: {

```
"Name": "sum",
"InputPackets": 3393156,
"InputErrors": 0,
```

```
"OutputPackets": 9154972,  
"OutputErrors": 29387,  
"Collisions": 0,  
"InputBytes": 2303736832,  
"OutputBytes": 9682581504,  
"InputMulticasts": 88721,  
"OutputMulticasts": 0  
}
```

### 164.26.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 3th December 2019, last changed 4th December 2019.

**164.27 SystemInfo.OSName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.OSName" )

**Description**

e.g. "Windows 2000", "Windows XP", "Mac OS X", "Vista".

**Examples**

Shows OS Name:

Show Custom Dialog [ MBS( "SystemInfo.OSName" ) ]

**See also**

- 164.9 SystemInfo.HostName 7788
- 164.32 SystemInfo.Time 7813
- 164.33 SystemInfo.UserName 7814

Created 18th August 2014, last changed 24th February 2016.

## 164.28 SystemInfo.OSVersionString

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.OSVersionString" )

**Result** Returns version text.

### Description

e.g. Mac OS X 10.5.1"

### Examples

Shows OS Version String:

Show Custom Dialog [ MBS( "SystemInfo.OSVersionString" ) ]

### 164.28.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)
- [MBS FileMaker Plugin, version 5.3pr5](#)
- [MBS Filemaker Plugin 1.8pr4](#)

Created 18th August 2014, last changed 24th February 2016.

## 164.29 SystemInfo.PhysicalRAM

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.PhysicalRAM" )

**Result** Returns byte count.

### Description

### Examples

Show RAM available:

```
Set Variable [ $a; Round(MBS("SystemInfo.AvailableRAM") / 1024 / 1024 / 1024; 1) ]
```

```
Set Variable [ $b; Round(MBS("SystemInfo.PhysicalRAM") / 1024 / 1024 / 1024; 1) ]
```

```
Show Custom Dialog [ $a & " of " & $b & " GB free." ]
```

### See also

- 164.2 SystemInfo.AvailableRAM

7781

Created 18th August 2014, last changed 18th August 2014.

## 164.30 SystemInfo.ProcessorCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.ProcessorCount" )

**Result** Returns number of cores.

### Description

### Examples

Shows processor count:

Show Custom Dialog [ MBS( "SystemInfo.ProcessorCount" ) ]

Created 18th August 2014, last changed 24th February 2016.

## 164.31 SystemInfo.SystemFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	No	No

MBS( "SystemInfo.SystemFont" )

### Description

### Examples

Shows system font:

Show Custom Dialog [ MBS( "SystemInfo.SystemFont" ) ]

### See also

- 164.1 SystemInfo.ADSYSTEMINFO

7779

Created 18th August 2014, last changed 12nd August 2016.



## 164.32 SystemInfo.Time

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.Time" )

**Result** Returns time stamp in seconds.

### Description

This value is very precise. Should be at least allow milliseconds measurements. Perfect for calculating how long an operation takes.

### Examples

Shows time:

Show Custom Dialog [ MBS( "SystemInfo.Time" ) ]

### See also

- [164.10 SystemInfo.IdleTime](#) 7789
- [164.27 SystemInfo.OSName](#) 7808

### Example Databases

- [List/QuickList Test](#)
- [Time Measurement](#)

### 164.32.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr2](#)
- [Functions added on the Filemaker Conference](#)

### 164.32.2 FileMaker Magazin

- [Ausgabe 1/2015, Seite 20](#)
- [Ausgabe 1/2015, Seite 19](#)

Created 18th August 2014, last changed 24th February 2016.

## 164.33 SystemInfo.UserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.UserName" )

**Result** Returns text with user name.

### Description

This is not effected by the FileMaker Preferences' "other" setting. This is the actual user name. For FileMaker Server the name is the name of the account the server operates in. This could be always "System" or "fmserver".

### Examples

Shows user name:

Show Custom Dialog [ MBS( "SystemInfo.UserName" ) & §& MBS( "SystemInfo.UserShortName" ) ]

### See also

- 164.9 SystemInfo.HostName 7788
- 164.54 SystemInfo.isMojave 7836
- 164.27 SystemInfo.OSName 7808
- 164.34 SystemInfo.UserShortName 7815

### 164.33.1 Blog Entries

- [Network share access from script on FileMaker Server](#)
- [MBS FileMaker Plugin, version 8.5pr4](#)
- [MBS FileMaker Plugin, version 7.6pr2](#)

### 164.33.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 33

Created 18th August 2014, last changed 24th February 2016.

## 164.34 SystemInfo.UserName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	1.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.UserName" )

### Description

### Examples

Shows user name:

Show Custom Dialog [ MBS( "SystemInfo.UserName" ) & §& MBS( "SystemInfo.UserName" ) ]

### See also

- 164.33 SystemInfo.UserName

7814

Created 18th August 2014, last changed 24th February 2016.

## 164.35 SystemInfo.WinBuildNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes	Yes	No

MBS( "SystemInfo.WinBuildNumber" )

**Result** The build number.

### Description

For example returns 2600 on Windows XP Build 2600.  
Created 18th August 2014, last changed 17th June 2018.

**164.36 SystemInfo.WinCSDVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinCSDVersion" )

**Result** The service pack version string.

**Description**

Shows "Service Pack 3" on a Windows XP SP3 installation.

If no Service Pack has been installed, the string is empty.

**See also**

- 164.19 SystemInfo.MacMinorVersion 7798
- 164.37 SystemInfo.WinMajorVersion 7818
- 164.38 SystemInfo.WinMinorVersion 7819

Created 18th August 2014, last changed 18th August 2014.

## 164.37 SystemInfo.WinMajorVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinMajorVersion" )

**Result** Returns the major version number.

### Description

Returns 5 on Windows 2000/XP and 6 on Windows Vista/7/8.

### See also

- 164.18 SystemInfo.MacMajorVersion 7797
- 164.19 SystemInfo.MacMinorVersion 7798
- 164.36 SystemInfo.WinCSDVersion 7817
- 164.38 SystemInfo.WinMinorVersion 7819

Created 18th August 2014, last changed 18th August 2014.

**164.38 SystemInfo.WinMinorVersion**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinMinorVersion" )

**Result** Returns the minor version number.

**Description**

Returns 0 on Windows 2000/Vista and 1 on Windows XP/7 and 2 on Windows 8.  
Windows 8.1 is MajorVersion = 6 and MinorVersion = 3.

**See also**

- 164.18 SystemInfo.MacMajorVersion 7797
- 164.19 SystemInfo.MacMinorVersion 7798
- 164.36 SystemInfo.WinCSDVersion 7817
- 164.37 SystemInfo.WinMajorVersion 7818

Created 18th August 2014, last changed 26th September 2015.

## 164.39 SystemInfo.WinPlatformId

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinPlatformId" )

**Result** Returns the platform ID as number.

### Description

For example 2 for NT kernels.

Created 18th August 2014, last changed 18th August 2014.



## 164.40 SystemInfo.WinProductKey

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinProductKey" )

**Result** Returns product key or empty string.

### Description

### See also

- [164.41 SystemInfo.WinProductType](#)

7822

### Example Databases

- [Utility functions/Generate and Verify License Key](#)

Created 18th August 2014, last changed 14th May 2017.

## 164.41 SystemInfo.WinProductType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinProductType" )

**Result** Returns product type as number.

### Description

e.g. 1 on Windows XP.

This member can be one of the following values:

VER_NT_DOMAIN_CONTROLLER	2	The system is a domain controller and the operating system is Windows Server 2008, Windows Server 2003, or Windows 2000 Server.
VER_NT_SERVER	3	The operating system is Windows Server 2008, Windows Server 2003, or Windows 2000 Server. Note that a server that is also a domain controller is reported as VER_NT_DOMAIN_CONTROLLER, not VER_NT_SERVER.
VER_NT_WORKSTATION	1	The operating system is Windows Vista, Windows XP Professional, Windows XP Home Edition, or Windows 2000 Professional.

### See also

- 164.40 SystemInfo.WinProductKey

7821

Created 18th August 2014, last changed 18th August 2014.

## 164.42 SystemInfo.WinServicePackMajor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinServicePackMajor" )

**Result** The version number.

### Description

For example, for Service Pack 3, the major version number is 3. If no Service Pack has been installed, the value is zero.

### See also

- 164.43 SystemInfo.WinServicePackMinor

7824

Created 18th August 2014, last changed 18th August 2014.

## 164.43 SystemInfo.WinServicePackMinor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinServicePackMinor" )

**Result** The version number.

### Description

For example, for Service Pack 3, the minor version number is 0.

### See also

- 164.42 SystemInfo.WinServicePackMajor

7823

Created 18th August 2014, last changed 18th August 2014.

**164.44 SystemInfo.WinSuiteMask**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinSuiteMask" )

**Result** The mask as number.

**Description**

for example 256 on Windows XP.

This member can be a combination of the following values.

VER_SUITE_BACKOFFICE	4	Microsoft BackOffice components are installed.
VER_SUITE_BLADE	& h0400	Windows Server 2003, Web Edition is installed.
VER_SUITE_COMPUTE_SERVER	& h4000	Windows Server 2003, Compute Cluster Edition is installed.
VER_SUITE_DATACENTER	& h0080	Windows Server 2008 Datacenter, Windows Server 2003, Datacenter Edition, or Windows 2000 Datacenter Server is installed.
VER_SUITE_ENTERPRISE	2	Windows Server 2008 Enterprise, Windows Server 2003, Enterprise Edition, or Windows 2000 Advanced Server is installed. Refer to the Remarks section for more information about this bit flag.
VER_SUITE_EMBEDDEDNT	& h0040	Windows XP Embedded is installed.
VER_SUITE_PERSONAL	& h0200	Windows Vista Home Premium, Windows Vista Home Basic, or Windows XP Home Edition is installed.
VER_SUITE_SINGLEUSERTS	& h0100	Remote Desktop is supported, but only one interactive session is supported. This value is set unless the system is running in application server mode.
VER_SUITE_SMALLBUSINESS	1	Microsoft Small Business Server was once installed on the system, but may have been upgraded to another version of Windows. Refer to the Remarks section for more information about this bit flag.
VER_SUITE_SMALLBUSINESS_RESTRICTED	& h0020	Microsoft Small Business Server is installed with the restrictive client license in force. Refer to the Remarks section for more information about this bit flag.
VER_SUITE_STORAGE_SERVER	& h2000	Windows Storage Server 2003 R2 or Windows Storage Server 2003 is installed.
VER_SUITE_TERMINAL	& h0010	Terminal Services is installed. This value is always set. If VER_SUITE_TERMINAL is set but VER_SUITE_SINGLEUSERTS is not set, the system is running in application server mode.
VER_SUITE_WH_SERVER	& h8000	Windows Home Server is installed.

Created 18th August 2014, last changed 18th August 2014.

## 164.45 SystemInfo.WinSystemMetrics

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	6.3	No	Yes	Yes, Windows only	No	No

MBS( "SystemInfo.WinSystemMetrics"; ID )

### Parameters

#### ID

The ID of the value to query. Can be the name of the value without SM\_ prefix like "CMONITORS" or the numeric value like 80.

"CMONITORS"

**Result** Returns value or error.

### Description

Note that all dimensions retrieved by GetSystemMetrics are in pixels.

Please see Microsoft website for all the possible parameters and return values:

[https://msdn.microsoft.com/en-us/library/windows/desktop/ms724385\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/ms724385(v=vs.85).aspx)

Values for Digitizer query:

Name	Value	Meaning
NID_INTEGRATED_TOUCH	1	The device has an integrated touch digitizer.
NID_EXTERNAL_TOUCH	2	The device has an external touch digitizer.
NID_INTEGRATED_PEN	4	The device has an integrated pen digitizer.
NID_EXTERNAL_PEN	8	The device has an external pen digitizer.
NID_MULTI_INPUT	64	The device supports multiple sources of digitizer input.
NID_READY	128	The device is ready to receive digitizer input.

### Examples

Query number of display monitors on a desktop.

```
MBS( "SystemInfo.WinSystemMetrics"; "CMONITORS")
```

Example result: 1

Query size of screen:

```
MBS( "SystemInfo.WinSystemMetrics"; "CXScreen")
```

```
& " x " &
```

```
MBS( "SystemInfo.WinSystemMetrics"; "CYScreen")
```

Example result: 1280 x 768

Query whether we are shutton down:

```
# Returns 1 if FileMaker Window Close Script Trigger was called due to shutdown
MBS( "SystemInfo.WinSystemMetrics"; "SHUTTINGDOWN")
```

Example result: 0

Query whether system is a Tablet PC:

```
MBS( "SystemInfo.WinSystemMetrics"; "TabletPC")
```

Example result: 1

Query whether we are in slate mode:

```
# Returns 0 for slate mode, else non-zero
MBS( "SystemInfo.WinSystemMetrics"; "ConvertibleSlateMode")
```

Example result: 0

Query whether mouse is installed:

```
MBS( "SystemInfo.WinSystemMetrics"; "MousePresent")
```

Example result: 1

Query whether a mouse wheel is present:

```
MBS( "SystemInfo.WinSystemMetrics"; "MouseWheelPresent")
```

Example result: 1

Query whether we have a digitizer

```
# Nonzero if the current operating system is Windows 7 or Windows Server 2008 R2 and the Tablet PC
Input service is started; otherwise, 0.
```

```
# The return value is a bitmask that specifies the type of digitizer input supported by the device.
```

```
# e.g. 193 for a ready touch device with multi touch.
```

```
MBS( "SystemInfo.WinSystemMetrics"; "Digitizer")
```

Example result: 193

Query whether we have a remote session:

```
MBS( "SystemInfo.WinSystemMetrics"; 4096 )
```

### 164.45.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 15th June 2016, last changed 9th November 2018.

## 164.46 SystemInfo.WindowsAero

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.WindowsAero" )

**Result** Returns Aero status.

### Description

Value is 1 if aero is used and 0 if the status is unknown (e.g. on Windows XP) or Aero is not used.

### See also

- 164.58 SystemInfo.isWindows10 7840
- 164.59 SystemInfo.isWindows2000 7841
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.63 SystemInfo.isWindowsXP 7845

Created 18th August 2014, last changed 17th June 2018.



**164.47 SystemInfo.isCatalina**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isCatalina" )

**Result** Returns 1 or 0.

**Description****Examples**

Check for MacOS Catalina:

Show Custom Dialog [ "MacOS Catalina?" ; If(MBS( "SystemInfo.isCatalina" ); "yes"; "no" ) ]

**See also**

- 164.48 SystemInfo.isElCapitan

7830

Created 7th June 2019, last changed 25th November 2019.

**164.48 SystemInfo.isElCapitan**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isElCapitan" )

**Result** Returns 1 or 0.

**Description****Examples**

Check for MacOS El Capitan:

Show Custom Dialog [ "MacOS ElCapitan?" ; If(MBS( "SystemInfo.isElCapitan" ); "yes"; "no" ) ]

**See also**

- 164.47 SystemInfo.isCatalina

7829

Created 4th July 2016, last changed 25th November 2019.

**164.49 SystemInfo.isHighSierra**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isHighSierra" )

**Result** Returns 1 or 0.

**Description****Examples**

Check for MacOS HighSierra:

Show Custom Dialog [ "MacOS HighSierra?" ; If(MBS( "SystemInfo.isHighSierra" ); "yes"; "no") ]

**See also**

- 164.56 SystemInfo.isSierra

7838

**164.49.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.5pr6](#)

Created 4th November 2017, last changed 25th November 2019.

## 164.50 SystemInfo.isLeopard

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isLeopard" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS Leopard:

```
Show Custom Dialog [ "MacOS Leopard?" ; If(MBS( "SystemInfo.isLeopard" ); "yes"; "no" ) ]
```

### See also

- 164.51 SystemInfo.isLion 7833
- 164.54 SystemInfo.isMojave 7836
- 164.57 SystemInfo.isSnowLeopard 7839

Created 18th August 2014, last changed 25th November 2019.

## 164.51 SystemInfo.isLion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isLion" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS Lion:

```
Show Custom Dialog [ "MacOS Lion?" ; If(MBS( "SystemInfo.isLion" ); "yes"; "no") ]
```

### See also

- 164.50 SystemInfo.isLeopard 7832
- 164.56 SystemInfo.isSierra 7838

Created 18th August 2014, last changed 25th November 2019.

## 164.52 SystemInfo.isMacOSX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isMacOSX" )

**Result** Returns 1 or 0.

### Description

### See also

- [42.3 AVRecorder.AudioDeviceInfo](#) 1126
- [42.17 AVRecorder.Init](#) 1143
- [42.25 AVRecorder.SetFilePath](#) 1153
- [42.36 AVRecorder.VideoDeviceInfo](#) 1167
- [112.7 MatrixDongle.Initialize](#) 5930
- [164.54 SystemInfo.isMojave](#) 7836

### Example Databases

- [AVRecorder/AVRecorder Devices](#)
- [AVRecorder/AVRecorder](#)
- [CURL/CURL Download on Server](#)
- [MatrixDongle](#)
- [Registration/Debugging and Registration](#)

### 164.52.1 Blog Entries

- [MBS FileMaker Plugin debugging help](#)

Created 18th August 2014, last changed 18th August 2014.

## 164.53 SystemInfo.isMavericks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isMavericks" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS Mavericks:

```
Show Custom Dialog [ "MacOS Mavericks?" ; If(MBS( "SystemInfo.isMavericks" ); "yes"; "no" ) ]
```

Created 18th August 2014, last changed 25th November 2019.

## 164.54 SystemInfo.isMojave

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isMojave" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS Mojave:

```
Show Custom Dialog [ "MacOS Mojave?" ; If(MBS( "SystemInfo.isMojave" ); "yes"; "no") ]
```

### See also

- [164.50 SystemInfo.isLeopard](#) 7832
- [164.52 SystemInfo.isMacOSX](#) 7834
- [164.33 SystemInfo.UserName](#) 7814

### 164.54.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)

Created 27th July 2018, last changed 25th November 2019.



## 164.55 SystemInfo.isMountainLion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isMountainLion" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS MountainLion:

```
Show Custom Dialog [ "MacOS MountainLion?" ; If(MBS( "SystemInfo.isMountainLion" ); "yes"; "no") ]
```

Created 18th August 2014, last changed 25th November 2019.

**164.56 SystemInfo.isSierra**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isSierra" )

**Result** Returns 1 or 0.

**Description****Examples**

Check for MacOS Sierra:

Show Custom Dialog [ "MacOS Sierra?" ; If(MBS( "SystemInfo.isSierra" ); "yes"; "no") ]

**See also**

- 164.49 SystemInfo.isHighSierra 7831
- 164.51 SystemInfo.isLion 7833

Created 4th July 2016, last changed 25th November 2019.

## 164.57 SystemInfo.isSnowLeopard

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isSnowLeopard" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS SnowLeopard:

Show Custom Dialog [ "MacOS SnowLeopard?" ; If(MBS( "SystemInfo.isSnowLeopard" ); "yes"; "no") ]

### See also

- 164.50 SystemInfo.isLeopard

7832

Created 18th August 2014, last changed 25th November 2019.

## 164.58 SystemInfo.isWindows10

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindows10" )

**Result** Returns 1 or 0.

### Description

And 0 on Mac OS X, Linux, Windows 8/7/Vista/XP/2000/ME/98/95.

### Examples

Check for Windows 10:

```
Show Custom Dialog [ "Windows 10?" ; If(MBS( "SystemInfo.isWindows10" ); "yes"; "no" ) ]
```

### See also

- 164.59 SystemInfo.isWindows2000 7841
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.62 SystemInfo.isWindowsVista 7844
- 164.63 SystemInfo.isWindowsXP 7845
- 164.46 SystemInfo.WindowsAero 7828

### 164.58.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr9](#)

Created 30th July 2015, last changed 25th November 2019.

**164.59 SystemInfo.isWindows2000**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindows2000" )

**Result** Returns 1 or 0.

**Description**

And 0 on Mac OS X, Linux, Windows 10/8/7/XP/Vista/ME/98/95.

**Examples**

Check for Windows 2000:

Show Custom Dialog [ "Windows 2000?" ; If(MBS( "SystemInfo.isWindows2000" ); "yes"; "no") ]

**See also**

- 164.58 SystemInfo.isWindows10 7840
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.62 SystemInfo.isWindowsVista 7844
- 164.63 SystemInfo.isWindowsXP 7845
- 164.46 SystemInfo.WindowsAero 7828

Created 18th August 2014, last changed 25th November 2019.

## 164.60 SystemInfo.isWindows7

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindows7" )

**Result** Returns 1 or 0.

### Description

And 0 on Mac OS X, Linux, Windows 10/8/Vista/XP/2000/ME/98/95.

### Examples

Check for Windows 7:

```
Show Custom Dialog [ "Windows 7?" ; If(MBS( "SystemInfo.isWindows7" ); "yes"; "no" ) ]
```

### See also

- 164.58 SystemInfo.isWindows10 7840
- 164.59 SystemInfo.isWindows2000 7841
- 164.61 SystemInfo.isWindows8 7843
- 164.62 SystemInfo.isWindowsVista 7844
- 164.63 SystemInfo.isWindowsXP 7845
- 164.46 SystemInfo.WindowsAero 7828

Created 18th August 2014, last changed 25th November 2019.

## 164.61 SystemInfo.isWindows8

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindows8" )

**Result** Returns 1 or 0.

### Description

And 0 on Mac OS X, Linux, Windows 10/7/Vista/XP/2000/ME/98/95.

### Examples

Check for Windows 8:

Show Custom Dialog [ "Windows 8?" ; If(MBS( "SystemInfo.isWindows8" ); "yes"; "no") ]

### See also

- [164.58 SystemInfo.isWindows10](#) 7840
- [164.59 SystemInfo.isWindows2000](#) 7841
- [164.60 SystemInfo.isWindows7](#) 7842
- [164.62 SystemInfo.isWindowsVista](#) 7844
- [164.63 SystemInfo.isWindowsXP](#) 7845
- [164.46 SystemInfo.WindowsAero](#) 7828

### 164.61.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr5](#)

Created 18th August 2014, last changed 25th November 2019.

## 164.62 SystemInfo.isWindowsVista

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindowsVista" )

**Result** Returns 1 or 0.

### Description

And 0 on Mac OS X, Linux, Windows 10/8/7/XP/2000/ME/98/95.

### Examples

Check for Windows Vista:

```
Show Custom Dialog [ "Windows Vista?" ; If(MBS( "SystemInfo.isWindowsVista" ); "yes"; "no" ) ]
```

### See also

- 164.58 SystemInfo.isWindows10 7840
- 164.59 SystemInfo.isWindows2000 7841
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.63 SystemInfo.isWindowsXP 7845

Created 18th August 2014, last changed 25th November 2019.



**164.63 SystemInfo.isWindowsXP**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isWindowsXP" )

**Result** Returns 1 or 0.

**Description**

And 0 on Mac OS X, Linux, Windows 10/8/7/Vista/2000/ME/98/95.

**Examples**

Check for Windows XP:

Show Custom Dialog [ "Windows XP?" ; If(MBS( "SystemInfo.isWindowsXP" ); "yes"; "no" ) ]

**See also**

- 164.58 SystemInfo.isWindows10 7840
- 164.59 SystemInfo.isWindows2000 7841
- 164.60 SystemInfo.isWindows7 7842
- 164.61 SystemInfo.isWindows8 7843
- 164.62 SystemInfo.isWindowsVista 7844
- 164.46 SystemInfo.WindowsAero 7828

Created 18th August 2014, last changed 25th November 2019.

## 164.64 SystemInfo.isYosemite

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
164 SystemInfo	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "SystemInfo.isYosemite" )

**Result** Returns 1 or 0.

### Description

### Examples

Check for MacOS Yosemite:

```
Show Custom Dialog [ "MacOS Yosemite?" ; If(MBS( "SystemInfo.isYosemite" ); "yes"; "no" ) ]
```

Created 4th July 2016, last changed 25th November 2019.

# Chapter 165

## SystemUIMode

Kiosk mode for Mac.

### 165.1 GetSystemUIMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
165 SystemUIMode	2.1	Yes	No	No	No	No

MBS( "GetSystemUIMode" )

**Result** The current mode value.

#### Description

See also

- 165.3 SetSystemUIMode

7849

Created 18th August 2014, last changed 18th August 2014.

## 165.2 GetSystemUIModeOptions

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
165 SystemUIMode	2.1	Yes	No	No	No	No

MBS( "GetSystemUIModeOptions" )

**Result** The current options value.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 165.3 SetSystemUIMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
165 SystemUIMode	2.1	Yes	No	No	No	No

MBS( "SetSystemUIMode"; Mode; Options )

### Parameters

#### Mode

The mode you want.

1

#### Options

The options you want.

0

### Description

The System UI Mode controls the presentation of system-provided user interface elements.

Note that the system UI mode is a per-process state. Switching from a process that is suppressing system UI to another process that is not will cause system UI elements to become visible automatically. Switching back to the first process will suppress system UI elements again.

In this mode, all standard system UI elements are visible.

kUIModeNormal = 0

In this mode, system UI elements which cover the "content area" of the screen (the area other than the menubar) are hidden. However, these elements may automatically show themselves in response to mouse movements or other user activity; specifically, the Dock will still show itself automatically when the mouse moves into the Dock's auto-show region.

kUIModeContentSuppressed = 1

In this mode, system UI elements which cover the "content area" of the screen (the area other than the menubar) are hidden. Unlike kUIModeContentSuppressed, most UI elements will not automatically show themselves in this mode.

kUIModeContentHidden = 2,

In this mode, all system UI elements, including the menubar, are hidden. However, these elements may automatically show themselves in response to mouse movements or other user activity; specifically, the Dock and menubar will still show themselves automatically when the mouse moves into the Dock's

auto-show region. Available in Mac OS X 10.3 and later.

`kUIModeAllSuppressed = 4,`

In this mode, all system UI elements, including the menubar, are hidden. Most system UI elements will not automatically show themselves in this mode. The application may request that the menubar automatically show itself while in this mode by passing the `kUIOptionAutoShowMenuBar` flag to `SetSystemUIMode`.

`kUIModeAllHidden = 3`

Options which you can combine by adding them together:

Requests that the menubar automatically show itself when the user moves the mouse into the screen area that would ordinarily be occupied by the menubar. Only valid with `kUIModeAllHidden`.

`kUIOptionAutoShowMenuBar = 1`

Disables all items in the Apple menu. Valid for all modes.

`kUIOptionAnimateMenuBar = 2`

Requests that the menubar animate on or offscreen, if the `UIMode` is also being changed such that the menubar will change visibility. Unlike other UI options, this option is not stored and only affects the behavior of this call to `SetSystemUIMode`. Valid for all modes. Available in Mac OS X 10.7 and later.

`kUIOptionDisableAppleMenu = 4`

The active application may not be changed while this process is active. Currently disables the Command-Tab and Command-Shift-Tab key sequences to switch the active process, and the global window rotation key sequence selected by the user in the Keyboard preference pane. `SetFrontProcess` may still be used to explicitly switch the active process. Only valid with modes other than `kUIModeNormal`.

`kUIOptionDisableProcessSwitch = 8`

The Force Quit window may not be displayed while this process is active. Currently disables the Command-Option-Escape key sequence to open the Force Quit window and the Force Quit menu item in the Apple menu. Only valid with modes other than `kUIModeNormal`.

kUIOptionDisableForceQuit = 16

The current login session may not be terminated while this process is active. Currently disables the Power key and the Restart, Shut Down, and Log Out menu items in the Apple menu. Only valid with modes other than kUIModeNormal.

kUIOptionDisableSessionTerminate = 32

The Hide menu item in the Application menu is disabled. Note that this option does not prevent this application from being hidden if Hide Others is selected in some other application. Available in Mac OS X 10.3 and later.

kUIOptionDisableHide = 64

Provides the ability to specify whether the menu bar will disable its adaptive transparency. Note this should be used in conjunction with a full-screen window using kUIModeContentSuppressed or kUIModeContentHidden. Available in Mac OS X 10.6 and later. This constant was published in the Mac OS X 10.5 version of MacApplication.h, but had the wrong value (7) and should not be used in Mac OS X 10.5.

kUIOptionDisableMenuBarTransparency = 512

#### **Examples**

Sets mode with hidden content:

```
MBS("SetSystemUIMode"; 1; 0)
```

#### **See also**

- 165.1 GetSystemUIMode

7847

Created 18th August 2014, last changed 18th August 2014.





# Chapter 166

## TAPI

Telephone functions for Windows

### 166.1 TAPI.AddressCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.AddressCount" )

**Result** Returns number or error.

#### Description

The local computer may have several TAPI adapters with different addresses. This function counts them.

**See also**

- [166.2 TAPI.AddressValue](#) 7855

#### Example Databases

- [Win Only/TAPI/Tapi](#)

#### 166.1.1 Blog Entries

- [Use of TAPI functions in MBS FileMaker Plugin](#)

#### 166.1.2 FileMaker Magazin

- Ausgabe 1/2019, Seite 36



## 166.2 TAPI.AddressValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.AddressValue"; Index; Selector )

### Parameters

#### Index

The index of the address. Must be in range from 0 to TAPI.AddressCount-1.

0

#### Selector

Which value to return.

"AddressName"

**Result** Returns OK or error.

### Description

Properties include: AddressName, DialableAddress, ServiceProviderName, State, DoNotDisturb and MessageWaiting. State can be InService or OutOfService.

#### See also

- 166.1 TAPI.AddressCount

7853

### Example Databases

- [Win Only/TAPI/Tapi](#)

### 166.2.1 Blog Entries

- [Use of TAPI functions in MBS FileMaker Plugin](#)

### 166.2.2 FileMaker Magazin

- [Ausgabe 1/2019, Seite 36](#)

Created 22nd October 2014, last changed 1st November 2014.

## 166.3 TAPI.Answer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Answer"; Call )

### Parameters

#### Call

The call reference number.

\$Call

**Result** Returns OK or error.

### Description

This function can succeed only if the call state is offering.

Created 22nd October 2014, last changed 1st December 2014.

## 166.4 TAPI.BlindTransfer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.BlindTransfer"; Call; DestAddress )

### Parameters

#### Call

The call reference number.

\$Call

#### DestAddress

Destination address for the transfer.

**Result** Returns OK or error.

### Description

The application must be the owner of the call. After a successful transfer, the call state transitions to disconnected.

Created 22nd October 2014, last changed 1st December 2014.

## 166.5 TAPI.CallInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.CallInfo"; Call; Selector )

### Parameters

#### Call

The call reference number.

\$Call

#### Selector

Which value to query.

"CalledIDName"

**Result** Returns OK or error.

### Description

Possible properties to query:

- CallerIDName: The name of the caller.
- CallerIDNumber: The number of the caller.
- CalledIDName: The name of the called location.
- CalledIDNumber: The number of the called location.
- ConnectedIDName: The name of the connected location.
- ConnectedIDNumber: The number of the connected location.
- RedirectionIDName: The name of the location to which a call has been redirected.
- RedirectionIDNumber: The number of the location to which a call has been redirected.
- RedirectingIDName: The name of the location that redirected the call.
- RedirectingIDNumber: The number of the location that redirected the call.
- CalledPartyFriendlyName: The called party friendly name.
- Comment: A comment about the call provided by the application that originated the call.
- DisplayableAddress: A displayable version of the called or calling address.
- CallingPartyID: The identifier of the calling party.
- State: The state of the call: Idle, InProgress, Connected, Disconnected, Offering, Hold or Queued.
- CountryCode: Country or region code.

- CallID: Call identifier. Some service providers assign a unique code to each call.
- Ref: Unique number of the call info object.
- Privilege: The privilege level. Either Owner or Monitor.
- Origin: Where the call is from. Can be Conference, External, InBound, Internal, OutBound, Unavailable or Unknown.
- Reason: Why the call was coming. Can be CallCompletion, CampedOn, Direct, ForwardedBudy, ForwardedNoAnswer, ForwardedUnconditionally, Intrude, Parked, Pickup, Redirect, Reminder, RouterRequest, Transfer, Unavailable, Unknown or Unpark.
- CallerIDAddressType: What type the caller ID has.
- CalledIDAddressType: What type the called ID has.
- ConnectedIDAddressType: What type the connected ID has.
- RedirectionAddressType: What type the redirection ID has.
- RedirectedAddressType: What type the redirected ID has.

The address type properties on bottom define what the number properties above specify. Can be Phone Number, SDP, E-Mail Name, Domain Name or IP Address.

**See also**

- 166.31 TAPI.SetCallStateEvaluate 7886
- 166.32 TAPI.SetCallStateScript 7887
- 166.34 TAPI.SetNewCallEvaluate 7889
- 166.35 TAPI.SetNewCallScript 7890

**Example Databases**

- [Win Only/TAPI/Tapi](#)

**166.5.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 22nd October 2014, last changed 8th April 2016.

## 166.6 TAPI.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Connect"; Call; Sync )

### Parameters

#### Call

The call reference number.

\$Call

#### Sync

Boolean indicating whether connection is to be performed synchronously (1) or asynchronously (0).

0

**Result** Returns OK or error.

### Description

### Examples

Creates a call and connects:

```
$Call = MBS( "TAPI.CreateCall"; "MyPhone"; "1234567899"; 1; 8)
```

```
$r = MBS( "TAPI.Connect"; $Call; 1 )
```

### See also

- 104.6 LDAP.Connect 5451
- 166.7 TAPI.CreateCall 7861

### 166.6.1 Blog Entries

- [Use of TAPI functions in MBS FileMaker Plugin](#)

### 166.6.2 FileMaker Magazin

- Ausgabe 1/2019, Seite 36

Created 22nd October 2014, last changed 7th December 2015.



## 166.7 TAPI.CreateCall

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.CreateCall"; AddressNameIndex; DestAddress; AddressType; MediaTypes )

### Parameters

#### AddressNameIndex

The index of the address or the name of the address to identify which device to use.

0

#### DestAddress

This text contains a destination address. The format is provider-specific. This can be "" for non-dialed addresses (such as with a hot phone) or when all dialing is performed using TAPI.Dial. "" in combination with a "" GroupID in TAPI.Pickup results in a group pickup. Service providers that have inverse multiplexing capabilities can allow an application to specify multiple addresses at once.

"123456789"

#### AddressType

Contains an address type constant, such as phone number (1), which describes the format of the address. Phone Number is 1, Session Description Protocol (SDP) conference is 2, an e-mail name is 4, a domain name is 8, an IP address is 16.

1

#### MediaTypes

Identifies the media type or types that will be involved in the call session. Can be 8 for audio.

8

**Result** Returns Call Reference ID or error.

### Description

The new call will be the new current call, so the TAPI.Dial function (and others) should work on it.

See for media types:

[http://msdn.microsoft.com/de-de/library/windows/desktop/ms734210\(v=vs.85\).aspx](http://msdn.microsoft.com/de-de/library/windows/desktop/ms734210(v=vs.85).aspx)

See for line address constants:

[http://msdn.microsoft.com/de-de/library/windows/desktop/ms733291\(v=vs.85\).aspx](http://msdn.microsoft.com/de-de/library/windows/desktop/ms733291(v=vs.85).aspx)

If your TAPI drivers are 32-bit only, it may or may not work in 64-bit.

### Examples

Creates a call and connects:

```
$Call = MBS( "TAPI.CreateCall"; "MyPhone"; "1234567899"; 1; 8)
```

```
$r = MBS( "TAPI.Connect"; $Call; 1 )
```

**See also**

- [166.6 TAPI.Connect](#) 7860
- [166.8 TAPI.Dial](#) 7863
- [166.38 TAPI.Transfer](#) 7893

**166.7.1 Blog Entries**

- [Use of TAPI functions in MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.5pr2](#)
- [MBS Filemaker Plugin, version 4.4pr10](#)

**166.7.2 FileMaker Magazin**

- [Ausgabe 1/2019, Seite 36](#)

Created 8th November 2014, last changed 11st May 2016.

## 166.8 TAPI.Dial

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Dial"; Call; DestAddress )

### Parameters

#### Call

The call reference number.

\$Call

#### DestAddress

Representation of address to be dialed. The format must conform to a standard dialable address.

123456789

**Result** Returns OK or error.

### Description

You can dial on calls made with TAPI.CreateCall.

#### See also

- 166.7 TAPI.CreateCall

7861

Created 22nd October 2014, last changed 1st December 2014.

## 166.9 TAPI.Disconnect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Disconnect"; Call; DisconnectCode )

### Parameters

#### Call

The call reference number.

\$Call

#### DisconnectCode

Can be Normal, NoAnswer or Rejected.

"Normal"

**Result** Returns OK or error.

### Description

The call state will transition to Disconnected after the method completes successfully.

Disconnect codes:

Normal: The call is being disconnected as part of the normal cycle of the call.

NoAnswer: The call is being disconnected because it has not been answered. (For example, an application may set a certain amount of time for the user to answer the call. If the user does not answer, the application can call Disconnect with the NoAnswer code.)

Rejected: The user rejected the offered call.

#### See also

- 159.9 SQL.Disconnect 7424
- 160.3 SSH.Disconnect 7609

Created 22nd October 2014, last changed 3th December 2014.

## 166.10 TAPI.Finish

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Finish"; Call; Mode )

### Parameters

#### Call

The call reference number.

\$Call

#### Mode

Can be "AsTransfer" or "AsConference".

"AsTransfer"

**Result** Returns OK or error.

### Description

#### See also

- 166.38 TAPI.Transfer

7893

Created 22nd October 2014, last changed 1st December 2014.

## 166.11 TAPI.GetCallStateEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetCallStateEvaluate" )

**Result** Returns text or error.

**Description**

**See also**

- 166.31 TAPI.SetCallStateEvaluate

7886

### 166.11.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 166.12 TAPI.GetCallStateScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetCallStateScriptFileName" )

**Result** Returns file name or error.

### Description

### See also

- 166.13 TAPI.GetCallStateScriptName 7868
- 166.16 TAPI.GetNewCallScriptFileName 7871

### 166.12.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 30th November 2014.

## 166.13 TAPI.GetCallStateScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetCallStateScriptName" )

**Result** Returns script name or error.

### Description

### See also

- [166.12 TAPI.GetCallStateScriptFileName](#) 7867
- [166.32 TAPI.SetCallStateScript](#) 7887

### 166.13.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 30th November 2014.



## 166.14 TAPI.GetCallStateURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetCallStateURL" )

**Result** Returns text or error.

**Description**

**See also**

- 166.33 TAPI.SetCallStateURL

7888

### 166.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 166.15 TAPI.GetNewCallEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetNewCallEvaluate" )

**Result** Returns text or error.

**Description**

**See also**

- 166.34 TAPI.SetNewCallEvaluate 7889

### 166.15.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 166.16 TAPI.GetNewCallScriptFileName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetNewCallScriptFileName" )

**Result** Returns file name or error.

### Description

### See also

- 166.12 TAPI.GetCallStateScriptFileName 7867
- 166.17 TAPI.GetNewCallScriptName 7872

### 166.16.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 30th November 2014.

## 166.17 TAPI.GetNewCallScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetNewCallScriptName" )

**Result** Returns script name or error.

**Description**

**See also**

- 166.16 TAPI.GetNewCallScriptFileName 7871
- 166.35 TAPI.SetNewCallScript 7890

### 166.17.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 30th November 2014.

## 166.18 TAPI.GetNewCallURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.GetNewCallURL" )

**Result** Returns text or error.

**Description**

**See also**

- 166.36 TAPI.SetNewCallURL

7891

### 166.18.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

**166.19 TAPI.HandoffDirect**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.HandoffDirect"; Call; MediaType )

**Parameters****Call**

The call reference number.

\$Call

**MediaType**

Media type to transfer to.

**Result** Returns OK or error.

**Description**

If multiple applications have registered as able to handle the types involved, TAPI will hand off to the highest-priority application, which is usually the one that registered first.

This indicates that the application no longer requires ownership of the call.

for media types, please take a look here:

[http://msdn.microsoft.com/en-us/library/windows/desktop/ms734210\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/ms734210(v=vs.85).aspx)

Created 22nd October 2014, last changed 1st December 2014.

## 166.20 TAPI.Hold

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Hold"; Call; Hold )

### Parameters

#### Call

The call reference number.

\$Call

#### Hold

Whether to put call on hold. Pass 1 for hold and 0 for unhold.

1

**Result** Returns OK or error.

### Description

Created 22nd October 2014, last changed 1st December 2014.

## 166.21 TAPI.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Initialize" )

**Result** Returns OK or error.

### Description

Must be called once before any other TAPI function.

If your TAPI drivers are 32-bit only, it may or may not work in 64-bit.

### See also

- 99.6 Java.Initialize 5238
- 123.9 OCR.Initialize 6227
- 134.2 Proj.Initialize 6659
- 166.22 TAPI.IsInitialized 7877
- 172.37 Twain.Initialize 8153
- 184.12 WIA.Initialize 8647

### Example Databases

- [Win Only/TAPI/Tapi](#)

#### 166.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr2](#)
- [Use of TAPI functions in MBS FileMaker Plugin](#)

#### 166.21.2 FileMaker Magazin

- Ausgabe 1/2019, Seite 36

Created 22nd October 2014, last changed 7th July 2018.



## 166.22 TAPI.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	8.3	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.IsInitialized" )

**Result** Returns boolean or error.

### Description

Returns 0 if not initialized or 1 if initialized.

### See also

- 123.10 OCR.IsInitialized 6229
- 126.7 PHP.IsInitialized 6363
- 134.3 Proj.IsInitialized 6660
- 166.21 TAPI.Initialize 7876
- 172.39 Twain.IsInitialized 8156
- 193.118 XL.IsInitialized 9148

### 166.22.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr5](#)

Created 7th July 2018, last changed 7th July 2018.

## 166.23 TAPI.ListenOnAddress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.ListenOnAddress"; AddressNameIndex )

### Parameters

#### AddressNameIndex

The index of the address or the name of the address to identify which device to use.

0

**Result** Returns OK or error.

### Description

You can call this function for several addresses or just TAPI.ListenOnAllAddresses for all.

### See also

- 166.24 TAPI.ListenOnAllAddresses

7879

### 166.23.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 25th November 2014, last changed 25th November 2014.

## 166.24 TAPI.ListenOnAllAddresses

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.ListenOnAllAddresses" )

**Result** Returns OK or error.

### Description

### See also

- 166.23 TAPI.ListenOnAddress

7878

### Example Databases

- [Win Only/TAPI/Tapi](#)

Created 22nd October 2014, last changed 2nd November 2014.

## 166.25 TAPI.ParkDirect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.ParkDirect"; Call; Park )

### Parameters

#### Call

The call reference number.

\$Call

#### Park

The address where the call is to be parked.

**Result** Returns OK or error.

### Description

With directed park, the application determines the address at which it wants to park the call. With TAPI.ParkIndirect the switch determines the address and provides this to the application. In either case, a parked call can be unparked by specifying this address.

The parked call enters the disconnected state after it has been successfully parked.

Some switches can remind the user after a call has been parked for some long amount of time. The application sees an offering call with a call reason set to reminder.

### See also

- 166.26 TAPI.ParkIndirect

7881

Created 22nd October 2014, last changed 1st December 2014.

**166.26 TAPI.ParkIndirect**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.ParkIndirect"; Call )

**Parameters****Call**

The call reference number.

\$Call

**Result** Returns address or error.

**Description**

With TAPI.ParkDirect, the application determines the address at which it wants to park the call. With nondirected park, the switch determines the address and provides this to the application. In either case, a parked call can be unparked by specifying this address.

The parked call enters the disconnected state after it has been successfully parked.

Some switches can remind the user after a call has been parked for some long amount of time. The application sees an offering call with a call reason set to reminder.

**See also**

- 166.25 TAPI.ParkDirect

7880

Created 22nd October 2014, last changed 1st December 2014.

## 166.27 TAPI.Pickup

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Pickup"; Call; GroupID )

### Parameters

#### Call

The call reference number.

\$Call

#### GroupID

The group identifier to which the alerting station belongs.

**Result** Returns OK or error.

### Description

Created 22nd October 2014, last changed 1st December 2014.

## 166.28 TAPI.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Release"; Call )

### Parameters

#### Call

The call reference number.

\$Call

**Result** Returns OK or error.

### Description

#### See also

- 104.16 LDAP.Release 5469
- 166.29 TAPI.ReleaseAll 7884

Created 30th November 2014, last changed 1st January 2015.

**166.29 TAPI.ReleaseAll**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.ReleaseAll" )

**Result** Returns OK or error.

**Description**

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

**See also**

- 62.150 CURL.ReleaseAll 2013
- 99.11 Java.ReleaseAll 5246
- 102.68 JSON.ReleaseAll 5411
- 114.24 Menu.ReleaseAll 5988
- 166.28 TAPI.Release 7883
- 194.31 XML.ReleaseAll 9455

Created 30th November 2014, last changed 9th January 2020.



## 166.30 TAPI.RemoveFromConference

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.RemoveFromConference"; Call )

### Parameters

#### Call

The call reference number.

\$Call

**Result** Returns OK or error.

### Description

Created 22nd October 2014, last changed 1st December 2014.

## 166.31 TAPI.SetCallStateEvaluate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.SetCallStateEvaluate"; Expression )

### Parameters

#### Expression

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

### Description

The \$\$ID\$\$ in evaluate is replaced with the reference number of the call as defined by our plugin. You can than use TAPI.CallInfo and other functions to query information.

#### See also

- 166.5 TAPI.CallInfo 7858
- 166.11 TAPI.GetCallStateEvaluate 7866

### 166.31.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 4th April 2018.

## 166.32 TAPI.SetCallStateScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	No	No	No

MBS( "TAPI.SetCallStateScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

The script is called when an existing call changes state.

The parameter to your script will be the reference number of the call as defined by our plugin. You can than use TAPI.CallInfo and other functions to query information like the state of the call.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### See also

- [166.5 TAPI.CallInfo](#) 7858
- [166.13 TAPI.GetCallStateScriptName](#) 7868

### Example Databases

- [Win Only/TAPI/Tapi](#)

#### 166.32.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 27th January 2016.

## 166.33 TAPI.SetCallStateURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.SetCallStateURL"; URL )

### Parameters

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with call ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

### See also

- 166.14 TAPI.GetCallStateURL

7869

### 166.33.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

**166.34 TAPI.SetNewCallEvaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.SetNewCallEvaluate"; Expression )

**Parameters****Expression**

The expression to evaluate. Can be in local language of FileMaker Pro or english. For Server must always be in english.

**Result** Returns OK or error.

**Description**

The \$\$ID\$\$ in evaluate is replaced with the reference number of the call as defined by our plugin. You can than use TAPI.CallInfo and other functions to query information.

**See also**

- 166.5 TAPI.CallInfo 7858
- 166.15 TAPI.GetNewCallEvaluate 7870

**166.34.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 4th April 2018.

## 166.35 TAPI.SetNewCallScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	No	No	No

MBS( "TAPI.SetNewCallScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

The parameter to your script will be the reference number of the call as defined by our plugin. You can than use TAPI.CallInfo and other functions to query information.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Set the script to trigger for new calls:

```
Set Variable [ $r; Value:MBS("TAPI.SetNewCallScript"; Get(Filename); "NewCallScript") ]
```

### See also

- [166.5 TAPI.CallInfo](#) 7858
- [166.17 TAPI.GetNewCallScriptName](#) 7872

### Example Databases

- [Win Only/TAPI/Tapi](#)

### 166.35.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr2](#)

Created 30th November 2014, last changed 25th November 2019.

## 166.36 TAPI.SetNewCallURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	6.5	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.SetNewCallURL"; URL )

### Parameters

#### URL

The URL to trigger.

**Result** Returns OK or error.

### Description

\$\$ID\$\$ in the URL is replaced with menu ID.

Queries http/ftp/sftp URLs with CURL, other URLs passed to OS to open.

### See also

- 166.18 TAPI.GetNewCallURL

7873

### 166.36.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)

Created 11st October 2016, last changed 11st October 2016.

## 166.37 TAPI.Shutdown

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Shutdown" )

**Result** Returns OK or error.

### Description

This function frees all system resources allocated for TAPI.  
Created 22nd October 2014, last changed 22nd October 2014.



## 166.38 TAPI.Transfer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	5.0	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Transfer"; Call; OtherCall; Sync )

### Parameters

#### Call

The call reference number.

\$Call

#### OtherCall

The other call reference number. This is the consultation call created for the transfer.

\$Call2

#### Sync

Indicates whether the method should be completed synchronously (1) or asynchronously (0).

1

**Result** Returns OK or error.

### Description

Call transfer involves setting up a consultation call in preparation for the transfer. Call2 is the identifier returned TAPI.CreateCall following the creation of a consultation call. TAPI.Finish (with AsTransfer) completes the transfer.

If the consultation call is not in the Connected state when Transfer is called, TAPI will use the destination address (as specified when the consultation call was first created via TAPI.CreateCall and try to connect at that time. If the original call had an empty destination address, Transfer will fail with error (invalid argument).

### See also

- 166.7 TAPI.CreateCall 7861
- 166.10 TAPI.Finish 7865

### 166.38.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr3](#)

Created 3th December 2014, last changed 3th December 2014.

## 166.39 TAPI.Unpark

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
166 TAPI	4.4	No	Yes	Yes, Windows only	No	No

MBS( "TAPI.Unpark"; Call )

### Parameters

#### Call

The call reference number.

\$Call

**Result** Returns OK or error.

### Description

Created 22nd October 2014, last changed 1st December 2014.

# Chapter 167

## Text

Functions for working with text.

### 167.1 Text.AddLineNumbers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.AddLineNumbers"; Text { ; StyleTemplate; Delimiter } )

#### Parameters

##### Text

The text to process.

"Hello World"

##### StyleTemplate

Optional

The styled text to use as template for line numbers. We only use style for the nubers and text is ignored. If empty, this parameter is ignored.

TextFont("test"; "Courier"; "")

##### Delimiter

Optional

The optional delimiter. Default are two space characters.

": "

**Result** Returns text or error.

#### Description

Preserves the styles in the text and adds line numbers as prefix.

Depending on how many lines we have, we may use 2 to 6 digits for numbers.

Works fine for JSON, XML, JavaScript, HTML or any other text.

See also XML.Format & JSON.Format to format and XML.Colorize & JSON.Colorize for colors.

### Examples

Format, colorize and apply line numbers:

```
MBS( "Text.AddLineNumbers";
// colorize it
MBS("JSON.Colorize";
// format before colorize
MBS( "JSON.Format"; JSON Input)
);
// define which style to use for numbers
TextColor (
TextFont ( " "; "Courier" );
RGB ( 0 ; 0 ; 255 )
)
)
```

### See also

- [102.16 JSON.Colorize](#) 5334
- [102.40 JSON.Format](#) 5368
- [194.5 XML.Colorize](#) 9415
- [194.9 XML.Format](#) 9422

### Example Databases

- [CURL/Amazon S3 Buckets](#)
- [JSON/JSON Colored](#)
- [Network/Bonjour](#)

#### 167.1.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [MBS FileMaker Plugin, version 8.3pr1](#)
- [Colorize JSON or XML in FileMaker with line numbers](#)

Created 27th May 2018, last changed 5th July 2018.

## 167.2 Text.AppendTextFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.8	Yes	Yes	Yes	Yes	Yes

MBS( "Text.AppendTextFile"; Text; FilePath { ; encoding } )

(old name: String.AppendTextFile)

### Parameters

#### Text

The text to save.

"Hello World"

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac.

"test.txt"

#### encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns "OK" or an error message.

### Description

If the file does not exist, it will be created. You can use this function for logging to a text file.

Please use `Text.ReplaceNewline` to define which line endings the file has.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Write UTF-8 file with some text:

```
MBS("Text.AppendTextFile"; $Text; $Path; "utf8" )
```

Write a test text file:

```
MBS("Text.AppendTextFile"; "Hello World. Some umlauts: äöü"; "/Users/cs/Desktop/testfile.txt"; "native")
```

### See also

- 45.1 BinaryFile.Append

- 80.13 FM.DataViewerContent 3953
- 90.17 HotKey.SetEvaluate 4914
- 124.2 Path.FileMakerPathToNativePath 6247
- 167.49 Text.ReadTextFile 7971
- 167.59 Text.ReplaceNewline 7985
- 167.68 Text.WriteTextFile 7999

### 167.2.1 Blog Entries

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)

Created 18th August 2014, last changed 16th September 2016.

## 167.3 Text.CapitalCase

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.CapitalCase"; Text )

### Parameters

#### Text

The text to process.

"hello WORLD"

**Result** Returns text or error.

### Description

First letter of a word is made upper case, all others to lower case.

Often people enter in forms all kinds of upper/lower case letters and you may want to normalize using this function.

See also Text.UpperCase, Text.LowerCase and Text.RemoveAccents.

### Examples

Fix HAMBURG:

MBS( "Text.CapitalCase"; "HAMBURG" )

MBS( "Text.CapitalCase"; "HAMBurg" )

Example result: Hamburg

Fix Schleswig-Holstein:

MBS( "Text.CapitalCase"; "SCHLESWIG-HOLSTEIN" )

Example result: Schleswig-Holstein

### See also

- 167.45 Text.LowerCase 7966
- 167.52 Text.RemoveAccents 7977
- 167.67 Text.UpperCase 7998

### Example Databases

- [Text functions/Change Letter Case](#)

### 167.3.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 10th March 2015, last changed 11st December 2016.



## 167.4 Text.Character

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Character"; Character Number )

### Parameters

#### Character Number

The unicode codepoint.

65

**Result** Returns OK or error.

### Description

The FileMaker Char() function works only for unicode values up to 65535. This function works with higher values up to 2 billion.

See also Text.Code.

### Examples

Test the function:

```
"Shows a musical symbol: " & char(119070) & " " & MBS("Text.Character"; 119070)
```

Example result: Shows a musical symbol:

Get smiley:

```
MBS("Text.Character"; 128512)
```

Example result:

Build country flag from country code:

```
MBS( "Text.Character"; 127397 + Code ( "D" )) & MBS( "Text.Character"; 127397 + Code ( "E" ))
```

Example result:

### See also

- 167.5 Text.Characters 7903
- 167.6 Text.Code 7904
- 167.9 Text.ConvertUnicodeToCharacterComposition 7918
- 167.10 Text.ConvertUnicodeToCharacterDecomposition 7920

### 167.4.1 Blog Entries

- [Using Emojis in FileMaker](#)
- [MBS FileMaker Plugin, version 5.2pr2](#)
- [Just added functions](#)

Created 4th June 2015, last changed 17th September 2018.

## 167.5 Text.Characters

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Characters"; Text )

### Parameters

#### Text

The text to process.

"Hello"

**Result** Returns text or error.

### Description

Similar to walking over all characters, getting the unicode code point for the character and return its number.

### Examples

Get characters from Hello:

MBS( "Text.Characters"; "Hello" )

Example result: 72 101 108 108 111

### See also

- [167.4 Text.Character](#) 7901
- [167.9 Text.ConvertUnicodeToCharacterComposition](#) 7918
- [167.10 Text.ConvertUnicodeToCharacterDecomposition](#) 7920

### Example Databases

- [Text functions/Unicode Compositions](#)

Created 3th August 2015, last changed 4th November 2019.

## 167.6 Text.Code

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Code"; Char )

### Parameters

#### Char

The text character to look at.  
"""

**Result** Returns OK or error.

### Description

Returns the unicode code point. Compared to FileMaker's Code() function, this function does handle codes over 65535.

See also Text.Character.

### Examples

Query code for a smiley:

```
MBS( "Text.Code"; "" )
```

Example result: 128512

### See also

- 167.4 Text.Character

7901

### 167.6.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr2](#)
- [Just added functions](#)

Created 4th June 2015, last changed 11st December 2016.

## 167.7 Text.ConvertFromTextEncoding

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ConvertFromTextEncoding"; Text; Encoding )

### Parameters

#### Text

The hex encoded text to convert.

"48656C6C6F209B9D"

#### Encoding

The source encoding.

"CP465"

**Result** Returns text or error.

### Description

Returns text in unicode as FileMaker needs it.

As we use iconv library here, we can handle many more encodings than the standard FileMaker text functions used within the plugin.

Encoding list with alternative names:

- ANSI\_X3.4-1968,ANSI\_X3.4-1986,ASCII,CP367,IBM367,ISO-IR-6,ISO646-US,ISO\_646.IRV:1991,US,US-ASCII,CSASCII
- UTF-8
- ISO-10646-UCS-2,UCS-2,CSUNICODE
- UCS-2BE,UNICODE-1-1,UNICODEBIG,CSUNICODE11
- UCS-2LE,UNICODELITTLE
- ISO-10646-UCS-4,UCS-4,CSUCS4
- UCS-4BE
- UCS-4LE
- UTF-16
- UTF-16BE
- UTF-16LE
- UTF-32

- UTF-32BE
- UTF-32LE
- UNICODE-1-1-UTF-7,UTF-7,CSUNICODE11UTF7
- UCS-2-INTERNAL
- UCS-2-SWAPPED
- UCS-4-INTERNAL
- UCS-4-SWAPPED
- C99
- JAVA
- CP819,IBM819,ISO-8859-1,ISO-IR-100,ISO8859-1,ISO\_8859-1,ISO\_8859-1:1987,L1,LATIN1,CSISOLATIN1
- ISO-8859-2,ISO-IR-101,ISO8859-2,ISO\_8859-2,ISO\_8859-2:1987,L2,LATIN2,CSISOLATIN2
- ISO-8859-3,ISO-IR-109,ISO8859-3,ISO\_8859-3,ISO\_8859-3:1988,L3,LATIN3,CSISOLATIN3
- ISO-8859-4,ISO-IR-110,ISO8859-4,ISO\_8859-4,ISO\_8859-4:1988,L4,LATIN4,CSISOLATIN4
- CYRILLIC,ISO-8859-5,ISO-IR-144,ISO8859-5,ISO\_8859-5,ISO\_8859-5:1988,CSISOLATINCYRILLIC
- ARABIC,ASMO-708,ECMA-114,ISO-8859-6,ISO-IR-127,ISO8859-6,ISO\_8859-6,ISO\_8859-6:1987,CSISOLATINARABIC
- ECMA-118,ELOT\_928,GREEK,GREEK8,ISO-8859-7,ISO-IR-126,ISO8859-7,ISO\_8859-7,ISO\_8859-7:1987,ISO\_8859-7:2003,CSISOLATINGREEK
- HEBREW,ISO-8859-8,ISO-IR-138,ISO8859-8,ISO\_8859-8,ISO\_8859-8:1988,CSISOLATINHEBREW
- ISO-8859-9,ISO-IR-148,ISO8859-9,ISO\_8859-9,ISO\_8859-9:1989,L5,LATIN5,CSISOLATIN5
- ISO-8859-10,ISO-IR-157,ISO8859-10,ISO\_8859-10,ISO\_8859-10:1992,L6,LATIN6,CSISOLATIN6
- ISO-8859-11,ISO8859-11,ISO\_8859-11
- ISO-8859-13,ISO-IR-179,ISO8859-13,ISO\_8859-13,L7,LATIN7
- ISO-8859-14,ISO-CELTIC,ISO-IR-199,ISO8859-14,ISO\_8859-14,ISO\_8859-14:1998,L8,LATIN8
- ISO-8859-15,ISO-IR-203,ISO8859-15,ISO\_8859-15,ISO\_8859-15:1998,LATIN-9
- ISO-8859-16,ISO-IR-226,ISO8859-16,ISO\_8859-16,ISO\_8859-16:2001,L10,LATIN10
- KOI8-R,CSKOI8R
- KOI8-U
- KOI8-RU
- CP1250,MS-EE,WINDOWS-1250
- CP1251,MS-CYRL,WINDOWS-1251

- CP1252,MS-ANSI,WINDOWS-1252
- CP1253,MS-GREEK,WINDOWS-1253
- CP1254,MS-TURK,WINDOWS-1254
- CP1255,MS-HEBR,WINDOWS-1255
- CP1256,MS-ARAB,WINDOWS-1256
- CP1257,WINBALTRIM,WINDOWS-1257
- CP1258,WINDOWS-1258
- 850,CP850,IBM850,CSPC850MULTILINGUAL
- 862,CP862,IBM862,CSPC862LATINHEBREW
- 866,CP866,IBM866,CSIBM866
- CP1131
- MAC,MACINTOSH,MACROMAN,CSMACINTOSH
- MACCENTRALEUROPE
- MACICELAND
- MACCROATIAN
- MACROMANIA
- MACCYRILLIC
- MACUKRAINE
- MACGREEK
- MACTURKISH
- MACHEBREW
- MACARABIC
- MACTHAI
- HP-ROMAN8,R8,ROMAN8,CSHPROMAN8
- NEXTSTEP
- ARMSCII-8
- GEORGIAN-ACADEMY
- GEORGIAN-PS
- KOI8-T

- CP154,CYRILLIC-ASIAN,PT154,PTCP154,CSPTCP154
- KZ-1048,RK1048,STRK1048-2002,CSKZ1048
- MULELAO-1
- CP1133,IBM-CP1133
- ISO-IR-166,TIS-620,TIS620,TIS620-0,TIS620.2529-1,TIS620.2533-0,TIS620.2533-1
- CP874,WINDOWS-874
- VISCI,VISCI1.1-1,CSVISCI
- TCVN,TCVN-5712,TCVN5712-1,TCVN5712-1:1993
- ISO-IR-14,ISO646-JP,JIS\_C6220-1969-RO,JP,CSISO14JISC6220RO
- JISX0201-1976,JIS\_X0201,X0201,CSHALFWIDTHKATAKANA
- ISO-IR-87,JIS0208,JIS\_C6226-1983,JIS\_X0208,JIS\_X0208-1983,JIS\_X0208-1990,X0208,CSISO87JISX0208
- ISO-IR-159,JIS\_X0212,JIS\_X0212-1990,JIS\_X0212.1990-0,X0212,CSISO159JISX02121990
- CN,GB\_1988-80,ISO-IR-57,ISO646-CN,CSISO57GB1988
- CHINESE,GB\_2312-80,ISO-IR-58,CSISO58GB231280
- CN-GB-ISOIR165,ISO-IR-165
- ISO-IR-149,KOREAN,KSC\_5601,KS\_C\_5601-1987,KS\_C\_5601-1989,CSKSC56011987
- EUC-JP,EUCJP,EXTENDED\_UNIX\_CODE\_PACKED\_FORMAT\_FOR\_JAPANESE,CSEUCPKDFMTJAPANESE
- MS\_KANJI,SHIFT-JIS,SHIFT\_JIS,SJIS,CSSHIFTJIS
- CP932
- ISO-2022-JP,CSISO2022JP
- ISO-2022-JP-1
- ISO-2022-JP-2,CSISO2022JP2
- CP50221,ISO-2022-JP-MS
- CN-GB,EUC-CN,EUCCN,GB2312,CSGB2312
- GBK
- CP936,MS936,WINDOWS-936
- GB18030
- ISO-2022-CN,CSISO2022CN
- ISO-2022-CN-EXT



- HZ,HZ-GB-2312
- EUC-TW,EUCTW,CSEUCTW
- BIG-5,BIG-FIVE,BIG5,BIGFIVE,CN-BIG5,CSBIG5
- CP950
- BIG5-HKSCS:1999
- BIG5-HKSCS:2001
- BIG5-HKSCS:2004
- BIG5-HKSCS,BIG5-HKSCS:2008,BIG5HKSCS
- EUC-KR,EUCKR,CSEUCKR
- CP949,UHC
- CP1361,JOHAB
- ISO-2022-KR,CSISO2022KR
- CP856
- CP922
- CP943
- CP1046
- CP1124
- CP1129
- CP1161,IBM-1161,IBM1161,CSIBM1161
- CP1162,IBM-1162,IBM1162,CSIBM1162
- CP1163,IBM-1163,IBM1163,CSIBM1163
- DEC-KANJI
- DEC-HANYU
- 437,CP437,IBM437,CSPC8CODEPAGE437
- CP737
- CP775,IBM775,CSPC775BALTIC
- 852,CP852,IBM852,CSPCP852
- CP853
- 855,CP855,IBM855,CSIBM855

- 857,CP857,IBM857,CSIBM857
- CP858
- 860,CP860,IBM860,CSIBM860
- 861,CP-IS,CP861,IBM861,CSIBM861
- 863,CP863,IBM863,CSIBM863
- CP864,IBM864,CSIBM864
- 865,CP865,IBM865,CSIBM865
- 869,CP-GR,CP869,IBM869,CSIBM869
- CP1125
- EUC-JIS-2004,EUC-JISX0213
- SHIFT\_JIS-2004,SHIFT\_JISX0213
- ISO-2022-JP-2004,ISO-2022-JP-3
- BIG5-2003
- ISO-IR-230,TDS565
- ATARI,ATARIST
- RISCOS-LATIN1

See also `Text.ConvertToTextEncoding` function.

#### Examples

Convert from nordic:

```
MBS( "Text.ConvertFromTextEncoding"; "48656C6C6F209B9D"; "CP865" )
```

Example result: "Hello øØ"

#### See also

- 167.8 `Text.ConvertToTextEncoding`

7911

### 167.7.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr2](#)
- [More Text Encoding conversion for FileMaker](#)

Created 13th August 2019, last changed 13th August 2019.

## 167.8 Text.ConvertToTextEncoding

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	9.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ConvertToTextEncoding"; Text; Encoding )

### Parameters

#### Text

The text to convert.

"Hello World"

#### Encoding

The desired encoding. Maybe appended by //TRANSLIT or //IGNORE to reduce number of errors.

"UTF8//TRANSLIT"

**Result** Returns hex text or error.

### Description

Returns text in hex encoded bytes.

As we use iconv library here, we can handle many more encodings than the standard FileMaker text functions used within the plugin.

If the string //IGNORE is appended to to-encoding, characters that cannot be converted are discarded and an error is printed after conversion.

If the string //TRANSLIT is appended to to-encoding, characters being converted are transliterated when needed and possible. This means that when a character cannot be represented in the target character set, it can be approximated through one or several similar looking characters. Characters that are outside of the target character set and cannot be transliterated are replaced with a question mark (?) in the output.

Encoding list with alternative names:

- ANSI\_X3.4-1968,ANSI\_X3.4-1986,ASCII,CP367,IBM367,ISO-IR-6,ISO646-US,ISO\_646.IRV:1991,US,US-ASCII,CSASCII
- UTF-8
- ISO-10646-UCS-2,UCS-2,CSUNICODE
- UCS-2BE,UNICODE-1-1,UNICODEBIG,CSUNICODE11
- UCS-2LE,UNICODELITTLE
- ISO-10646-UCS-4,UCS-4,CSUCS4
- UCS-4BE

- UCS-4LE
- UTF-16
- UTF-16BE
- UTF-16LE
- UTF-32
- UTF-32BE
- UTF-32LE
- UNICODE-1-1-UTF-7,UTF-7,CSUNICODE11UTF7
- UCS-2-INTERNAL
- UCS-2-SWAPPED
- UCS-4-INTERNAL
- UCS-4-SWAPPED
- C99
- JAVA
- CP819,IBM819,ISO-8859-1,ISO-IR-100,ISO8859-1,ISO\_8859-1,ISO\_8859-1:1987,L1,LATIN1,CSISOLATIN1
- ISO-8859-2,ISO-IR-101,ISO8859-2,ISO\_8859-2,ISO\_8859-2:1987,L2,LATIN2,CSISOLATIN2
- ISO-8859-3,ISO-IR-109,ISO8859-3,ISO\_8859-3,ISO\_8859-3:1988,L3,LATIN3,CSISOLATIN3
- ISO-8859-4,ISO-IR-110,ISO8859-4,ISO\_8859-4,ISO\_8859-4:1988,L4,LATIN4,CSISOLATIN4
- CYRILLIC,ISO-8859-5,ISO-IR-144,ISO8859-5,ISO\_8859-5,ISO\_8859-5:1988,CSISOLATINCYRILLIC
- ARABIC,ASMO-708,ECMA-114,ISO-8859-6,ISO-IR-127,ISO8859-6,ISO\_8859-6,ISO\_8859-6:1987,CSISOLATINARABIC
- ECMA-118,ELOT\_928,GREEK,GREEK8,ISO-8859-7,ISO-IR-126,ISO8859-7,ISO\_8859-7,ISO\_8859-7:1987,ISO\_8859-7:2003,CSISOLATINGREEK
- HEBREW,ISO-8859-8,ISO-IR-138,ISO8859-8,ISO\_8859-8,ISO\_8859-8:1988,CSISOLATINHEBREW
- ISO-8859-9,ISO-IR-148,ISO8859-9,ISO\_8859-9,ISO\_8859-9:1989,L5,LATIN5,CSISOLATIN5
- ISO-8859-10,ISO-IR-157,ISO8859-10,ISO\_8859-10,ISO\_8859-10:1992,L6,LATIN6,CSISOLATIN6
- ISO-8859-11,ISO8859-11,ISO\_8859-11
- ISO-8859-13,ISO-IR-179,ISO8859-13,ISO\_8859-13,L7,LATIN7
- ISO-8859-14,ISO-CELTIC,ISO-IR-199,ISO8859-14,ISO\_8859-14,ISO\_8859-14:1998,L8,LATIN8
- ISO-8859-15,ISO-IR-203,ISO8859-15,ISO\_8859-15,ISO\_8859-15:1998,LATIN-9
- ISO-8859-16,ISO-IR-226,ISO8859-16,ISO\_8859-16,ISO\_8859-16:2001,L10,LATIN10

- KOI8-R,CSKOI8R
- KOI8-U
- KOI8-RU
- CP1250,MS-EE,WINDOWS-1250
- CP1251,MS-CYRL,WINDOWS-1251
- CP1252,MS-ANSI,WINDOWS-1252
- CP1253,MS-GREEK,WINDOWS-1253
- CP1254,MS-TURK,WINDOWS-1254
- CP1255,MS-HEBR,WINDOWS-1255
- CP1256,MS-ARAB,WINDOWS-1256
- CP1257,WINBALTRIM,WINDOWS-1257
- CP1258,WINDOWS-1258
- 850,CP850,IBM850,CSPC850MULTILINGUAL
- 862,CP862,IBM862,CSPC862LATINHEBREW
- 866,CP866,IBM866,CSIBM866
- CP1131
- MAC,MACINTOSH,MACROMAN,CSMACINTOSH
- MACCENTRALEUROPE
- MACICELAND
- MACCROATIAN
- MACROMANIA
- MACCYRILLIC
- MACUKRAINE
- MACGREEK
- MACTURKISH
- MACHEBREW
- MACARABIC
- MACTHAI
- HP-ROMAN8,R8,ROMAN8,CSHPROMAN8

- NEXTSTEP
- ARMSCH-8
- GEORGIAN-ACADEMY
- GEORGIAN-PS
- KOI8-T
- CP154,CYRILLIC-ASIAN,PT154,PTCP154,CSPTCP154
- KZ-1048,RK1048,STRK1048-2002,CSKZ1048
- MULELAO-1
- CP1133,IBM-CP1133
- ISO-IR-166,TIS-620,TIS620,TIS620-0,TIS620.2529-1,TIS620.2533-0,TIS620.2533-1
- CP874,WINDOWS-874
- VISCII,VISCII1.1-1,CSVISCII
- TCVN,TCVN-5712,TCVN5712-1,TCVN5712-1:1993
- ISO-IR-14,ISO646-JP,JIS\_C6220-1969-RO,JP,CSISO14JISC6220RO
- JISX0201-1976,JIS\_X0201,X0201,CSHALFWIDTHKATAKANA
- ISO-IR-87,JIS0208,JIS\_C6226-1983,JIS\_X0208,JIS\_X0208-1983,JIS\_X0208-1990,X0208,CSISO87JISX0208
- ISO-IR-159,JIS\_X0212,JIS\_X0212-1990,JIS\_X0212.1990-0,X0212,CSISO159JISX02121990
- CN,GB\_1988-80,ISO-IR-57,ISO646-CN,CSISO57GB1988
- CHINESE,GB\_2312-80,ISO-IR-58,CSISO58GB231280
- CN-GB-ISOIR165,ISO-IR-165
- ISO-IR-149,KOREAN,KSC\_5601,KS\_C\_5601-1987,KS\_C\_5601-1989,CSKSC56011987
- EUC-JP,EUCJP,EXTENDED\_UNIX\_CODE\_PACKED\_FORMAT\_FOR\_JAPANESE,CSEUCPKDFMTJAPANESE
- MS\_KANJI,SHIFT-JIS,SHIFT\_JIS,SJIS,CSHIFTJIS
- CP932
- ISO-2022-JP,CSISO2022JP
- ISO-2022-JP-1
- ISO-2022-JP-2,CSISO2022JP2
- CP50221,ISO-2022-JP-MS
- CN-GB,EUC-CN,EUCCN,GB2312,CSGB2312

- GBK
- CP936,MS936,WINDOWS-936
- GB18030
- ISO-2022-CN,CSISO2022CN
- ISO-2022-CN-EXT
- HZ,HZ-GB-2312
- EUC-TW,EUCTW,CSEUCTW
- BIG-5,BIG-FIVE,BIG5,BIGFIVE,CN-BIG5,CSBIG5
- CP950
- BIG5-HKSCS:1999
- BIG5-HKSCS:2001
- BIG5-HKSCS:2004
- BIG5-HKSCS,BIG5-HKSCS:2008,BIG5HKSCS
- EUC-KR,EUCKR,CSEUCKR
- CP949,UHC
- CP1361,JOHAB
- ISO-2022-KR,CSISO2022KR
- CP856
- CP922
- CP943
- CP1046
- CP1124
- CP1129
- CP1161,IBM-1161,IBM1161,CSIBM1161
- CP1162,IBM-1162,IBM1162,CSIBM1162
- CP1163,IBM-1163,IBM1163,CSIBM1163
- DEC-KANJI
- DEC-HANYU
- 437,CP437,IBM437,CSPC8CODEPAGE437

- CP737
- CP775,IBM775,CSPC775BALTIC
- 852,CP852,IBM852,CSPCP852
- CP853
- 855,CP855,IBM855,CSIBM855
- 857,CP857,IBM857,CSIBM857
- CP858
- 860,CP860,IBM860,CSIBM860
- 861,CP-IS,CP861,IBM861,CSIBM861
- 863,CP863,IBM863,CSIBM863
- CP864,IBM864,CSIBM864
- 865,CP865,IBM865,CSIBM865
- 869,CP-GR,CP869,IBM869,CSIBM869
- CP1125
- EUC-JIS-2004,EUC-JISX0213
- SHIFT\_JIS-2004,SHIFT\_JISX0213
- ISO-2022-JP-2004,ISO-2022-JP-3
- BIG5-2003
- ISO-IR-230,TDS565
- ATARI,ATARIST
- RISCOS-LATIN1

See also `Text.ConvertFromTextEncoding` function.

### Examples

Encode and decode to check:

```
HexDecode( MBS( "Text.ConvertToTextEncoding"; "Hello World äöü"; "UTF-8" ))
```

Example result: "Hello World äöü"

Convert to CP1252 and back:

```
MBS( "Text.DecodeFromHex"; MBS( "Text.ConvertToTextEncoding"; "Hello World äöü"; "CP1252" );  
"Windows")
```



Example result: "Hello World äöü"

Convert to PC865 (Nordic):

MBS( "Text.ConvertToTextEncoding"; "Hello øØ"; "CP865" )

Example result: "48656C6C6F209B9D"

**See also**

- [167.7 Text.ConvertFromTextEncoding](#) 7905
- [167.17 Text.DecodeFromHex](#) 7928

**167.8.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr2](#)
- [More Text Encoding conversion for FileMaker](#)

Created 13th August 2019, last changed 13th August 2019.

## 167.9 Text.ConvertUnicodeToCharacterComposition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ConvertUnicodeToCharacterComposition"; Text )

### Parameters

#### Text

The text to process.

"Hello"

**Result** Returns text or error.

### Description

This function replaces character represented by decomposed representation with the composed representation.

see also

[https://en.wikipedia.org/wiki/Unicode\\_equivalence](https://en.wikipedia.org/wiki/Unicode_equivalence)

### Examples

Test function:

```
# some text
Set Variable [ $text; Value:"ä ö ü" ]
# now make decomposed
Set Variable [ $decomposedText; Value:MBS("Text.ConvertUnicodeToCharacterDecomposition"; $text) ]
# and composed again
Set Variable [ $composedText; Value:MBS("Text.ConvertUnicodeToCharacterComposition"; $decomposed-
Text) ]
# Now show results. See the 776 for the Diaeresis?
Show Custom Dialog [ "Result"; $text & " " & MBS("Text.Characters"; $text) & $decomposedText &
" " & MBS("Text.Characters..." ]
```

Test character composition with ä and Char function:

```
MBS("Text.Characters"; MBS( "Text.ConvertUnicodeToCharacterComposition"; Char(97) & Char(776) ))
```

Example result: 228

### See also

- 125.19 PDFKit.GetPDFPageText 6292
- 167.4 Text.Character 7901
- 167.5 Text.Characters 7903

167.9. *TEXT.CONVERTUNICODETOCHARACTERCOMPOSITION*

7919

- 167.10 Text.ConvertUnicodeToCharacterDecomposition

7920

### **Example Databases**

- [Text functions/Unicode Compositions](#)

#### **167.9.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr4](#)

Created 3th August 2015, last changed 14th February 2020.

## 167.10 Text.ConvertUnicodeToCharacterDecomposition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ConvertUnicodeToCharacterDecomposition"; Text )

### Parameters

#### Text

The text to process.

"Hello"

**Result** Returns text or error.

### Description

This function replaces character represented by one unicode character by the decomposed variant.

see also

[https://en.wikipedia.org/wiki/Unicode\\_equivalence](https://en.wikipedia.org/wiki/Unicode_equivalence)

### Examples

Test function with ä:

```
MBS("Text.Characters"; MBS( "Text.ConvertUnicodeToCharacterComposition"; "ä" ))
```

Test with ä as 228:

```
MBS("Text.Characters"; MBS( "Text.ConvertUnicodeToCharacterDecomposition"; Char(228) ))
```

Example result: 97 776

### See also

- 167.4 Text.Character 7901
- 167.5 Text.Characters 7903
- 167.9 Text.ConvertUnicodeToCharacterComposition 7918

### Example Databases

- [Text functions/Unicode Compositions](#)

Created 3th August 2015, last changed 14th February 2020.

## 167.11 Text.CountWords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.CountWords"; Text )

### Parameters

#### Text

The text to count words.

"Hello World Hello"

**Result** Returns list or error.

### Description

We split the text into words and then count for each how often it happens.

The result contains count, tab and the word and is not sorted.

### Examples

Count words:

MBS( "Text.CountWords"; "Hello World Hello" )

Example result: 1 World

2 Hello

Works with umlauts:

MBS( "Text.CountWords"; "ä ö ü ä ö ö ö ß ß" )

Example result: 2 ß

2 ä

5 ö

1 ü

### See also

- [167.44 Text.ListWords](#)

7965

### Example Databases

- [Text functions/Word Count functions](#)

#### 167.11.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 5th February 2018, last changed 9th February 2020.

## 167.12 Text.DecodeBytesFromBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeBytesFromBase64"; text )

(old name: String.DecodeBytesFromBase64)

### Parameters

#### text

The text to process.

"QUJD"

**Result** Returns byte values text.

### Description

### See also

- 167.13 Text.DecodeFromBase64 7923
- 167.21 Text.DecodeHexFromBase64 7934
- 167.25 Text.EncodeBytesToBase64 7938

Created 18th August 2014, last changed 18th April 2016.

## 167.13 Text.DecodeFromBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromBase64"; text { ; encoding } )

(old name: String.DecodeFromBase64)

### Parameters

#### text

The text to process.

"R3LDvMOflEdvdHQulFRlc3Qg4pi6"

#### encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**Result** Returns decoded text.

### Description

This is for text only. Data encoded as base64 would probably be truncated as FileMaker texts do not contain NULL bytes.

### Examples

Decode Base64 as UTF-8:

MBS( "Text.DecodeFromBase64"; "R3LDvMOflEdvdHQulFRlc3Qg4pi6"; "utf8" )

Example result: "Grüß Gott. Test "

### See also

- 88.12 Hash.SHA256.HMAC 4873
- 167.12 Text.DecodeBytesFromBase64 7922
- 167.14 Text.DecodeFromBase64URL 7924
- 167.15 Text.DecodeFromBytes 7925
- 167.17 Text.DecodeFromHex 7928
- 167.21 Text.DecodeHexFromBase64 7934
- 167.28 Text.EncodeToBase64 7941
- 167.29 Text.EncodeToBase64URL 7942

Created 18th August 2014, last changed 11st December 2016.

## 167.14 Text.DecodeFromBase64URL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromBase64URL"; text { ; encoding } )

### Parameters

#### text

The text to process.

"R3LDvMOflEdvdHQulFRlc3Qg4pi6"

#### encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**Result** Returns decoded text.

### Description

This is for text only. Data encoded as base64 would probably be truncated as FileMaker texts do not contain NULL bytes.

### Examples

Decode Base64 as UTF-8:

MBS( "Text.DecodeFromBase64"; "SGVsbG8gV29ybGQ"; "utf8" )

### See also

- 167.13 Text.DecodeFromBase64 7923
- 167.21 Text.DecodeHexFromBase64 7934
- 167.29 Text.EncodeToBase64URL 7942

Created 21st October 2017, last changed 21st October 2017.



## 167.15 Text.DecodeFromBytes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromBytes"; text { ; Encoding } )

(old name: String.DecodeFromBytes)

### Parameters

#### text

The text to process.

"65 66 67"

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**Result** Returns decoded text.

### Description

A byte string here is a text string with byte numbers like this: "65 66 67" which as text would be "ABC".

### Examples

Decode Hex as UTF-8:

MBS( "Text.DecodeFromBytes"; "65 66 67"; "utf8" )

Example result: "ABC"

### See also

- 167.13 Text.DecodeFromBase64 7923
- 167.17 Text.DecodeFromHex 7928
- 167.16 Text.DecodeFromHTML 7926
- 167.19 Text.DecodeFromURL 7931
- 167.20 Text.DecodeFromXML 7933
- 167.30 Text.EncodeToBytes 7944

### 167.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr4](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.16 Text.DecodeFromHTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromHTML"; text { ; Options } )

(old name: String.DecodeFromHTML)

### Parameters

#### text

The text you want to decode.

"Gr& uuml;& szlig;e"

#### Options

Optional

Pass 1 to leave XML escapes unchanged.

0

**Result** The decoded text.

### Description

Removes escaping for special characters. e.g. converts "& uuml;" to "ü".

### Examples

Decode html text

MBS( "Text.DecodeFromHTML"; "Gr& uuml;& szlig;e" )

Example result: GrüÙe

Decode html entities, but leave xml entities unchanged:

MBS("Text.DecodeFromHTML"; "<test>& auml;& amp;& lt;</test>"; 1)

Example result: "<test>ä& amp;& lt;</test>"

### See also

- 73.8 EmailParser.HTMLToPlainText 3470
- 167.15 Text.DecodeFromBytes 7925
- 167.17 Text.DecodeFromHex 7928
- 167.19 Text.DecodeFromURL 7931
- 167.20 Text.DecodeFromXML 7933
- 167.31 Text.EncodeToHTML 7945

### Example Databases

- [Text functions/HTML Conversion with UTF32](#)

### 167.16.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr6](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS FileMaker Plugin, version 5.0pr7](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.17 Text.DecodeFromHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromHex"; text { ; Encoding } )

(old name: String.DecodeFromHex)

### Parameters

#### text

The text to process.

"48656C6C6F20576F726C64"

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**Result** Returns decoded text.

### Description

### Examples

Decode Hex as UTF-8:

MBS( "Text.DecodeFromHex"; "48656C6C6F20576F726C64"; "utf8" )

Example result: Hello World

Fix encoding of a string:

MBS("Text.DecodeFromHex"; MBS("Text.EncodeToHex"; "<string>Eine M/ebel-Handelsgesellschaft m.b.H</string>"; "Native"); "UTF-8")

Example result: <string>Eine Möbel-Handelsgesellschaft m.b.H</string>

### See also

- 157.11 Socket.Connect 7313
- 157.70 Socket.WriteHex 7388
- 167.8 Text.ConvertToTextEncoding 7911
- 167.13 Text.DecodeFromBase64 7923
- 167.15 Text.DecodeFromBytes 7925
- 167.16 Text.DecodeFromHTML 7926

167.17. <i>TEXT.DECODEFROMHEX</i>	7929
• 167.19 Text.DecodeFromURL	7931
• 167.20 Text.DecodeFromXML	7933
• 167.32 Text.EncodeToHex	7947

### **Example Databases**

- [Text functions/Repair Text Encoding Problems](#)

### **167.17.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.18 Text.DecodeFromQuotedPrintable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromQuotedPrintable"; Text { ; Encoding } )

(old name: String.DecodeFromQuotedPrintable)

### Parameters

#### Text

The text to decode.

#### Encoding

Optional

The text encoding for result. Default is native.

"UTF-8"

**Result** Returns OK or error.

### Description

### Examples

Decode Wünsche:

```
MBS( "Text.DecodeFromQuotedPrintable"; "W=C3=BCnsche"; "UTF8")
```

Example result: Wünsche

### See also

- 167.33 Text.EncodeToQuotedPrintable

7949

Created 3th September 2014, last changed 11st December 2016.

**167.19 Text.DecodeFromURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromURL"; text { ; Encoding } )

(old name: String.DecodeFromURL)

**Parameters****text**

The text to process.

"Hello+% C3% B6% C3% A4% C3% BC"

**Encoding**

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

"UTF-8"

**Result** Returns decoded text.

**Description**

This function should work the same as PHP's urldecode function.

**Examples**

Decode URL as UTF-8:

```
MBS( "Text.DecodeFromURL"; "Hello+World"; "utf8" )
```

Example result: Hello World

Encode and Decode with umlauts and UTF-8:

```
$v = "Hello öäü"
```

```
$e = MBS( "Text.EncodeToURL"; "$v; "utf8" )
```

```
# e has now value "Hello+% C3% B6% C3% A4% C3% BC"
```

```
$d = MBS( "Text.DecodeFromURL"; $e; "utf8" )
```

```
# d has now value "Hello öäü"
```

**See also**

- 167.15 Text.DecodeFromBytes 7925
- 167.17 Text.DecodeFromHex 7928
- 167.16 Text.DecodeFromHTML 7926
- 167.20 Text.DecodeFromXML 7933
- 167.34 Text.EncodeToURL 7950





## 167.20 Text.DecodeFromXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeFromXML"; text )

(old name: String.DecodeFromXML)

### Parameters

**text**

The text you want to decode.

"test & lt; this"

**Result** The decoded text.

### Description

Removes escaping for special characters.

See also Text.DecodeFromHTML to decode html entities.

### Examples

Decode xml text

MBS( "Text.DecodeFromXML"; "test & lt; this" )

Example result: test <this

### See also

- 167.15 Text.DecodeFromBytes 7925
- 167.17 Text.DecodeFromHex 7928
- 167.16 Text.DecodeFromHTML 7926
- 167.19 Text.DecodeFromURL 7931
- 194.27 XML.Query 9448

### 167.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

### 167.20.2 FileMaker Magazin

- Ausgabe 4/2016, Seite 19

Created 18th August 2014, last changed 16th April 2020.

## 167.21 Text.DecodeHexFromBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeHexFromBase64"; text )

(old name: String.DecodeHexFromBase64)

### Parameters

#### text

The text to process.

"QUJD"

**Result** Returns hex encoded text.

### Description

### See also

- 167.12 Text.DecodeBytesFromBase64 7922
- 167.13 Text.DecodeFromBase64 7923
- 167.14 Text.DecodeFromBase64URL 7924
- 167.27 Text.EncodeHexToBase64 7940

Created 18th August 2014, last changed 18th April 2016.

## 167.22 Text.DecodeIMAPFolderName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	9.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeIMAPFolderName"; Text )

### Parameters

#### Text

The text in IMAP's modified UTF-7 encoding.  
"Test& AOk-"

**Result** Returns OK or error.

### Description

Use this for IMAP folder names to decode the name and show to user.

### Examples

Decode Entwürfe:

MBS( "Text.DecodeIMAPFolder"; "Entw& APw-rfe" )

Example result: "Entwürfe"

Decode Testé&

MBS( "Text.DecodeIMAPFolder"; "Test& AOk-& -" )

Example result: "Testé& "

Decode path with chinese characters:

MBS( "Text.DecodeIMAPFolder"; "~peter/mail/& ZeVnLIqe-/& U,BTFw-" )

Example result: "~peter/mail//"

### 167.22.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 18th March 2019, last changed 18th March 2019.

## 167.23 Text.DecodeURLComponent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.DecodeURLComponent"; text )

(old name: String.DecodeURLComponent)

### Parameters

#### text

The text to decode.

\$URL

**Result** Returns encoded string.

### Description

### Examples

Decode an URL:

```
MBS("Text.DecodeURLComponent"; "http% 3A% 2F% 2Fwww% 2Embsplugins% 2Ede")
```

Example result: <http://www.mbsplugins.de>

### See also

- 167.36 Text.EncodeURLComponent

7954

Created 18th August 2014, last changed 11st December 2016.

## 167.24 Text.Deserialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Deserialize"; Text )

### Parameters

#### Text

The serialized data as text.

**Result** Returns text or error.

### Description

#### See also

- 105.12 List.Deserialize 5510
- 167.60 Text.Serialize 7988

### 167.24.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 28th October 2015, last changed 28th October 2015.

## 167.25 Text.EncodeBytesToBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeBytesToBase64"; text )

(old name: String.EncodeBytesToBase64)

### Parameters

#### text

The text to process.

"65 66 67"

**Result** Returns base64 encoded text.

### Description

### Examples

Encode ABC:

MBS( "Text.EncodeBytesToBase64"; "65 66 67" )

Example result: QUJD

### See also

- 167.12 Text.DecodeBytesFromBase64 7922
- 167.27 Text.EncodeHexToBase64 7940
- 167.28 Text.EncodeToBase64 7941

Created 18th August 2014, last changed 11st December 2016.

**167.26 Text.EncodeEmailSubject**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeEmailSubject"; Text )

(old name: String.EncodeEmailSubject)

**Parameters****Text**

The text to encode.

"Hello World äöü"

**Result** Returns email subject text.

**Description**

Text is encoded with UTF-8 Quoted Printable encoding.

If text does not need to be encoded (pure ASCII), we return the input text.

**Examples**

Encode a text which does not need encoding:

MBS( "Text.EncodeEmailSubject"; "Hello World" )

Example result: Hello World

Encodes a text with umlauts:

MBS( "Text.EncodeEmailSubject"; "Hello äöü" )

Example result: "=?UTF-8?Q?Hello\_=C3=A4=C3=B6=C3=BC?="

Created 18th August 2014, last changed 16th February 2018.

## 167.27 Text.EncodeHexToBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeHexToBase64"; text )

(old name: String.EncodeHexToBase64)

### Parameters

#### text

The text to process.

"414243"

**Result** Returns base64 encoded text.

### Description

### See also

- 167.21 Text.DecodeHexFromBase64 7934
- 167.25 Text.EncodeBytesToBase64 7938
- 167.28 Text.EncodeToBase64 7941
- 167.29 Text.EncodeToBase64URL 7942

### Example Databases

- [Encryption and Hash/Certificate Info](#)

Created 18th August 2014, last changed 18th April 2016.



## 167.28 Text.EncodeToBase64

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToBase64"; text { ; encoding } )

(old name: String.EncodeToBase64)

### Parameters

#### text

The text to process.

"Hello World"

#### encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns encoded text.

### Description

Please check what text encoding you want to use. Especially what the software processing the base64 string expects.

### Examples

Encode Base64 as UTF-8:

MBS( "Text.EncodeToBase64"; "Hello World"; "utf8" )

Example result: "SGVsbG8gV29ybGQ="

### See also

- 88.12 Hash.SHA256.HMAC 4873
- 167.13 Text.DecodeFromBase64 7923
- 167.25 Text.EncodeBytesToBase64 7938
- 167.27 Text.EncodeHexToBase64 7940
- 167.29 Text.EncodeToBase64URL 7942
- 167.30 Text.EncodeToBytes 7944

### Example Databases

- [WebView/WebView link targets](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.29 Text.EncodeToBase64URL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	7.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "Text.EncodeToBase64URL"; text { ; encoding } )
```

### Parameters

#### text

The text to process.

```
"Hello World"
```

#### encoding

Optional

The text encoding for text parameter. Default is native.

```
"UTF-8"
```

**Result** Returns encoded text.

### Description

Please check what text encoding you want to use. Especially what the software processing the base64 string expects.

Similar to normal Base64, but + replaced by - and / by \_ and the = on the end are omitted.

### Examples

Encode Base64 as UTF-8:

```
MBS( "Text.EncodeToBase64URL"; "Hello World"; "utf8" )
```

Example result: "SGVsbG8gV29ybGQ"

Encode with/without URL option:

```
MBS( "Text.EncodeToBase64URL"; "Hello World? öäü"; "UTF-8" ) & §&
```

```
MBS( "Text.EncodeToBase64"; "Hello World? öäü"; "UTF-8" )
```

Calculate a JSON Web Token (JWT) in FileMaker:

```
// Header: { \alg\":"HS256\","typ\":"JWT\ " }
// Payload: { "iss":"scotch.io","exp":1300819380,"name":"Chris Sevilleja","admin":true }
```

```
// expected result: eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXVCJ9.eyJsb2dnZWRRJmFzIjojYWRtaW4iLCJpYXQiOiE0MjE3Nzk0aSYzS8EXBxLN_oWnFSRgCzcmJmMjLiuyy5CSpyHI
```

```
Let ( [
secret = "secretkey";
header = " { \alg\":"HS256\","typ\":"JWT\ " } ";
payload = " { \loggedInAs\":"admin\","iat\":"1422779638 } ";
encodedString = MBS( "Text.EncodeToBase64URL"; header; "UTF-8") & " " & MBS( "Text.EncodeTo-
```

```
Base64URL"; payload; "UTF-8");  
// calculate hash  
hash = MBS( "Hash.SHA256.HMAC"; secret; encodedString; 1 );  
// transcode from Base64 to Base64 URL:  
hash = MBS( "Text.EncodeToBase64URL"; MBS( "Text.DecodeFromBase64"; hash; "Windows" ); "Win-  
dows" );  
// and built final result:  
result = MBS( "Text.EncodeToBase64URL"; header; "UTF-8" ) & " " & MBS( "Text.EncodeToBase64URL";  
payload; "UTF-8" ) & " " & hash  
]; result )
```

**See also**

- 88.11 Hash.SHA256 4871
- 88.12 Hash.SHA256.HMAC 4873
- 167.13 Text.DecodeFromBase64 7923
- 167.14 Text.DecodeFromBase64URL 7924
- 167.27 Text.EncodeHexToBase64 7940
- 167.28 Text.EncodeToBase64 7941

Created 21st October 2017, last changed 1st February 2020.

## 167.30 Text.EncodeToBytes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToBytes"; text { ; Encoding } )

(old name: String.EncodeToBytes)

### Parameters

#### text

The text to process.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns encoded text.

### Description

Please check what text encoding you want to use. Especially what the software processing the hex string expects.

A byte string here is a text string with byte numbers like this: "65 66 67" which as text would be "ABC".

### Examples

Encode bytes as UTF-8:

MBS( "Text.EncodeToBytes"; "Hello World"; "utf8" )

Example result: "72 101 108 108 111 32 87 111 114 108 100"

### See also

- 167.15 Text.DecodeFromBytes 7925
- 167.28 Text.EncodeToBase64 7941
- 167.32 Text.EncodeToHex 7947
- 167.31 Text.EncodeToHTML 7945

Created 18th August 2014, last changed 11st December 2016.

**167.31 Text.EncodeToHTML**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToHTML"; text { ; mode } )

(old name: String.EncodeToHTML)

**Parameters****text**

The text you want to encode.

"Grüße"

**mode**

Optional

Default 0 for using named entities. Pass 1 for decimal and 2 for hex encoded numbers instead. Add 8 to encode all characters (new in plugin version 8.4)

0

**Result** The encoded text.

**Description**

All special and unicode characters are escaped.

Lower ASCII control characters are ignored.

You may want to use Text.ReplaceNewline after this function to replace new line characters with <br>(mode 4) or <br />(mode 5).

**Examples**

Encode text as html

MBS( "Text.EncodeToHTML"; "Grüße" )

Example result: "Gr& uuml;& szlig;e"

Encode smileys:

MBS("Text.EncodeToHTML"; "")

Example result: "& # 128512;& # 128513;& # 128514;& # 128515;"

Encode ä three ways:

MBS( "Text.EncodeToHTML"; "ä"; 0) & §&

MBS( "Text.EncodeToHTML"; "ä"; 1) & §&

MBS( "Text.EncodeToHTML"; "ä"; 2)

Encode normal and all with decimal or hexadecimal:

```
MBS("Text.EncodeToHTML"; "Hello World ä"; 0) & §&
MBS("Text.EncodeToHTML"; "Hello World ä"; 8) & §&
MBS("Text.EncodeToHTML"; "Hello World ä"; 8+2)
```

Example result: "Hello World & auml;

```
& # 72;& # 101;& # 108;& # 108;& # 111;& # 32;& # 87;& # 111;& # 114;& # 108;& # 100;& # 32;& auml;
& # x48;& # x65;& # x6c;& # x6c;& # x6f;& # x20;& # x57;& # x6f;& # x72;& # x6c;& # x64;& # x20;& #
xe4;"
```

### See also

- [146.28 SendMail.SetHTMLText](#) 7029
- [167.16 Text.DecodeFromHTML](#) 7926
- [167.30 Text.EncodeToBytes](#) 7944
- [167.32 Text.EncodeToHex](#) 7947
- [167.34 Text.EncodeToURL](#) 7950
- [167.35 Text.EncodeToXML](#) 7952
- [167.59 Text.ReplaceNewline](#) 7985
- [167.64 Text.TextToHTML](#) 7993

### Example Databases

- [CURL/Email/Batch Mailer](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email](#)
- [Text functions/HTML Conversion with UTF32](#)
- [WebView/Text To WebView](#)

#### 167.31.1 Blog Entries

- [Text to Webviewer Script for FileMaker](#)
- [Smileys and UTF32](#)
- [MBS FileMaker Plugin, version 8.4pr8](#)
- [MBS FileMaker Plugin, version 7.2pr6](#)
- [MBS FileMaker Plugin, version 5.1pr5](#)
- [MBS FileMaker Plugin, version 5.0pr7](#)

Created 18th August 2014, last changed 13th September 2018.

## 167.32 Text.EncodeToHex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToHex"; text { ; Encoding } )

(old name: String.EncodeToHex)

### Parameters

#### text

The text to process.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns encoded text.

### Description

Please check what text encoding you want to use. Especially what the software processing the hex string expects.

Similar to HexEncode function in FileMaker 16, but we can specify text encoding. For containers see Container.GetHex and Container.DecodeFromHex.

### Examples

Encode Hex as UTF-8:

MBS( "Text.EncodeToHex"; "Hello World"; "utf8" )

Example result: 48656C6C6F20576F726C64

Check for hex encoding:

Length(MBS( "Text.EncodeToHex"; MBS( "Text.DecodeFromHex"; "41004200" )))

Example result: Returns 8 in FileMaker 16 and 6 in FileMaker 15 due to different text handling.

### See also

- 56.3 Container.DecodeFromHex 1645
- 56.12 Container.GetHex 1659
- 88.9 Hash.SHA1 4866
- 167.17 Text.DecodeFromHex 7928

7948

*CHAPTER 167. TEXT*

- 167.30 Text.EncodeToBytes 7944
- 167.31 Text.EncodeToHTML 7945
- 167.34 Text.EncodeToURL 7950
- 167.35 Text.EncodeToXML 7952
- 179.3 UUID.Hex 8379

### **Example Databases**

- [Text functions/Repair Text Encoding Problems](#)
- [Text functions/Unicode Compositions](#)

Created 18th August 2014, last changed 18th December 2017.



**167.33 Text.EncodeToQuotedPrintable**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToQuotedPrintable"; Text { ; Encoding; LineLen } )

(old name: String.EncodeToQuotedPrintable)

**Parameters****Text**

The text to use.  
"Wünsche"

**Encoding**

Optional  
The text encoding for text parameter. Default is native.  
"UTF-8"

**LineLen**

Optional  
The line length to use. Default is 72  
72

**Result** Returns OK or error.

**Description**

Line wrap is per default at 72 characters but you can pass some other positive value here.

**Examples**

Encode Wünsche:

```
MBS( "Text.EncodeToQuotedPrintable"; "Wünsche"; "UTF8")
```

Example result: W=C3=BCnsche

**See also**

- 167.18 Text.DecodeFromQuotedPrintable

## 167.34 Text.EncodeToURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.6	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToURL"; text { ; Encoding } )

(old name: String.EncodeToURL)

### Parameters

#### text

The text to process.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns encoded text.

### Description

Please check what text encoding you want to use. Especially what the software processing the hex string expects.

This function should work the same as PHP's `urlencode` function.

### Examples

Encode URL as UTF-8:

```
MBS( "Text.EncodeToURL"; "Hello World"; "utf8" )
```

Example result: Hello+World

Encode and Decode with umlauts and UTF-8:

```
$v = "Hello öäü"
```

```
$e = MBS( "Text.EncodeToURL"; "$v"; "utf8" )
```

```
# e has now value "Hello+% C3% B6% C3% A4% C3% BC"
```

```
$d = MBS( "Text.DecodeFromURL"; $e; "utf8" )
```

```
# d has now value "Hello öäü"
```

### See also

- 167.19 Text.DecodeFromURL 7931
- 167.32 Text.EncodeToHex 7947
- 167.31 Text.EncodeToHTML 7945
- 167.35 Text.EncodeToXML 7952

### Example Databases

- [CURL/WebServices/Google Maps API/Google Maps API](#)
- [Markdown](#)

#### 167.34.1 Blog Entries

- [Query geolocation in FileMaker via MBS Plugin and Google Maps API](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.35 Text.EncodeToXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeToXML"; text )

(old name: String.EncodeToXML)

### Parameters

#### text

The text you want to encode.

"Grüße"

**Result** The encoded text.

### Description

Only escapes quotes, ampersand, smaller and greater characters.

If you need all html entities to be encoded, please use Text.EncodeToHTML instead.

Lower ASCII control characters are ignored (removed).

### Examples

Encode text as xml:

MBS( "Text.EncodeToXML"; "Grüße <test>" )

Example result: "Grüße & lt;test& gt;"

### See also

- [62.331 CURL.SetOptionSSLCert](#) 2273
- [167.32 Text.EncodeToHex](#) 7947
- [167.31 Text.EncodeToHTML](#) 7945
- [167.34 Text.EncodeToURL](#) 7950

### Example Databases

- [CURL/WebServices/magento older](#)
- [CURL/WebServices/Sales Force Test](#)
- [CURL/WebServices/Swiss Post Addresscheck V4-02-00](#)
- [CURL/WebServices/Swiss Post Addresscheck](#)

### **167.35.1 Blog Entries**

- [Using Apple's Global Service Exchange web service in FileMaker](#)
- [Swiss Post Webservice to verify addresses](#)
- [MBS FileMaker Plugin, version 5.2pr1](#)

### **167.35.2 FileMaker Magazin**

- [Ausgabe 4/2016, Seite 19](#)
- [Ausgabe 4/2016, Seite 18](#)

Created 18th August 2014, last changed 27th April 2017.

## 167.36 Text.EncodeURLComponent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.EncodeURLComponent"; text { ; encoding } )

(old name: String.EncodeURLComponent)

### Parameters

#### text

The text to encode.  
\$URL

#### encoding

Optional  
The text encoding for text parameter. Default is native.  
"UTF-8"

**Result** Returns encoded string.

### Description

Please check what text encoding you want to use. Especially what the software processing the hex string expects.

### Examples

Encode blog URL:

```
MBS("Text.EncodeURLComponent"; "http://www.mbsplugins.de")
```

Example result: "http% 3A% 2F% 2Fwww% 2Embsplugins% 2Ede"

### See also

- 151.1 Shell.AddArgument 7115
- 167.23 Text.DecodeURLComponent 7936
- 183.92 WebView.LoadURL 8530

### Example Databases

- [CURL/Amazon S3 Download Picture](#)
- [CURL/Amazon S3 Upload File](#)
- [CURL/Amazon S3 Upload Picture](#)
- [CURL/WebServices/CURL FMS Admin API v18](#)
- [CURL/WebServices/WeatherBit.io test](#)

### **167.36.1 Blog Entries**

- [Storing files for download on FileMaker Server with download URLs](#)

### **167.36.2 FileMaker Magazin**

- Ausgabe 6/2018, Seite 31
- Ausgabe 6/2018, Seite 30

Created 18th August 2014, last changed 11st December 2016.

## 167.37 Text.FileExtensionToMimeType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.FileExtensionToMimeType"; FileExtension )

### Parameters

#### FileExtension

The file extension to lookup. Anything before a dot is ignored, so you can pass whole file name or path.  
"test.pdf"

**Result** Returns OK or error.

### Description

Please report any missing mime type in our lookup table, so we can add more.  
See also Text.MimeTypeToFileExtension.

### Examples

Find mime type for PDF:

```
MBS("Text.FileExtensionToMimeType"; "pdf")
```

Example result: application/pdf

Find mime type for whole file name:

```
MBS("Text.FileExtensionToMimeType"; "my.test.pdf")
```

Example result: application/pdf

### See also

- 62.27 [CURL.FormAddKeyValueContentType](#) 1845
- 107.1 [MailComposer.AddAttachmentContainer](#) 5693
- 107.2 [MailComposer.AddAttachmentFile](#) 5695
- 107.3 [MailComposer.AddAttachmentText](#) 5696
- 116.2 [MessageComposer.AddAttachmentFile](#) 6107
- 146.1 [SendMail.AddAttachmentContainer](#) 6989
- 146.2 [SendMail.AddAttachmentFile](#) 6992
- 146.3 [SendMail.AddAttachmentText](#) 6995
- 155.22 [SocialRequest.addMultipartContainer](#) 7272
- 155.23 [SocialRequest.addMultipartText](#) 7273



**Example Databases**

- [iOS/iOS Email Sending](#)
- [iOS/iOS Message Sending](#)

**167.37.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.1pr2](#)
- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 2nd October 2015, last changed 11st December 2016.

## 167.38 Text.FilterUTF16

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.FilterUTF16"; Text { ; Replacement } )

### Parameters

#### Text

The text to process.

"Hello World"

#### Replacement

Optional

Replacement text for invalid characters. Default is empty.

" [ emoji ] "

**Result** Returns text or error.

### Description

Removes all UTF-32 characters which can't fit into UTF-16.

Normally UTF-32 range characters exceeding the UTF-16 range are stored as two characters in UTF-16.

This function removes those for software, which may not handle them correctly.

### Examples

Remove emojis:

MBS( "Text.FilterUTF16"; "Hello World"; " [ emoji ] " )

Example result: "Hello [ emoji ] World"

### 167.38.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 20th June 2019, last changed 20th June 2019.

**167.39 Text.FindBetween**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.0	Yes	Yes	Yes	Yes	Yes

MBS( "Text.FindBetween"; Text; StartTag; EndTag { ; IgnoreCase; NthItem } )

(old name: String.FindBetween)

**Parameters****Text**

The text to search inside.

"<x>Hello</x>"

**StartTag**

The first search text, e.g. start tag.

"<x>"

**EndTag**

The end tag to search, e.g. second search text.

"</x>"

**IgnoreCase**

Optional

Optional, whether to ignore case in search. Default is 0 for case sensitive search.

0

**NthItem**

Optional

How many items to ignore before doing real search. Pass 1 to get second item.

0

**Result** Returns found text.

**Description**

This function is useful for quickly scanning XML documents.

For more complex XML queries, please use XML.Query function.

**Examples**

Find CountryCode value in some XML:

```
MBS("Text.FindBetween"; $result; "<v6:CountryCode>"; "</v6:CountryCode>")
```

Find second value tag text:

```
MBS("Text.FindBetween"; $result; "<v6:Value>"; "</v6:Value>";0; 1)
```

Find second item:

MBS("Text.FindBetween"; "<1><2><3>"; "<"; ">"; 0; 1)

Example result: 2

#### See also

- 62.331 [CURL.SetOptionSSLCert](#) 2273
- 194.27 [XML.Query](#) 9448

#### Example Databases

- [CURL/Amazon S3 Upload File](#)

### 167.39.1 Blog Entries

- [Using Apple's Global Service Exchange web service in FileMaker](#)

Created 18th August 2014, last changed 20th October 2018.

## 167.40 Text.InvalidCharactersForEncoding

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.InvalidCharactersForEncoding"; text; Encoding )

### Parameters

#### text

The text to process.

"Hello World"

#### Encoding

The text encoding for the resulting string. Default is native.

"Latin1"

**Result** Returns text or error.

### Description

Returns an empty text if all characters are supported in given encoding. The returned text should have no duplicates, so each character shows only once in the order of first appearance.

Some characters may not be directly supported, but still convert to similar looking characters.

### Examples

Check if checkmark is allowed in Latin1:

```
MBS("Text.InvalidCharactersForEncoding"; "Hello äöü"; "Latin1" )
```

Example result:

Checks for characters:

```
MBS("Text.InvalidCharactersForEncoding"; ""; "Latin1" )
```

Example result:

### 167.40.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr6](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)

Created 14th June 2015, last changed 11st December 2016.

## 167.41 Text.JaroWinklerDistance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Text.JaroWinklerDistance"; a; b )

(old name: String.JaroWinklerDistance)

### Parameters

#### **a**

First text string.

"Hello"

#### **b**

Second text string.

"Hallo"

**Result** Returns difference.

### Description

Value is normalized, so 0.0 is equal text and 1.0 is totally unequal.

see also

[http://en.wikipedia.org/wiki/Jaro-Winkler\\_distance](http://en.wikipedia.org/wiki/Jaro-Winkler_distance)

### Examples

Calculate difference between two strings:

MBS( "Text.JaroWinklerDistance"; "Hello"; "Hallo" )

### See also

- 87.172 GImage.Hash

4617

Created 18th August 2014, last changed 18th April 2016.

## 167.42 Text.Length

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Length"; Text )

### Parameters

#### Text

The text to check.

"Hello"

**Result** Returns number or error.

### Description

This is number of UTF16 code points.

Some characters need 2 code points.

Created 25th April 2017, last changed 25th April 2017.

## 167.43 Text.LevenshteinDistance

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "Text.LevenshteinDistance"; a; b )

(old name: String.LevenshteinDistance)

### Parameters

#### **a**

First text string.

"Hello"

#### **b**

Second text string.

"Hallo"

**Result** Returns difference.

### Description

Value is normalized, so 0.0 is equal text and 1.0 is totally unequal.

see also

[http://en.wikipedia.org/wiki/Levenshtein\\_distance](http://en.wikipedia.org/wiki/Levenshtein_distance)

### Examples

Calculate difference between two strings:

MBS( "Text.LevenshteinDistance"; "Hello"; "Hallo" )

Example result: 0.2

### See also

- 87.172 GImage.Hash 4617
- 105.6 List.BestMatch 5501
- 105.52 QuickList.BestMatch 5572

Created 18th August 2014, last changed 19th July 2017.



## 167.44 Text.ListWords

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ListWords"; Text )

### Parameters

#### Text

The text to split.

"Hello World"

**Result** Returns list or error.

### Description

Words are listed in same order.

We find words based on alpha and numeric characters and use all others as separator.

You can use List.CountValues to count the values in the list or directly use Text.CountWords.

### Examples

Split words:

MBS( "Text.ListWords"; "Hello World,äöü." )

Example result: Hello

World

äöü

### See also

- 105.8 List.CountValues 5504
- 167.11 Text.CountWords 7921

### Example Databases

- [Text functions/Word Count functions](#)

#### 167.44.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 5th February 2018, last changed 5th February 2018.

## 167.45 Text.LowerCase

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.LowerCase"; Text )

### Parameters

#### Text

The text to process.

"hello WORLD"

**Result** Returns text or error.

### Description

See also Text.UpperCase, Text.CapitalCase and Text.RemoveAccents.

### Examples

Lower case of Hamburg:

MBS( "Text.LowerCase"; "HAMBurg" )

Example result: hamburg

Test accented characters:

MBS( "Text.LowerCase"; "ÄÖÜÉÁÓÚÍÂÊÎÔÛ" )

Example result: äöüéáóúíâêîôû

### See also

- 167.3 Text.CapitalCase 7899
- 167.52 Text.RemoveAccents 7977
- 167.67 Text.UpperCase 7998

### Example Databases

- [Text functions/Change Letter Case](#)

## 167.45.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 10th March 2015, last changed 11st December 2016.

## 167.46 Text.MergeFields

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	8.5	Yes	Yes	Yes	Yes	Yes

MBS( "Text.MergeFields"; Text; Flags )

### Parameters

#### Text

The input text.

"Hello «\$name»"

#### Flags

The various flags. 1 to allow field names. 2 to allow variables. 4 to allow expressions to evaluate. 16 to output XML 32 to output HTML.

1+2+4+32

**Result** Returns OK or error.

### Description

This functions look for items between «and »to replace those with real values from fields, variables or expressions. This function does not preserve formatting.

For use in XML or HTML, we can encode all replacement values for you.

If you allow expressions, that may include plugins calls, so user could do anything via MBS calls!

### Examples

Use function with Variable:

```
Set Variable [ $FirstName ; Value: "Christian" ]
```

```
Set Variable [ $text ; Value: "Hello «$FirstName»" ]
```

```
Set Variable [ $text ; Value: MBS( "Text.MergeFields"; $text; 1+2 ) ]
```

```
Show Custom Dialog [ $text ]
```

### See also

- 146.28 SendMail.SetHTMLText 7029
- 146.31 SendMail.SetPlainText 7033
- 189.20 WinSendMail.SetText 8903

### Example Databases

- [Text functions/Merge Fields](#)

### 167.46.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)
- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [Merge field values into text](#)
- [MBS FileMaker Plugin, version 8.5pr3](#)

### 167.46.2 FileMaker Magazin

- [Ausgabe 6/2018, Seite 33](#)

Created 14th October 2018, last changed 6th December 2019.

## 167.47 Text.MimeTypeToFileExtension

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.MimeTypeToFileExtension"; MimeType )

### Parameters

#### MimeType

The mime type to lookup.

"application/pdf"

**Result** Returns text or error.

### Description

Extension is returned with dot prefix.

Please report any missing file extensions in our lookup table, so we can add more.

See also [Text.FileExtensionToMimeType](#).

### Examples

Checks for PDF:

MBS( "Text.MimeTypeToFileExtension"; "application/pdf" )

Example result: .pdf

### See also

- [73.4 EmailParser.Attachment](#) 3463
- [73.14 EmailParser.Inline](#) 3477
- [155.12 SocialRequest.GetResponse](#) 7258
- [167.37 Text.FileExtensionToMimeType](#) 7956

### 167.47.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr1](#)

Created 2nd October 2015, last changed 11st December 2016.

## 167.48 Text.ReadEMLXFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ReadEMLXFile"; FilePath { ; Encoding } )

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac. `"test.txt"`

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text on success and error on failure.

### Description

This function provides the raw text from an eml file as Apple Mail uses them to store emails. You may need to use `Text.ReplaceNewline` function to change new line characters.

You have to decide which encoding to use (if not native). We support a few encodings, but we can add more if you need something special.

See also `Text.ReadTextFile` for normal text files and eml files.

### See also

- [73.18 EmailParser.Parse](#) 3482
- [73.19 EmailParser.ParseContainer](#) 3486
- [73.20 EmailParser.ParseFile](#) 3487
- [167.49 Text.ReadTextFile](#) 7971
- [167.59 Text.ReplaceNewline](#) 7985

### 167.48.1 Blog Entries

- [MBS FileMaker Plugin, version 5.3pr3](#)

Created 14th September 2015, last changed 12nd November 2015.

## 167.49 Text.ReadTextFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ReadTextFile"; FilePath { ; Encoding } )

(old name: String.ReadTextFile)

### Parameters

#### FilePath

The native file path. Something like `"/Users/cs/desktop/test.txt"` on Mac and `"C:\Programs\Data\test.txt"` on Windows. Files without path end in the root directory on Mac. `"test.txt"`

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

`"UTF8"`

**Result** Returns text on success and error on failure.

### Description

You have to decide which encoding to use (if not native). We support a few encodings, but we can add more if you need something special. Some characters will be wrong if the encoding is not correct.

See also `Files.ReadJPEG`, `Files.ReadPDF`, `Files.ReadPNG`, `Files.ReadFile` and `RichText.ReadFile`.

This function reads only up to 1 GB of text. And even than a 32-bit FileMaker may fail to allocate enough memory to handle the text.

When passing UTF-16 as encoding, we can detect byte order if there is a Byte Order Mark.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read system.log file:

```
MBS("Text.ReadTextFile"; "/var/log/system.log"; "utf8")
```

Read Windows ANSI XML:

```
# read and convert to from Windows ANSI to unicode
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.xml"; "Windows") ]
# remove the encoding hint:
```

```
Set Variable [ $text; Value:Substitute($text; "<?xml version=\\"1.0\\" encoding=\\"WINDOWS-1252\\"?>";
"" ) ]
```

# now xml is unicode text and can be passed to XML functions.

Read file on Windows from desktop folder:

```
MBS( "Text.ReadTextFile"; "C:\Users\Christian\Desktop\test.txt"
```

Read file with UTF-16 Big Endian:

```
MBS( "Text.ReadTextFile"; "/Users/cs/Desktop/test.txt" ; "UTF-16BE" )
```

Parse in VCard with MBS functions:

```
# Loop over files on desktop
Set Variable [ $folder ; Value: MBS( "Folders.UserDesktop" ) ]
Set Variable [ $files ; Value: MBS( "Files.List"; $folder; 1+4; ".vcf" ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $count ; Value: ValueCount ( $files ) ]
Set Variable [ $index ; Value: 1 ]
If [ $count >0 ]
Loop
# Read in vcard
Set Variable [ $filename ; Value: GetValue($files; $index) ]
Set Variable [ $filepath ; Value: MBS( "Path.AddPathComponent"; $folder; $filename ) ]
Set Variable [ $text ; Value: MBS( "Text.ReadTextFile"; $FilePath; "UTF-8" ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $text ; Value: MBS( "Text.ReplaceNewline"; $text; 1) ]
# Process all text lines
Set Variable [ $LineCount ; Value: ValueCount ( $text ) ]
Set Variable [ $LineIndex ; Value: 1 ]
# TODO: Create new record here
Loop
Set Variable [ $Line ; Value: GetValue($text; $lineindex) ]
If [ Left ( $line ; 2 ) = "N:" ]
# Name
Set Variable [ $z ; Value: Middle ( $line ; 3; Length ( $line ) ) ]
Set Variable [ $list ; Value: MBS( "List.CSVSplit"; $z ) ]
Set Variable [ $FirstName ; Value: GetValue($list; 1) ]
Set Variable [ $SureName ; Value: GetValue($list; 2) ]
Set Field [ CON::nameGiven ; $firstName ]
Set Field [ CON::nameFamily ; $sureName ]
Else If [ Left($line; 6) = "EMAIL;" ]
# TODO
Else If [ Left($line; 27) = "PHOTO;ENCODING=b;TYPE=JPEG:" ]
# Photo as base64 coded JPEG:
Set Variable [ $data ; Value: Middle ( $line ; 28; Length ( $line ) ) ]
```



```

Set Variable [ $LineIndex ; Value: $LineIndex + 1 ]
Loop
Set Variable [ $Line ; Value: GetValue($text; $lineindex) ]
Exit Loop If [ Left ( $line ; 1 ) " " ]
Set Variable [ $data ; Value: $data & §& $line ]
# next
Set Variable [ $LineIndex ; Value: $LineIndex + 1 ]
Exit Loop If [ $LineIndex >$LineCount ]
End Loop
Set Variable [ $LineIndex ; Value: $LineIndex - 1 ]
Set Variable [ $image ; Value: Base64Decode ( $data; "image.jpg" ) ]
Set Field [ CON::imageOrLogo ; $image ]
End If
# next
Set Variable [ $LineIndex ; Value: $LineIndex + 1 ]
Exit Loop If [ $LineIndex >$LineCount ]
End Loop
# TODO: Commit record
End If
# next
Set Variable [ $index ; Value: $index + 1 ]
Exit Loop If [ $index >$count ]
End Loop
End If
End If

```

**See also**

- 102.57 JSON.Import 5395
- 105.7 List.CSVSplit 5502
- 141.10 RichText.ReadFile 6838
- 146.31 SendMail.SetPlainText 7033
- 146.32 SendMail.SetRichText 7035
- 162.1 SyntaxColoring.AddContextMenuCommand 7679
- 167.2 Text.AppendTextFile 7897
- 167.48 Text.ReadEMLXFile 7970
- 194.13 XML.Import 9428
- 194.22 XML.Import.Work 9440

**Example Databases**

- [CURL/Email/IMAP Email](#)
- [Drag and Drop/for Mac/DragTest Email](#)
- [XML/XML Import](#)

### **167.49.1 Blog Entries**

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [Parsing VCard file](#)

### **167.49.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 25](#)

Created 18th August 2014, last changed 6th March 2019.

## 167.50 Text.ReadTextFromContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ReadTextFromContainer"; Container { ; Encoding } )

### Parameters

#### Container

The container field or variable containing container value.

\$myData

#### Encoding

Optional

The text encoding for result. Default is native. This function can also handle UTF-16 as well as UTF-16LE and UTF-16BE for little/big endian byte order.

UTF8

**Result** Returns text or error.

### Description

You need to be sure it is text and the text encoding. Else you may get garbage.

### Examples

Reads text from container:

```
MBS( "Text.ReadTextFromContainer"; test::test; "UTF8" )
```

### See also

- 45.14 BinaryFile.ReadText

1223

### 167.50.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr6](#)

### 167.50.2 FileMaker Magazin

- Ausgabe 2/2019, Seite 13

Created 18th October 2014, last changed 12nd November 2015.

## 167.51 Text.RedefineEncoding

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RedefineEncoding"; text; InputEncoding; OutputEncoding )

### Parameters

#### text

The text to process.

"Hello World"

#### InputEncoding

The text encoding for the input text.

"native"

#### OutputEncoding

The text encoding for the resulting string.

"UTF-8"

**Result** Returns text or error.

### Description

This can be used to fix bad imported texts.

### Examples

Fix umlaut in Mac encoded UTF-8 text:

```
MBS( "Text.RedefineEncoding" ; "M√bel"; "mac" ; "UTF8" )
```

Fix umlaut in Latin1 encoded UTF-8 text:

```
MBS( "Text.RedefineEncoding" ; "MÃ\§bel"; "Latin1"; "UTF-8" )
# needs a backslash so FileMaker doesn't evaluate §to be a new line.
```

### 167.51.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr7](#)

Created 10th July 2015, last changed 12nd November 2015.

## 167.52 Text.RemoveAccents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemoveAccents"; Text )

(old name: String.RemoveAccents)

### Parameters

#### Text

The input string.

"Müller"

**Result** Returns the string without accents.

### Description

for example é to e

If you miss a certain character in our substitution list, please email us.

### Examples

Removes umlaut:

MBS( "Text.RemoveAccents"; "Müller" )

Example result: Muller

Removes Polish L with stroke:

MBS( "Text.RemoveAccents"; "Łużica" )

Example result: Luzica

### See also

- [167.3 Text.CapitalCase](#) 7899
- [167.45 Text.LowerCase](#) 7966
- [167.53 Text.RemoveAccentsCaseInsensitive](#) 7978
- [167.67 Text.UpperCase](#) 7998

### 167.52.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 18th August 2014, last changed 11st December 2016.

## 167.53 Text.RemoveAccentsCaseInsensitive

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemoveAccentsCaseInsensitive"; Text )

(old name: String.RemoveAccentsCaseInsensitive)

### Parameters

#### Text

The input string.

"Müller"

**Result** Returns the string without accents in upper case letters.

### Description

For example é to E and ä to A

If you miss a certain character in our substitution list, please email us.

### Examples

Removes umlauts from Müller:

MBS( "Text.RemoveAccentsCaseInsensitive"; "Müller" )

Example result: MULLER

### See also

- 167.52 Text.RemoveAccents

7977

Created 18th August 2014, last changed 11st December 2016.

**167.54 Text.RemoveControlCharacters**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemoveControlCharacters"; Text )

**Parameters****Text**

The text to process.

"Hello World"

**Result** Returns text or error.

**Description**

Leaves tab, return and new line characters in the text, but removes other characters with code point <32.

See also Text.ReplaceNewline for replacing line endings.

**See also**

- 167.59 Text.ReplaceNewline

7985

**Example Databases**

- [WebViewer/TinyMCE/TinyMCE](#)

Created 22nd April 2015, last changed 27th April 2017.

## 167.55 Text.RemoveNewLine

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemoveNewLine"; Text )

(old name: String.RemoveNewLine)

### Parameters

#### Text

The text to process.

"Hello World"

**Result** Text without newline characters.

### Description

FileMaker has a text replace command, but can't process all combinations of newline characters with it. As this function removes all newlines independent of whether you have CR, LF or CRLF in any combination. We needed this for a client in combination with `WebView.RunJavaScriptReturnTitle`. An older version of Internet Explorer made trouble with newline characters inside javascript text, so we removed them.

### Examples

Remove newlines from field

MBS( "Text.RemoveNewLine"; Test Database::TextField )

### See also

- 167.59 Text.ReplaceNewline 7985
- 183.111 WebView.RunJavaScript 8557
- 183.112 WebView.RunJavaScriptReturnTitle 8567

Created 18th August 2014, last changed 29th April 2016.



## 167.56 Text.RemovePostfix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemovePostfix"; Text; Prefix { ; CaseSensitive } )

### Parameters

#### Text

The text to check.

">Hello World"

#### Prefix

The prefix to remove.

">"

#### CaseSensitive

Optional

Pass 1 to check case sensitive. Default is 0 for case insensitive.

0

**Result** Returns text.

### Description

#### Examples

Removes postfix:

MBS( "Text.RemovePostfix"; "Hello World>"; ">" )

Example result: Hello World

#### See also

- [105.30 List.RemovePostfix](#) 5534
- [167.57 Text.RemovePrefix](#) 7982

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)

### 167.56.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 28th February 2016, last changed 11st December 2016.

## 167.57 Text.RemovePrefix

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.RemovePrefix"; Text; Prefix { ; CaseSensitive } )

### Parameters

#### Text

The text to check.

">Hello World"

#### Prefix

The prefix to remove.

">"

#### CaseSensitive

Optional

Pass 1 to check case sensitive. Default is 0 for case insensitive.

0

**Result** Returns text.

### Description

#### Examples

Removes prefix:

```
MBS( "Text.RemovePrefix"; ">Hello World"; ">" )
```

Creates directory and shows error:

```
Set Variable [ $r; Value:MBS("Files.CreateDirectory"; $path) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to create directory"; MBS("Text.RemovePrefix"; $r; " [ MBS ] ") ]
Exit Script [ ]
End If
```

### See also

- 40.6 AVExport.ExportAsynchronously 1047
- 77.18 Events.AuthorizationStatusForEntityType 3580
- 77.173 Events.requestAccessToEntityType 3761
- 93.79 ImageCapture.OpenDevice 5078
- 93.86 ImageCapture.RequestScan 5086

167.57. TEXT.REMOVEPREFIX	7983
• 93.87 ImageCapture.RequestSelectFunctionalUnit	5089
• 93.91 ImageCapture.SetParameter	5094
• 105.31 List.RemovePrefix	5536
• 135.13 QTExport.OpenExporter	6677
• 152.18 RSA.Verify	7200

### Example Databases

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)
- [Encryption and Hash/RSA Sign and Verify](#)
- [Mac and iOS/Events/Events Changes](#)
- [Mac and iOS/Events/Events Create Event](#)
- [Mac and iOS/Events/Events Create Reminder](#)
- [Mac and iOS/Events/Events Import](#)
- [Mac and iOS/Events/Events Sync](#)
- [Mac only/ImageCapture/ImageCapture](#)
- [Mac only/Movies/AVAsset Export Session](#)

### 167.57.1 Blog Entries

- [Print WebViewer on macOS in FileMaker](#)
- [ImageCapture functions for Mac OS X](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 28th February 2016, last changed 28th February 2016.

## 167.58 Text.ReplaceAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ReplaceAll"; Text; Find; ReplaceWithText )

### Parameters

#### Text

The text to search.  
"Hello World"

#### Find

The text to find.  
"o"

#### ReplaceWithText

The new text.  
"a"

**Result** Returns text or error.

### Description

Quickly looks for all occurrences of a given text in another text and replaces it with a new text. Optimized code for extra speed if you replace one character with another character.

### Examples

Simple replace:

```
MBS( "Text.ReplaceAll"; "Hello"; "e"; "a" )
```

Example result: "Hallo"

### See also

- [138.16 RegEx.ReplaceAll](#)

6782

### 167.58.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)
- [MBS FileMaker Plugin, version 7.3pr6](#)

Created 13th July 2017, last changed 13th July 2017.

## 167.59 Text.ReplaceNewline

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.ReplaceNewline"; Text; Mode { ; Wrap } )

(old name: String.ReplaceNewline)

### Parameters

#### Text

The text to process.

"Hello World"

#### Mode

The operation mode. First a value for the output newline type: 0 = nothing, 1 = CR (Mac), 2 = LF (Unix), 3 = CRLF (Windows), 4 = <br>for html, 5 = <br />for xml. Second you can add 8 to remove duplicate newlines.

#### Wrap

Optional

Optional whether to wrap lines longer than given number of characters. Default is 0 for no wrap.

80

**Result** Text with modified newline characters.

### Description

Can remove, convert to Mac, Windows and Linux specific end of line characters. Also can remove duplicates. FileMaker uses Mac line endings on all platforms.

### Examples

Remove newlines from field:

```
MBS( "Text.ReplaceNewline"; Test Database::TextField; 0 )
```

Replaces newlines from field with Mac newlines:

```
MBS( "Text.ReplaceNewline"; Test Database::TextField; 1 )
```

Replaces newlines from field with Mac newlines and remove duplicates:

```
MBS( "Text.ReplaceNewline"; Test Database::TextField; 1+8 )
```

Write UTF-8 CRLF file:

```
Set Variable [ $text ; Value: "Joe,1234 Main St.$John Glen,3132 Elm$Johnson,5233 Wreybird$Ray,263 Birch$äöü" ]
```

```
Set Variable [ $path ; Value: "/Users/cs/Desktop/test.txt" ]
```

```
Set Variable [ $text ; Value: MBS( "Text.ReplaceNewline"; $text; 3) // CRLF ]
```

Set Variable [ \$r ; Value: MBS( "Text.WriteTextFile"; \$text; \$path; "UTF8" ) ]

### See also

- 88.11 Hash.SHA256 4871
- 88.14 Hash.SHA512.HMAC 4878
- 146.28 SendMail.SetHTMLText 7029
- 151.9 Shell.Execute 7125
- 151.32 Shell.ReadOutputText 7155
- 167.2 Text.AppendTextFile 7897
- 167.48 Text.ReadEMLXFile 7970
- 167.49 Text.ReadTextFile 7971
- 167.55 Text.RemoveNewLine 7980
- 167.68 Text.WriteTextFile 7999

### Example Databases

- [Barcode/Swiss QR-Code for invoices ISO 20022](#)
- [CURL/CURL Low Level Sockets](#)
- [CURL/Email/Build and send HTML Email with inline graphic](#)
- [CURL/Email/IMAP Email Upload](#)
- [CURL/SFTP/CURL sFTP Operations](#)
- [RunTask/Run Shell Script on Mac](#)
- [Shell/Shell](#)
- [Shell/Terminal](#)
- [Text functions/Write Text File](#)
- [WebView/TinyMCE/TinyMCE](#)

### **167.59.1 Blog Entries**

- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [Text to Webviewer Script for FileMaker](#)
- [Tips for FileMaker Data Migration Tool](#)
- [Execute defaults command with Shell functions](#)
- [QR Codes for Invoices in Switzerland](#)
- [Upload email to Sent folder via IMAP](#)
- [Convert to MP3 with new Shell commands and ffmpeg](#)
- [Parsing VCard file](#)
- [MBS FileMaker Plugin, version 6.4pr9](#)
- [Tip of the day: DynaPDF form creation with calculation with FileMaker](#)

### **167.59.2 FileMaker Magazin**

- [Ausgabe 5/2018, Seite 29](#)

Created 18th August 2014, last changed 3th August 2017.

## 167.60 Text.Serialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Serialize"; Text )

### Parameters

#### Text

The styled text to serialize.

"Hello World"

**Result** Returns text or error.

### Description

The styled text content is stored in a base64 encoded string which the plugin function Text.Deserialize can read.

Using this function allows to store a styled text in a text field or transmit it with Socket functions, SerialPort functions or by writing it to a file.

### See also

- [105.34 List.Serialize](#) 5541
- [167.24 Text.Deserialize](#) 7937

### Example Databases

- [Text functions/Text to RTF or HTML](#)

#### 167.60.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 28th October 2015, last changed 28th October 2015.



**167.61 Text.SoundEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.SoundEx"; Text )

(old name: String.SoundEx)

**Parameters****Text**

The input string.

"Müller"

**Result** Returns soundex string.

**Description**

Similar names like Mayer, Maier, Meyer and Meier return the same SoundEx so you can have searches which match all of those names.

This is the english version while String.SoundExGerman is optimized for German.

**Examples**

SoundEx of Müller:

MBS( "Text.SoundEx"; "Müller" )

**See also**

- 167.62 Text.SoundExGerman

7990

Created 18th August 2014, last changed 18th April 2016.

## 167.62 Text.SoundExGerman

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "Text.SoundExGerman"; Text )

(old name: String.SoundExGerman)

### Parameters

#### Text

The input string.

"Müller"

**Result** Returns soundex string.

### Description

Similar names like Mayer, Maier, Meyer and Meier return the same SoundEx so you can have searches which match all of those names.

This is the german version while String.SoundEx was created for english mainly.

### Examples

SoundEx of Müller:

MBS( "Text.SoundExGerman"; "Müller" )

### See also

- 167.61 Text.SoundEx

7989

Created 18th August 2014, last changed 18th April 2016.

## 167.63 Text.Styles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Styles"; Text )

### Parameters

#### Text

The styled text to check.

"Hello World"

**Result** Returns JSON or error.

### Description

Returns a JSON array with objects containing details.

Includes booleans hasColor, hasFont, hasSize and hasFace to inform you which features are available for text block.

If hasColor is true, you can get color (numeric), colorHex (string) and values in range 0 to 255 for red, blue, green and alpha.

If hasFont is true, you can get fontID, fontScript and font with the name.

If hasSize is true, the size field contains the size of the font in points.

If hasFace is true, you get the face as integer. We also provide bold, italic, underline, outline, shadow, condense, extend, strikethrough, smallCaps, superscript, subscript, wordUnderline and doubleUnderline as booleans.

### Examples

Check some text:

```
MBS("Text.Styles"; TextColor ( "Hello" ; RGB ( 255 ; 0 ; 0 ) ))
```

```
Example result: [ {
  "hasColor": true,
  "color": 16711680,
  "colorHex": "FF0000",
  "red": 255,
  "green": 0,
  "blue": 0,
  "alpha": 255,
  "hasFont": false,
  "hasSize": false,
  "hasFace": false
} ]
```

### Example Databases

- [Text functions/Text Styles](#)

### 167.63.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr5](#)

Created 9th July 2019, last changed 9th July 2019.

**167.64 Text.TextToHTML**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "Text.TextToHTML"; Text { ; Options } )

**Parameters****Text**

Formatted text to convert.

"Hello World"

**Options**

Optional

Available in MBS FileMaker Plugin 6.5 or newer.

The options number for html creation. Add 1 for having no body around. Add 2 to have no font names. Add 4 to have no font sizes. Add 8 to use strong instead of b tag for bold. Add 16 to keep links in HTML to pass through <a.></a>tags. (new in 7.4).

1+2+4+8

**Result** Returns OK or error.

**Description**

Supports styles like bold, italic, underline, font size and text color. Other style features may be added in the future on demand.

See also Text.EncodeToHTML and GetAsCSS in FileMaker.

**Examples**

Convert some text to HTML

MBS( "Text.TextToHTML"; "Hello World" )

```
Example result: <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose
<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="de">
<head>
<meta http-equiv="content-type" content="application/xhtml+xml; charset=utf-8" />
</head>
<body>
<p>Hello World</p></body>
</html>
```

Convert some text to RTF

MBS( "Text.TextToRTF"; "Hello World" )

```
Example result: { \rtf1\ansi\ansicpg1252
Hello World
}
```

Convert without body/header:

```
MBS( "Text.TextToHTML"; "Hello World"; 1 )
```

Example result: <p>Hello World</p>

**See also**

- 167.31 [Text.EncodeToHTML](#) 7945
- 167.65 [Text.TextToRTF](#) 7995

**Example Databases**

- [Text functions/Text to RTF or HTML](#)

**167.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr3](#)
- [MBS FileMaker Plugin, version 6.5pr7](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)
- [MBS FileMaker Plugin, version 5.0pr10](#)
- [MBS Filemaker Plugin, version 4.3pr10](#)

**167.64.2 FileMaker Magazin**

- [Ausgabe 5/2014, Seite 25](#)

Created 7th September 2014, last changed 12nd February 2020.

**167.65 Text.TextToRTF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.TextToRTF"; Text )

(old name: TextToRTF)

**Parameters****Text**

Formatted text to convert.

"Hello World"

**Result** some text you could put into rtf file.

**Description**

Currently only ANSI text encoding. Supports styles like bold, italic, underline, font size and text color. Other style features may be added in the future on demand.

Can be used with Clipboard.SetRTFText to bring styled text to the clipboard.

**Examples**

Convert some text to RTF

MBS( "Text.TextToRTF"; "Hello World" )

Example result: { \rtf1\ansi\ansicpg1252

Hello World

}

Convert some text to HTML

MBS( "Text.TextToHTML"; "Hello World" )

Example result: <!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.01 Transitional//EN" "http://www.w3.org/TR/html4/loose

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="de">

<head>

<meta http-equiv="content-type" content="application/xhtml+xml; charset=utf-8" />

</head>

<body>

<p>Hello World</p></body>

</html>

Write RTF file:

Set Variable [ \$rtf; Value:MBS( "Text.TextToRTF"; "Hello World äöü ß" ) ]

Set Variable [ \$r; Value:MBS( "Text.WriteTextFile"; \$rtf; "/Users/cs/Desktop/test.rtf"; "Windows" ) ]

**See also**

- 52.15 Clipboard.SetRTFText 1489
- 52.16 Clipboard.SetStyledText 1491
- 167.64 Text.TextToHTML 7993
- 167.68 Text.WriteTextFile 7999

### Example Databases

- [Text functions/Text to RTF or HTML](#)

### 167.65.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr4](#)

### 167.65.2 FileMaker Magazin

- Ausgabe 5/2014, Seite 25

Created 18th August 2014, last changed 11st December 2016.



## 167.66 Text.Trim

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "Text.Trim"; Text )

### Parameters

#### Text

The text to trim.

" Hello "

**Result** Returns OK or error.

### Description

May remove low ASCII characters like tab, CR, LF and space.

### Examples

Trim hello:

MBS( "Text.Trim"; " \$Hello \$" )

Example result: Hello

### Example Databases

- [List/Sort Benchmark](#)

### 167.66.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr5](#)

Created 30th April 2018, last changed 30th April 2018.

## 167.67 Text.UpperCase

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "Text.UpperCase"; Text )

### Parameters

#### Text

The text to process.

"hello WORLD"

**Result** Returns text or error.

### Description

See also Text.LowerCase, Text.CapitalCase and Text.RemoveAccents.

### Examples

Upper case of Hamburg:

MBS( "Text.LowerCase"; "HAMBurg" )

Example result: HAMBURG

### See also

- [167.3 Text.CapitalCase](#) 7899
- [167.45 Text.LowerCase](#) 7966
- [167.52 Text.RemoveAccents](#) 7977

### Example Databases

- [Text functions/Change Letter Case](#)

### 167.67.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 10th March 2015, last changed 11st December 2016.

## 167.68 Text.WriteTextFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	2.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.WriteTextFile"; Text; FilePath { ; Encoding } )

(old name: String.WriteTextFile)

### Parameters

#### Text

The text to save.

"Hello World"

#### FilePath

The native file path. Something like "/Users/cs/desktop/test.txt" on Mac and "C:\Programs\Data\test.txt" on Windows. Files without path end in the root directory on Mac.

"test.txt"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

**Result** Returns "OK" or an error message.

### Description

You have to decide which encoding to use (if not native). We support a few encodings, but we can add more if you need something special.

Please use Text.ReplaceNewline to define which line endings the file has.

In order to append to a text file, you can use Text.AppendTextFile instead.

If text encoding doesn't support given characters, they are converted to close match if possible or replaced by question marks.

Existing file is overwritten if permissions allow it.

Added support for UTF-16 in plugin version 7.2. You can pass UTF-16, UTF-16LE or UTF-16BE for encoding.

See Text.ReadTextFile for reading text files.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Write UTF-8 file with some text:

```
MBS("Text.WriteTextFile"; $Text; $Path; "utf8" )
```

Write a test text file on Mac:

```
MBS("Text.WriteTextFile"; "Hello World. Some umlauts: äöü"; "/Users/cs/Desktop/testfile.txt"; "native")
```

Write text in UTF-8 with Byte Order Mark (BOM):

```
MBS("Text.WriteTextFile"; Char(65279) & "Hello World"; $Path; "utf8")
```

Write a test text file on Win:

```
MBS("Text.WriteTextFile"; "Hello World. Some umlauts: äöü"; "c:\test\testfile.txt"; "native")
```

Write RTF file:

```
Set Variable [ $rtf; Value:MBS( "Text.TextToRTF"; "Hello World äöü ß" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $rtf; "/Users/cs/Desktop/test.rtf"; "Windows") ]
```

Export data via SQL to text file:

```
Set Variable [ $sql; Value:"SELECT \"Item\", \"Model\", \"Serial Number\" FROM \"Assets\"" ]
Set Variable [ $text; Value:MBS( "FM.ExecuteSQL"; $sql; 9; 13 ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; $text; "/tmp/test.txt"; "UTF-8" ) ]
```

Write UTF-16 with LE, BE or default with BOM:

```
MBS("Text.WriteTextFile"; Char(65279) & "Hello World"; "/Users/cs/Desktop/test UTF-16LE.txt"; "UTF-16LE")
```

```
MBS("Text.WriteTextFile"; Char(65279) & "Hello World"; "/Users/cs/Desktop/test UTF-16BE.txt"; "UTF-16BE")
```

```
MBS("Text.WriteTextFile"; Char(65279) & "Hello World"; "/Users/cs/Desktop/test UTF-16.txt"; "UTF-16")
```

Write UTF-8 CRLF file:

```
Set Variable [ $text ; Value: "Joe,1234 Main St.§John Glen,3132 Elm§Johnson,5233 Wreybird§Ray,263 Birch§äöü" ]
Set Variable [ $path ; Value: "/Users/cs/Desktop/test.txt" ]
Set Variable [ $text ; Value: MBS( "Text.ReplaceNewline"; $text; 3) // CRLF ]
Set Variable [ $r ; Value: MBS( "Text.WriteTextFile"; $text; $path; "UTF8" ) ]
```

Write a HTML file and an image file to load in web viewer:

```

Set Variable [ $folder ; Value: MBS( "Folders.UserTemporary" ) ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.jpg" ) ]
Set Variable [ $r ; Value: MBS( "Container.WriteFile"; Images::Image; $path ) ]
#
Set Variable [ $html ; Value: "<html><body><p>Hello World</p><img src=test.jpg width=300></body></html>" ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $folder; "test.html" ) ]
Set Variable [ $r ; Value: MBS( "Text.WriteTextFile"; $html; $path ) ]
#
Set Variable [ $URL ; Value: MBS( "Path.FilePathToFileURL"; $Path ) ]
Set Web Viewer [ Object Name: "web" ; URL: $URL ]

```

**See also**

- [79.62 Files.WriteFile](#) 3925
- [82.16 Folders.UserTemporary](#) 4245
- [90.15 HotKey.Register](#) 4909
- [90.17 HotKey.SetEvaluate](#) 4914
- [111.7 Matrix.CSV](#) 5873
- [124.1 Path.AddPathComponent](#) 6243
- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [127.31 Plugin.LimitFunction](#) 6405
- [167.49 Text.ReadTextFile](#) 7971
- [167.59 Text.ReplaceNewline](#) 7985

**Example Databases**

- [CURL/Email/Email Parser and Preview](#)
- [CURL/Email/IMAP Email](#)
- [RunTask/Run Shell Script on Mac](#)
- [Text functions/Text to RTF or HTML](#)
- [Text functions/Write Text File](#)

### 167.68.1 Blog Entries

- [Define hot keys for functions in the FileMaker development](#)
- [FileMaker 18 File Script Steps vs. BinaryFile functions](#)
- [Xojo Web Apps on FileMaker Cloud Server](#)
- [CSV functions in MBS FileMaker Plugin](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin, version 5.2pr5](#)

### 167.68.2 FileMaker Magazin

- [Ausgabe 2/2019, Seite 14](#)

Created 18th August 2014, last changed 23th February 2020.

## 167.69 Text.WriteToContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
167 Text	4.4	Yes	Yes	Yes	Yes	Yes

MBS( "Text.WriteToContainer"; Text { ; Encoding; FilePath } )

(old name: String.WriteToContainer)

### Parameters

#### Text

The text to save.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is native.

"UTF-8"

#### FilePath

Optional

The file name to include in the container value.

"test.txt"

**Result** Returns OK or error.

### Description

The result can be assigned to a container field and later be exported.

### Examples

Writes some text to container:

```
MBS("Text.WriteToContainer"; "Hello World"; "UTF-8"; "test.txt")
```

### See also

- 45.21 BinaryFile.WriteText 1233
- 141.24 RichText.WriteContainer 6857

### 167.69.1 Blog Entries

- [MBS Filemaker Plugin, version 4.4pr6](#)

Created 18th October 2014, last changed 18th April 2016.





# Chapter 168

## TextView

Functions for an independent text field.

Our plugin can place an independent text view on the layout to show or edit text. Offers OS provided spell checking and RTF support.

### 168.1 TextView.CanUndo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.CanUndo"; TextView )

#### Parameters

##### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

#### Description

Returns 1 if undo is possible or 0 if not.

#### See also

- 168.44 TextView.Undo

8051

Created 15th April 2019, last changed 15th April 2019.

## 168.2 TextView.Copy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.Copy"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

Puts text on the clipboard and returns OK.

### See also

- 168.8 TextView.Cut 8014
- 183.37 WebView.Copy 8454

Created 15th April 2019, last changed 15th July 2019.

## 168.3 TextView.CreateOnPopoverWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

```
MBS( "TextView.CreateOnPopoverWithControl"; WindowRef; Popover Name; ControlName { ; DX; DY }
)
```

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Popover Name

The name of the popover to look for on the window.

"MyPopover"

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move text view more to left or right.

0

#### DY

Optional

A delta to move text view more to top or bottom.

0

**Result** Returns text view reference number on success.

### Description

Use TextView.Release later to destroy the text view.

Text view reference numbers are starting at 81000 and counting up for each new text view.

### See also

- 70.4 DragDrop.CreateOnPopoverWithControl 2525
- 168.4 TextView.CreateOnPopoverWithSize 8009
- 168.27 TextView.Release 8033
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### 168.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.4 TextView.CreateOnPopoverWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.CreateOnPopoverWithSize"; WindowRef; Popover Name; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Popover Name

The name of the popover to look for on the window.

"MyPopover"

#### x

The left coordinate in the popover.

0

#### y

The top coordinate in the popover.

0

#### w

The width of the text view in the popover.

600

#### h

The height of the text view in the popover.

400

**Result** Returns text view reference number on success.

### Description

Use TextView.Release later to destroy the text view.

Text view reference numbers are starting at 81000 and counting up for each new text view.

### See also

- 70.5 DragDrop.CreateOnPopoverWithSize 2527
- 168.3 TextView.CreateOnPopoverWithControl 8007
- 168.27 TextView.Release 8033
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

Created 15th April 2019, last changed 15th April 2019.

## 168.5 TextView.CreateWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.CreateWithControl"; WindowRef; ControlName { ; DX; DY } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move text view more to left or right.

0

#### DY

Optional

A delta to move text view more to top or bottom.

0

**Result** Returns text view reference number on success.

### Description

Use TextView.Release later to destroy the text view.

If you use a register (tab controls) on the window, be aware that the text view actually is in front of the register (tab controls). You may hide the text view if another register is visible.

Text view reference numbers are starting at 81000 and counting up for each new text view.

When creating on a card window, please pass reference to parent window or just 0 for front window. On MacOS you may need to pass delta y value to adjust position.

If you create a control on a new window, you may do window update command in your script first to have FileMaker actually build the window with controls and display it. A short script pause or using FM.RunScriptLater with 0.1 delay can help having all controls draw themselves. Then you can use this command to put our control on top. We use GetControl() to query left, top, width and height and this gives empty value if control is not yet here.

Creation fails to pick the right window in case the window is selected by name and the window name is not unique. In that case better work with window reference numbers or just pass 0 for current front window.

**See also**

<i>168.5. TEXTVIEW.CREATEWITHCONTROL</i>	8011
• 80.57 FM.RunScript	4045
• 80.59 FM.RunScriptLater	4049
• 95.2 ImageView.CreateWithControl	5162
• 108.8 MapView.CreateWithControl	5735
• 168.7 TextView.CreateWithWindow	8013
• 168.27 TextView.Release	8033
• 168.33 TextView.SetFrameWithControl	8040
• 185.15 Window.FindByIndex	8686
• 185.16 Window.FindByTitle	8688

### **Example Databases**

- [TextView](#)

#### **168.5.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 15th April 2019, last changed 28th April 2020.

## 168.6 TextView.CreateWithSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.CreateWithSize"; WindowRef; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### x

The left coordinate in the window.

0

#### y

The top coordinate in the window.

0

#### w

The width of the text view in the window.

100

#### h

The height of the text view in the window.

100

**Result** Returns text view reference number on success.

### Description

Use TextView.Release later to destroy the text view.

If you use a register (tab controls) on the window, be aware that the text view actually is in front of the register (tab controls). You may hide the text view if another register is visible.

Text view reference numbers are starting at 81000 and counting up for each new text view.

### See also

- 95.3 ImageView.CreateWithSize 5164
- 108.9 MapView.CreateWithSize 5737
- 168.7 TextView.CreateWithWindow 8013
- 168.27 TextView.Release 8033
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

Created 15th April 2019, last changed 15th April 2019.



## 168.7 TextView.CreateWithWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.CreateWithWindow"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns text view reference number on success.

### Description

Use TextView.Release later to destroy the text view.

If you use a register (tab controls) on the window, be aware that the text view actually is in front of the register (tab controls). You may hide the text view if another register is visible.

Text view reference numbers are starting at 81000 and counting up for each new text view.

### See also

- 95.4 ImageView.CreateWithWindow 5166
- 168.5 TextView.CreateWithControl 8010
- 168.6 TextView.CreateWithSize 8012
- 168.27 TextView.Release 8033
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

Created 15th April 2019, last changed 15th April 2019.

## 168.8 TextView.Cut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.Cut"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

#### See also

- 168.2 TextView.Copy 8006
- 168.25 TextView.List 8031
- 183.41 WebView.Cut 8460

Created 15th April 2019, last changed 15th April 2019.

## 168.9 TextView.GetAutoCorrectionEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetAutoCorrectionEnabled"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

#### See also

- 168.29 TextView.SetAutoCorrectionEnabled

8035

Created 15th April 2019, last changed 15th April 2019.

## 168.10 TextView.GetAutoResizingMask

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	No

MBS( "TextView.GetAutoResizingMask"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns number or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.5 AVPlayer.GetAutoResizingMask 1077
- 41.29 AVPlayer.SetAutoResizingMask 1104
- 70.9 DragDrop.GetAutoResizingMask 2536
- 108.15 MapView.GetAutoResizingMask 5744
- 108.65 MapView.SetAutoResizingMask 5798
- 168.30 TextView.SetAutoResizingMask 8036
- 183.52 WebView.GetAutoResizingMask 8477
- 183.124 WebView.SetAutoResizingMask 8583

Created 15th April 2019, last changed 15th April 2019.

## 168.11 TextView.GetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	Yes

MBS( "TextView.GetHTMLText" )

**Result** Returns html text or error.

### Description

This is a HTML representation of the text with styles, which can be loaded again later.

### See also

- 168.14 TextView.GetPlainText 8020
- 168.34 TextView.SetHTMLText 8041
- 183.65 WebView.GetHTMLText 8496

### Example Databases

- [TextView](#)

Created 16th April 2019, last changed 16th April 2019.

## 168.12 TextView.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetHeight"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns height or error.

### Description

#### See also

- 95.5 ImageView.GetHeight 5167
- 108.18 MapView.GetHeight 5748
- 168.13 TextView.GetLeft 8019
- 168.23 TextView.GetWidth 8029

Created 15th April 2019, last changed 15th April 2019.

**168.13 TextView.GetLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetLeft"; TextView )

**Parameters****TextView**

The reference number to the text view.

\$textview

**Result** Returns x coordinate or error.

**Description****See also**

- 108.19 MapView.GetLeft 5749
- 168.12 TextView.GetHeight 8018
- 168.15 TextView.GetRTF 8021
- 168.20 TextView.GetTag 8026
- 168.21 TextView.GetTop 8027
- 168.23 TextView.GetWidth 8029

Created 15th April 2019, last changed 15th April 2019.

## 168.14 TextView.GetPlainText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetPlainText"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns text or error.

### Description

Returns the text of the text view without formatting.

### See also

- 168.11 TextView.GetHTMLText 8017
- 168.35 TextView.SetPlainText 8042
- 183.74 WebView.GetPlainText 8507

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.



**168.15 TextView.GetRTF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetRTF"; TextView )

**Parameters****TextView**

The reference number to the text view.

\$textview

**Result** Returns RTF text or error.

**Description**

This is a RTF representation of the text with styles, which can be loaded again later.

**See also**

- 168.13 TextView.GetLeft 8019
- 168.20 TextView.GetTag 8026
- 168.21 TextView.GetTop 8027
- 168.36 TextView.SetRTF 8043
- 168.41 TextView.SetTag 8048

**Example Databases**

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.16 `TextView.GetReadOnly`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetReadOnly"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

### See also

- 168.37 `TextView.SetReadOnly`

8044

Created 15th April 2019, last changed 15th April 2019.

## 168.17 TextView.GetRulerVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	No

MBS( "TextView.GetRulerVisible"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible or 0 if not.

### See also

- 168.22 TextView.GetVisible 8028
- 168.38 TextView.SetRulerVisible 8045

Created 15th April 2019, last changed 15th April 2019.

## 168.18 TextView.GetSpellCheckingEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetSpellCheckingEnabled"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

### See also

- 168.39 TextView.SetSpellCheckingEnabled

8046

Created 15th April 2019, last changed 15th April 2019.

## 168.19 TextView.GetStyled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetStyled"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

#### See also

- 168.40 TextView.SetStyled

8047

Created 15th April 2019, last changed 15th April 2019.

## 168.20 TextView.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetTag"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns the stored tag value or an error.

### Description

#### See also

- 108.40 MapView.GetTag 5771
- 168.13 TextView.GetLeft 8019
- 168.15 TextView.GetRTF 8021
- 168.21 TextView.GetTop 8027
- 168.36 TextView.SetRTF 8043
- 168.41 TextView.SetTag 8048

Created 15th April 2019, last changed 15th April 2019.

## 168.21 TextView.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetTop"; TextView; swap )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### swap

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns y coordinate or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 108.42 MapView.GetTop 5773
- 168.13 TextView.GetLeft 8019
- 168.15 TextView.GetRTF 8021
- 168.20 TextView.GetTag 8026
- 168.36 TextView.SetRTF 8043
- 168.41 TextView.SetTag 8048

Created 15th April 2019, last changed 15th April 2019.

## 168.22 TextView.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetVisible"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### See also

- 95.10 ImageView.GetVisible 5172
- 108.43 MapView.GetVisible 5774
- 108.89 MapView.SetVisible 5825
- 168.17 TextView.GetRulerVisible 8023
- 168.42 TextView.SetVisible 8049

Created 15th April 2019, last changed 15th April 2019.



**168.23 TextView.GetWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetWidth"; TextView )

**Parameters****TextView**

The reference number to the text view.

\$textview

**Result** Returns width or error.

**Description****See also**

- 95.11 ImageView.GetWidth 5173
- 108.45 MapView.GetWidth 5776
- 168.12 TextView.GetHeight 8018
- 168.13 TextView.GetLeft 8019

Created 15th April 2019, last changed 15th April 2019.

## 168.24 TextView.GetWindowRef

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.GetWindowRef"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns window reference number or error.

### Description

Created 15th April 2019, last changed 15th April 2019.

## 168.25 TextView.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.List" )

**Result** Returns list of IDs.

### Description

This helps debugging, especially finding scripts which do not release their objects properly.

### See also

- 168.8 TextView.Cut 8014
- 168.26 TextView.Paste 8032

Created 15th April 2019, last changed 15th April 2019.

## 168.26 TextView.Paste

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.Paste"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

#### See also

- 168.25 TextView.List 8031
- 183.99 WebView.Paste 8540

Created 15th April 2019, last changed 15th April 2019.

## 168.27 TextView.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.Release"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

If you go to layout editor and text views are still active, this may cause trouble. Like you can't drag & drop controls.

### See also

- 108.53 MapView.Release 5785
- 168.3 TextView.CreateOnPopoverWithControl 8007
- 168.4 TextView.CreateOnPopoverWithSize 8009
- 168.5 TextView.CreateWithControl 8010
- 168.6 TextView.CreateWithSize 8012
- 168.7 TextView.CreateWithWindow 8013
- 168.28 TextView.ReleaseAll 8034
- 183.105 WebView.Release 8549

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.28 TextView.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.ReleaseAll" )

**Result** Returns number of text views released.

### Description

#### See also

- 95.13 ImageView.ReleaseAll 5175
- 108.54 MapView.ReleaseAll 5786
- 168.27 TextView.Release 8033

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.29 TextView.SetAutoCorrectionEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetAutoCorrectionEnabled"; TextView; Enable )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Enable

Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

#### See also

- 168.9 TextView.GetAutoCorrectionEnabled

8015

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.30 `TextView.SetAutoresizingMask`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	No

MBS( "TextView.SetAutoresizingMask"; TextView; Value )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Value

The new setting.

4+8

**Result** Returns OK or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.5 `AVPlayer.GetAutoresizingMask` 1077
- 41.29 `AVPlayer.SetAutoresizingMask` 1104
- 70.38 `DragDrop.SetAutoresizingMask` 2573
- 108.15 `MapView.GetAutoresizingMask` 5744
- 108.65 `MapView.SetAutoresizingMask` 5798
- 168.10 `TextView.GetAutoresizingMask` 8016
- 183.52 `WebView.GetAutoresizingMask` 8477
- 183.124 `WebView.SetAutoresizingMask` 8583



**Example Databases**

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.31 TextView.SetFocus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetFocus"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

#### See also

- 168.32 TextView.SetFrame 8039
- 183.127 WebView.SetFocus 8588

Created 17th April 2019, last changed 17th April 2019.

## 168.32 TextView.SetFrame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetFrame"; TextView; X; Y; Width; Height { ; swap } )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### X

The x coordinate.

#### Y

The y coordinate.

#### Width

The width of the control.

#### Height

The height of the control.

#### swap

Optional

Whether to swap y coordinate. By default we swap them. Pass 0 to disable or 1 to swap.

1

**Result** Returns OK or error.

### Description

As Cocoa framework uses zero for the bottom coordinate, we have to swap for the normal topdown coordinates to be used.

### See also

- 95.14 ImageView.SetFrame 5176
- 108.68 MapView.SetFrame 5802
- 168.31 TextView.SetFocus 8038
- 168.40 TextView.SetStyled 8047
- 168.41 TextView.SetTag 8048

Created 15th April 2019, last changed 15th April 2019.

## 168.33 TextView.SetFrameWithControl

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetFrameWithControl"; TextView; ControlName { ; DX; DY } )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move text view more to left or right.

0

#### DY

Optional

A delta to move text view more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the text view back to the new position.

Also useful to switch between different locations on the layout.

### See also

- 41.34 AVPlayer.SetFrameWithControl 1110
- 70.44 DragDrop.SetFrameWithControl 2584
- 95.15 ImageView.SetFrameWithControl 5177
- 108.69 MapView.SetFrameWithControl 5803
- 168.5 TextView.CreateWithControl 8010

### 168.33.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.34 TextView.SetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	Yes

MBS( "TextView.SetHTMLText"; TextView; HTML Text )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### HTML Text

The new html text.

**Result** Returns OK or error.

### Description

You pass HTML text and the field shows it.

#### See also

- 168.11 TextView.GetHTMLText 8017
- 168.35 TextView.SetPlainText 8042
- 183.65 WebView.GetHTMLText 8496

### Example Databases

- [TextView](#)

Created 16th April 2019, last changed 16th April 2019.

## 168.35 `TextView.SetPlainText`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetPlainText"; TextView; Text )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Text

The new text.

"Hello"

**Result** Returns OK or error.

### Description

#### See also

- 168.14 `TextView.GetPlainText` 8020
- 168.34 `TextView.SetHTMLText` 8041
- 183.74 `WebView.GetPlainText` 8507

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

**168.36 TextView.SetRTF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetRTF"; TextView; RTF Text )

**Parameters****TextView**

The reference number to the text view.

\$textview

**RTF Text**

The new text.

**Result** Returns OK or error.

**Description**

You pass RTF text and the field shows it.

**See also**

- 168.15 TextView.GetRTF 8021
- 168.20 TextView.GetTag 8026
- 168.21 TextView.GetTop 8027
- 168.41 TextView.SetTag 8048

**Example Databases**

- [TextView](#)

Created 15th April 2019, last changed 16th April 2019.

## 168.37 TextView.SetReadOnly

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetReadOnly"; TextView; Value )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Value

The new setting. Pass 1 to enable read only mode or 0 to enable editing.

1

**Result** Returns OK or error.

### Description

If text view is read only, the user can't edit the content.

#### See also

- 168.16 TextView.GetReadOnly

8022

Created 15th April 2019, last changed 15th April 2019.



**168.38 TextView.SetRulerVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	No	No	No	No

MBS( "TextView.SetRulerVisible"; TextView; Value )

**Parameters****TextView**

The reference number to the text view.

\$textview

**Value**

The new setting. Pass 1 to show ruler or 0 to hide it.

1

**Result** Returns OK or error.

**Description****See also**

- 168.17 [TextView.GetRulerVisible](#) 8023
- 168.42 [TextView.SetVisible](#) 8049

**Example Databases**

- [TextView](#)

Created 15th April 2019, last changed 28th November 2019.

## 168.39 TextView.SetSpellCheckingEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetSpellCheckingEnabled"; TextView; Enable )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Enable

Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Only for Windows 8 and newer (on Windows).

### See also

- 168.18 TextView.GetSpellCheckingEnabled

8024

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.40 TextView.SetStyled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetStyled"; TextView; Value )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Value

The new setting. Pass 1 for styled text or 0 for plain text.

1

**Result** Returns OK or error.

### Description

If styled is enabled (by default), the text can be formatted with styles by the user.

### See also

- 168.19 TextView.GetStyled 8025
- 168.32 TextView.SetFrame 8039

### Example Databases

- [TextView](#)

Created 15th April 2019, last changed 15th April 2019.

## 168.41 TextView.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetTag"; TextView; tag )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### tag

A string you want to associate with the text view.

**Result** Returns OK or error.

### Description

Use the tag to store whatever value you want to associate with the text view. You can later query it using `TextView.GetTag`.

### See also

- 108.87 `MapView.SetTag` 5823
- 168.15 `TextView.GetRTF` 8021
- 168.20 `TextView.GetTag` 8026
- 168.21 `TextView.GetTop` 8027
- 168.32 `TextView.SetFrame` 8039
- 168.36 `TextView.SetRTF` 8043

Created 15th April 2019, last changed 15th April 2019.

## 168.42 TextView.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.SetVisible"; TextView; Visible )

### Parameters

#### TextView

The reference number to the text view.

\$textview

#### Visible

The new visible state. Pass 0 to hide or 1 to show.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### See also

- 95.19 ImageView.SetVisible 5181
- 108.43 MapView.GetVisible 5774
- 108.89 MapView.SetVisible 5825
- 168.22 TextView.GetVisible 8028
- 168.38 TextView.SetRulerVisible 8045

Created 15th April 2019, last changed 25th December 2019.

## 168.43 TextView.ShowFontPanel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	No

MBS( "TextView.ShowFontPanel"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

For MacOS opens the font panel. When making changes in the panel, the textview updates live.

For Windows shows the font dialog. You can make changes and apply them with OK button.

### Example Databases

- [TextView](#)

### 168.43.1 Blog Entries

- [Windows Font Dialog](#)

Created 16th April 2019, last changed 16th April 2019.

## 168.44 TextView.Undo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
168 TextView	9.2	Yes	Yes	No	No	Yes

MBS( "TextView.Undo"; TextView )

### Parameters

#### TextView

The reference number to the text view.

\$textview

**Result** Returns OK or error.

### Description

#### See also

- 168.1 TextView.CanUndo

8005

Created 15th April 2019, last changed 15th April 2019.





# Chapter 169

## Time

Time functions.

### 169.1 Time.Format

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
169 Time	6.4	Yes	Yes	Yes	Yes	Yes

```
MBS( "Time.Format"; TimeStamp; FormatString { ; Locale } )
```

#### Parameters

##### TimeStamp

The FileMaker time stamp.

```
Get(CurrentTimeStamp)
```

##### FormatString

The format string.

##### Locale

Optional

The locale to use. Be aware that identifiers are not the same on Mac, Windows and Linux.

```
"FR_fr"
```

**Result** Returns text or error.

#### Description

locale is the name of the locale to use. You can pass empty string to use default/current locale.

Format is a format string like for strftime command in C.

The format specification is a string and may contain special character sequences called conversion specifications, each of which is introduced by a '%' character and terminated by some other character known as a

conversion specifier character. All other character sequences are ordinary character sequences.

The characters of ordinary character sequences (including the null byte) are copied verbatim from format to s. However, the characters of conversion specifications are replaced as follows:

Some conversion specifications can be modified by preceding the conversion specifier character by the E or O modifier to indicate that an alternative format should be used. If the alternative format or specification does not exist for the current locale, the behavior will be as if the unmodified conversion specification were used. (SU) The Single UNIX Specification mentions % Ec, % EC, % Ex, % EX, % Ey, % EY, % Od, % Oe, % OH, % OI, % Om, % OM, % OS, % Ou, % OU, % OV, % Ow, % OW, % Oy, where the effect of the O modifier is to use alternative numeric symbols (say, roman numerals), and that of the E modifier is to use a locale-dependent alternative representation.

### Examples

Formats a date:

```
MBS( "Time.Format"; Get ( CurrentTimeStamp ); "% d % B % Y" )
```

Example result: 11 December 2016

Formats a date in french:

```
MBS( "Time.Format"; Get ( CurrentTimeStamp ); "% d % B % Y"; "FR_fr" )
```

Example result: 11 décembre 2016

Format a timestamp for MySQL:

```
MBS( "Time.Format"; Get ( CurrentTimeStamp ); "% Y-% m-% d % H:% M:% S" )
```

Example result: 2016-12-11 11:35:26

Time for HTTP Request:

```
MBS( "Time.Format"; Get ( CurrentTimeStamp ); "% a, % d % b % Y % H:% M:% S % Z" )
```

Example result: Sun, 11 Dec 2016 11:36:18 CET

Query week number:

```
MBS( "Time.Format"; Get(HostTimeStamp); "% W" )
```

### See also

- 169.2 Time.Parse

8057

### Example Databases

- [WebViewer/Calendar/Calendar](#)

### 169.1.1 **Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr2](#)
- [MBS FileMaker Plugin, version 9.3pr1](#)
- [MBS FileMaker Plugin, version 8.1pr5](#)
- [MBS FileMaker Plugin, version 6.4pr4](#)
- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 17th August 2016, last changed 31st May 2019.

- % a The abbreviated weekday name according to the current locale.
- % A The full weekday name according to the current locale.
- % b The abbreviated month name according to the current locale.
- % B The full month name according to the current locale.
- % c The preferred date and time representation for the current locale.
- % C The century number (year/100) as a 2-digit integer. (SU)
- % d The day of the month as a decimal number (range 01 to 31).
- % D Equivalent to % m/% d/% y. (Yecch-for Americans only. Americans should note that in other countries % d/% m/% y is rather common. This means that in international context this format is ambiguous and should not be used.) (SU)
- % e Like % d, the day of the month as a decimal number, but a leading zero is replaced by a space. (SU)
- % E Modifier: use alternative format, see below. (SU)
- % F Equivalent to % Y-% m-% d (the ISO 8601 date format). (Not on Windows)
- % G The ISO 8601 week-based year (see NOTES) with century as a decimal number. The 4-digit year corresponding to the ISO week number (see % V). This has the same format and value as % Y, except that if the ISO week number belongs to the previous or next year, that year is used instead. (TZ)
- % g Like % G, but without century, that is, with a 2-digit year (00-99). (TZ)
- % h Equivalent to % b. (SU)
- % H The hour as a decimal number using a 24-hour clock (range 00 to 23).
- % I The hour as a decimal number using a 12-hour clock (range 01 to 12).
- % j The day of the year as a decimal number (range 001 to 366).
- % k The hour (24-hour clock) as a decimal number (range 0 to 23); single digits are preceded by a blank. (See also % H.) (TZ)
- % l The hour (12-hour clock) as a decimal number (range 1 to 12); single digits are preceded by a blank. (See also % I.) (TZ)
- % m The month as a decimal number (range 01 to 12).
- % M The minute as a decimal number (range 00 to 59).
- % n A newline character. (SU)
- % O Modifier: use alternative format, see below. (SU)
- % p Either "AM" or "PM" according to the given time value, or the corresponding strings for the current locale. Noon is treated as "PM" and midnight as "AM".
- % P Like % p but in lowercase: "am" or "pm" or a corresponding string for the current locale. (GNU)
- % r The time in a.m. or p.m. notation. In the POSIX locale this is equivalent to % I:% M:% S % p. (SU)
- % R The time in 24-hour notation (% H:% M). (SU) For a version including the seconds, see % T below.
- % s The number of seconds since the Epoch, 1970-01-01 00:00:00 +0000 (UTC). (TZ)
- % S The second as a decimal number (range 00 to 60). (The range is up to 60 to allow for occasional leap seconds.)
- % t A tab character. (SU)
- % T The time in 24-hour notation (% H:% M:% S). (SU)
- % u The day of the week as a decimal, range 1 to 7, Monday being 1. See also % w. (SU)
- % U The week number of the current year as a decimal number, range 00 to 53,

## 169.2 Time.Parse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
169 Time	6.4	Yes	No	Yes	Yes	Yes

MBS( "Time.Parse"; Text; FormatString { ; Locale } )

### Parameters

#### Text

The text to parse for date and/or time

"2016-11-30"

#### FormatString

The format string.

#### Locale

Optional

The locale to use. Be aware that identifiers are not the same on Mac, Windows and Linux.

"FR\_fr"

**Result** Returns timestamp or error.

### Description

The Time.Parse function parses the string in the parameter, according to the string pointed to by format parameter, and returns the result as timestamp. The resulting values will be relative to the local time zone. Thus, it can be considered the reverse operation of Time.Format.

The Time.Parse function is the converse function to FormatDateMBS and converts the character string pointed to by s to values which are stored in the date, using the format specified by format. Here format is a character string that consists of field descriptors and text characters, reminiscent of scanf (in C++). Each field descriptor consists of a % character followed by another character that specifies the replacement for the field descriptor. All other characters in the format string must have a matching character in the input string, except for whitespace, which matches zero or more whitespace characters in the input string. There should be whitespace or other alphanumeric characters between any two field descriptors.

The Time.Parse function processes the input string from left to right. Each of the three possible input elements (whitespace, literal, or format) are handled one after the other. If the input cannot be matched to the format string the function stops. The remainder of the format and input strings are not processed.

The supported input field descriptors are listed below. In case a text string (such as a weekday or month name) is to be matched, the comparison is case insensitive. In case a number is to be matched, leading zeros are permitted but not required.

Some field descriptors can be modified by the E or O modifier characters to indicate that an alternative format or specification should be used. If the alternative format or specification does not exist in the current locale, the unmodified field descriptor is used.

The E modifier specifies that the input string may contain alternative locale-dependent versions of the date and time representation:

Returns true on success. If the functions fails to match all of the format string and therefore an error occurred the function returns false.

Before libc 5.4.13 whitespace (and the 'n' and 't' specifications) was not handled, no 'E' and 'O' locale modifier characters were accepted, and the 'C' specification was a synonym for the 'c' specification.

The 'y' (year in century) specification is taken to specify a year in the 20th century by libc4 and libc5. It is taken to be a year in the range 1950-2049 by glibc 2.0. It is taken to be a year in 1969-2068 since glibc 2.1.

For reasons of symmetry, glibc tries to support for ParseDateMBS the same format characters as for FormatDateMBS. (In most cases the corresponding fields are parsed, but no field in tm is changed.) This leads to

Similarly, because of GNU extensions to FormatDateMBS, %k is accepted as a synonym for %H, and %l should be accepted as a synonym for %I, and %P is accepted as a synonym for %p. Finally

The glibc implementation does not require whitespace between two field descriptors.

### Examples

Parse a date:

```
MBS( "Time.Parse"; "2016-11-30"; "%Y-%m-%d" )
```

Example result: 30.11.2016 00:00

Parse a timestamp:

```
MBS( "Time.Parse"; "2016-11-30 13:31"; "%Y-%m-%d %H:%M" )
```

Example result: 30.11.2016 13:31

### See also

- 169.1 Time.Format

8053

## 169.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr4](#)
- [Tip of the day: Query connected clients on FileMaker Server by script](#)

Created 17th August 2016, last changed 17th June 2018.

% %	The % character.
% a or % A	The weekday name according to the current locale, in abbreviated form or the full name.
% b or % B or % h	The month name according to the current locale, in abbreviated form or the full name.
% c	The date and time representation for the current locale.
% C	The century number (0-99).
% d or % e	The day of month (1-31).
% D	Equivalent to % m/% d/% y. (This is the American style date, very confusing to non-Americans, especially since % d/% m/% y is widely used in Europe. The ISO 8601 standard format is % Y-% m-% d.)
% H	The hour (0-23).
% I	The hour on a 12-hour clock (1-12).
% j	The day number in the year (1-366).
% m	The month number (1-12).
% M	The minute (0-59).
% n	Arbitrary whitespace.
% p	The locale's equivalent of AM or PM. (Note: there may be none.)
% r	The 12-hour clock time (using the locale's AM or PM). In the POSIX locale equivalent to % I:% M:% S % p. If t_fmt_ampm is empty in the LC_TIME part of the current locale then the behavior is undefined.
% R	Equivalent to % H:% M.
% S	The second (0-60; 60 may occur for leap seconds; earlier also 61 was allowed).
% t	Arbitrary whitespace.
% T	Equivalent to % H:% M:% S.
% U	The week number with Sunday the first day of the week (0-53). The first Sunday of January is the first day of week 1.
% w	The weekday number (0-6) with Sunday = 0.
% W	The week number with Monday the first day of the week (0-53). The first Monday of January is the first day of week 1.
% x	The date, using the locale's date format.
% X	The time, using the locale's time format.
% y	The year within century (0-99). When a century is not otherwise specified, values in the range 69-99 refer to years in the twentieth century (1969-1999); values in the range 00-68 refer to years in the twenty-first century (2000-2068).
% Y	The year, including century (for example, 1991).

% Ec	The locale's alternative date and time representation.
% EC	The name of the base year (period) in the locale's alternative representation.
% Ex	The locale's alternative date representation.
% EX	The locale's alternative time representation.
% Ey	The offset from % EC (year only) in the locale's alternative representation.
% EY	The full alternative year representation. The O modifier specifies that the numerical input may be in an alternative locale-dependent format:
% Od or % Oe	The day of the month using the locale's alternative numeric symbols; leading zeros are permitted but not required.
% OH	The hour (24-hour clock) using the locale's alternative numeric symbols.
% OI	The hour (12-hour clock) using the locale's alternative numeric symbols.
% Om	The month using the locale's alternative numeric symbols.
% OM	The minutes using the locale's alternative numeric symbols.
% OS	The seconds using the locale's alternative numeric symbols.
% OU	The week number of the year (Sunday as the first day of the week) using the locale's alternative numeric symbols.
% Ow	The number of the weekday (Sunday=0) using the locale's alternative numeric symbols.
% OW	The week number of the year (Monday as the first day of the week) using the locale's alternative numeric symbols.
% Oy	The year (offset from % C) using the locale's alternative numeric symbols.
% F	Equivalent to % Y-% m-% d, the ISO 8601 date format.
% g	The year corresponding to the ISO week number, but without the century (0-99).
% G	The year corresponding to the ISO week number. (For example, 1991.)
% u	The day of the week as a decimal number (1-7, where Monday = 1).
% V	The ISO 8601:1988 week number as a decimal number (1-53). If the week (starting on Monday) containing 1 January has four or more days in the new year, then it is considered week 1. Otherwise, it is the last week of the previous year, and the next week is week 1.
% z	An RFC-822/ISO 8601 standard timezone specification.
% Z	The timezone name.
% s	The number of seconds since the Epoch, 1970-01-01 00:00:00 +0000 (UTC). Leap seconds are not counted unless leap second support is available.



## 169.3 Time.TimeStampToUTC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
169 Time	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Time.TimeStampToUTC"; TimeStamp { ; AsText } )

### Parameters

#### TimeStamp

The input time stamp in local time zone.

#### AsText

Optional

Boolean to decide whether to pass back timestamp (0, default) or text (1).

1

**Result** Returns OK or error.

### Description

Returns either timestamp in UTC (by removing time zone offset) or as text in format like this: 2014-08-18T12:00:00Z.

### Examples

Convert local time to UTC:

```
MBS( "Time.TimeStampToUTC"; Get(CurrentTimeStamp) )
```

Example result: 11.12.2016 10:36:44

Convert time to UTC text:

```
MBS( "Time.TimeStampToUTC"; Get(CurrentTimeStamp); 1 )
```

Example result: 2016-12-11T10:36:50Z

### 169.3.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 6th February 2016, last changed 11st December 2016.

## 169.4 Time.TimeZoneOffset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
169 Time	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "Time.TimeZoneOffset"; AsText )

### Parameters

#### AsText

Pass 1 to get back time zone as text like "+03:00". Otherwise default is zero to return as number of seconds.  
1

**Result** Returns value or error.

### Description

Returns either seconds or formatted text.

Time zone changes on Windows don't take effect until you restart FileMaker. For MacOS, the functions notice the changes in system automatically.

### Examples

Query time zone as text:

```
MBS( "Time.TimeZoneOffset"; 1 )
```

Example result: "+01:00"

Query time zone as number:

```
MBS( "Time.TimeZoneOffset"; 0 )
```

Example result: 3600

### 169.4.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr4](#)

Created 20th February 2019, last changed 20th February 2019.

## 169.5 Time.UnixTimeStampToFileMaker

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
169 Time	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "Time.UnixTimeStampToFileMaker"; UnixTime { ; GMT } )

### Parameters

#### UnixTime

The time value from unix.

1527786192

#### GMT

Optional

Pass 1 for GMT or 0 for local time zone. Default is 0 for local time.

0

**Result** Returns OK or error.

### Description

Pass unix time, which is number of seconds since 1970.

### Examples

Convert time:

MBS( "Time.UnixTimeStampToFileMaker"; 1527786192 )

Example result: "31.05.2018 19:03:12"

### See also

- 178.14 Time.UnixTimeStamp

8373

### 169.5.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 31st May 2018, last changed 31st May 2018.



# Chapter 170

## Toolbar

Extend FileMaker toolbar with new buttons.

### 170.1 Toolbar.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Install" )

**Result** Returns OK or error.

#### Description

You call this functions once at startup. You can use `Toolbar.Register` after or before to introduce new identifiers. Use `Window.SetToolbarConfiguration` to install a new configuration including your custom identifiers or use customize toolbar palette.

#### See also

- 185.3 `Toolbar.Register` 8670
- 170.4 `Toolbar.SetImage` 8070
- 170.5 `Toolbar.SetLabel` 8072
- 170.6 `Toolbar.SetPaletteLabel` 8074
- 170.7 `Toolbar.SetTooltip` 8075
- 185.99 `Window.SetToolbarConfiguration` 8793

#### Example Databases

- [Mac only/Toolbar/Custom Toolbar Items](#)

### 170.1.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 20th August 2014, last changed 20th August 2014.

## 170.2 Toolbar.InstallBackground

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.InstallBackground"; Image { ; Mode; DisableTitle } )

### Parameters

#### Image

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$img

#### Mode

Optional

Can be 0 to stretch (default) or 1 to left align image.

0

#### DisableTitle

Optional

If 1, we do not draw the window title on top of the image.

0

**Result** Returns OK or error.

### Description

There is currently only one style for all FileMaker windows on Mac OS X.

We draw an image below the toolbar buttons. Either we stretch it to full width we align it to left and fill the space on the right with last pixel colors.

There are little redraw issues, especially when resizing window.

Currently doesn't work in FileMaker 14 and newer. If you need that to work, please contact us.

### 170.2.1 Blog Entries

- [MBS FileMaker Plugin 4.3 for OS X/Windows - More than 2700 Functions In One Plugin](#)
- [Toolbar functions for FileMaker on Mac](#)

Created 25th August 2014, last changed 28th August 2016.

## 170.3 Toolbar.Register

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Register"; Identifier; FileName; ScriptName; Parameter; Label; PaletteLabel; Tooltip; Image )

### Parameters

#### Identifier

The toolbar identifier. Must be an unique string.

"Test"

#### FileName

The file name of the FileMaker database where the script is located.

"Toolbar.fmp12"

#### ScriptName

The name of the script to call when toolbar item is pressed.

"ToolbarScript"

#### Parameter

The parameter to pass to the script. This can be same as identifier. Using different parameters allows you to use one script for all toolbar items.

"SwitchToMainLayout"

#### Label

The label, which normally appears in the toolbar and in the overflow menu.

"Hello"

#### PaletteLabel

The label that appears when it is in the customization palette. Can be same as label or different.

"Hello World"

#### Tooltip

The tooltip for the label!

"click me"

#### Image

The image to use for the toolbar item. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Please use an identifier with your own prefix/suffix to make sure you have no conflict with existing identifiers.

Once your item is registered, the next time the toolbar updates itself it will use it.

You can use Window.SetToolbarConfiguration or the customize palette to add your toolbar item.



You need to call `Toolbar.Install` at least once before using this command to have it take effect.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 185.1 `Toolbar.Install` 8667
- 185.4 `Toolbar.Unregister` 8672
- 185.99 `Window.SetToolbarConfiguration` 8793

**Example Databases**

- [Mac only/Toolbar/Custom Toolbar Items](#)

### 170.3.1 Blog Entries

- [Replace toolbar images and labels](#)
- [Toolbar functions for FileMaker on Mac](#)

Created 20th August 2014, last changed 12nd September 2016.

## 170.4 Toolbar.SetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar	6.4	Yes	No	No	No	No

MBS( "Toolbar.SetImage"; Identifier; Image )

### Parameters

#### Identifier

The toolbar identifier.

Possible toolbar identifiers: RecordNavigationToolbarItemIdentifier, ShowAllToolbarItemIdentifier, NSToolbarSpaceItem, NewRecordToolbarItemIdentifier, DeleteRecordToolbarItemIdentifier, NSToolbarSpaceItem, FindDropdownToolbarItemIdentifier, SortToolbarItemIdentifier, UploadServerToolbarItemIdentifier, QuickFindToolbarItemIdentifier, DuplicateRecordToolbarItemIdentifier, ManageToolbarItemIdentifier, SaveAsExcelToolbarItemIdentifier, SaveAsPDFToolbarItemIdentifier, SaveAsSnapshotLinkToolbarItemIdentifier, ImportToolbarItemIdentifier, ExportToolbarItemIdentifier, PrintToolbarItemIdentifier, PageSetupToolbarItemIdentifier, SendMailToolbarItemIdentifier, OmitRecordToolbarItemIdentifier, ShowOmittedToolbarItemIdentifier, NewWindowToolbarItemIdentifier, DebuggerToolbarItemIdentifier, DataViewerToolbarItemIdentifier, SavedFindToolbarItemIdentifier, NewLayoutAnyModeToolbarItemIdentifier  
"NewRecordToolbarItemIdentifier"

#### Image

The image to use for the toolbar item. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

#### Description

Use an empty image to remove image from table.

You need to call `Toolbar.Install` at least once before using this command to have it take effect.

#### Examples

Sets images for new and delete toolbar:

```
Set Variable [ $r; Value:MBS( "Toolbar.SetImage"; "NewRecordToolbarItemIdentifier"; Toolbar::NewRecordImage) ]
```

```
Set Variable [ $r; Value:MBS( "Toolbar.SetImage"; "DeleteRecordToolbarItemIdentifier"; Toolbar::DeleteRecordImage) ]
```

#### See also

- 185.1 `Toolbar.Install` 8667
- 170.5 `Toolbar.SetLabel` 8072

### 170.4.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 170.5 Toolbar.SetLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar	6.4	Yes	No	No	No	No

MBS( "Toolbar.SetLabel"; Identifier; Text )

### Parameters

#### Identifier

The toolbar identifier.

Possible toolbar identifiers: RecordNavigationToolbarItemIdentifier, ShowAllToolbarItemIdentifier, NSToolbarSpaceItem, NewRecordToolbarItemIdentifier, DeleteRecordToolbarItemIdentifier, NSToolbarSpaceItem, FindDropdownToolbarItemIdentifier, SortToolbarItemIdentifier, UploadServerToolbarItemIdentifier, QuickFindToolbarItemIdentifier, DuplicateRecordToolbarItemIdentifier, ManageToolbarItemIdentifier, SaveAsExcelToolbarItemIdentifier, SaveAsPDFToolbarItemIdentifier, SaveAsSnapshotLinkToolbarItemIdentifier, ImportToolbarItemIdentifier, ExportToolbarItemIdentifier, PrintToolbarItemIdentifier, PageSetupToolbarItemIdentifier, SendMailToolbarItemIdentifier, OmitRecordToolbarItemIdentifier, ShowOmittedToolbarItemIdentifier, NewWindowToolbarItemIdentifier, DebuggerToolbarItemIdentifier, DataViewerToolbarItemIdentifier, SavedFindToolbarItemIdentifier, NewLayoutAnyModeToolbarItemIdentifier  
"NewRecordToolbarItemIdentifier"

#### Text

The text to use for label.

"New Person"

**Result** Returns OK or error.

### Description

Use an empty text to remove entry from labels table.

You need to call Toolbar.Install at least once before using this command to have it take effect.

### Examples

Overwrite labels:

```
Set Variable [ $r; Value:MBS( "Toolbar.SetLabel"; "NewRecordToolbarItemIdentifier"; "New Person" ) ]
Set Variable [ $r; Value:MBS( "Toolbar.SetLabel"; "DeleteRecordToolbarItemIdentifier"; "Delete Person" ) ]
```

### See also

- 185.1 Toolbar.Install 8667
- 170.4 Toolbar.SetImage 8070

### 170.5.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 170.6 Toolbar.SetPaletteLabel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar	6.4	Yes	No	No	No	No

MBS( "Toolbar.SetPaletteLabel"; Identifier; Text )

### Parameters

#### Identifier

The toolbar identifier.

Possible toolbar identifiers: RecordNavigationToolbarItemIdentifier, ShowAllToolbarItemIdentifier, NSToolbarSpaceItem, NewRecordToolbarItemIdentifier, DeleteRecordToolbarItemIdentifier, NSToolbarSpaceItem, FindDropdownToolbarItemIdentifier, SortToolbarItemIdentifier, UploadServerToolbarItemIdentifier, QuickFindToolbarItemIdentifier, DuplicateRecordToolbarItemIdentifier, ManageToolbarItemIdentifier, SaveAsExcelToolbarItemIdentifier, SaveAsPDFToolbarItemIdentifier, SaveAsSnapshotLinkToolbarItemIdentifier, ImportToolbarItemIdentifier, ExportToolbarItemIdentifier, PrintToolbarItemIdentifier, PageSetupToolbarItemIdentifier, SendMailToolbarItemIdentifier, OmitRecordToolbarItemIdentifier, ShowOmittedToolbarItemIdentifier, NewWindowToolbarItemIdentifier, DebuggerToolbarItemIdentifier, DataViewerToolbarItemIdentifier, SavedFindToolbarItemIdentifier, NewLayoutAnyModeToolbarItemIdentifier  
"NewRecordToolbarItemIdentifier"

#### Text

The text to use for palette label.

"New Person"

**Result** Returns OK or error.

### Description

Use an empty text to remove entry from labels table.

You need to call `Toolbar.Install` at least once before using this command to have it take effect.

**See also**

- 185.1 `Toolbar.Install`

8667

### 170.6.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 170.7 Toolbar.SetTooltip

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar	6.4	Yes	No	No	No	No

MBS( "Toolbar.SetTooltip"; Identifier; Text )

### Parameters

#### Identifier

The toolbar identifier.

Possible toolbar identifiers: RecordNavigationToolbarItemIdentifier, ShowAllToolbarItemIdentifier, NSToolbarSpaceItem, NewRecordToolbarItemIdentifier, DeleteRecordToolbarItemIdentifier, NSToolbarSpaceItem, FindDropdownToolbarItemIdentifier, SortToolbarItemIdentifier, UploadServerToolbarItemIdentifier, QuickFindToolbarItemIdentifier, DuplicateRecordToolbarItemIdentifier, ManageToolbarItemIdentifier, SaveAsExcelToolbarItemIdentifier, SaveAsPDFToolbarItemIdentifier, SaveAsSnapshotLinkToolbarItemIdentifier, ImportToolbarItemIdentifier, ExportToolbarItemIdentifier, PrintToolbarItemIdentifier, PageSetupToolbarItemIdentifier, SendMailToolbarItemIdentifier, OmitRecordToolbarItemIdentifier, ShowOmittedToolbarItemIdentifier, NewWindowToolbarItemIdentifier, DebuggerToolbarItemIdentifier, DataViewerToolbarItemIdentifier, SavedFindToolbarItemIdentifier, NewLayoutAnyModeToolbarItemIdentifier  
"NewRecordToolbarItemIdentifier"

#### Text

The text to use for tooltip.

"Creates a new person record."

**Result** Returns OK or error.

#### Description

Use an empty text to remove entry from tooltips table.

You need to call Toolbar.Install at least once before using this command to have it take effect.

**See also**

- 185.1 Toolbar.Install

8667

### 170.7.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr7](#)

Created 12nd September 2016, last changed 12nd September 2016.

## 170.8 Toolbar.Unregister

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Unregister"; Identifier )

### Parameters

#### Identifier

The toolbar item identifier.

"Test"

**Result** Returns OK or error.

### Description

The changes apply as soon as the toolbar updates itself.

### See also

- 185.3 Toolbar.Register

8670

Created 20th August 2014, last changed 20th August 2014.



## 170.9 Window.ConfigureToolBarMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	8.3	Yes	No	No	No	No

MBS( "Window.ConfigureToolBarMenu"; Mode )

### Parameters

#### Mode

Pass 1 to disable menu completely. Pass 2 to remove the show/hide command. Pass 4 to remove the configuration command. Pass 6 to remove both commands.

1

**Result** Returns OK or error.

### Description

The plugin can watch what menu is about to show up for the toolbar. We can remove menu or remove some entries.

### Examples

Disable toolbar menus:

```
Set Variable [ $r; Value: MBS( "Window.ConfigureToolBarMenu"; 1 ) ]
```

### 170.9.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Configure Toolbar Menu with MBS FileMaker Plugin](#)

### 170.9.2 FileMaker Magazin

- [Ausgabe 4/2018, Seite 38](#)

Created 9th June 2018, last changed 27th August 2019.

## 170.10 Window.GetToolBarConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarConfiguration"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns configuration xml or error.

### Description

Contains displayMode, visible, and a list of the item identifiers currently in the toolbar.

Do not depend on any details of the normal contents of a configuration dictionary. This may change with an update to Mac OS X or FileMaker.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.99 Window.SetToolBarConfiguration 8793

### Example Databases

- [Mac only/Toolbar/Window Toolbar](#)

### 170.10.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.

**170.11 Window.GetToolBarCustomizationPaletteIsRunning**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarCustomizationPaletteIsRunning"; WindowRef )

**Parameters****WindowRef**

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns state or error.

**Description**

Returns 1 if palette is visible or 0 if not.

**See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.65 Window.RunToolBarCustomizationPalette 8748

Created 19th August 2014, last changed 20th August 2014.

## 170.12 Window.GetToolBarVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarVisible"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns state or error.

### Description

Value is 0 if invisible or 1 if visible.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.29 Window.GetTitleVisible 8705
- 185.74 Window.ScrollbarsVisible 8759
- 185.97 Window.SetTitleVisible 8791
- 185.100 Window.SetToolBarVisible 8794

### Example Databases

- [Mac only/Toolbar/Window Toolbar](#)

Created 19th August 2014, last changed 20th August 2014.

## 170.13 Window.RunToolBarCustomizationPalette

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.RunToolBarCustomizationPalette"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

You can use Window.GetToolBarCustomizationPaletteIsRunning to query if customization sheet is open.

### Examples

Run toolbar customization for current window:

MBS( "Window.RunToolBarCustomizationPalette"; 0 )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.32 Window.GetToolBarCustomizationPaletteIsRunning 8708

### Example Databases

- [Mac only/ToolBar/Custom Toolbar Items](#)
- [Mac only/ToolBar/Window Toolbar](#)

### 170.13.1 Blog Entries

- [ToolBar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.

## 170.14 Window.SetShowsToolBarButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	2.4	Yes	No	No	No	No

MBS( "Window.SetShowsToolBarButton"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Whether to ignore mouse events or not. Pass 1 to ignore mouse events or 0 to not ignore mouse events.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Hide toolbar button for frontmost window:

```
MBS("Window.SetShowsToolBarButton"; 0; 0)
```

Show toolbar button for window:

```
MBS("Window.SetShowsToolBarButton"; $WindowRef; 1)
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.110 Window.ShowsToolBarButton](#) 8808

### Example Databases

- [Window/Dialog from Filemaker Form](#)

#### 170.14.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)

- [Dialogs with Filemaker](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 170.14.2 FileMaker Magazin

- Ausgabe 5/2011, Seite 55

Created 18th August 2014, last changed 20th August 2014.

## 170.15 Window.SetToolbarConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.SetToolbarConfiguration"; WindowRef; ConfigurationXML )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ConfigurationXML

The configuration XML. Should be the one returned by Window.GetToolbarConfiguration.

\$ConfigurationXML

**Result** Returns OK or error.

### Description

Pass a xml with the toolbar's configuration information. If you want to provide a custom xml, you should first get the receiver's current configuration xml, then create a modified copy, rather than trying to construct one yourself.

Do not depend on any details of the normal contents of a configuration dictionary. This may change with an update to Mac OS X or FileMaker.

### See also

- [185.1 Toolbar.Install](#) 8667
- [185.3 Toolbar.Register](#) 8670
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.31 Window.GetToolbarConfiguration](#) 8707

### Example Databases

- [Mac only/Toolbar/Window Toolbar](#)

### 170.15.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.



## 170.16 Window.SetToolBarVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.SetToolBarVisible"; WindowRef; State )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### State

The new state. Pass 0 to hide or 1 to show toolbar.

1

**Result** Returns OK or error.

### Description

### Examples

Show toolbar in current window:

```
MBS( "Window.SetToolBarVisible"; 0; 1 )
```

Hide toolbar in current window:

```
MBS( "Window.SetToolBarVisible"; 0; 0 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.29 Window.GetTitleVisible 8705
- 185.33 Window.GetToolBarVisible 8709
- 185.74 Window.ScrollbarsVisible 8759
- 185.97 Window.SetTitleVisible 8791

### Example Databases

- [Mac only/ToolBar/Window Toolbar](#)

Created 19th August 2014, last changed 20th August 2014.

## 170.17 Window.ShowsToolBarButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	2.4	Yes	No	No	No	No

MBS( "Window.ShowsToolBarButton"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 if toolbar button is hidden or 1 if toolbar button is visible.

### Description

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.93 Window.SetShowsToolBarButton 8785

### 170.17.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 170.17.2 FileMaker Magazin

- Ausgabe 5/2011, Seite 55

Created 18th August 2014, last changed 20th August 2014.

# Chapter 171

## TouchBar

Create your own TouchBar for Macbook Pro.

### 171.1 App.ClearTouchBar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
35 App 171 TouchBar	8.4	Yes	No	No	No	No

MBS( "App.ClearTouchBar" )

**Result** Returns OK or error.

#### Description

You assign the TouchBar with TouchBar.AssignToApp function.

#### See also

- 171.3 TouchBar.AssignToApp

8091

#### 171.1.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr2](#)

Created 8th August 2018, last changed 8th August 2018.

## 171.2 TouchBar.AddButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.AddButton"; TouchBarRef; Identifier; Text; Image; CustomizationLabel; visibilityPriority; fileName; scriptName { ; Expression } )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### Identifier

The identifier for the new item.

"com.yourdomain.send"

#### Text

The text of the button. Can be empty to show no text.

"Send"

#### Image

The image of the button. Pass container here with PNG for best result. JPEG may not work due to missing transparency. Can be one of the following texts to pick a default image: NSImageNameTouchBarAddDetailTemplate, NSImageNameTouchBarAddTemplate, NSImageNameTouchBarAlarmTemplate, NSImageNameTouchBarAudioInputMuteTemplate, NSImageNameTouchBarAudioInputTemplate, NSImageNameTouchBarAudioOutputMuteTemplate, NSImageNameTouchBarAudioOutputVolumeHighTemplate, NSImageNameTouchBarAudioOutputVolumeLowTemplate, NSImageNameTouchBarAudioOutputVolumeMediumTemplate, NSImageNameTouchBarAudioOutputVolumeOffTemplate, NSImageNameTouchBarBookmarksTemplate, NSImageNameTouchBarColorPickerFill, NSImageNameTouchBarColorPickerFont, NSImageNameTouchBarColorPickerStroke, NSImageNameTouchBarCommunicationAudioTemplate, NSImageNameTouchBarCommunicationVideoTemplate, NSImageNameTouchBarComposeTemplate, NSImageNameTouchBarDeleteTemplate, NSImageNameTouchBarDownloadTemplate, NSImageNameTouchBarEnterFullScreenTemplate, NSImageNameTouchBarExitFullScreenTemplate, NSImageNameTouchBarFastForwardTemplate, NSImageNameTouchBarFolderCopyToTemplate, NSImageNameTouchBarFolderMoveToTemplate, NSImageNameTouchBarFolderTemplate, NSImageNameTouchBarGetInfoTemplate, NSImageNameTouchBarGoBackTemplate, NSImageNameTouchBarGoDownTemplate, NSImageNameTouchBarGoForwardTemplate, NSImageNameTouchBarGoUpTemplate, NSImageNameTouchBarHistoryTemplate, NSImageNameTouchBarIconViewTemplate, NSImageNameTouchBarListViewTemplate, NSImageNameTouchBarMailTemplate, NSImageNameTouchBarNewFolderTemplate, NSImageNameTouchBarNewMessageTemplate, NSImageNameTouchBarOpenInBrowserTemplate, NSImageNameTouchBarPauseTemplate, NSImageNameTouchBarPlayheadTemplate, NSImageNameTouchBarPlayPauseTemplate, NSImageNameTouchBarPlayTemplate, NSImageNameTouchBarQuickLookTemplate, NSImageNameTouchBarRecordStartTemplate, NSImageNameTouchBarRecordStopTemplate, NSImageNameTouchBarRefreshTemplate, NSImageNameTouchBarRewindTemplate, NSImageNameTouchBarRotateLeftTemplate, NSImageNameTouchBarRotateRightTemplate, NSImageNameTouchBarSearchTemplate, NSImageNameTouchBarShareTemplate, NSImageNameTouchBarSidebarTemplate, NSImageNameTouchBarSkipAhead15SecondsTemplate, NSImageNameTouchBarSkipAhead30SecondsTemplate, NSImageNameTouchBarSkipAheadTemplate, NSImageNameTouchBarSkipBack15SecondsTemplate, NSImageNameTouchBarSkipBack30Sec-

ondsTemplate, NSImageNameTouchBarSkipBackTemplate, NSImageNameTouchBarSkipToEndTemplate, NSImageNameTouchBarSkipToStartTemplate, NSImageNameTouchBarSlideshowTemplate, NSImageNameTouchBarTagIconTemplate, NSImageNameTouchBarTextBoldTemplate, NSImageNameTouchBarTextBoldTemplate, NSImageNameTouchBarTextCenterAlignTemplate, NSImageNameTouchBarTextItalicTemplate, NSImageNameTouchBarTextJustifiedAlignTemplate, NSImageNameTouchBarTextLeftAlignTemplate, NSImageNameTouchBarTextListTemplate, NSImageNameTouchBarTextRightAlignTemplate, NSImageNameTouchBarTextStrikethroughTemplate, NSImageNameTouchBarTextUnderlineTemplate, NSImageNameTouchBarUserAddTemplate, NSImageNameTouchBarUserGroupTemplate, NSImageNameTouchBarUserTemplate, NSImageNameTouchBarVolumeDownTemplate or NSImageNameTouchBarVolumeUpTemplate.  
 ”NSImageNameTouchBarMailTemplate”

**CustomizationLabel**

The customization label.

”Send Email”

**visibilityPriority**

The visibility priority. Ranges from -1000 for low to 1000 for high.

0

**fileName**

The file name where the script is stored.

Get(fileName)

**scriptName**

The script name (or ID) to trigger when button is used. Parameter to the script is the identifier.

”TouchBar SendEmail”

**Expression**

Optional

An expression to execute when button is pressed.

””

**Result** Returns OK or error.

**Description****Examples**

Add a back button:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "PrevRecord"; "" ; "NSImageNameTouchBar-GoBackTemplate"; "Previous"; 0; Get(fileName); "PrevRecordTouchBar" ) ]
```

Add a next button:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "NextRecord"; "" ; "NSImageNameTouchBar-GoForwardTemplate"; "Previous"; 0; Get(fileName); "NextRecordTouchBar" ) ]
```

Add a plus button:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "AddRecord"; "" ; "NSImageNameTouchBarAd-
```

```
dTemplate"; "Add"; 0; Get(FileName); "AddRecordTouchBar" ) ]
```

Add a delete button:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "DeleteRecord"; ""; "NSImageNameTouch-
BarDeleteTemplate"; "Delete"; 0; Get(FileName); "DeleteRecordTouchBar" ) ]
```

Add button to trigger data viewer:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "DataViewerButton"; "DataViewer"; "";
"DataViewer"; 0; ""; ""; "MBS(\\"Menubar.RunMenuCommand\\"; 49297)" ) ]
```

Add button to trigger debugger:

```
Set Variable [ $r ; Value: MBS( "TouchBar.AddButton"; $t; "DebuggerButton"; "Debugger"; ""; "Debug-
ger"; 0; ""; ""; "MBS(\\"Menubar.RunMenuCommand\\"; 49260)" ) ]
```

### See also

- 115.5 Menubar.RunMenuCommand 6099
- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093

### Example Databases

- [Mac only/TouchBar](#)

## 171.2.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 1st November 2016, last changed 5th October 2017.

## 171.3 TouchBar.AssignToApp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.AssignToApp"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

### Description

### Examples

Build App TouchBar:

```
# Create a new TouchBar
Set Variable [ $t; Value:MBS( "TouchBar.Create" ) ]
# Add two buttons
Set Variable [ $r; Value:MBS( "TouchBar.AddButton"; $t; "AddRecord"; ""; "NSImageNameTouchBarAddTemplate"; "Add"; 0; Get(FileName); "AddRecordTouchBar" ) ]
Set Variable [ $r; Value:MBS( "TouchBar.AddButton"; $t; "DeleteRecord"; ""; "NSImageNameTouchBarDeleteTemplate"; "Delete"; 0; Get(FileName); "DeleteRecordTouchBar" ) ]
Set Variable [ $r; Value:MBS( "TouchBar.AddButton"; $t; "InfoButton"; ""; TouchBar::MBS; "Info"; 0; Get(FileName); "InfoTouchBar" ) ]
# Set which button show by default:
Set Variable [ $r; Value:MBS( "TouchBar.SetDefaultItemIdentifiers"; $t; "AddRecord$InfoButton$NSTouchBarItemIdentifierOtherItemsProxy" ) ]
# Set the primary button:
Set Variable [ $r; Value:MBS( "TouchBar.SetPrincipalItemIdentifier"; $t; "AddRecord" ) ]
# Set which buttons can be configured:
Set Variable [ $r; Value:MBS( "TouchBar.SetCustomizationAllowedItemIdentifiers"; $t; "AddRecord$InfoButton$DeleteRecord" ) ]
# Set this touch bar to be the app one:
Set Variable [ $r; Value:MBS( "TouchBar.AssignToApp"; $t ) ]
```

### See also

- 171.1 App.ClearTouchBar 8087
- 171.2 TouchBar.AddButton 8088
- 171.7 TouchBar.Create 8097
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107

- 171.20 TouchBar.SetDefaultItemIdentifiers 8110
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 3th November 2016.



## 171.4 TouchBar.AssignToWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.AssignToWindow"; TouchBarRef; WindowRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

### Examples

Build TouchBar for Window:

```
# Create a new TouchBar
Set Variable [ $t; Value:MBS( "TouchBar.Create" ) ]
# Add two buttons
Set Variable [ $r; Value:MBS( "TouchBar.AddButton"; $t; "PrevRecord"; ""; "NSImageNameTouchBarGoBackTemplate"; "Previous"; 0; Get(FileName); "PrevRecordTouchBar" ) ]
Set Variable [ $r; Value:MBS( "TouchBar.AddButton"; $t; "NextRecord"; ""; "NSImageNameTouchBarGoForwardTemplate"; "Previous"; 0; Get(FileName); "NextRecordTouchBar" ) ]
# Set which button show by default:
Set Variable [ $r; Value:MBS( "TouchBar.SetDefaultItemIdentifiers"; $t; "PrevRecord$NextRecord$NSTouchBarItemIdentifierOtherItemsProxy" ) ]
# Set the primary button:
Set Variable [ $r; Value:MBS( "TouchBar.SetPrincipalItemIdentifier"; $t; "NextRecord" ) ]
# Set which buttons can be configured:
Set Variable [ $r; Value:MBS( "TouchBar.SetCustomizationAllowedItemIdentifiers"; $t; "PrevRecord$NextRecord" ) ]
# Assign touchbar to current window:
Set Variable [ $r; Value:MBS( "TouchBar.AssignToWindow"; $t; 0 ) ]
```

### See also

- 171.2 TouchBar.AddButton 8088
- 171.7 TouchBar.Create 8097
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107

- 171.20 TouchBar.SetDefaultItemIdentifiers 8110
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111
- 185.9 Window.ClearTouchBar 8679
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

**Example Databases**

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 3th November 2016.

## 171.5 TouchBar.Available

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.Available" )

**Result** Returns 1 or 0.

### Description

Returns 1 on Mac OS X 10.12.1 with TouchBar support.

The value 1 does not mean that there is a TouchBar, just the software to handle it.

But 0 clearly says that there is none.

### Examples

Check touchbar:

```
If [ MBS( "TouchBar.Available" ) ]
Show Custom Dialog [ "TouchBar" ; "Is available and may be installed." ]
Else
Show Custom Dialog [ "TouchBar" ; "Is not available." ]
End If
```

### See also

- 171.16 TouchBar.SetAutomaticCustomizeTouchBarMenuItemEnabled 8106
- 171.22 TouchBar.ToggleCustomizationPalette 8112

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 28th November 2019.

## 171.6 TouchBar.Clear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.Clear"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

### Description

#### See also

- 171.7 TouchBar.Create 8097
- 171.15 TouchBar.Release 8105

Created 1st November 2016, last changed 1st November 2016.

## 171.7 TouchBar.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.Create" )

**Result** Returns reference number or error.

### Description

Returns an error if TouchBar is not available.

### See also

- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093
- 171.6 TouchBar.Clear 8096
- 171.15 TouchBar.Release 8105

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 1st November 2016.

## 171.8 TouchBar.GetAutomaticCustomizeTouchBarItemEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetAutomaticCustomizeTouchBarItemEnabled" )

**Result** Returns 0, 1 or error.

### Description

Whether or not a menu item to customize the touch bar can be automatically added to the main menu. It will only actually be added when a touch bar hardware or simulator is present. Defaults to 0. Setting this property to 1 is the recommended way to add the customization menu item.

But if non-standard placement of the menu item is needed, creating a menu item with an action of toggle-TouchBarCustomizationPalette can be used instead.

### See also

- 171.16 TouchBar.SetAutomaticCustomizeTouchBarItemEnabled 8106

Created 1st November 2016, last changed 1st November 2016.

## 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetCustomizationAllowedItemIdentifiers"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

### Description

The items that are presented in the customization palette for the user to add to the touch bar. These items will be presented to the user in the order specified in this array.

#### See also

- 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers 8101
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107
- 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers 8109

Created 1st November 2016, last changed 1st November 2016.

## 171.10 TouchBar.GetCustomizationIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetCustomizationIdentifier"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns text or error.

### Description

A string uniquely identifying this bar for customization purposes. All bars with this identifier will have their items coordinated automatically during customization or instantiation.

Touch bars lacking a customizationIdentifier are not customizable.

### See also

- 171.18 TouchBar.SetCustomizationIdentifier

8108

Created 1st November 2016, last changed 1st November 2016.



**171.11 TouchBar.GetCustomizationRequiredItemIdentifiers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetCustomizationRequiredItemIdentifiers"; TouchBarRef )

**Parameters****TouchBarRef**

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

**Description**

Some items are too important to be removed. The corresponding item identifiers should be listed here. During customization the user will be prevented from removing these items from the touch bar.

**See also**

- 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers 8099
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107
- 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers 8109

Created 1st November 2016, last changed 1st November 2016.

## 171.12 TouchBar.GetDefaultItemIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetDefaultItemIdentifiers"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

### Description

An array of identifiers specifying the items in this touch bar.

Item identifiers should be globally unique, excepting NSTouchBarItemIdentifierFixedSpaceSmall, NSTouchBarItemIdentifierFixedSpaceLarge, NSTouchBarItemIdentifierFlexibleSpace, and NSTouchBarItemIdentifierOtherItemsProxy.

This array also corresponds to the item ordering for the receiver in the “default set” in the customization palette.

### See also

- 171.13 TouchBar.GetItemIdentifiers 8103
- 171.14 TouchBar.GetPrincipalItemIdentifier 8104
- 171.20 TouchBar.SetDefaultItemIdentifiers 8110

Created 1st November 2016, last changed 1st November 2016.

## 171.13 TouchBar.GetItemIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetItemIdentifiers"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns list or error.

### Description

If the bar has not been customized this will match the defaultItemIdentifiers.

### See also

- 171.12 TouchBar.GetDefaultItemIdentifiers 8102
- 171.20 TouchBar.SetDefaultItemIdentifiers 8110

Created 1st November 2016, last changed 1st November 2016.

## 171.14 TouchBar.GetPrincipalItemIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.GetPrincipalItemIdentifier"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns text or error.

### Description

Specifying a principal item identifier communicates that the item with that identifier has special significance to this touch bar. Currently, that item will be placed in the center of the resolved touch row. Note that multiple visible bars may each specify a principal item identifier - but only one of them can have the request honored.

### See also

- 171.12 TouchBar.GetDefaultItemIdentifiers 8102
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111

Created 1st November 2016, last changed 1st November 2016.

## 171.15 TouchBar.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.Release"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns OK or error.

### Description

#### See also

- 171.6 TouchBar.Clear 8096
- 171.7 TouchBar.Create 8097

Created 1st November 2016, last changed 1st November 2016.

## 171.16 TouchBar.SetAutomaticCustomizeTouchBarItemEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetAutomaticCustomizeTouchBarItemEnabled"; Setting )

### Parameters

#### Setting

The new setting. Can be 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Whether or not a menu item to customize the touch bar can be automatically added to the main menu. It will only actually be added when a touch bar hardware or simulator is present. Defaults to 0. Setting this property to 1 is the recommended way to add the customization menu item.

But if non-standard placement of the menu item is needed, creating a menu item with an action of toggle-TouchBarCustomizationPalette can be used instead.

### Examples

Enable menu command:

```
If [ MBS( "TouchBar.Available" ) ]
Set Variable [ $r; Value:MBS( "TouchBar.SetAutomaticCustomizeTouchBarItemEnabled"; 1 ) ]
End If
```

### See also

- [171.5 TouchBar.Available](#) 8095
- [171.8 TouchBar.GetAutomaticCustomizeTouchBarItemEnabled](#) 8098

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 3th November 2016.

## 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetCustomizationAllowedItemIdentifiers"; TouchBarRef; List )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### List

The list of items.

**Result** Returns OK or error.

### Description

The items that are presented in the customization palette for the user to add to the touch bar. These items will be presented to the user in the order specified in this array.

#### See also

- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093
- 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers 8099
- 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers 8101
- 171.19 TouchBar.SetCustomizationRequiredItemIdentifiers 8109

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 1st November 2016.

## 171.18 TouchBar.SetCustomizationIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetCustomizationIdentifier"; TouchBarRef; Identifier )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### Identifier

The identifier you want to use.

"test"

**Result** Returns OK or error.

### Description

A string uniquely identifying this bar for customization purposes. All bars with this identifier will have their items coordinated automatically during customization or instantiation.

Touch bars lacking a customizationIdentifier are not customizable.

### See also

- 171.10 TouchBar.GetCustomizationIdentifier

8100

Created 1st November 2016, last changed 1st November 2016.



**171.19 TouchBar.SetCustomizationRequiredItemIdentifiers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetCustomizationRequiredItemIdentifiers"; TouchBarRef; List )

**Parameters****TouchBarRef**

The reference number for the touch bar.

\$TouchBar

**List**

The list of items.

**Result** Returns OK or error.

**Description**

Some items are too important to be removed. The corresponding item identifiers should be listed here. During customization the user will be prevented from removing these items from the touch bar.

**See also**

- 171.9 TouchBar.GetCustomizationAllowedItemIdentifiers 8099
- 171.11 TouchBar.GetCustomizationRequiredItemIdentifiers 8101
- 171.17 TouchBar.SetCustomizationAllowedItemIdentifiers 8107

Created 1st November 2016, last changed 1st November 2016.

## 171.20 TouchBar.SetDefaultItemIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetDefaultItemIdentifiers"; TouchBarRef; List )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### List

The list of items.

**Result** Returns OK or error.

### Description

An array of identifiers specifying the items in this touch bar.

Item identifiers should be globally unique, excepting NSTouchBarItemIdentifierFixedSpaceSmall, NSTouchBarItemIdentifierFixedSpaceLarge, NSTouchBarItemIdentifierFlexibleSpace, and NSTouchBarItemIdentifierOtherItemsProxy.

This array also corresponds to the item ordering for the receiver in the “default set” in the customization palette.

### Examples

Sets an item some space and a proxy for others:

```
MBS( "TouchBar.SetDefaultItemIdentifiers"; $TouchBar; "Print$NSTouchBarItemIdentifierFixedSpaceSmall$NSTouchBarItemIdentifierOtherItemsProxy" )
```

### See also

- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093
- 171.12 TouchBar.GetDefaultItemIdentifiers 8102
- 171.13 TouchBar.GetItemIdentifiers 8103
- 171.21 TouchBar.SetPrincipalItemIdentifier 8111

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 1st November 2016.

## 171.21 TouchBar.SetPrincipalItemIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.SetPrincipalItemIdentifier"; TouchBarRef; Identifier )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

#### Identifier

The identifier for the main command.

"Analyze"

**Result** Returns OK or error.

### Description

Specifying a principal item identifier communicates that the item with that identifier has special significance to this touch bar. Currently, that item will be placed in the center of the resolved touch row. Note that multiple visible bars may each specify a principal item identifier - but only one of them can have the request honored.

### Examples

Set main item:

```
Set Variable [ $r; Value:MBS( "TouchBar.SetPrincipalItemIdentifier"; $t; "NextRecord" ) ]
```

### See also

- 171.3 TouchBar.AssignToApp 8091
- 171.4 TouchBar.AssignToWindow 8093
- 171.14 TouchBar.GetPrincipalItemIdentifier 8104
- 171.20 TouchBar.SetDefaultItemIdentifiers 8110

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 3th November 2016.

## 171.22 TouchBar.ToggleCustomizationPalette

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.ToggleCustomizationPalette" )

**Result** Returns OK or error.

### Description

NSApplication validates this selector against whether the current touch bars are customizable and, if configured on a menu item, will standardize and localize the title. If the current system does not have touch bar support, the menu item will be automatically hidden.

### Examples

Toggle Customization:

```
If [ MBS( "TouchBar.Available" ) ]
Set Variable [ $r; Value:MBS("TouchBar.ToggleCustomizationPalette") ]
Else
Show Custom Dialog [ "No TouchBar supported on this Mac." ]
End If
```

### See also

- 171.5 TouchBar.Available

8095

### Example Databases

- [Mac only/TouchBar](#)

Created 1st November 2016, last changed 3th November 2016.

## 171.23 TouchBar.Visible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
171 TouchBar	6.5	Yes	No	No	No	No

MBS( "TouchBar.Visible"; TouchBarRef )

### Parameters

#### TouchBarRef

The reference number for the touch bar.

\$TouchBar

**Result** Returns 0, 1 or error.

### Description

When 1, the touch bar is attached to an eligible touch bar provider, and its items are displayable, assuming adequate space.

Created 1st November 2016, last changed 1st November 2016.

## 171.24 Window.ClearTouchBar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window 171 TouchBar	8.4	Yes	No	No	No	No

MBS( "Window.ClearTouchBar"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

You assign the TouchBar with TouchBar.AssignToWindow function.

### Examples

Clear touch bar for front window:

```
MBS( "Window.ClearTouchBar"; 0 )
```

### See also

- 171.4 TouchBar.AssignToWindow 8093
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### 171.24.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr2](#)

Created 8th August 2018, last changed 25th November 2019.

# Chapter 172

## Twain

Functions to acquire images from scanners.

See newer WIA functions for Windows and newer ImageCapture functions for MacOS.

### 172.1 Twain.Acquire

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.Acquire" { ; Modal; ShowUI; BringWindowToFront } )

#### Parameters

##### Modal

Optional

Whether to run the process modal. Default is 0 for running non modal. Ignored in most cases.

0

##### ShowUI

Optional

Whether to show the dialog. Pass 1 to show dialog or 0 to not show it. Default is 1.

1

##### BringWindowToFront

Optional

For Windows only a flag. Pass 1 to have the plugin watch for new windows and bring them to front and avoid them showing behind FileMaker's windows. Default 0.

1

**Result** Returns OK or the Twain error code.

#### Description

The acquire process will go asynchronously. You can define a script with `Twain.SetNotificationScript` to be called when transfers are done. If you acquire without UI, you can make script pause to let the acquire work and check with `Twain.GetImageCount` function whether images have been received.

Even when using no UI, you can pass `Modal = 1` to have the plugin transfer the image right after acquire without waiting for an event from twain driver.

### Examples

Acquire with UI, window to front and modal:

```
MBS( "Twain.Acquire"; 1; 1; 1)
```

### See also

- [172.23 Twain.GetFilePaths](#) 8138
- [172.28 Twain.GetImageCount](#) 8143
- [172.44 Twain.SetAutofeed](#) 8161
- [172.50 Twain.SetCloseAfterTransfer](#) 8167
- [172.56 Twain.SetFeededEnabled](#) 8173
- [172.61 Twain.SetNotificationScript](#) 8179
- [172.65 Twain.SetPixelType](#) 8184

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Twain/Twain](#)

#### 172.1.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr6](#)

Created 18th August 2014, last changed 9th May 2017.



## 172.2 Twain.ClearCancelScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.ClearCancelScript" )

**Result** Returns OK.

### Description

See also Twain.SetCancelScript.

### See also

- 172.49 Twain.SetCancelScript

8166

### 172.2.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.3 Twain.ClearNotificationScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.ClearNotificationScript" )

**Result** Returns OK.

### Description

See also Twain.SetNotificationScript.

### See also

- 172.61 Twain.SetNotificationScript

8179

### 172.3.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.4 Twain.CloseDS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.CloseDS" )

**Result** Returns OK or the Twain error code.

### Description

This function is called automatically if needed.

Call it only if you know what you do.

### See also

- 172.5 Twain.CloseDSM

8120

Created 18th August 2014, last changed 18th August 2014.

## 172.5 Twain.CloseDSM

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.CloseDSM" )

### Description

This function is called automatically if needed.

Call it only if you know what you do.

### See also

- 172.4 Twain.CloseDS

8119

Created 18th August 2014, last changed 18th August 2014.

## 172.6 Twain.CurrentDSIdentity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.CurrentDSIdentity" { ; Selector } )

### Parameters

#### Selector

Optional

Optional, which value to query. If you have no selector string, you receive the product name. "ProductFamily"

**Result** Returns requested value or error message.

### Description

Possible selector values: Manufacturer, ProductFamily, ProductName, SupportedGroups, ProtocolMajor, Id, VersionMajorNum, VersionMinorNum, VersionLanguage, VersionCountry or VersionInfo.

### See also

- 172.18 Twain.GetDSIdentity 8133
- 172.43 Twain.SelectDSIdentity 8160

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.7 Twain.CurrentImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.CurrentImage" )

**Result** Returns error or image reference.

### Description

Returns the image reference for use with GImage functions.

Please use functions like GImage.WriteToPNGContainer and later GImage.Release to free memory.

If you get no image here, you may have called Twain.SetFolderPath before and images are written to folder.

### See also

- 87.214 GImage.Release 4674
- 87.340 GImage.WriteToPNGContainer 4840
- 172.28 Twain.GetImageCount 8143
- 172.58 Twain.SetFolderPath 8176

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 21st December 2018.

## 172.8 Twain.DisableDS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.DisableDS" )

**Result** Returns OK or the Twain error code.

### Description

This function is called automatically if needed.

Call it only if you know what you do.

Created 18th August 2014, last changed 18th August 2014.

## 172.9 Twain.GetAutofeed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetAutofeed" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetAutofeed before.

### See also

- 172.44 Twain.SetAutofeed

8161

Created 18th August 2014, last changed 18th August 2014.



## 172.10 Twain.GetAutomaticBorderDetection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.GetAutomaticBorderDetection" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetAutomaticBorderDetection before.

0 = off, 1 = on, -1 = default/undefined.

### See also

- [172.45 Twain.SetAutomaticBorderDetection](#)

8162

### 172.10.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.11 Twain.GetAutomaticBrightness

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetAutomaticBrightness" )

**Result** Returns the value.

### Description

The setting is -1 if not set.

### See also

- 172.46 Twain.SetAutomaticBrightness

8163

Created 18th August 2014, last changed 18th August 2014.

## 172.12 Twain.GetAutomaticRotate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.GetAutomaticRotate" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetAutomaticRotate before.

### See also

- 172.47 Twain.SetAutomaticRotate

8164

### 172.12.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.13 Twain.GetBrightness

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetBrightness" )

**Result** Returns the value.

### Description

Source should normalize the values into the range. Make sure that a '0' value is available as the Current Value when the Source starts up. If the Source's  $\pm$  range is asymmetric about the '0' value, set range maxima to  $\pm 1000$  and scale homogeneously from the '0' value in each direction. This will yield a positive range whose step size differs from the negative range's step size.

Plugin uses value -10000 for undefined/default.

### See also

- 172.48 Twain.SetBrightness

8165

Created 18th August 2014, last changed 18th August 2014.

## 172.14 Twain.GetCloseAfterTransfer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetCloseAfterTransfer" )

**Result** Returns current setting (0 or 1).

### Description

GUI is only closed when being used.

### See also

- 172.50 Twain.SetCloseAfterTransfer

8167

### 172.14.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.15 Twain.GetCompressionQuality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetCompressionQuality" )

**Result** Returns the quality.

### Description

Use Twain.SetCompressionQuality to set this.

### See also

- [172.51 Twain.SetCompressionQuality](#)

8168

### 172.15.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.16 Twain.GetContrast

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetContrast" )

**Result** Returns the value.

### Description

Scale the values available internally into a homogeneous range between -1000 and 1000. Make sure that a '0' value is available as the Current value when the Source starts up. If the Source's  $\pm$  range is asymmetric about the '0' value, set range maxima to  $\pm 1000$  and scale homogeneously from the '0' value in each direction. This will yield a positive range whose step size differs from the negative range's step size. Plugin uses value -10000 for undefined/default.

### See also

- 172.52 Twain.SetContrast

8169

Created 18th August 2014, last changed 18th August 2014.

## 172.17 Twain.GetDSIdentitiesCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetDSIdentitiesCount" )

**Result** Returns number or error message.

**Description**

**See also**

- [172.18 Twain.GetDSIdentity](#)

8133

**Example Databases**

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.



## 172.18 Twain.GetDSIdentity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetDSIdentity"; Index { ; Selector } )

### Parameters

#### Index

The index of the data source. From 1 to Twain.GetDSIdentitiesCount.

1

#### Selector

Optional

Optional, which value to query. If you have no selector string, you receive the product name.

"ProductFamily"

**Result** Returns requested value or error message.

### Description

Possible selector values: Manufacturer, ProductFamily, ProductName, SupportedGroups, ProtocolMajor, Id, VersionMajorNum, VersionMinorNum, VersionLanguage, VersionCountry or VersionInfo.

### See also

- 172.6 Twain.CurrentDSIdentity 8121
- 172.17 Twain.GetDSIdentitiesCount 8132
- 172.43 Twain.SelectDSIdentity 8160

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.19 Twain.GetDefaultIdentity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetDefaultIdentity" { ; Selector } )

### Parameters

#### Selector

Optional

Optional, which value to query. If you have no selector string, you receive the product name. "ProductFamily"

**Result** Returns requested value or error message.

### Description

Possible selector values: Manufacturer, ProductFamily, ProductName, SupportedGroups, ProtocolMajor, Id, VersionMajorNum, VersionMinorNum, VersionLanguage, VersionCountry or VersionInfo.

### See also

- 172.53 Twain.SetDefaultDSIdentity 8170

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.20 Twain.GetDiscardBlankPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.2	Yes	Yes	No	No	No

MBS( "Twain.GetDiscardBlankPages" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetDiscardBlankPages before.

### See also

- 172.54 Twain.SetDiscardBlankPages

8171

### 172.20.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.21 Twain.GetDuplexEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.2	Yes	Yes	No	No	No

MBS( "Twain.GetDuplexEnabled" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetDuplexEnabled before.

### See also

- [172.22 Twain.GetFeededEnabled](#) 8137
- [172.55 Twain.SetDuplexEnabled](#) 8172
- [172.56 Twain.SetFeededEnabled](#) 8173

### 172.21.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.22 Twain.GetFeededEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetFeededEnabled" )

**Result** Return current setting.

### Description

Value is -1 if you didn't yet call Twain.SetFeededEnabled before.

### See also

- 172.21 Twain.GetDuplexEnabled 8136
- 172.55 Twain.SetDuplexEnabled 8172
- 172.56 Twain.SetFeededEnabled 8173

Created 18th August 2014, last changed 18th August 2014.

## 172.23 Twain.GetFilePaths

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetFilePaths" )

**Result** Returns file paths.

### Description

This is set by Twain.Acquire.

### See also

- [172.1 Twain.Acquire](#) 8115
- [172.24 Twain.GetFileType](#) 8139
- [172.25 Twain.GetFolderPath](#) 8140
- [172.58 Twain.SetFolderPath](#) 8176

### Example Databases

- [Twain/Twain](#)

### 172.23.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.24 Twain.GetFileType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetFileType" )

**Result** Returns current file type.

### Description

### See also

- [172.23 Twain.GetFilePaths](#) 8138
- [172.31 Twain.GetPixelType](#) 8146
- [172.57 Twain.SetFileType](#) 8175
- [172.65 Twain.SetPixelType](#) 8184

### 172.24.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.25 Twain.GetFolderPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetFolderPath" )

**Result** Returns folder path.

### Description

Set by Twain.SetFolderPath.

### See also

- [172.23 Twain.GetFilesPaths](#) 8138
- [172.58 Twain.SetFolderPath](#) 8176

### 172.25.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.



## 172.26 Twain.GetGamma

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetGamma" )

**Result** Returns the value.

### Description

Default value 2.2. The setting is -10000 if not set.

### See also

- 172.30 Twain.GetPaper 8145
- 172.59 Twain.SetGamma 8177

Created 18th August 2014, last changed 18th August 2014.

## 172.27 Twain.GetHighlight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetHighlight" )

**Result** Returns the value.

### Description

Value can be between 0 and 255.

Plugin uses value -10000 for undefined/default.

### See also

- 172.60 Twain.SetHighlight

8178

Created 18th August 2014, last changed 15th May 2016.

## 172.28 Twain.GetImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetImageCount" )

**Result** Returns number of images in memory.

### Description

A scan may give several images. So the plugin caches them and you can query them in a loop with Twain.CurrentImage.

### See also

- [172.1 Twain.Acquire](#) 8115
- [172.7 Twain.CurrentImage](#) 8122

### Example Databases

- [Twain/Twain](#)

### 172.28.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.29 Twain.GetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetOrientation" )

**Result** Returns current setting.

**Description**

**See also**

- 172.62 Twain.SetOrientation

8180

Created 18th August 2014, last changed 18th August 2014.

## 172.30 Twain.GetPaper

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	5.1	Yes	Yes	No	No	No

MBS( "Twain.GetPaper" )

**Result** Returns value or error.

### Description

This queries the setting you made with Twain.SetPaper.

### See also

- [172.26 Twain.GetGamma](#) 8141
- [172.63 Twain.SetPaper](#) 8181

### 172.30.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr9](#)

Created 15th May 2015, last changed 15th May 2015.

## 172.31 Twain.GetPixelFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetPixelFormat" )

**Result** Returns current pixel type setting.

### Description

Value is -1 if not yet set.

### See also

- [172.24 Twain.GetFileType](#) 8139
- [172.57 Twain.SetFileType](#) 8175
- [172.65 Twain.SetPixelFormat](#) 8184

### 172.31.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.32 Twain.GetResolutionX

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetResolutionX" )

**Result** Returns resolution number.

### Description

Value is -1 if you didn't call Twain.SetResolutionX before.

### See also

- 172.33 Twain.GetResolutionY 8148
- 172.66 Twain.SetResolutionX 8185
- 172.67 Twain.SetResolutionY 8186

Created 18th August 2014, last changed 18th August 2014.

## 172.33 Twain.GetResolutionY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.GetResolutionY" )

**Result** Returns resolution number.

### Description

Value is -1 if you didn't call Twain.SetResolutionY before.

### See also

- 172.32 Twain.GetResolutionX 8147
- 172.66 Twain.SetResolutionX 8185
- 172.67 Twain.SetResolutionY 8186

Created 18th August 2014, last changed 18th August 2014.



**172.34 Twain.GetShadow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.GetShadow" )

**Result** Returns the value.

**Description**

All values darker than this value will be clipped to this value.

Whether darker values are smaller or larger can be determined by examining the Current value of PixelFlavor.

Source

If more or less than 8 bits are used to describe the image, the actual data values should be normalized to fit within the 0-255 range. The normalization need not result in a homogeneous distribution if the original distribution was not homogeneous.

Plugin uses value -10000 for undefined/default.

**See also**

- 172.68 Twain.SetShadow

8187

Created 18th August 2014, last changed 18th August 2014.

## 172.35 Twain.GetUIVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.GetUIVisible" )

**Result** Returns 0 or 1.

**Description**

### 172.35.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.36 Twain.ImageInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.ImageInfo"; Selector )

### Parameters

#### Selector

Which information you want to have.  
"Width"

**Result** Return error message or value.

### Description

Possible keys:

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

XResolution	Horizontal resolution. In pixels per inch.
YResolution	Vertical resolution. In pixels per inch.
ImageWidth	How wide, in pixels, the entire image to be transferred is.
ImageLength	How tall/long, in pixels, the image to be transferred is.
SamplesPerPixel	The number of samples being returned. For R-G-B, this field would be set to 3. For C-M-Y-K, 4. For Grayscale or Black and White, 1.
BitsPerSample	For each sample, the number of bits of information. 24-bit R-G-B will typically have 8 bits of information in each sample (8+8+8). Some 8-bit color is sampled at 3 bits Red, 3 bits Green, and 2 bits Blue. Such a scheme would put 3, 3, and 2 into the first 3 elements of this array. The supplied array allows up to 8 samples. Samples are not limited to 8 bits. However, both the application and Source must simultaneously support sample sizes greater than 8 bits per color.
BitsPerPixel	The number of bits in each image pixel (or bit depth). This value is invariant across the image. 24-bit R-G-B has BitsPerPixel = 24. 40-bit C-M-Y-K has BitsPerPixel=40. 8-bit Grayscale has BitsPerPixel = 8. Black and White has BitsPerPixel = 1.
Planar	Whether image is planar. If SamplesPerPixel >1, indicates whether the samples follow one another on a pixel-by-pixel basis (R-G-B-R-G-B-R-G-B...) as is common with a one-pass scanner or all the pixels for each sample are grouped together (complete group of R, complete group of G, complete group of B) as is common with a three-pass scanner. If the pixel-by-pixel method (also known as "chunky") is used, the Source should set Planar = false. If the grouped method (also called "planar") is used, the Source should set Planar = true.
PixelFormat	This is the highest categorization for how the data being transferred should be interpreted by the application. This is how the application can tell if the data is Black and White, Grayscale, or Color. Currently, the only color type defined is "tri-stimulus", or color described by three characteristics. Most popular color description methods use tri- stimulus descriptors. For simplicity, the constant used to identify tri-stimulus color is called TWPT_RBG, for R-G-B color. There is no default for this value.
Compression	The compression method used to process the data being transferred. Default is no compression.

## 172.37 Twain.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.Initialize"; Country; Language )

### Parameters

#### Country

The country code.

"USA"

#### Language

The language code.

"ENGLISH"

**Result** Returns OK or an error message.

### Description

You pass a language and country code to request language settings. Some drivers may ignore that to prefer the system language setting.

Possible Countries: Afghanistan, Algeria, Americansamoa, Andorra, Angola, Anguilla, Antigua, Argentina, Aruba, Ascension, Australia, Austria, Bahamas, Bahrain, Bangladesh, Barbados, Belgium, Belize, Benin, Bermuda, Bhutan, Bolivia, Botswana, Britain, Britvirginis, Brazil, Brunei, Bulgaria, Burkinafaso, Burma, Burundi, Camaroon, Canada, Capeverdeis, Caymanis, Centralafrep, Chad, Chile, China, Christmasis, Cocosis, Colombia, Comoros, Congo, Cookis, Costarica, Cuba, Cyprus, Czechoslovakia, Denmark, Djibouti, Dominica, Dominicanrep, Easteris, Ecuador, Egypt, Elsalvador, Eqguinea, Ethiopia, Falklandis, Faeroeis, Fijiislands, Finland, France, Frantilles, Frguiana, Frpolyneisa, Futanais, Gabon, Gambia, Germany, Ghana, Gibraltar, Greece, Greenland, Grenada, Grededines, Guadeloupe, Guam, Guantanamobay, Guatemala, Guinea, Guineabissau, Guyana, Haiti, Honduras, Hongkong, Hungary, Iceland, India, Indonesia, Iran, Iraq, Ireland, Israel, Italy, Ivorycoast, Jamaica, Japan, Jordan, Kenya, Kiribati, Korea, Kuwait, Laos, Lebanon, Liberia, Libya, Liechtenstein, Luxembourg, Macao, Madagascar, Malawi, Malaysia, Maldives, Mali, Malta, Marshallis, Mauritania, Mauritius, Mexico, Micronesia, Miquelon, Monaco, Mongolia, Montserrat, Morocco, Mozambique, Namibia, Nauru, Nepal, Netherlands, Nethantilles, Nevis, Newcaledonia, Newzealand, Nicaragua, Niger, Nigeria, Niue, Norfolk, Norway, Oman, Pakistan, Palau, Panama, Paraguay, Peru, Phillipines, Pitcairnis, Pnewguinea, Poland, Portugal, Qatar, Reunioni, Romania, Rwanda, Saipan, Sanmarino, Saotome, Saudiarabia, Senegal, Seychellesis, Sierraleone, Singapore, Solomonis, Somali, Southafrica, Spain, Srilanka, Sthelena, Stkitts, Stlucia, Stpierre, Stvincent, Sudan, Suriname, Swaziland, Sweden, Switzerland, Syria, Taiwan, Tanzania, Thailand, Tobago, Togo, Tongais, Trinidad, Tunisia, Turkey, Turkscaicos, Tuvalu, Uganda, Ussr, Uaemirates, Unitedkingdom, Usa, Uruguay, Vanuatu, Vaticancity, Venezuela, Wake, Wallisis, Westernsahara, Westernsamoa, Yemen, Yugoslavia, Zaire, Zambia, Zimbabwe, Albania, Armenia, Azerbaijan, Belarus, Bosniaherzgo, Cambodia, Croatia, Czechrepublic, Diegogarcia, Eritrea, Estonia, Georgia, Latvia, Lesotho, Lithuania, Macedonia, Mayotteis, Moldova, Myanmar, Northkorea, Puertorico, Russia, Serbia, Slovakia, Slovenia, Southkorea, Ukraine, Usvirginis, Vietnam.

When FileMaker Pro is used (32 bit), we can of course only see and use devices with 32 bit drivers.

For FileMaker Server with 64bit, we only see 64bit drivers.

For 64-bit on Windows you can find 64-bit TwainDSM.dll here:  
<https://sourceforge.net/projects/twain-dsm/>

### Examples

Initialize for english:

```
MBS("Twain.Initialize"; "USA"; "ENGLISH")
```

### See also

- [99.6 Java.Initialize](#) 5238
- [166.21 TAPI.Initialize](#) 7876
- [172.39 Twain.IsInitialized](#) 8156

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Twain/Twain](#)

Created 18th August 2014, last changed 4th August 2016.

## 172.38 Twain.IsDSEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.IsDSEnabled" )

**Result** Returns 1 if enabled and 0 if not.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 172.39 Twain.IsInitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	4.2	Yes	Yes	No	No	No

MBS( "Twain.IsInitialized" )

**Result** Returns 1 or 0.

### Description

If value is 1, everything is okay.

If value is zero, the library is not initialized and you need to call Twain.Initialize function.

On a hosted database this function is better than using a global variable, as the variable can't see if initialization was made on server or client side.

### See also

- 123.10 OCR.IsInitialized 6229
- 126.7 PHP.IsInitialized 6363
- 134.3 Proj.IsInitialized 6660
- 166.22 TAPI.IsInitialized 7877
- 172.37 Twain.Initialize 8153

### 172.39.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr6](#)

Created 18th August 2014, last changed 18th August 2014.



## 172.40 Twain.OpenDS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.OpenDS" )

**Result** Returns OK or the Twain error code.

### Description

This function is called automatically if needed.

Call it only if you know what you do.

### See also

- 172.41 Twain.OpenDSM

8158

Created 18th August 2014, last changed 18th August 2014.

## 172.41 Twain.OpenDSM

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.OpenDSM" )

### Description

This function is called automatically if needed.

Call it only if you know what you do.

### See also

- 172.40 Twain.OpenDS

8157

Created 18th August 2014, last changed 18th August 2014.

## 172.42 Twain.SelectDS

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SelectDS" )

**Result** Returns OK or the Twain error code.

### Description

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.43 Twain.SelectDSIdentity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SelectDSIdentity"; IndexOrName )

### Parameters

#### IndexOrName

Which data source to use. Can be name of product or index in list of identities.

1

**Result** Returns OK or error message.

### Description

#### See also

- [172.6 Twain.CurrentDSIdentity](#) 8121
- [172.18 Twain.GetDSIdentity](#) 8133
- [172.53 Twain.SetDefaultDSIdentity](#) 8170

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.44 Twain.SetAutofeed

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetAutofeed"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable auto feeder or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable auto feed. If the scanner does not support auto feeding, the scanner will ignore this setting.

### Examples

Set options and acquire:

```
$r = MBS( "Twain.SetCloseAfterTransfer"; 1 )
```

```
$r = MBS( "Twain.SetFeededEnabled"; 1 )
```

```
$r = MBS( "Twain.SetAutofeed"; 1 )
```

```
$r = MBS( "Twain.Acquire" )
```

### See also

- [172.1 Twain.Acquire](#) 8115
- [172.9 Twain.GetAutofeed](#) 8124
- [172.50 Twain.SetCloseAfterTransfer](#) 8167
- [172.56 Twain.SetFeededEnabled](#) 8173

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Twain/Twain](#)

#### 172.44.1 Blog Entries

- [Scanning Options](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.45 Twain.SetAutomaticBorderDetection

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.SetAutomaticBorderDetection"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable automatic border detection or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable automatic border detection. If the scanner does not support automatic border detection, the scanner will ignore this setting and set it back to -1.

0 = off, 1 = on, -1 = default/undefined.

#### See also

- [172.10 Twain.GetAutomaticBorderDetection](#) 8125

### 172.45.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.46 Twain.SetAutomaticBrightness

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetAutomaticBrightness"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable automatic brightness or 0 to disable.

0

**Result** Returns OK.

### Description

The setting is -1 if not set.

### See also

- 172.11 Twain.GetAutomaticBrightness

8126

Created 18th August 2014, last changed 18th August 2014.

## 172.47 Twain.SetAutomaticRotate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

MBS( "Twain.SetAutomaticRotate"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable automatic rotation or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable automatic rotation. If the scanner does not support automatic rotation, the scanner will ignore this setting and set it back to -1.

### See also

- [172.12 Twain.GetAutomaticRotate](#)

8127

### 172.47.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr1](#)

Created 18th August 2014, last changed 18th August 2014.



**172.48 Twain.SetBrightness**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetBrightness"; Value )

**Parameters****Value**

The new brightness setting.

0

**Result** Returns OK.

**Description**

Source should normalize the values into the range. Make sure that a '0' value is available as the Current Value when the Source starts up. If the Source's  $\pm$  range is asymmetric about the '0' value, set range maxima to  $\pm 1000$  and scale homogeneously from the '0' value in each direction. This will yield a positive range whose step size differs from the negative range's step size.

Plugin uses value -10000 for undefined/default.

**See also**

- 172.13 Twain.GetBrightness

8128

Created 18th August 2014, last changed 18th August 2014.

## 172.49 Twain.SetCancelScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.3	Yes	Yes	No	No	No

```
MBS( "Twain.SetCancelScript"; FileName; ScriptName { ; Parameter } )
```

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

```
"MyDatabase.fp7"
```

#### ScriptName

The name of the script to run

```
"CancelledScript"
```

#### Parameter

Optional

The parameter to pass.

```
""
```

**Result** Returns OK or error.

### Description

This may also be called on errors. The plugin simply calls whenever the dialog closes and we have no images.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "Twain.SetCancelScript"; Get ( FileName ); "CancelledScript"
```

### See also

- 172.2 Twain.ClearCancelScript

8117

### 172.49.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 27th January 2016.

**172.50 Twain.SetCloseAfterTransfer**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetCloseAfterTransfer"; Value )

**Parameters****Value**

The new settings. Can be 1 to closing or 0 to disable. Default is 0.

0

**Result** Returns OK.

**Description**

GUI is only closed when being used.

**Examples**

Set options and acquire:

```
$r = MBS( "Twain.SetCloseAfterTransfer"; 1 )
```

```
$r = MBS( "Twain.SetFeededEnabled"; 1 )
```

```
$r = MBS( "Twain.SetAutofeed"; 1 )
```

```
$r = MBS( "Twain.Acquire" )
```

**See also**

- [172.1 Twain.Acquire](#) 8115
- [172.14 Twain.GetCloseAfterTransfer](#) 8129
- [172.44 Twain.SetAutofeed](#) 8161
- [172.56 Twain.SetFeededEnabled](#) 8173

**Example Databases**

- [Twain/Twain](#)

**172.50.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.51 Twain.SetCompressionQuality

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetCompressionQuality"; quality )

### Parameters

#### quality

The quality to use for JPEG compression.

80

**Result** Returns OK.

### Description

Only used if you use Twain.SetFolderPath

### See also

- [172.15 Twain.GetCompressionQuality](#) 8130
- [172.58 Twain.SetFolderPath](#) 8176

### Example Databases

- [Twain/Twain](#)

#### 172.51.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**172.52 Twain.SetContrast**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetContrast"; Value )

**Parameters****Value**

The new brightness setting.

0

**Result** Returns OK.

**Description**

Scale the values available internally into a homogeneous range between -1000 and 1000. Make sure that a '0' value is available as the Current value when the Source starts up. If the Source's  $\pm$  range is asymmetric about the '0' value, set range maxima to  $\pm 1000$  and scale homogeneously from the '0' value in each direction. This will yield a positive range whose step size differs from the negative range's step size.

Plugin uses value -10000 for undefined/default.

**See also**

- 172.16 Twain.GetContrast

8131

Created 18th August 2014, last changed 18th August 2014.

## 172.53 Twain.SetDefaultDSIdentity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetDefaultDSIdentity"; IndexOrName )

### Parameters

#### IndexOrName

Which data source to use. Can be name of product or index in list of identities.

1

**Result** Returns OK or error message.

### Description

#### See also

- [172.19 Twain.GetDefaultIdentity](#) 8134
- [172.43 Twain.SelectDSIdentity](#) 8160

### 172.53.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr8](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.54 Twain.SetDiscardBlankPages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.2	Yes	Yes	No	No	No

MBS( "Twain.SetDiscardBlankPages"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable blank page removal. If the scanner does not support this feature, the scanner will ignore this setting and set it back to -1.

### See also

- [172.20 Twain.GetDiscardBlankPages](#)

8135

### 172.54.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.55 Twain.SetDuplexEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.2	Yes	Yes	No	No	No

MBS( "Twain.SetDuplexEnabled"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable duplex or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable duplex. If the scanner does not support duplex, the scanner will ignore this setting and set it back to -1.

### Examples

Enable duplex

MBS( "Twain.SetDuplexEnabled"; 1 )

### See also

- [172.21 Twain.GetDuplexEnabled](#) 8136
- [172.22 Twain.GetFeededEnabled](#) 8137
- [172.56 Twain.SetFeededEnabled](#) 8173

### 172.55.1 Blog Entries

- [Scanning Options](#)
- [MBS FileMaker Plugin, version 5.1pr6](#)
- [MBS Filemaker Plugin, version 3.2pr9](#)

Created 18th August 2014, last changed 8th January 2018.



## 172.56 Twain.SetFeededEnabled

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetFeededEnabled"; Value )

### Parameters

#### Value

The new settings. Can be 1 to enable feeder or 0 to disable.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable feeder. If the scanner does not support the feeder, the scanner will ignore this setting and set it back to -1.

### Examples

Set options and acquire:

```
$r = MBS( "Twain.SetCloseAfterTransfer"; 1 )
```

```
$r = MBS( "Twain.SetFeededEnabled"; 1 )
```

```
$r = MBS( "Twain.SetAutofeed"; 1 )
```

```
$r = MBS( "Twain.Acquire" )
```

### See also

- [172.1 Twain.Acquire](#) 8115
- [172.21 Twain.GetDuplexEnabled](#) 8136
- [172.22 Twain.GetFeededEnabled](#) 8137
- [172.44 Twain.SetAutofeed](#) 8161
- [172.50 Twain.SetCloseAfterTransfer](#) 8167
- [172.55 Twain.SetDuplexEnabled](#) 8172

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Twain/Twain](#)

### 172.56.1 Blog Entries

- [Scanning Options](#)

Created 18th August 2014, last changed 18th August 2014.

## 172.57 Twain.SetFileType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetFileType"; filetype )

### Parameters

#### filetype

The new file type. Can be BMP, JPEG, TIFF, PNG or GIF. Default is JPEG. "TIFF"

**Result** Returns OK on success.

### Description

Only used if you use Twain.SetFolderPath.

For PDF, you can use DynaPDF / PDFKit functions to convert image to PDF.

### See also

- [172.24 Twain.GetFileType](#) 8139
- [172.31 Twain.GetPixelType](#) 8146
- [172.58 Twain.SetFolderPath](#) 8176
- [172.65 Twain.SetPixelType](#) 8184

### Example Databases

- [Twain/Twain](#)

### 172.57.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 6th November 2015.

## 172.58 Twain.SetFolderPath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetFolderPath"; path )

### Parameters

#### path

The path to the folder to use for storing image files. If empty clears the file path  
"/Users/cs/Desktop/"

**Result** Returns OK on success.

### Description

If you set the path with this function, images are not available with the Twain.CurrentImage function and Twain.ImageCount returns always zero. But with Twain.GetFilesPaths you can learn where files have been stored.

The path must end with a slash on Mac and a backslash on Windows.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- [124.2 Path.FileMakerPathToNativePath](#) 6247
- [172.7 Twain.CurrentImage](#) 8122
- [172.23 Twain.GetFilesPaths](#) 8138
- [172.25 Twain.GetFolderPath](#) 8140
- [172.51 Twain.SetCompressionQuality](#) 8168
- [172.57 Twain.SetFileType](#) 8175

### Example Databases

- [Mac and iOS/PDFKit/Pictures to PDF](#)
- [Twain/Twain](#)

#### 172.58.1 Blog Entries

- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 5th September 2014.

## 172.59 Twain.SetGamma

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetGamma"; Value )

### Parameters

#### Value

The new brightness setting.

0

**Result** Returns OK.

### Description

Default value 2.2. The setting is -10000 if not set.

#### See also

- 172.26 Twain.GetGamma 8141
- 172.63 Twain.SetPaper 8181

Created 18th August 2014, last changed 18th August 2014.

## 172.60 Twain.SetHighlight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetHighlight"; Value )

### Parameters

#### Value

The new brightness setting.

0

**Result** Returns OK.

### Description

All values lighter than this value will be clipped to this value. Whether lighter values are smaller or larger can be determined by examining the Current value of PixelFlavor.

If more or less than 8 bits are used to describe the image, the actual data values should be normalized to fit within the 0-255 range. The normalization need not result in a homogeneous distribution if the original distribution was not homogeneous.

Value can be between 0 and 255.

Plugin uses value -10000 for undefined/default.

### See also

- 172.27 Twain.GetHighlight

8142

Created 18th August 2014, last changed 18th August 2014.

## 172.61 Twain.SetNotificationScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetNotificationScript"; FileName; ScriptName { ; Parameter } )

### Parameters

#### FileName

The name of the FileMaker File that contains the script.

"MyDatabase.fp7"

#### ScriptName

The name of the script to run

"GotImage"

#### Parameter

Optional

The parameter to pass.

"Twain"

**Result** Returns OK or error.

### Description

In the target script you can call ImageInfo and CurrentImage functions to query image and process it.

For example save it as JPEG or PNG in a container. Of course the JPEG or PNG can easily be added to a PDF file.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "Twain.SetNotificationScript"; Get ( FileName ); "GotImage"
```

### See also

- 172.1 Twain.Acquire 8115
- 172.3 Twain.ClearNotificationScript 8118

### Example Databases

- [Twain/Twain](#)

Created 18th August 2014, last changed 27th January 2016.

## 172.62 Twain.SetOrientation

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetOrientation"; Value )

### Parameters

#### Value

the new orientation value.

0

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to enable/disable feeder. If the scanner does not support the feeder, the scanner will ignore this setting.

Value can be:

- 0 0 degree
- 1 90 degree
- 2 180 degree
- 3 270 degree
- 0 Portrait
- 3 Landscape

### See also

- 172.29 Twain.GetOrientation

8144

Created 18th August 2014, last changed 18th August 2014.



## 172.63 Twain.SetPaper

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	5.1	Yes	Yes	No	No	No

MBS( "Twain.SetPaper"; Paper )

### Parameters

#### Paper

The paper ID to request.

1

**Result** Returns OK or error.

### Description

This is what the plugin will ask the scanner to provide. If scanner doesn't support it (or driver), we ignore the request.

Possible paper values:

### See also

- 172.30 Twain.GetPaper 8145
- 172.59 Twain.SetGamma 8177
- 172.64 Twain.SetPaperSize 8183

### 172.63.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr9](#)

Created 15th May 2015, last changed 15th May 2015.

Auto	0
A4 Letter	1
B5 Letter	2
US Letter	3
US Legal	4
A5	5
B4	6
B6	7
US Ledger	9
US Executive	10
A3	11
B3	12
A6	13
C4	14
C5	15
C6	16
4A0	17
2A0	18
A0	19
A1	20
A2	21
A4	1
A7	22
A8	23
A9	24
A10	25
ISO B0	26
ISO B1	27
ISO B2	28
ISO B3	12
ISO B4	6
ISO B5	29
ISO B6	7
ISO B7	30
ISO B8	31
ISO B9	32
ISO B10	33
JIS B0	34
JIS B1	35
JIS B2	36
JIS B3	37
JIS B4	38
JIS B5	2
JIS B6	39
JIS B7	40
JIS B8	41
JIS B9	42
JIS B10	43
C0	44
C1	45
C2	46
C3	47
C7	48
C8	49

**172.64 Twain.SetPaperSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	5.1	Yes	Yes	No	No	No

MBS( "Twain.SetPaperSize"; Width; Height )

**Parameters****Width**

Width of paper in inches.

8

**Height**

Height of paper in inches.

11

**Result** Returns OK or error.

**Description**

If scanner doesn't support this, we ignore the request.

**See also**

- [172.63 Twain.SetPaper](#)

8181

**172.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr9](#)

Created 15th May 2015, last changed 15th May 2015.

## 172.65 Twain.SetPixelFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetPixelFormat"; value )

### Parameters

#### value

The new pixel type setting.

2

**Result** Returns OK.

### Description

Value can be 0 for BW, 1 for Gray, 2 for RGB, 3 for Palette.

The plugin can request als CMY (4), CMYK (5), YUV (6), YUVK (7) and CIEXYZ (8), but can't currently decode those.

### See also

- [172.1 Twain.Acquire](#) 8115
- [172.24 Twain.GetFileType](#) 8139
- [172.31 Twain.GetPixelFormat](#) 8146
- [172.57 Twain.SetFileType](#) 8175

### Example Databases

- [Twain/Twain](#)

### 172.65.1 Blog Entries

- [Scanning Options](#)
- [MBS Filemaker Plugin, version 3.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

**172.66 Twain.SetResolutionX**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetResolutionX"; Value )

**Parameters****Value**

The horizontal resolution value.

300

**Result** Returns OK.

**Description**

This value is stored and next time you call Acquire the plugin will ask the scanner to use this resolution. If the scanner does not support the resolution, the scanner will use the last valid setting.

If the scanner only supports certain resolutions as with HP M175 (75, 100, 200, 300, 600, 1200), use only one of the resolutions according the GUI Acquire settings in the dialogue. In this case "150" is not possible!

**See also**

- 172.32 Twain.GetResolutionX 8147
- 172.33 Twain.GetResolutionY 8148
- 172.67 Twain.SetResolutionY 8186

**172.66.1 Blog Entries**

- [Scanning Options](#)

Created 18th August 2014, last changed 15th May 2016.

## 172.67 Twain.SetResolutionY

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SetResolutionY"; Value )

### Parameters

#### Value

The vertical resolution value.

300

**Result** Returns OK.

### Description

This value is stored and next time you call Acquire the plugin will ask the scanner to use this resolution. If the scanner does not support the resolution, the scanner will use the last valid setting.

If the scanner only supports certain resolutions as with HP M175 (75, 100, 200, 300, 600, 1200), use only one of the resolutions according the GUI Acquire settings in the dialogue. In this case "150" is not possible!

### See also

- 172.32 Twain.GetResolutionX 8147
- 172.33 Twain.GetResolutionY 8148
- 172.66 Twain.SetResolutionX 8185

### 172.67.1 Blog Entries

- [Scanning Options](#)

Created 18th August 2014, last changed 15th May 2016.

**172.68 Twain.SetShadow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.5	Yes	Yes	No	No	No

MBS( "Twain.SetShadow"; Value )

**Parameters****Value**

The new brightness setting.

0

**Result** Returns OK.

**Description**

All values darker than this value will be clipped to this value.

Whether darker values are smaller or larger can be determined by examining the Current value of PixelFlavor.

Source

If more or less than 8 bits are used to describe the image, the actual data values should be normalized to fit within the 0-255 range. The normalization need not result in a homogeneous distribution if the original distribution was not homogeneous.

Plugin uses value -10000 for undefined/default.

**See also**

- 172.34 Twain.GetShadow

8149

Created 18th August 2014, last changed 18th August 2014.

## 172.69 Twain.SupportsBW

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SupportsBW" )

**Result** Returns 1 if RGB is supported and 0 if not. Or error.

### Description

### See also

- 172.70 Twain.SupportsGray 8189
- 172.72 Twain.SupportsRGB 8191

Created 18th August 2014, last changed 18th August 2014.



## 172.70 Twain.SupportsGray

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SupportsGray" )

**Result** Returns 1 if RGB is supported and 0 if not. Or error.

### Description

### See also

- 172.69 Twain.SupportsBW 8188
- 172.72 Twain.SupportsRGB 8191

Created 18th August 2014, last changed 18th August 2014.

## 172.71 Twain.SupportsMemoryTransfer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SupportsMemoryTransfer" )

**Result** Returns 1 if memory transfers are supported and 0 if not. Or error.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 172.72 Twain.SupportsRGB

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.SupportsRGB" )

**Result** Returns 1 if RGB is supported and 0 if not. Or error.

### Description

### See also

- 172.69 Twain.SupportsBW 8188
- 172.70 Twain.SupportsGray 8189

Created 18th August 2014, last changed 18th August 2014.

## 172.73 Twain.TransferImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
172 Twain	3.1	Yes	Yes	No	No	No

MBS( "Twain.TransferImage" )

**Result** Returns OK or the Twain error code.

### Description

This function is called automatically if needed.

Call it only if you know what you do.

Created 18th August 2014, last changed 18th August 2014.

# Chapter 173

## UNNotification

User notifications for iOS and MacOS

You can receive push notifications as well as use local notifications to remind user about events and locations. See `WindowsUserNotification` functions for Windows.

### 173.1 UNNotification.Action

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Action"; UNNotificationRef )

#### Parameters

##### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns text or error.

#### Description

If this notification had an action triggered, the action identifier is returned.

Else an empty result is returned.

#### See also

- 173.8 UNNotification.Date 8201
- 173.9 UNNotification.Deliver 8202
- 173.19 UNNotification.Region 8214
- 173.32 UNNotification.SetBody 8230

- 173.40 UNNotification.SetSound 8242
- 173.44 UNNotification.SetTitle 8247
- 173.48 UNNotification.Title 8252

Created 15th April 2017, last changed 15th April 2017.

## 173.2 UNNotification.AddUserInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.AddUserInfo"; UNNotificationRef; Key; Value )

### Parameters

#### UNNotificationRef

The reference number of the notification.  
\$Notification

#### Key

The key to use.  
"RecordID"

#### Value

The value to use.  
Get(RecordID)

**Result** Returns OK or error.

### Description

This allows you to include any data you like with the notification and later query it.

### Examples

Add record ID to notification:

```
MBS( "UNNotification.AddUserInfo"; $Notification; "RecordID"; Get(RecordID) )
```

### See also

- 173.30 UNNotification.SetActionScript 8227
- 173.39 UNNotification.SetScript 8240
- 173.50 UNNotification.UserInfoKeys 8255
- 177.19 UserNotification.GetUserInfo 8304
- 177.37 UserNotification.SetUserInfo 8324

### Example Databases

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 17th April 2017.

### 173.3 UNNotification.AuthorizationError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.3	Yes	No	No	No	Yes

MBS( "UNNotification.AuthorizationError" )

**Result** Returns text message.

#### Description

If you are not allowed to do notifications, this will return localized error message.  
Returns empty text if no error happened.

#### See also

- [173.4 UNNotification.AuthorizationGranted](#)

8197

#### 173.3.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)
- [Push Notifications for FileMaker iOS SDK](#)
- [MBS FileMaker Plugin, version 7.3pr2](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 7th June 2017, last changed 7th June 2017.



## 173.4 UNNotification.AuthorizationGranted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.3	Yes	No	No	No	Yes

MBS( "UNNotification.AuthorizationGranted" )

**Result** Returns 1 or 0.

### Description

Returns 1 if allowed or 0 if not. Please check UNNotification.AuthorizationError for the reason.

### See also

- [173.3 UNNotification.AuthorizationError](#)

8196

### 173.4.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)
- [Push Notifications for FileMaker iOS SDK](#)
- [MBS FileMaker Plugin, version 7.3pr2](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 7th June 2017, last changed 7th June 2017.

## 173.5 UNNotification.Badge

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Badge"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns number, empty result or error.

### Description

Can be empty to leave badge unchanged.

Zero means no badge. Else the given number is used for application badge on delivery.

### Examples

Test badge property:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a badge
Set Variable [ $r; Value:MBS("UNNotification.SetBadge"; $notification; 123) ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.Badge"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.6 UNNotification.Body 8199
- 173.8 UNNotification.Date 8201
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.31 UNNotification.SetBadge 8228
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254

Created 15th April 2017, last changed 17th April 2017.

## 173.6 UNNotification.Body

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Body"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns text or error.

### Description

### Examples

Test body property:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a body
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Hello World") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.Body"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.5 UNNotification.Badge 8198
- 173.8 UNNotification.Date 8201
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.32 UNNotification.SetBody 8230
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254

Created 15th April 2017, last changed 17th April 2017.

## 173.7 UNNotification.CategoryIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.CategoryIdentifier"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns text or error.

### Description

### Examples

Try category identifier:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set category identifier:
Set Variable [ $r; Value:MBS("UNNotification.SetCategoryIdentifier"; $notification; "Hello") ]
# and query back values
Set Variable [ $value; Value:MBS("UNNotification.CategoryIdentifier"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.35 UNNotification.SetCategoryIdentifier 8235
- 173.42 UNNotification.SetThreadIdentifier 8244
- 173.46 UNNotification.ThreadIdentifier 8250

Created 15th April 2017, last changed 17th April 2017.

**173.8 UNNotification.Date**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Date"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Result** Returns date or error.

**Description**

Empty if notification is not delivered

**See also**

- 173.1 UNNotification.Action 8193
- 173.5 UNNotification.Badge 8198
- 173.6 UNNotification.Body 8199
- 173.9 UNNotification.Deliver 8202
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224
- 173.48 UNNotification.Title 8252
- 173.49 UNNotification.Type 8254

Created 15th April 2017, last changed 15th April 2017.

## 173.9 UNNotification.Deliver

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	9.3	Yes	No	No	No	Yes

MBS( "UNNotification.Deliver"; UNNotificationRef { ; Identifier } )

### Parameters

#### UNNotificationRef

The reference number of the notification.  
\$Notification

#### Identifier

Optional

The identifier for the notification. Should be unique unless you want to replace an existing one.

**Result** Returns OK or error.

### Description

#### See also

- 173.1 UNNotification.Action 8193
- 173.8 UNNotification.Date 8201
- 173.12 UNNotification.Identifier 8205
- 173.19 UNNotification.Region 8214
- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224
- 173.32 UNNotification.SetBody 8230
- 173.44 UNNotification.SetTitle 8247

### 173.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 19th June 2019, last changed 19th June 2019.

**173.10 UNNotification.DeliveredNotifications**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.DeliveredNotifications" )

**Result** Returns list or error.

**Description****See also**

- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220
- 177.39 UserNotification.deliveredNotifications 8326
- 177.38 UserNotification.deliverNotification 8325
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.48 UserNotification.scheduledNotifications 8335

**Example Databases**

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 15th April 2017.

## 173.11 UNNotification.GetDescription

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	9.3	Yes	No	No	No	Yes

MBS( "UNNotification.GetDescription"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns text or error.

### Description

Shows technical details from framework about notification.

### See also

- [173.38 UNNotification.SetNFCScript](#) 8239
- [173.39 UNNotification.SetScript](#) 8240
- [177.10 UserNotification.GetDescription](#) 8295

### Example Databases

- [Mac and iOS/UNNotification](#)

### 173.11.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 19th June 2019, last changed 19th June 2019.



**173.12 UNNotification.Identifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Identifier"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Result** Returns text or error.

**Description**

The unique identifier for this notification request. It can be used to replace or remove a pending notification request or a delivered notification.

**Examples**

Queries identifier:

MBS( "UNNotification.Identifier"; \$Notification )

**See also**

- 173.9 UNNotification.Deliver 8202
- 173.46 UNNotification.ThreadIdentifier 8250
- 177.11 UserNotification.GetIdentifier 8296
- 177.30 UserNotification.SetIdentifier 8317

Created 15th April 2017, last changed 17th April 2017.

## 173.13 UNNotification.IsRegisteredForRemoteNotifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.IsRegisteredForRemoteNotifications" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the application is currently registered for remote notifications, taking into account any system-wide settings; doesn't relate to connectivity.

### Examples

Check registration state:

```
Show Custom Dialog [ "Check registration state"; MBS( "UNNotification.IsRegisteredForRemoteNotifications" ) ]
```

### 173.13.1 Blog Entries

- [Push Notifications for FileMaker iOS SDK](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 15th April 2017, last changed 17th April 2017.

**173.14 UNNotification.LaunchImageName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	No	No	No	No	Yes

MBS( "UNNotification.LaunchImageName"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Result** Returns text or error.

**Description**

The launch image that will be used when the app is opened from the notification.

**Examples**

Test launch image:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set launch image name:
Set Variable [ $r; Value:MBS("UNNotification.SetLaunchImageName"; $notification; "MyLogo") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.LaunchImageName"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

**See also**

- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.36 UNNotification.SetLaunchImageName 8236

Created 15th April 2017, last changed 17th April 2017.

## 173.15 UNNotification.New

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.New" )

**Result** Returns notification reference number or error.

### Description

Set values and call UNNotification.Add later to schedule it.

Works on MacOS 10.14 or newer with MBS Plugin 9.1 or newer.

### Examples

Create new notification and set title:

```
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
```

### See also

- 121.3 Notification.Send 6207
- 173.6 UNNotification.Body 8199
- 173.8 UNNotification.Date 8201
- 173.19 UNNotification.Region 8214
- 173.35 UNNotification.SetCategoryIdentifier 8235
- 173.36 UNNotification.SetLaunchImageName 8236
- 173.37 UNNotification.SetLocationTrigger 8237
- 173.42 UNNotification.SetThreadIdentifier 8244
- 173.44 UNNotification.SetTitle 8247
- 173.49 UNNotification.Type 8254

### Example Databases

- [Mac and iOS/UNNotification](#)

### 173.15.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [Schedule Notifications with MBS Plugin in iOS](#)

Created 15th April 2017, last changed 25th January 2019.

**173.16 UNNotification.NextTriggerDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.NextTriggerDate"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Result** Returns timestamp, empty or error.

**Description**

This is only available for time interval and calendar based notification triggers.  
Returns empty result if not applicable.

**See also**

- 173.29 UNNotification.Schedule 8225
- 173.43 UNNotification.SetTimeIntervalTrigger 8245

Created 15th April 2017, last changed 15th April 2017.

**173.17 UNNotification.NotificationSettings**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.NotificationSettings"; Selector )

**Parameters****Selector**

What value to return or what action to do.

"authorizationStatus"

**Result** Returns value or error.

**Description**

You can pass "update" to query new settings. This may be needed to know about changes the user may have made.

Pass "AuthorizationStatus" to get authorization status. Can be NotDetermined, Denied and Authorized.

Pass "alertStyle" to query alert style. Can be None, Banner or Alert.

Pass "soundSetting", "badgeSetting", "alertSetting", "notificationCenterSetting", "lockScreenSetting" or "carPlaySetting" to query settings. Can be NotSupported, Disabled or Enabled.

For MBS Plugin 9.1 or newer, you can also pass providesAppNotificationSettings (1 or 0), showPreviewsSetting (Always, WhenAuthenticated, Never) and criticalAlertSetting (NotSupported, Disabled, Enabled) to query those.

**Examples**

Query authorization status:

```
MBS( "UNNotification.NotificationSettings"; "AuthorizationStatus" )
```

Query alert style:

```
MBS( "UNNotification.NotificationSettings"; "alertStyle" )
```

Request update to settings:

```
MBS( "UNNotification.NotificationSettings"; "Update" )
```

Query sound setting:

```
MBS("UNNotification.NotificationSettings"; "soundSetting")
```

Query badge setting:

```
MBS("UNNotification.NotificationSettings"; "badgeSetting")
```

Query alert setting:

```
MBS("UNNotification.NotificationSettings"; "alertSetting")
```

Query notification center setting:

```
MBS("UNNotification.NotificationSettings"; "notificationCenterSetting")
```

Query lock screen setting:

```
MBS("UNNotification.NotificationSettings"; "lockScreenSetting")
```

Query car play setting:

```
MBS("UNNotification.NotificationSettings"; "carPlaySetting")
```

### 173.17.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr1](#)
- [Push Notifications for FileMaker iOS SDK](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 15th April 2017, last changed 25th January 2019.



## 173.18 UNNotification.PendingNotificationRequests

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.PendingNotificationRequests" )

**Result** Returns list or error.

### Description

### Examples

Query IDs of pending notifications:

MBS( "UNNotification.PendingNotificationRequests" )

### See also

- 173.25 UNNotification.RemoveAllPendingNotificationRequests 8221

### Example Databases

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 17th April 2017.

## 173.19 UNNotification.Region

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	No	No	No	No	Yes

MBS( "UNNotification.Region"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns list or error.

### Description

Returns list with following values: Latitude, Longitude, Radius, Identifier.

### Examples

Create location trigger and query back values:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set Title and Body
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Greetings from FileMaker") ]
# set a location trigger
Set Variable [ $r; Value:MBS( "UNNotification.SetLocationTrigger"; $notification; 37,354444; -121,969167;
50000; "Santa Clara area") ]
# and query back trigger settings
Set Variable [ $value; Value:MBS("UNNotification.Region"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.Repeats"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.1 UNNotification.Action 8193
- 173.9 UNNotification.Deliver 8202
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.32 UNNotification.SetBody 8230

<i>173.19. UNNOTIFICATION.REGION</i>	8215
• 173.37 UNNotification.SetLocationTrigger	8237
• 173.40 UNNotification.SetSound	8242
• 173.44 UNNotification.SetTitle	8247

Created 15th April 2017, last changed 17th April 2017.

**173.20 UNNotification.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Release"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Result** Returns OK or error.

**Description****See also**

- 173.5 UNNotification.Badge 8198
- 173.6 UNNotification.Body 8199
- 173.9 UNNotification.Deliver 8202
- 173.21 UNNotification.ReleaseAll 8217
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.31 UNNotification.SetBadge 8228
- 173.32 UNNotification.SetBody 8230
- 173.44 UNNotification.SetTitle 8247
- 177.21 UserNotification.Release 8306

Created 15th April 2017, last changed 15th April 2017.

## 173.21 UNNotification.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.ReleaseAll" )

**Result** Returns OK or error.

### Description

This renders all existing notification reference numbers invalid.

### See also

- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224
- 177.21 UserNotification.Release 8306

Created 15th April 2017, last changed 15th April 2017.

## 173.22 UNNotification.RemoteNotificationsDeviceToken

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemoteNotificationsDeviceToken" )

**Result** Returns text.

### Description

If the registration for remote notifications is successful, this function will return the hex encoded device token. You can pass the device token to your server sending the push notifications.

Text is empty if registration failed.

e.g. "416204F694DA65CC1AFD9E473C7E44C22DD66B61FD4DA61B255A89EE436B6F61"

See UNNotification.RemoteNotificationsError for the reason. Push notifications are not supported in iOS Simulator!

### Examples

Show device token:

Show Custom Dialog [ "Device Token"; MBS("UNNotification.RemoteNotificationsDeviceToken") ]

### See also

- [173.23 UNNotification.RemoteNotificationsError](#)

8219

### 173.22.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)
- [Push Notifications for FileMaker iOS SDK](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 15th April 2017, last changed 7th June 2017.

## 173.23 UNNotification.RemoteNotificationsError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemoteNotificationsError" )

**Result** Returns error text.

### Description

If not error happened, the text is empty.

### Examples

Show error:

Show Custom Dialog [ "Remote Notifications Error"; MBS("UNNotification.RemoteNotificationsError") ]

### See also

- [173.22 UNNotification.RemoteNotificationsDeviceToken](#) 8218

### 173.23.1 Blog Entries

- [Push Notifications for FileMaker iOS SDK](#)
- [Remote Notifications for FileMaker iOS SDK](#)

Created 15th April 2017, last changed 17th April 2017.

## 173.24 UNNotification.RemoveAllDeliveredNotifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemoveAllDeliveredNotifications" )

**Result** Returns OK or error.

### Description

You can normally query delivered notifications for your application until they are removed.

### Examples

Remove all pending and delivered notifications:

```
MBS( "UNNotification.RemoveAllDeliveredNotifications" ) &
MBS( "UNNotification.RemoveAllPendingNotificationRequests" )
```

### See also

- 173.10 UNNotification.DeliveredNotifications 8203
- 173.25 UNNotification.RemoveAllPendingNotificationRequests 8221
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.45 UserNotification.removeDeliveredNotification 8332

Created 15th April 2017, last changed 17th April 2017.



## 173.25 UNNotification.RemoveAllPendingNotificationRequests

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemoveAllPendingNotificationRequests" )

**Result** Returns OK or error.

### Description

Clears all notifications which are not yet delivered.

### Examples

Remove all pending and delivered notifications:

```
MBS( "UNNotification.RemoveAllDeliveredNotifications" ) &  
MBS( "UNNotification.RemoveAllPendingNotificationRequests" )
```

### See also

- 173.18 UNNotification.PendingNotificationRequests 8213
- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220

Created 15th April 2017, last changed 17th April 2017.

## 173.26 UNNotification.RemoveDeliveredNotificationsWithIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemoveDeliveredNotificationsWithIdentifiers"; Identifiers )

### Parameters

#### Identifiers

List of notification identifiers.

**Result** Returns OK or error.

### Description

You can normally query delivered notifications for your application until they are removed. This function removes all notifications matching given identifiers.

#### See also

- 173.27 UNNotification.RemovePendingNotificationRequestsWithIdentifiers

8223

Created 15th April 2017, last changed 15th April 2017.

173.27. *UNNOTIFICATION.REMOVEPENDINGNOTIFICATIONREQUESTSWITHIDENTIFIERS*8223

## 173.27 UNNotification.RemovePendingNotificationRequestsWithIdentifiers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.RemovePendingNotificationRequestsWithIdentifiers"; Identifiers )

### Parameters

#### Identifiers

List of notification identifiers.

**Result** Returns OK or error.

#### Description

Clears all notifications which are not yet delivered matching given identifiers.

#### See also

- 173.26 UNNotification.RemoveDeliveredNotificationsWithIdentifiers 8222

Created 15th April 2017, last changed 15th April 2017.

## 173.28 UNNotification.Repeats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Repeats"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.  
\$Notification

**Result** Returns 1, 0 or error.

### Description

Returns 1 if the trigger has repeat flag enabled or 0 if not.

### Examples

Query repeat flag:

MBS( "UNNotification.Repeats"; \$Notification )

### See also

- 173.8 UNNotification.Date 8201
- 173.9 UNNotification.Deliver 8202
- 173.19 UNNotification.Region 8214
- 173.20 UNNotification.Release 8216
- 173.29 UNNotification.Schedule 8225
- 173.31 UNNotification.SetBadge 8228
- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 173.44 UNNotification.SetTitle 8247
- 173.49 UNNotification.Type 8254
- 177.21 UserNotification.Release 8306

Created 15th April 2017, last changed 17th April 2017.

## 173.29 UNNotification.Schedule

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Schedule"; UNNotificationRef { ; Identifier } )

### Parameters

#### UNNotificationRef

The reference number of the notification.  
\$Notification

#### Identifier

Optional

The identifier for the notification. Should be unique unless you want to replace an existing one. Optional for 9.3 or newer.

**Result** Returns OK or error.

### Description

Only for new notifications and you need to define trigger before scheduling.

The new notification when presented will get a new notification reference number.

Works on MacOS 10.14 or newer with MBS Plugin 9.1 or newer.

### Examples

Create notification and add a time trigger:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set Title and Body
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Greetings from FileMaker") ]
# set a time interval trigger
Set Variable [ $r; Value:MBS("UNNotification.SetTimeIntervalTrigger"; $notification; 60; 0) ]
# and query back trigger settings
Set Variable [ $value; Value:MBS("UNNotification.TimeInterval"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.Repeats"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.NextTriggerDate"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224

- 173.31 UNNotification.SetBadge 8228
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.37 UNNotification.SetLocationTrigger 8237
- 173.40 UNNotification.SetSound 8242
- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 173.45 UNNotification.SubTitle 8249
- 173.46 UNNotification.ThreadIdentifier 8250
- 173.47 UNNotification.TimeInterval 8251

### Example Databases

- [Mac and iOS/UNNotification](#)

### 173.29.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)

Created 15th April 2017, last changed 19th June 2019.

## 173.30 UNNotification.SetActionScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetActionScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Called for both local and remote notifications.

Parameter to the script is a list with first the ID of the notification and second the action identifier.

Use UNNotification.AddUserInfo to associate your own values with the notifications, which you can then use in the triggered script.

### Examples

Sets action script:

MBS( "UNNotification.SetActionScript"; Get(Filename); "NotificationActionTriggered" )

### See also

- 173.2 UNNotification.AddUserInfo 8195
- 173.38 UNNotification.SetNFCScript 8239
- 173.39 UNNotification.SetScript 8240

### Example Databases

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 13th December 2019.

## 173.31 UNNotification.SetBadge

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetBadge"; UNNotificationRef; Badge )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### Badge

The new badge number. Can be empty to clear. Can be zero to remove badge. Or a number to set.

**Result** Returns OK or error.

### Description

### Examples

Test badge property:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a badge
Set Variable [ $r; Value:MBS("UNNotification.SetBadge"; $notification; 123) ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.Badge"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.5 UNNotification.Badge 8198
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.32 UNNotification.SetBody 8230
- 173.39 UNNotification.SetScript 8240
- 173.40 UNNotification.SetSound 8242
- 173.44 UNNotification.SetTitle 8247



173.31. *UNNOTIFICATION.SETBADGE*

8229

- 173.45 UNNotification.SubTitle

8249

Created 15th April 2017, last changed 17th April 2017.

## 173.32 UNNotification.SetBody

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetBody"; UNNotificationRef; Body )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### Body

The new body text.

"Greetings from FileMaker"

**Result** Returns OK or error.

### Description

### Examples

Test body property:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a body
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Hello World") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.Body"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.1 UNNotification.Action 8193
- 173.9 UNNotification.Deliver 8202
- 173.19 UNNotification.Region 8214
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.37 UNNotification.SetLocationTrigger 8237
- 173.39 UNNotification.SetScript 8240
- 173.40 UNNotification.SetSound 8242
- 173.43 UNNotification.SetTimeIntervalTrigger 8245

173.32. *UNNOTIFICATION.SETBODY*

8231

- 173.44 UNNotification.SetTitle

8247

### **Example Databases**

- [Mac and iOS/UNNotification](#)

#### **173.32.1 Blog Entries**

- [Schedule Notifications with MBS Plugin in iOS](#)

Created 15th April 2017, last changed 17th April 2017.

## 173.33 UNNotification.SetCalendarDateTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	9.3	Yes	No	No	No	Yes

MBS( "UNNotification.SetCalendarDateTrigger"; UNNotificationRef; TimeStamp )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### TimeStamp

The time stamp for the date and time to use.

Get(SystemTimeStamp)

**Result** Returns OK or error.

### Description

Can be scheduled on the device to notify based on date and time values.

Will schedule to run at the given date and time.

### See also

- [173.34 UNNotification.SetCalendarTrigger](#) 8233
- [173.43 UNNotification.SetTimeIntervalTrigger](#) 8245

### Example Databases

- [Mac and iOS/UNNotification](#)

### 173.33.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 19th June 2019, last changed 19th June 2019.

**173.34 UNNotification.SetCalendarTrigger**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetCalendarTrigger"; UNNotificationRef { ; Year; Month; Day; Hour; Minute; Second; Repeat } )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Year**

Optional

The year to use. Can be empty.

**Month**

Optional

The month to use. Can be empty.

**Day**

Optional

The day to use. Can be empty.

**Hour**

Optional

The hour to use. Can be empty.

**Minute**

Optional

The minute to use. Can be empty.

**Second**

Optional

The second to use. Can be empty.

**Repeat**

Optional

Whether to repeat. Can be 1 to enable or 0 to disable. Default is 0.

0

**Result** Returns OK or error.

**Description**

Can be scheduled on the device to notify based on date and time values, and optionally repeat. For example, if a notification should be delivered at the next 8:00 AM then set the 'hour' parameter to 8. If the notification should be delivered every day at 8:00 AM then set repeats to 1.

**Examples**

Repeat daily 8am:

```
MBS( "UNNotification.SetCalendarTrigger"; $NotificationRef; ""; ""; ""; 8; ""; ""; 1 )
```

Schedule to show up 10:30 am every day:

```
# Create a new notification
```

```
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
```

```
Set Variable [ $r; Value:MBS( "UNNotification.SetTitle"; $Notification; "Hello World") ]
```

```
# Set calendar trigger:
```

```
Set Variable [ $r; Value:MBS( "UNNotification.SetCalendarTrigger"; $Notification; ""; ""; ""; 10; 30; ""; 1 ) ]
```

```
# and schedule
```

```
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.33 UNNotification.SetCalendarDateTrigger 8232
- 173.37 UNNotification.SetLocationTrigger 8237
- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 173.44 UNNotification.SetTitle 8247

Created 15th April 2017, last changed 17th April 2017.

**173.35 UNNotification.SetCategoryIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetCategoryIdentifier"; UNNotificationRef; CategoryIdentifier )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**CategoryIdentifier**

The new category identifier.

**Result** Returns OK or error.

**Description****Examples**

Try category identifier:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set category identifier:
Set Variable [ $r; Value:MBS("UNNotification.SetCategoryIdentifier"; $notification; "Hello") ]
# and query back values
Set Variable [ $value; Value:MBS("UNNotification.CategoryIdentifier"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

**See also**

- 173.7 UNNotification.CategoryIdentifier 8200
- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.42 UNNotification.SetThreadIdentifier 8244

Created 15th April 2017, last changed 17th April 2017.

## 173.36 UNNotification.SetLaunchImageName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	No	No	No	No	Yes

MBS( "UNNotification.SetLaunchImageName"; UNNotificationRef; ImageName )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### ImageName

The name of the image to show. Can be system image name or name of an image included with application.  
"MBSLogo"

**Result** Returns OK or error.

### Description

The launch image that will be used when the app is opened from the notification.

### Examples

Test launch image:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set launch image name:
Set Variable [ $r; Value:MBS("UNNotification.SetLaunchImageName"; $notification; "MyLogo") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.LaunchImageName"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.14 UNNotification.LaunchImageName 8207
- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225

Created 15th April 2017, last changed 17th April 2017.



**173.37 UNNotification.SetLocationTrigger**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	No	No	No	No	Yes

MBS( "UNNotification.SetLocationTrigger"; UNNotificationRef; Latitude; Longitude; Radius; Identifier { ; Repeat } )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Latitude**

The latitude of the region center.  
37.354444

**Longitude**

The longitude of the region center.  
-121.969167

**Radius**

The radius of the circular region in meter.  
50000

**Identifier**

The user displayable identifier for the region.  
"Santa Clara area"

**Repeat**

Optional  
Whether to repeat this notification. Pass 1 to enable or 0 to disable. Default is 0.  
0

**Result** Returns OK or error.

**Description**

Can be scheduled on the device to notify when the user enters or leaves a geographic region. The identifier on region must be unique. Scheduling multiple notifications with different regions containing the same identifier will result in undefined behavior. The number of location triggers that may be scheduled by an application at any one time is limited by the system. Applications must have "when-in-use" authorization through CoreLocation.

**Examples**

Create location trigger and query back values:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set Title and Body
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
```

```
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Greetings from FileMaker") ]
# set a location trigger
Set Variable [ $r; Value:MBS( "UNNotification.SetLocationTrigger"; $Notification; 37,354444; -121,969167;
50000; "Santa Clara area") ]
# and query back trigger settings
Set Variable [ $value; Value:MBS("UNNotification.Region"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.Repeats"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

**See also**

- 173.15 UNNotification.New 8208
- 173.19 UNNotification.Region 8214
- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.32 UNNotification.SetBody 8230
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.44 UNNotification.SetTitle 8247

Created 15th April 2017, last changed 17th April 2017.

**173.38 UNNotification.SetNFCScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	9.4	No	No	No	No	Yes

MBS( "UNNotification.SetNFCScript"; Filename; ScriptName )

**Parameters****Filename**

The database file name where the script is located.

"test.fmp12"

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

If you use Background Tag Reading for NFC tags with CoreNFC framework, you can call this function in start script to define the script to trigger.

You need to add an associated domain to your iOS application.

See

[https://developer.apple.com/documentation/security/password\\_autofill/setting\\_up\\_an\\_app\\_s\\_associated\\_domains](https://developer.apple.com/documentation/security/password_autofill/setting_up_an_app_s_associated_domains)

**Examples**

Sets action script:

MBS( "UNNotification.SetNFCScript"; Get(Filename); "NFC Detected" )

**See also**

- 173.11 UNNotification.GetDescription 8204
- 173.30 UNNotification.SetActionScript 8227
- 173.39 UNNotification.SetScript 8240

**173.38.1 Blog Entries**

- [Neues MBS FileMaker Plugin 9.4](#)
- [MBS FileMaker Plugin 9.4 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.4pr2](#)

Created 14th August 2019, last changed 15th August 2019.

## 173.39 UNNotification.SetScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetScript"; Filename; ScriptName )

### Parameters

#### Filename

The database file name where the script is located.

"test.fmp12"

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

Called for both local and remote notifications.

Parameter to the script is the ID of the notification.

Use UNNotification.AddUserInfo to associate your own values with the notifications, which you can then use in the triggered script.

### Examples

Sets script:

MBS( "UNNotification.SetScript"; Get(Filename); "NotificationReceived" )

### See also

- 173.2 UNNotification.AddUserInfo 8195
- 173.11 UNNotification.GetDescription 8204
- 173.30 UNNotification.SetActionScript 8227
- 173.31 UNNotification.SetBadge 8228
- 173.32 UNNotification.SetBody 8230
- 173.38 UNNotification.SetNFCScript 8239
- 173.40 UNNotification.SetSound 8242
- 173.41 UNNotification.SetSubTitle 8243
- 173.44 UNNotification.SetTitle 8247

**Example Databases**

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 13th December 2019.

## 173.40 UNNotification.SetSound

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetSound"; UNNotificationRef; SoundName )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### SoundName

Pass empty to have no sound. Pass "default" for the default system sound. Or pass the name of a sound, one of the system sounds or a sound file included with the app.

"default"

**Result** Returns OK or error.

### Description

### Examples

Use default sound:

```
MBS( "UNNotification.SetSound"; $Notification; "default" )
```

Use no sound:

```
MBS( "UNNotification.SetSound"; $Notification; "" )
```

Use my sound:

```
MBS( "UNNotification.SetSound"; $Notification; "mySound" )
```

### See also

- 173.1 UNNotification.Action 8193
- 173.19 UNNotification.Region 8214
- 173.29 UNNotification.Schedule 8225
- 173.31 UNNotification.SetBadge 8228
- 173.32 UNNotification.SetBody 8230
- 173.39 UNNotification.SetScript 8240
- 173.44 UNNotification.SetTitle 8247

Created 15th April 2017, last changed 17th April 2017.

**173.41 UNNotification.SetSubTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetSubTitle"; UNNotificationRef; Subtitle )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Subtitle**

The new subtitle text.

"World"

**Result** Returns OK or error.

**Description****Examples**

Set sub title:

Set Variable [ \$r; Value:MBS("UNNotification.SetSubTitle"; \$notification; "Hello") ]

**See also**

- 173.39 UNNotification.SetScript 8240
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 177.17 UserNotification.GetSubTitle 8302
- 177.18 UserNotification.GetTitle 8303
- 177.35 UserNotification.SetSubTitle 8322
- 177.36 UserNotification.SetTitle 8323

**Example Databases**

- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 16th April 2017.

## 173.42 UNNotification.SetThreadIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetThreadIdentifier"; UNNotificationRef; Identifier )

### Parameters

#### UNNotificationRef

The reference number of the notification.  
\$Notification

#### Identifier

The new thread identifier.  
"Chat123"

**Result** Returns OK or error.

### Description

The unique identifier for the thread or conversation related to this notification request. It will be used to visually group notifications together.

### Examples

Test thread identifier:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set thread identifier for grouping:
Set Variable [ $r; Value:MBS("UNNotification.SetThreadIdentifier"; $notification; "Hello") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.ThreadIdentifier"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.7 UNNotification.CategoryIdentifier 8200
- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.35 UNNotification.SetCategoryIdentifier 8235
- 173.46 UNNotification.ThreadIdentifier 8250

Created 15th April 2017, last changed 17th April 2017.



## 173.43 UNNotification.SetTimeIntervalTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetTimeIntervalTrigger"; UNNotificationRef; TimeInterval { ; Repeat } )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### TimeInterval

The delay until the notification shows. In seconds.

3600

#### Repeat

Optional

Whether to repeat. Can be 1 to enable or 0 to disable. Default is 0.

0

**Result** Returns OK or error.

### Description

Can be scheduled on the device to notify after the time interval, and optionally repeat.

Time Interval must be at least 60 seconds if repeating.

### Examples

Create notification and add a time trigger:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set Title and Body
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
Set Variable [ $r; Value:MBS("UNNotification.SetBody"; $notification; "Greetings from FileMaker") ]
# set a time interval trigger
Set Variable [ $r; Value:MBS("UNNotification.SetTimeIntervalTrigger"; $notification; 60; 0) ]
# and query back trigger settings
Set Variable [ $value; Value:MBS("UNNotification.TimeInterval"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.Repeats"; $notification) ]
Set Variable [ $value; Value:MBS("UNNotification.NextTriggerDate"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

### See also

- 173.15 UNNotification.New 8208
- 173.16 UNNotification.NextTriggerDate 8210

- 173.28 UNNotification.Repeats 8224
- 173.29 UNNotification.Schedule 8225
- 173.32 UNNotification.SetBody 8230
- 173.33 UNNotification.SetCalendarDateTrigger 8232
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.44 UNNotification.SetTitle 8247
- 173.47 UNNotification.TimeInterval 8251

### 173.43.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)

Created 15th April 2017, last changed 17th April 2017.

## 173.44 UNNotification.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SetTitle"; UNNotificationRef; Title )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

#### Title

The new title.

"Hello"

**Result** Returns OK or error.

### Description

### Examples

Create new notification and set title:

```
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
```

Try title:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a title
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
# and query back
Set Variable [ $title; Value:MBS("UNNotification.Title"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.20 UNNotification.Release 8216
- 173.32 UNNotification.SetBody 8230
- 173.34 UNNotification.SetCalendarTrigger 8233
- 173.39 UNNotification.SetScript 8240
- 173.40 UNNotification.SetSound 8242
- 173.41 UNNotification.SetSubTitle 8243

- 173.43 UNNotification.SetTimeIntervalTrigger 8245
- 177.18 UserNotification.GetTitle 8303
- 177.35 UserNotification.SetSubTitle 8322
- 177.36 UserNotification.SetTitle 8323

### Example Databases

- [Mac and iOS/UNNotification](#)

### 173.44.1 Blog Entries

- [Schedule Notifications with MBS Plugin in iOS](#)

Created 15th April 2017, last changed 17th April 2017.

**173.45 UNNotification.SubTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.SubTitle"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Result** Returns text or error.

**Description****See also**

- 173.29 UNNotification.Schedule 8225
- 173.31 UNNotification.SetBadge 8228
- 173.41 UNNotification.SetSubTitle 8243
- 173.44 UNNotification.SetTitle 8247
- 173.48 UNNotification.Title 8252
- 177.17 UserNotification.GetSubTitle 8302
- 177.18 UserNotification.GetTitle 8303
- 177.35 UserNotification.SetSubTitle 8322
- 177.36 UserNotification.SetTitle 8323

Created 15th April 2017, last changed 15th April 2017.

**173.46 UNNotification.ThreadIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.ThreadIdentifier"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Result** Returns text or error.

**Description**

The unique identifier for the thread or conversation related to this notification request. It will be used to visually group notifications together.

**Examples**

Test thread identifier:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# Set thread identifier for grouping:
Set Variable [ $r; Value:MBS("UNNotification.SetThreadIdentifier"; $notification; "Hello") ]
# and query back
Set Variable [ $value; Value:MBS("UNNotification.ThreadIdentifier"; $notification) ]
# and schedule
Set Variable [ $r; Value:MBS("UNNotification.Schedule"; $notification; "test") ]
```

**See also**

- 173.7 UNNotification.CategoryIdentifier 8200
- 173.12 UNNotification.Identifier 8205
- 173.15 UNNotification.New 8208
- 173.29 UNNotification.Schedule 8225
- 173.42 UNNotification.SetThreadIdentifier 8244
- 177.11 UserNotification.GetIdentifier 8296
- 177.30 UserNotification.SetIdentifier 8317

Created 15th April 2017, last changed 17th April 2017.

**173.47 UNNotification.TimeInterval**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.TimeInterval"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Result** Returns value or error.

**Description**

Returns empty result if not applicable.

**Examples**

Query time interval:

MBS( "UNNotification.TimeInterval"; \$Notification )

**See also**

- 173.29 UNNotification.Schedule 8225
- 173.43 UNNotification.SetTimeIntervalTrigger 8245

Created 15th April 2017, last changed 17th April 2017.

## 173.48 UNNotification.Title

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Title"; UNNotificationRef )

### Parameters

#### UNNotificationRef

The reference number of the notification.

\$Notification

**Result** Returns text or error.

### Description

### Examples

Try title:

```
# Create a new notification
Set Variable [ $notification; Value:MBS("UNNotification.New") ]
# set a title
Set Variable [ $r; Value:MBS("UNNotification.SetTitle"; $notification; "Hello") ]
# and query back
Set Variable [ $title; Value:MBS("UNNotification.Title"; $notification) ]
# free memory
Set Variable [ $r; Value:MBS("UNNotification.Release"; $notification) ]
```

### See also

- 173.1 UNNotification.Action 8193
- 173.5 UNNotification.Badge 8198
- 173.6 UNNotification.Body 8199
- 173.8 UNNotification.Date 8201
- 173.15 UNNotification.New 8208
- 173.20 UNNotification.Release 8216
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 173.49 UNNotification.Type 8254

### Example Databases



- [Mac and iOS/UNNotification](#)

Created 15th April 2017, last changed 17th April 2017.

**173.49 UNNotification.Type**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.Type"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Result** Returns text or error.

**Description**

Can be Push, Calendar, Interval, Location or nothing.

As type is defined by trigger, a new notification without a trigger returns empty result.

**Examples**

Query type

MBS( "UNNotification.Type"; \$Notification )

**See also**

- 173.5 UNNotification.Badge 8198
- 173.6 UNNotification.Body 8199
- 173.8 UNNotification.Date 8201
- 173.15 UNNotification.New 8208
- 173.28 UNNotification.Repeats 8224
- 173.48 UNNotification.Title 8252

Created 15th April 2017, last changed 17th April 2017.

**173.50 UNNotification.UserInfoKeys**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.UserInfoKeys"; UNNotificationRef )

**Parameters****UNNotificationRef**

The reference number of the notification.

\$Notification

**Result** Returns list of keys or error.

**Description**

You can pass data with push or local notifications and later query it here.

**Examples**

List all keys available:

MBS( "UNNotification.UserInfoKeys"; \$Notification )

**See also**

- 173.2 UNNotification.AddUserInfo 8195
- 173.51 UNNotification.UserInfoValue 8256

Created 15th April 2017, last changed 17th April 2017.

**173.51 UNNotification.UserInfoValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
173 UNNotification	7.2	Yes	No	No	No	Yes

MBS( "UNNotification.UserInfoValue"; UNNotificationRef; Key )

**Parameters****UNNotificationRef**

The reference number of the notification.  
\$Notification

**Key**

The key to lookup.  
"RecordID"

**Result** Returns value or error.

**Description****Examples**

Query record ID:

```
MBS( "UNNotification.UserInfoValue"; $Notification; "RecordID" )
# you need to earlier put the value in the user info!
```

**See also**

- 173.50 UNNotification.UserInfoKeys

8255

Created 15th April 2017, last changed 17th April 2017.

# Chapter 174

## Updater

Functions to control the Updater engine of FileMaker.

All the updater functions require FileMaker 15 or newer. They may break if FileMaker changes their updater engine. For example check when updater check run last time.

### 174.1 Updater.CheckForUpdates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	Yes	No	No	No

MBS( "Updater.CheckForUpdates" )

**Result** Returns OK or error.

#### Description

Created 29th September 2016, last changed 29th September 2016.

## 174.2 Updater.CheckForUpdatesInBackground

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	Yes	No	No	No

MBS( "Updater.CheckForUpdatesInBackground" )

**Result** Returns OK or error.

### Description

This is meant for programmatically initiating a check for updates. That is, it will display no UI unless it actually finds an update, in which case it proceeds as usual.

Created 29th September 2016, last changed 29th September 2016.

## 174.3 Updater.GetAutomaticallyChecksForUpdates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	Yes	No	No	No

MBS( "Updater.GetAutomaticallyChecksForUpdates" )

**Result** Returns 1, 0 or error.

### Description

You may use this to detect if FileMaker told the updater to check automatically for updates.

### See also

- 174.4 Updater.GetAutomaticallyDownloadsUpdates 8260
- 174.8 Updater.SetAutomaticallyChecksForUpdates 8264
- 174.9 Updater.SetAutomaticallyDownloadsUpdates 8265

Created 29th September 2016, last changed 29th September 2016.

## 174.4 Updater.GetAutomaticallyDownloadsUpdates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.GetAutomaticallyDownloadsUpdates" )

**Result** Returns 1, 0 or error.

### Description

This is by default off in FileMaker Pro.

### See also

- 174.3 Updater.GetAutomaticallyChecksForUpdates 8259
- 174.8 Updater.SetAutomaticallyChecksForUpdates 8264
- 174.9 Updater.SetAutomaticallyDownloadsUpdates 8265

Created 29th September 2016, last changed 29th September 2016.



## 174.5 Updater.GetFeedURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.GetFeedURL" )

**Result** Returns text or error.

### Description

This is an URL for a XML file which provides update details.

If you get this URL and download the XML file, you can find the download URLs for the updaters.

Created 29th September 2016, last changed 29th September 2016.

## 174.6 Updater.GetSendsSystemProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.GetSendsSystemProfile" )

**Result** Returns 1, 0 or error.

### Description

This is off by default in FileMaker 15.

### See also

- 174.10 Updater.SetSendsSystemProfile

8266

Created 29th September 2016, last changed 29th September 2016.

## 174.7 Updater.LastUpdateCheckDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	Yes	No	No	No

MBS( "Updater.LastUpdateCheckDate" )

**Result** Returns timestamp or error.

### Description

Your solution can query this date and check if it should complain to user about not checking for updates for a long time.

Returns empty result if not known.

Created 29th September 2016, last changed 29th September 2016.

## 174.8 Updater.SetAutomaticallyChecksForUpdates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	Yes	No	No	No

MBS( "Updater.SetAutomaticallyChecksForUpdates"; Flag )

### Parameters

#### Flag

The new flag. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Changing this only influences the Sparkle framework doing the updates, not the FileMaker preferences.

### See also

- 174.3 Updater.GetAutomaticallyChecksForUpdates 8259
- 174.4 Updater.GetAutomaticallyDownloadsUpdates 8260
- 174.9 Updater.SetAutomaticallyDownloadsUpdates 8265

Created 29th September 2016, last changed 29th September 2016.

## 174.9 Updater.SetAutomaticallyDownloadsUpdates

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.SetAutomaticallyDownloadsUpdates"; Flag )

### Parameters

#### Flag

The new flag. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Changing this only influences the Sparkle framework doing the updates, not the FileMaker preferences.

#### See also

- 174.3 Updater.GetAutomaticallyChecksForUpdates 8259
- 174.4 Updater.GetAutomaticallyDownloadsUpdates 8260
- 174.8 Updater.SetAutomaticallyChecksForUpdates 8264

Created 29th September 2016, last changed 29th September 2016.

## 174.10 Updater.SetSendsSystemProfile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.SetSendsSystemProfile"; Flag )

### Parameters

#### Flag

The new flag. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

### Description

Changing this only influences the Sparkle framework doing the updates, not the FileMaker preferences.

### See also

- 174.6 Updater.GetSendsSystemProfile

8262

Created 29th September 2016, last changed 29th September 2016.

## 174.11 Updater.UpdateInProgress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
174 Updater	6.5	Yes	No	No	No	No

MBS( "Updater.UpdateInProgress" )

**Result** Returns 1, 0 or error.

### Description

Created 29th September 2016, last changed 29th September 2016.





# Chapter 175

## URLScheme

Handle URL schemes in your Mac runtime.

### 175.1 URLScheme.GetDefaultHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
175 URLScheme	3.0	Yes	Yes	Yes	No	No

MBS( "URLScheme.GetDefaultHandler"; scheme )

#### Parameters

##### **scheme**

The schema name.

"http", "https", "mailto" or something else

**Result** Returns handler.

#### Description

On Mac returns the bundle id. e.g. com.fetchsoftworks.Fetch for Fetch.app.

On Windows returns command line for launching target app. e.g. '"C:\Program Files\Internet Explorer\iexplore.exe" % 1'

#### Examples

Query default email application:

```
MBS("URLScheme.GetDefaultHandler"; "mailto")
```

#### See also

- 175.3 URLScheme.SetDefaultHandler

8272

**Example Databases**

- [Query URL Scheme](#)

**175.1.1 Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr6](#)

Created 18th August 2014, last changed 22nd October 2018.

## 175.2 URLScheme.InstallURLEventHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
175 URLScheme	2.0	Yes	No	No	No	No

MBS( "URLScheme.InstallURLEventHandler"; FileName; ScriptName )

(old name: InstallURLEventHandler)

### Parameters

#### FileName

The name of the FileMaker File that contains the script

#### ScriptName

The name of the script to run

**Result** Returns OK or an error message.

### Description

Using this event you can register your application as the handler for an URL schema and get the URL if the user clicks a link for your schemas.

This function is only useful in a locked FileMaker solution. Please check the Readme in the examples for more details.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Installs a script:

```
MBS("URLScheme.InstallURLEventHandler"; "MyDatabase.fp7"; "MyURLScript")
```

### 175.2.1 Blog Entries

- [Redirect fmp URL scheme for runtimes](#)
- [MBS Filemaker Plugin, version 3.0pr6](#)

Created 18th August 2014, last changed 18th April 2016.

### 175.3 URLScheme.SetDefaultHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
175 URLScheme	2.0	Yes	Yes	No	No	No

MBS( "URLScheme.SetDefaultHandler"; scheme { ; bundleID } )

(old name: SetDefaultHandlerForURLScheme)

#### Parameters

##### scheme

The schema name.

"http", "https", "mailto" or something else

##### bundleID

Optional

Available in MBS FileMaker Plugin 7.5 or newer.

The bundle ID for the application. If empty, we use the one of the current application.

**Result** Returns OK or an error message on failure.

#### Description

It's probably best to ask the user's permission before changing their default browser!

With plugin version 5.3 this works on Windows if FileMaker or runtime is launched as admin. Still that may not help much as when FileMaker is launched with URL, it shows an error message.

#### Examples

Set runtime to be default email application:

```
MBS("URLScheme.SetDefaultHandler"; "mailto")
```

Register URL scheme for runtime:

```
If [ MBS("IsMacOSX") and MBS("IsRuntime") ]
# make us the default app for FMP URL scheme
Set Variable [ $vorher; Value:MBS( "URLScheme.GetDefaultHandler"; "fmp" ) ]
Set Variable [ $setResult; Value:MBS( "URLScheme.SetDefaultHandler"; "fmp" ) ]
Set Variable [ $r; Value:MBS( "URLScheme.GetDefaultHandler"; "fmp" ) ]

# okay or failure?
If [ $r "com.filemaker.client.runtime12.Test" ]
# Register by using lsregister tool on command line
Set Variable [ $r; Value:MBS( "RunTask.NewTask" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetLaunchPath"; "/System/Library/Frameworks/CoreServices.framework/Versions/A/Frameworks/LaunchServices.framework/Versions/A/Support/lsregister" ) ]
Set Variable [ $path; Value:MBS( "App.GetProcessPath" ) ]
Set Variable [ $r; Value:MBS( "RunTask.SetArguments"; "-f"; $path /*"/Applications/Test/Test.app" */ ) ]
```

```

Set Variable [ $r; Value:MBS( "RunTask.Launch" ) ]
# wait until finished
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS("RunTask.IsRunning") = 1 ]
End Loop
# Check again
Set Variable [ $setResult; Value:MBS( "URLScheme.SetDefaultHandler"; "fmp" ) ]
Set Variable [ $r; Value:MBS( "URLScheme.GetDefaultHandler"; "fmp" ) ]
End If
End If

```

Select this FileMaker Pro to receive fmp URLs:

```
MBS("URLScheme.SetDefaultHandler"; "fmp")
```

Set fmp handler to FMP Advanced:

```
MBS( "URLScheme.SetDefaultHandler"; "fmp"; "com.filemaker.client.advanced12")
```

#### See also

- 35.8 App.GetProcessPath 928
- 127.14 IsRuntime 6385
- 142.7 RunTask.IsRunning 6876
- 142.8 RunTask.Launch 6877
- 142.9 RunTask.NewTask 6880
- 142.13 RunTask.SetArguments 6885
- 142.15 RunTask.SetLaunchPath 6889
- 175.1 URLScheme.GetDefaultHandler 8269

#### 175.3.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)
- [MBS FileMaker Plugin, version 5.3pr3](#)
- [MBS Filemaker Plugin, version 3.0pr6](#)

Created 18th August 2014, last changed 22nd October 2018.



# Chapter 176

## USB

Query USB devices.

### 176.1 USB.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.Count" )

**Result** The number of devices found.

#### Description

This function must be called before all the other USB functions to initialize the plugin and to refresh the USB device list.

#### Examples

Query number of devices

MBS( "USB.Count" )

#### See also

- 176.2 USB.FindDevice 8277
- 176.3 USB.FindSerialNumber 8278
- 176.4 USB.GetProductID 8279
- 176.5 USB.GetProductName 8280
- 176.6 USB.GetSerialNumber 8281

- 176.7 USB.GetVendorID 8282
- 176.8 USB.GetVendorName 8283

**Example Databases**

- [USB Devices](#)

Created 18th August 2014, last changed 18th August 2014.



## 176.2 USB.FindDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.FindDevice"; VendorID; ProductID )

### Parameters

#### VendorID

The vendor ID of the device to find. Typically a number between 1 and 65535.  
1452

#### ProductID

The product ID of the device. Typically a number between 1 and 65535.  
545

**Result** The index of the device in our USB device list.

### Description

Please call USB.Count before you use this function. Pass IDs for vendor and product. e.g. Apple has vendor ID 1452 (hex 05ac). An Apple keyboard can have a product ID of 545 (hex 0221). Please note that product and vendor IDs are shown usually as hexadecimal values.

### Examples

Find a device and query it's product name:

```
$count = MBS( "USB.Count" )
$index = MBS( "USB.FindDevice"; $VendorID; $ProductID )
$name = MBS( "USB.GetProductName"; $index )
```

### See also

- 176.1 USB.Count 8275
- 176.5 USB.GetProductName 8280

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 18th August 2014.

## 176.3 USB.FindSerialNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.FindSerialNumber"; serialNumber )

### Parameters

#### serialNumber

The serial number to search for.

"8JA4A2X4UECLJA12"

**Result** The index of the device found.

### Description

Please call USB.Count before you use this function.

### See also

- 176.1 USB.Count 8275
- 176.6 USB.GetSerialNumber 8281

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 18th August 2014.

## 176.4 USB.GetProductID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.GetProductID"; index )

### Parameters

#### index

The index in the USB device table.

0

**Result** The product ID, e.g. 772.

### Description

Please call USB.Count before you use this function.

### See also

- 176.1 USB.Count 8275
- 176.5 USB.GetProductName 8280

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 18th August 2014.

## 176.5 USB.GetProductName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.GetProductName"; index )

### Parameters

#### index

The index in the USB device table.

0

**Result** The product name, e.g. "Apple Keyboard".

### Description

Please call USB.Count before you use this function.

### Examples

Query name of first USB device:

MBS( "USB.GetProductName"; 0 )

### See also

- 176.1 USB.Count 8275
- 176.2 USB.FindDevice 8277
- 176.4 USB.GetProductID 8279

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 17th May 2016.

**176.6 USB.GetSerialNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.GetSerialNumber"; index )

**Parameters****index**

The index in the USB device table.

0

**Result** The serial number, e.g. "J678234".

**Description**

Please call USB.Count before you use this function.

**Examples**

Query serial of first USB device:

MBS( "USB.GetSerialNumber"; 0 )

**See also**

- 176.1 USB.Count 8275
- 176.3 USB.FindSerialNumber 8278

**Example Databases**

- [USB Devices](#)

Created 18th August 2014, last changed 17th May 2016.

## 176.7 USB.GetVendorID

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.GetVendorID"; index )

### Parameters

#### index

The index in the USB device table.

0

**Result** The vendor ID, e.g. 1452.

### Description

Please call USB.Count before you use this function.

### Examples

Query vendor ID of first USB device:

MBS( "USB.GetVendorID"; 0 )

### See also

- 176.1 USB.Count 8275
- 176.8 USB.GetVendorName 8283

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 17th May 2016.

## 176.8 USB.GetVendorName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
176 USB	2.4	Yes	Yes	Yes	No	No

MBS( "USB.GetVendorName"; index )

### Parameters

#### index

The index in the USB device table.

0

**Result** The product name, e.g. "Apple, Inc".

### Description

Please call USB.Count before you use this function.

### Examples

Query vendor name of first device:

MBS( "USB.GetVendorName"; 0 )

### See also

- 176.1 USB.Count 8275
- 176.7 USB.GetVendorID 8282

### Example Databases

- [USB Devices](#)

Created 18th August 2014, last changed 17th May 2016.





# Chapter 177

## UserNotification

Show user notifications on Mac OS X 10.8 and Windows 8 or newer.

Added Windows notifications in plugin version 7.2. For newer MacOS development, please use UNNotification functions.

### 177.1 UserNotification.ClearDidActivateNotificationScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.ClearDidActivateNotificationScript" )

**Result** Returns "OK" on success.

#### Description

Basically the reverse of SetDidActivateNotificationScript.

#### Examples

Clears all handlers:

```
MBS( "UserNotification.ClearDidDeliverNotificationScript" )  
MBS( "UserNotification.ClearDidActivateNotificationScript" )
```

#### See also

- 177.2 UserNotification.ClearDidDeliverNotificationScript 8287
- 177.26 UserNotification.SetDidActivateNotificationScript 8311
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313



**177.2 UserNotification.ClearDidDeliverNotificationScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.ClearDidDeliverNotificationScript" )

**Result** Returns "OK" on success.

**Description**

Basically the reverse of SetDidDeliverNotificationScript.

**Examples**

Clears all handlers:

MBS( "UserNotification.ClearDidDeliverNotificationScript" )

MBS( "UserNotification.ClearDidActivateNotificationScript" )

**See also**

- 177.1 UserNotification.ClearDidActivateNotificationScript 8285
- 177.26 UserNotification.SetDidActivateNotificationScript 8311
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313

Created 18th August 2014, last changed 18th August 2014.

## 177.3 UserNotification.ContentImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.ContentImage"; UserNotificationReference { ; ImageType; Filename } )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image or error.

### Description

Requires Mac OS X 10.9.

### See also

- 177.23 UserNotification.SetContentImage

8308

Created 18th August 2014, last changed 18th August 2014.

## 177.4 UserNotification.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.Create" )

**Result** Returns new user notification reference number.

### Description

All UserNotification functions require Mac OS X 10.8.

This is for sending user notifications to the Mac your FileMaker solution runs on. Not for remote notifications or notifications to iOS devices.

### See also

- 177.18 UserNotification.GetTitle 8303
- 177.42 UserNotification.isRemote 8329
- 177.21 UserNotification.Release 8306
- 177.36 UserNotification.SetTitle 8323

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

### 177.4.1 Blog Entries

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 18th August 2014.

## 177.5 UserNotification.GetActionButtonTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetActionButtonTitle"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns text for button title.

### Description

See also UserNotification.SetActionButtonTitle

#### See also

- 177.6 UserNotification.GetActivationType 8291
- 177.13 UserNotification.GetOtherButtonTitle 8298
- 177.40 UserNotification.hasActionButton 8327
- 177.22 UserNotification.SetActionButtonTitle 8307
- 177.28 UserNotification.SetHasActionButton 8315
- 177.32 UserNotification.SetOtherButtonTitle 8319

Created 18th August 2014, last changed 18th August 2014.

## 177.6 UserNotification.GetActivationType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetActivationType"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns activation state.

### Description

Returns values like "none", "ContentsClicked" or "ActionButtonClicked".

### See also

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.22 UserNotification.SetActionButtonTitle 8307

Created 18th August 2014, last changed 18th August 2014.

## 177.7 UserNotification.GetActualDeliveryDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetActualDeliveryDate"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns timestamp value.

### Description

The date at which this notification was actually delivered. The notification center will set this value if a notification is put in the scheduled list and the delivery time arrives. If the notification is delivered directly using the UserNotification.deliverNotification function, this value will be set to the deliveryDate value (unless deliveryDate is not defined, in which case this value is set to the current date). This value is used to sort the list of notifications in the user interface.

### See also

- 177.38 UserNotification.deliverNotification 8325
- 177.8 UserNotification.GetDeliveryDate 8293
- 177.24 UserNotification.SetDeliveryDate 8309

Created 18th August 2014, last changed 18th August 2014.



**177.8 UserNotification.GetDeliveryDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetDeliveryDate"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns timestamp value.

**Description**

See also UserNotification.SetDeliveryDate

**See also**

- 177.7 UserNotification.GetActualDeliveryDate 8292
- 177.9 UserNotification.GetDeliveryTimeZone 8294
- 177.24 UserNotification.SetDeliveryDate 8309
- 177.25 UserNotification.SetDeliveryTimeZone 8310

Created 18th August 2014, last changed 18th August 2014.

## 177.9 UserNotification.GetDeliveryTimeZone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetDeliveryTimeZone"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns time zone name.

### Description

See also UserNotification.SetDeliveryTimeZone

#### See also

- 177.8 UserNotification.GetDeliveryDate 8293
- 177.24 UserNotification.SetDeliveryDate 8309
- 177.25 UserNotification.SetDeliveryTimeZone 8310

Created 18th August 2014, last changed 18th August 2014.

**177.10 UserNotification.GetDescription**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetDescription"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns description text.

**Description**

This is an information text to show content to developer, not to end user.

**See also**

- 173.11 UNNotification.GetDescription 8204
- 177.14 UserNotification.GetResponse 8299
- 177.19 UserNotification.GetUserInfo 8304

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

**177.10.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.8pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 177.11 UserNotification.GetIdentifier

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.GetIdentifier"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns identifier or error.

### Description

A notification delivered with the same identifier as an existing notification will replace that notification, rather than display a new one.

Requires Mac OS X 10.9.

### See also

- 173.12 UNNotification.Identifier 8205
- 173.46 UNNotification.ThreadIdentifier 8250
- 177.14 UserNotification.GetResponse 8299
- 177.16 UserNotification.GetSoundName 8301
- 177.17 UserNotification.GetSubTitle 8302
- 177.19 UserNotification.GetUserInfo 8304
- 177.30 UserNotification.SetIdentifier 8317

Created 18th August 2014, last changed 18th August 2014.

## 177.12 UserNotification.GetInformativeText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetInformativeText"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns text or error.

### Description

See also UserNotification.SetInformativeText

#### See also

- 177.31 UserNotification.SetInformativeText

8318

Created 18th August 2014, last changed 18th August 2014.

## 177.13 UserNotification.GetOtherButtonTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetOtherButtonTitle"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns the other button's caption.

### Description

See also UserNotification.SetOtherButtonTitle

#### See also

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.22 UserNotification.SetActionButtonTitle 8307
- 177.32 UserNotification.SetOtherButtonTitle 8319

Created 18th August 2014, last changed 18th August 2014.

**177.14 UserNotification.GetResponse**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.GetResponse"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns text or error.

**Description**

When a notification has been responded to, the didActivateNotification script will be called with the notification with the activationType set to Replied and the response set on the response property

Requires Mac OS X 10.9.

**See also**

- 177.11 UserNotification.GetIdentifier 8296
- 177.16 UserNotification.GetSoundName 8301
- 177.17 UserNotification.GetSubTitle 8302
- 177.18 UserNotification.GetTitle 8303
- 177.19 UserNotification.GetUserInfo 8304
- 177.41 UserNotification.isPresented 8328
- 177.42 UserNotification.isRemote 8329
- 177.21 UserNotification.Release 8306
- 177.35 UserNotification.SetSubTitle 8322
- 177.37 UserNotification.SetUserInfo 8324

Created 18th August 2014, last changed 18th August 2014.

## 177.15 UserNotification.GetResponsePlaceholder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.GetResponsePlaceholder"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns text or error.

### Description

Requires Mac OS X 10.9.

### See also

- 177.33 UserNotification.SetResponsePlaceholder

8320

Created 18th August 2014, last changed 18th August 2014.



## 177.16 UserNotification.GetSoundName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetSoundName"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns sound name.

### Description

See also UserNotification.SetSoundName

#### See also

- 177.11 UserNotification.GetIdentifier 8296
- 177.14 UserNotification.GetResponse 8299
- 177.17 UserNotification.GetSubTitle 8302
- 177.34 UserNotification.SetSoundName 8321
- 177.35 UserNotification.SetSubTitle 8322

Created 18th August 2014, last changed 18th August 2014.

**177.17 UserNotification.GetSubTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetSubTitle"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns sub title text.

**Description**

See also UserNotification.SetSubTitle

**See also**

- 173.41 UNNotification.SetSubTitle 8243
- 173.45 UNNotification.SubTitle 8249
- 177.11 UserNotification.GetIdentifier 8296
- 177.14 UserNotification.GetResponse 8299
- 177.16 UserNotification.GetSoundName 8301
- 177.18 UserNotification.GetTitle 8303
- 177.19 UserNotification.GetUserInfo 8304
- 177.34 UserNotification.SetSoundName 8321
- 177.35 UserNotification.SetSubTitle 8322
- 177.36 UserNotification.SetTitle 8323

Created 18th August 2014, last changed 18th August 2014.

**177.18 UserNotification.GetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetTitle"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns title text.

**Description**

See also UserNotification.SetTitle

**See also**

- 173.41 UNNotification.SetSubTitle 8243
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 177.4 UserNotification.Create 8289
- 177.14 UserNotification.GetResponse 8299
- 177.17 UserNotification.GetSubTitle 8302
- 177.42 UserNotification.isRemote 8329
- 177.21 UserNotification.Release 8306
- 177.35 UserNotification.SetSubTitle 8322
- 177.36 UserNotification.SetTitle 8323

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.

**177.19 UserNotification.GetUserInfo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.GetUserInfo"; UserNotificationReference; Key )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Key**

The key for the entry.

"RecordID"

**Result** Returns value or error.

**Description**

Here you can query the data you included in the notification using SetUserInfo.

See also UserNotification.SetUserInfo

**See also**

- 173.2 UNNotification.AddUserInfo 8195
- 177.10 UserNotification.GetDescription 8295
- 177.11 UserNotification.GetIdentifier 8296
- 177.14 UserNotification.GetResponse 8299
- 177.17 UserNotification.GetSubTitle 8302
- 177.26 UserNotification.SetDidActivateNotificationScript 8311
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313
- 177.37 UserNotification.SetUserInfo 8324

Created 18th August 2014, last changed 18th August 2014.

**177.20 UserNotification.HasReplyButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.HasReplyButton"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns value or error.

**Description**

The default value is false. If both this and hasActionButton are true, the reply button will be shown.

Requires Mac OS X 10.9.

Returns 1 if reply button exists or 0 if not.

**See also**

- 177.40 UserNotification.hasActionButton 8327
- 177.28 UserNotification.SetHasActionButton 8315
- 177.29 UserNotification.SetHasReplyButton 8316

Created 18th August 2014, last changed 18th August 2014.

## 177.21 UserNotification.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.Release"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns "OK" on success.

### Description

It is recommended that you release references which you do no longer need to reduce memory usage.

### See also

- 173.20 UNNotification.Release 8216
- 173.21 UNNotification.ReleaseAll 8217
- 173.28 UNNotification.Repeats 8224
- 177.4 UserNotification.Create 8289
- 177.14 UserNotification.GetResponse 8299
- 177.18 UserNotification.GetTitle 8303
- 177.42 UserNotification.isRemote 8329
- 177.36 UserNotification.SetTitle 8323
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860

### 177.21.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr4](#)
- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 18th August 2014.

**177.22 UserNotification.SetActionButtonTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetActionButtonTitle"; UserNotificationReference; Text )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Text**

The new button title.

"Click me"

**Result** Returns "OK" on success.

**Description**

Must be localized as it will be presented to the user. String will be truncated to a length appropriate for display.

See also UserNotification.GetActionButtonTitle

**See also**

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.6 UserNotification.GetActivationType 8291
- 177.13 UserNotification.GetOtherButtonTitle 8298
- 177.40 UserNotification.hasActionButton 8327
- 177.28 UserNotification.SetHasActionButton 8315
- 177.32 UserNotification.SetOtherButtonTitle 8319

**Example Databases**

- [Mac and iOS/UNNotification](#)
- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.

## 177.23 UserNotification.SetContentImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.SetContentImage"; UserNotificationReference; Image )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Image

the new image as container value. Can be JPEG, PNG or other formats supported by Mac OS X.

\$image

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9.

### See also

- 177.3 UserNotification.ContentImage 8288
- 177.34 UserNotification.SetSoundName 8321

Created 18th August 2014, last changed 18th August 2014.



## 177.24 UserNotification.SetDeliveryDate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetDeliveryDate"; UserNotificationReference; TimeStamp )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### TimeStamp

The time stamp for the date and time to use for delivery.

### Description

Specifies when (in an absolute time) the notification should be delivered. After a notification is delivered, it may be presented to the user.

See also UserNotification.GetDeliveryDate

### See also

- [177.7 UserNotification.GetActualDeliveryDate](#) 8292
- [177.8 UserNotification.GetDeliveryDate](#) 8293
- [177.9 UserNotification.GetDeliveryTimeZone](#) 8294
- [177.25 UserNotification.SetDeliveryTimeZone](#) 8310

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

### 177.24.1 Blog Entries

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 6th September 2019.

## 177.25 UserNotification.SetDeliveryTimeZone

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetDeliveryTimeZone"; UserNotificationReference; Name )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Name

The name of the time zone.

"Central Standard Time"

**Result** Returns "OK" on success.

### Description

If this value is nil and the user switches time zones, the notification center will adjust the time of presentation to account for the time zone change. If a notification should be delivered at a time in a specific time zone (regardless if the user switches time zones), set this value to that time zone. One common value may be the current time zone.

See also UserNotification.GetDeliveryTimeZone

### See also

- 177.8 UserNotification.GetDeliveryDate 8293
- 177.9 UserNotification.GetDeliveryTimeZone 8294
- 177.24 UserNotification.SetDeliveryDate 8309

Created 18th August 2014, last changed 18th August 2014.

**177.26 UserNotification.SetDidActivateNotificationScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetDidActivateNotificationScript"; FileName; ScriptName )

**Parameters****FileName**

The name of the FileMaker File that contains the script.

Get ( FileName )

**ScriptName**

The name of the script to run

"NotificationActivatedScript"

**Result** Returns "OK" on success.

**Description**

Specify a filename and script name to have this script being called when a notification has been activated. This gives you the possibility to react to the notification activation.

The script parameter will be the notification reference.

See also UserNotification.ClearDidActivateNotificationScript

You can use UserNotification.SetUserInfo to pass individual data like record IDs with notification and later query it with UserNotification.GetUserInfo function.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**Examples**

Registers drag action handler:

MBS( "UserNotification.SetDidActivateNotificationScript"; Get ( FileName ); "NotificationActivatedScript"

**See also**

- 177.1 UserNotification.ClearDidActivateNotificationScript 8285
- 177.2 UserNotification.ClearDidDeliverNotificationScript 8287
- 177.19 UserNotification.GetUserInfo 8304
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313
- 177.37 UserNotification.SetUserInfo 8324

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 6th September 2019.

**177.27 UserNotification.SetDidDeliverNotificationScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetDidDeliverNotificationScript"; FileName; ScriptName )

**Parameters****FileName**

The name of the FileMaker File that contains the script.

Get ( FileName )

**ScriptName**

The name of the script to run

"NotificationDeliveredScript"

**Result** Returns "OK" on success.

**Description**

Specify a filename and script name to have this script being called when a notification has been delivered.

This gives you the possibility to react to the notification delivery.

The script parameter will be the notification reference.

See also UserNotification.ClearDidDeliverNotificationScript

You can use UserNotification.SetUserInfo to pass individual data like record IDs with notification and later query it with UserNotification.GetUserInfo function.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**Examples**

Registers drag action handler:

MBS( "UserNotification.SetDidDeliverNotificationScript"; Get ( FileName ) ; "NotificationDeliveredScript" )

**See also**

- 177.1 UserNotification.ClearDidActivateNotificationScript 8285
- 177.2 UserNotification.ClearDidDeliverNotificationScript 8287
- 177.19 UserNotification.GetUserInfo 8304
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.26 UserNotification.SetDidActivateNotificationScript 8311
- 177.37 UserNotification.SetUserInfo 8324

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 6th September 2019.

**177.28 UserNotification.SetHasActionButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetHasActionButton"; UserNotificationReference; Value )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Value**

The new action button state.

1

**Result** Returns "OK" on success.

**Description**

Set to 0 if the notification has no action button. This will be the case for notifications that are purely for informational purposes and have no user action. The default value is 1.

**See also**

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.40 UserNotification.hasActionButton 8327
- 177.20 UserNotification.HasReplyButton 8305
- 177.22 UserNotification.SetActionButtonTitle 8307
- 177.29 UserNotification.SetHasReplyButton 8316

**Example Databases**

- [Mac and iOS/UNNotification](#)
- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.

**177.29 UserNotification.SetHasReplyButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.SetHasReplyButton"; UserNotificationReference; value )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**value**

The new setting. Can be 0 to disable or 1 to enable.

1

**Result** Returns OK or error.

**Description**

The default value is false. If both this and hasActionButton are true, the reply button will be shown. Requires Mac OS X 10.9.

**See also**

- 177.20 UserNotification.HasReplyButton 8305
- 177.28 UserNotification.SetHasActionButton 8315

Created 18th August 2014, last changed 18th August 2014.



**177.30 UserNotification.SetIdentifier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.SetIdentifier"; UserNotificationReference; Identifier )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Identifier**

The new identifier.

"id1234"

**Result** Returns OK or error.

**Description**

A notification delivered with the same identifier as an existing notification will replace that notification, rather than display a new one.

Requires Mac OS X 10.9.

**See also**

- 173.12 UNNotification.Identifier 8205
- 173.46 UNNotification.ThreadIdentifier 8250
- 177.11 UserNotification.GetIdentifier 8296
- 177.34 UserNotification.SetSoundName 8321
- 177.35 UserNotification.SetSubTitle 8322
- 177.37 UserNotification.SetUserInfo 8324

Created 18th August 2014, last changed 18th August 2014.

## 177.31 UserNotification.SetInformativeText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetInformativeText"; UserNotificationReference; Text )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Text

The new notification body text.

\$text

**Result** Returns "OK" on success.

### Description

Must be localized as it will be presented to the user. String will be truncated to a length appropriate for display.

See also UserNotification.GetInformativeText

### See also

- [177.12 UserNotification.GetInformativeText](#) 8297

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

#### 177.31.1 Blog Entries

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 18th August 2014.

**177.32 UserNotification.SetOtherButtonTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetOtherButtonTitle"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns "OK" on success.

**Description**

An empty string will cause the default localized text to be used.

See also UserNotification.GetOtherButtonTitle

**See also**

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.13 UserNotification.GetOtherButtonTitle 8298
- 177.22 UserNotification.SetActionButtonTitle 8307

Created 18th August 2014, last changed 18th August 2014.

## 177.33 UserNotification.SetResponsePlaceholder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	3.5	Yes	No	No	No	No

MBS( "UserNotification.SetResponsePlaceholder"; UserNotificationReference; Text )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Text

The new placeholder text.

"Type here"

**Result** Returns OK or error.

### Description

Requires Mac OS X 10.9.

### See also

- 177.15 UserNotification.GetResponsePlaceholder

8300

Created 18th August 2014, last changed 18th August 2014.

**177.34 UserNotification.SetSoundName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetSoundName"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns "OK" on success.

**Description**

The name of the sound file in the resources of the application bundle to play when the notification is delivered. "DefaultSoundName" can be used to play the default Notification Center sound. A value of "" means no sound.

See also UserNotification.GetSoundName

**See also**

- 177.16 UserNotification.GetSoundName 8301
- 177.17 UserNotification.GetSubTitle 8302
- 177.23 UserNotification.SetContentImage 8308
- 177.30 UserNotification.SetIdentifier 8317
- 177.35 UserNotification.SetSubTitle 8322

Created 18th August 2014, last changed 18th August 2014.

## 177.35 UserNotification.SetSubTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetSubTitle"; UserNotificationReference; Text )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Text

The new subtitle for the notification.

"Hello World"

### Description

Must be localized as it will be presented to the user. String will be truncated to a length appropriate for display.

See also UserNotification.GetSubTitle

### See also

- 173.41 UNNotification.SetSubTitle 8243
- 173.45 UNNotification.SubTitle 8249
- 177.14 UserNotification.GetResponse 8299
- 177.16 UserNotification.GetSoundName 8301
- 177.17 UserNotification.GetSubTitle 8302
- 177.18 UserNotification.GetTitle 8303
- 177.30 UserNotification.SetIdentifier 8317
- 177.34 UserNotification.SetSoundName 8321
- 177.36 UserNotification.SetTitle 8323
- 177.37 UserNotification.SetUserInfo 8324

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

#### 177.35.1 Blog Entries

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 18th August 2014.

**177.36 UserNotification.SetTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetTitle"; UserNotificationReference; Text )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Text**

The new title for the notification.

"Hello World"

**Result** Returns "OK" on success.

**Description**

Must be localized as it will be presented to the user. String will be truncated to a length appropriate for display.

See also UserNotification.GetTitle

**See also**

- 173.41 UNNotification.SetSubTitle 8243
- 173.44 UNNotification.SetTitle 8247
- 173.45 UNNotification.SubTitle 8249
- 177.4 UserNotification.Create 8289
- 177.17 UserNotification.GetSubTitle 8302
- 177.18 UserNotification.GetTitle 8303
- 177.42 UserNotification.isRemote 8329
- 177.21 UserNotification.Release 8306
- 177.35 UserNotification.SetSubTitle 8322

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

**177.36.1 Blog Entries**

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 18th August 2014.

## 177.37 UserNotification.SetUserInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.SetUserInfo"; UserNotificationReference; Key; Value )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

#### Key

The key for the new entry.

"RecordID"

#### Value

The value for the new entry.

\$RecordID

**Result** Returns "OK" on success.

### Description

You can store several text values with different keys.

The userInfo should be of reasonable serialized size (less than 1k) or an exception will be thrown.

This way you can pass details to the activation/deliver scripts.

See also UserNotification.GetUserInfo

### See also

- 173.2 UNNotification.AddUserInfo 8195
- 177.14 UserNotification.GetResponse 8299
- 177.19 UserNotification.GetUserInfo 8304
- 177.26 UserNotification.SetDidActivateNotificationScript 8311
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313
- 177.30 UserNotification.SetIdentifier 8317
- 177.35 UserNotification.SetSubTitle 8322

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.



**177.38 UserNotification.deliverNotification**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.deliverNotification"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns "OK" on success.

**Description**

It will be presented to the user (subject to user preferences). UserNotification.isPresented will always return 1 if a notification is delivered using this method.

If notification is not showing, please check system preferences to see whether FileMaker is allowed to post notifications and what types are allowed. e.g. with action or not. Notification by default do not show while a keynote presentation is running as OS X delays them.

**See also**

- 173.10 UNNotification.DeliveredNotifications 8203
- 177.39 UserNotification.deliveredNotifications 8326
- 177.7 UserNotification.GetActualDeliveryDate 8292
- 177.41 UserNotification.isPresented 8328
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.48 UserNotification.scheduledNotifications 8335
- 177.47 UserNotification.scheduleNotification 8334

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 21st December 2015.

## 177.39 UserNotification.deliveredNotifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.deliveredNotifications" )

**Result** Returns reference values.

### Description

Get a list of notification references that have been delivered to the Notification Center. The number of notifications the user actually sees in the user interface may be less than the size of this array. Note that these may or may not have been actually presented to the user (see UserNotification.isPresented).

### See also

- 173.10 UNNotification.DeliveredNotifications 8203
- 177.38 UserNotification.deliverNotification 8325
- 177.41 UserNotification.isPresented 8328
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.48 UserNotification.scheduledNotifications 8335
- 177.47 UserNotification.scheduleNotification 8334

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.

**177.40 UserNotification.hasActionButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.hasActionButton"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns 0 or 1.

**Description****See also**

- 177.5 UserNotification.GetActionButtonTitle 8290
- 177.20 UserNotification.HasReplyButton 8305
- 177.22 UserNotification.SetActionButtonTitle 8307
- 177.28 UserNotification.SetHasActionButton 8315

Created 18th August 2014, last changed 18th August 2014.

## 177.41 UserNotification.isPresented

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.isPresented"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns 0 or 1 or error.

### Description

In some cases, e.g. when your application is frontmost, the notification center may decide not to actually present a delivered notification. In that case, the value of this property will be 0. It will be set to 1 if the notification was presented according to user preferences (note: this can mean no dialog, animation, or sound, if the user has turned off notifications completely for your application).

### See also

- 177.39 UserNotification.deliveredNotifications 8326
- 177.38 UserNotification.deliverNotification 8325
- 177.14 UserNotification.GetResponse 8299
- 177.42 UserNotification.isRemote 8329

Created 18th August 2014, last changed 18th August 2014.

**177.42 UserNotification.isRemote**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.isRemote"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns 1 if the user notification is from a remote (push) notification.

**Description**

With FileMaker 11 or newer there is no way to receive push notifications as FileMaker is not in the app store.

**See also**

- 177.4 UserNotification.Create 8289
- 177.14 UserNotification.GetResponse 8299
- 177.18 UserNotification.GetTitle 8303
- 177.41 UserNotification.isPresented 8328
- 177.21 UserNotification.Release 8306
- 177.36 UserNotification.SetTitle 8323

Created 18th August 2014, last changed 28th April 2016.

**177.43 UserNotification.removeAllDeliveredNotifications**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.removeAllDeliveredNotifications" )

**Result** Returns "OK" on success.

**Description****See also**

- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220
- 177.39 UserNotification.deliveredNotifications 8326
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.46 UserNotification.removeScheduledNotification 8333

Created 18th August 2014, last changed 18th August 2014.

**177.44 UserNotification.removeAllScheduledNotifications**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	9.2	Yes	No	No	No	No

MBS( "UserNotification.removeAllScheduledNotifications" )

**Result** Returns OK or error.

**Description****See also**

- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.48 UserNotification.scheduledNotifications 8335

**177.44.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.2pr3](#)

Created 16th April 2019, last changed 16th April 2019.

## 177.45 UserNotification.removeDeliveredNotification

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.removeDeliveredNotification"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns "OK" on success.

### Description

If the notification is not in the delivered list, nothing happens.

### See also

- 173.10 UNNotification.DeliveredNotifications 8203
- 173.24 UNNotification.RemoveAllDeliveredNotifications 8220
- 177.39 UserNotification.deliveredNotifications 8326
- 177.38 UserNotification.deliverNotification 8325
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.27 UserNotification.SetDidDeliverNotificationScript 8313

Created 18th August 2014, last changed 18th August 2014.



**177.46 UserNotification.removeScheduledNotification**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.removeScheduledNotification"; UserNotificationReference )

**Parameters****UserNotificationReference**

An user notification reference.

\$ref

**Result** Returns "OK" on success.

**Description**

If the deliveryDate occurs before the cancellation finishes, the notification may still be delivered. If the notification is not in the scheduled list, nothing happens.

**See also**

- 177.39 UserNotification.deliveredNotifications 8326
- 177.43 UserNotification.removeAllDeliveredNotifications 8330
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.45 UserNotification.removeDeliveredNotification 8332
- 177.48 UserNotification.scheduledNotifications 8335
- 177.47 UserNotification.scheduleNotification 8334

Created 18th August 2014, last changed 18th August 2014.

## 177.47 UserNotification.scheduleNotification

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.scheduleNotification"; UserNotificationReference )

### Parameters

#### UserNotificationReference

An user notification reference.

\$ref

**Result** Returns "OK" on success.

### Description

If notification is not showing, please check system preferences to see whether FileMaker is allowed to post notifications and what types are allowed. e.g. with action or not. Notification by default do not show while a keynote presentation is running as OS X delays them.

### See also

- 177.39 UserNotification.deliveredNotifications 8326
- 177.38 UserNotification.deliverNotification 8325
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.48 UserNotification.scheduledNotifications 8335

### Example Databases

- [Mac only/User Notifications/UserNotification](#)

### 177.47.1 Blog Entries

- [Mac OS X 10.8 User Notifications with Filemaker and Real Studio](#)

Created 18th August 2014, last changed 21st December 2015.

**177.48 UserNotification.scheduledNotifications**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
177 UserNotification	2.8	Yes	No	No	No	No

MBS( "UserNotification.scheduledNotifications" )

**Result** Returns reference values.

**Description**

Get a list of notifications that are scheduled but have not yet been presented. Newly scheduled notifications are added to the end of the array.

**See also**

- 173.10 UNNotification.DeliveredNotifications 8203
- 177.39 UserNotification.deliveredNotifications 8326
- 177.38 UserNotification.deliverNotification 8325
- 177.44 UserNotification.removeAllScheduledNotifications 8331
- 177.46 UserNotification.removeScheduledNotification 8333
- 177.47 UserNotification.scheduleNotification 8334

**Example Databases**

- [Mac only/User Notifications/UserNotification](#)

Created 18th August 2014, last changed 18th August 2014.

## 177.49 WindowsUserNotification.Available

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Available" )

**Result** Returns 1 or 0.

### Description

Returns 1 on Windows 8.1 and Windows 10 if all functions are available to show notifications.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

Created 2nd April 2017, last changed 24th May 2017.

**177.50 WindowsUserNotification.GetFileName**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetFileName"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns text or error.

**Description****See also**

- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 2nd April 2017, last changed 24th May 2017.

## 177.51 WindowsUserNotification.GetImagePath

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetImagePath"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

#### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 2nd April 2017, last changed 24th May 2017.

**177.52 WindowsUserNotification.GetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetScriptName"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns text or error.

**Description****See also**

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864

Created 2nd April 2017, last changed 24th May 2017.

## 177.53 WindowsUserNotification.GetText

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification 7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetText"; Notification; Index )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

#### Index

The index of the text. Range 0 to 3.  
0

**Result** Returns text or error.

### Description

#### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

Created 2nd April 2017, last changed 24th May 2017.



**177.54 WindowsUserNotification.HideNotification**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.HideNotification"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

**Description****Examples**

Hide notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.HideNotification"; Windows User Notifications::ID)
]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
```

**See also**

- [127.6 IsError](#) 6374
- [187.9 WindowsUserNotification.NewNotification](#) 8858
- [187.16 WindowsUserNotification.ShowNotification](#) 8868

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 177.55 WindowsUserNotification.Initialize

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification 7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Initialize"; AppName; Company; Name; Surname; VersionInfo )

### Parameters

#### AppName

The application name.

"FileMaker Pro"

#### Company

The company name. Used to build unique app id.

"Test"

#### Name

The name. Used to build unique app id.

#### Surname

The surname. Used to build unique app id.

#### VersionInfo

The version info. Used to build unique app id.

"1.0"

**Result** Returns OK or error.

### Description

Must be called once on startup of solution.

### Examples

Initialize:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.Initialize"; "FileMaker"; "Test"; "test"; "test"; "1.0" ) ]
```

```
Show Custom Dialog [ "Initialize"; $r ]
```

### See also

- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.5 WindowsUserNotification.GetText 8853
- 187.8 WindowsUserNotification.Isinitialized 8857
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862

<i>177.55. WINDOWSUSERNOTIFICATION.INITIALIZE</i>	8343
• 187.14 WindowsUserNotification.SetText	8865
• 187.15 WindowsUserNotification.Setting	8866

### **Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

**177.56 WindowsUserNotification.Isinitialized**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Isinitialized" )

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if initialization was done successfully.

**See also**

- 187.7 WindowsUserNotification.Initialize

8855

Created 3th April 2017, last changed 24th May 2017.

**177.57 WindowsUserNotification.NewNotification**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.NewNotification" )

**Result** Returns OK or error.

**Description**

Returns an identifier which must be passed to other functions and later to WindowsUserNotification.Release.

**Examples**

Create new notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.NewNotification" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ Windows User Notifications::ID; $r ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetImagePath"; Windows User Notifications::ID;
Windows User Notifications::ImagePath) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 0; Win-
dows User Notifications::Text1) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 1; Win-
dows User Notifications::Text2) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 2; Win-
dows User Notifications::Text3) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 3; Win-
dows User Notifications::Text4) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetScriptName"; Windows User Notifications::ID;
"Trigger") ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetFileName"; Windows User Notifications::ID;
Get(FileName)) ]
End If
```

**See also**

- 127.6 IsError 6374
- 177.21 UserNotification.Release 8306
- 187.6 WindowsUserNotification.HideNotification 8854
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863

- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.16 WindowsUserNotification.ShowNotification 8868

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

**177.58 WindowsUserNotification.Release**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Release"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

**Description**

This frees up memory used.

**Examples**

Free notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.Release"; Windows User Notifications::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
Set Field [ Windows User Notifications::ID; "" ]
```

**See also**

- 177.21 UserNotification.Release 8306
- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.15 WindowsUserNotification.Setting 8866

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.



**177.59 WindowsUserNotification.SetFileName**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.SetFileName"; Notification; Filename )

**Parameters****Notification**

The reference number for the Windows User Notification.

\$Notification

**Filename**

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

**Description**

The parameter to the script includes a list of values. First entry in the list is the notification reference number. Second entry is the reason to call which can be Activated, Dismissed or Failed. Third value is reason for demission or error code for failure.

**See also**

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 177.60 WindowsUserNotification.SetImagePath

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification	177 UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.SetImagePath"; Notification; Path )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### Path

Native file path for the image.

"C:\MyApp\test.png"

**Result** Returns OK or error.

### Description

May not be a network path as system needs to load it independent of your permissions.

Maybe better use image coming with application or put one in temp folder.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 17th August 2017.

**177.61 WindowsUserNotification.SetScriptName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.SetScriptName"; Notification; ScriptName )

**Parameters****Notification**

The reference number for the Windows User Notification.

\$Notification

**ScriptName**

The script name.

"MyScript"

**Result** Returns OK or error.

**Description**

The parameter to the script includes a list of values. First entry in the list is the notification reference number. Second entry is the reason to call which can be Activated, Dismissed or Failed. Third value is reason for demission or error code for failure.

**See also**

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 177.62 WindowsUserNotification.SetText

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker	
187	WindowsUserNotification	177	UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.SetText"; Notification; Index; Text )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### Index

The index of the text. Range 0 to 3.

0

#### Text

The text to use.

"Hello World"

**Result** Returns OK or error.

### Description

We can show up to three texts.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 3th January 2018.

**177.63 WindowsUserNotification.Setting**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	8.3	No	Yes	No	No	

MBS( "WindowsUserNotification.Setting" )

**Result** Returns value or error.

**Description**

Gets a value that tells you whether there is an app, user, or system block that prevents the display of a notification.

If allowed, you get back "Enabled" as setting.

When notifications have been disabled at more than one level, this property value reflects the setting with the largest scope. Precedence is as follows, from largest scope to smallest:

DisabledByManifest  
 DisabledByGroupPolicy  
 DisabledForUser  
 DisabledForApplication

If toast notifications have been disabled both by the user and by group policy, this property returns DisabledByGroupPolicy.

**See also**

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.17 WindowsUserNotification.XMLUsed 8869

### 177.63.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 22nd May 2018, last changed 8th July 2018.

**177.64 WindowsUserNotification.ShowNotification**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.ShowNotification"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

**Description****Examples**

Show notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.ShowNotification"; Windows User Notifications::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
```

**See also**

- [127.6 IsError](#) 6374
- [187.6 WindowsUserNotification.HideNotification](#) 8854
- [187.9 WindowsUserNotification.NewNotification](#) 8858

**Example Databases**

- [Win Only/Windows User Notifications](#)

**177.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 2nd April 2017, last changed 24th May 2017.

**177.65 WindowsUserNotification.XMLUsed**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.XMLUsed"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns xml text or error.

**Description**

For debugging only.

**See also**

- 187.1 WindowsUserNotification.Available 8849
- 187.5 WindowsUserNotification.GetText 8853
- 187.10 WindowsUserNotification.Release 8860
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 23th April 2017, last changed 24th May 2017.



# Chapter 178

## Utility

Various utility functions which do not fit in other categories.

### 178.1 CGPSCConverter.Convert

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.4	Yes	No	Yes, macOS only	No	No

```
MBS( "CGPSCConverter.Convert"; PSContainer { ; DontRenderPreview } )
```

#### Parameters

##### PSContainer

A container value with a postscript file data.

##### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** A container value with PDF data.

#### Description

#### Example Databases

- [Mac only/Convert Postscript to PDF](#)

#### 178.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr4](#)

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 2.6pr2](#)
- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr10](#)

### 178.1.2 FileMaker Magazin

- [Ausgabe 5/2011, Seite 55](#)

Created 18th August 2014, last changed 5th July 2015.

## 178.2 Email.Verify

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	3.3	Yes	Yes	Yes	Yes	Yes

MBS( "Email.Verify"; emailAddress; network )

### Parameters

#### emailAddress

The email address to check.

"hello@macsw.de"

#### network

Whether to check via DNS if domain is valid for email. Default is 0 for no check. Pass 1 to enable check.

0

**Result** Returns OK or error message.

### Description

Check syntax of email and optionally verifies if domain is registered for email delivery.

The network check may take a few seconds. While the function returns normally after a few milliseconds, the DNS server may not always be reachable and then the DNS query is sent several times.

You can send or receive emails with our CURL functions. For sending the SendMail functions help to build an email and send it, while EmailParser functions help to parse an email.

If you have a DNS server, which will redirect all mistyped domain names to a search website, this won't really work well and detect too many valid domain names.

Does not work for IDN domains, e.g. with umlauts. You need to transcode them to puny code yourself.

### Examples

Checks an Email:

```
MBS("Email.Verify"; "Hello@macsw.de"; 1)
```

### 178.2.1 Blog Entries

- [MBS FileMaker Plugin 3.3 for OS X/Windows - More than 1600 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 3.3pr3](#)

Created 18th August 2014, last changed 24th March 2020.

## 178.3 LCMS.ProfileInfo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "LCMS.ProfileInfo"; ProfileData; selector )

### Parameters

#### ProfileData

The container containing the ICC profile as file.

MyTable::ICCProfile

#### selector

Currently can be Name, Description, Copyright, Model, Manufacturer.

"Name"

**Result** Returns info or error.

### Description

The name field is dynamically build from Model, Manufacturer and/or Description.

### Examples

Shows various informations:

Show Custom Dialog [ "Info";

"Name: " & MBS("LCMS.PProfileInfo"; Drawing::ICCProfile; "Name") & \$&

"Model: " & MBS("LCMS.PProfileInfo"; Drawing::ICCProfile; "Model") & \$&

"Manufacturer: " & MBS("LCMS.PProfileInfo"; Drawing::ICCProfile; "Manufacturer") & \$&

"Description: " & MBS("LCMS.PProfileInfo"; Drawing::ICCProfile; "Description") & \$&

"Copyright: " & MBS("LCMS.PProfileInfo"; Drawing::ICCProfile; "Copyright") ]

### 178.3.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 18th August 2014.

## 178.4 Log

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.2	Yes	Yes	Yes	Yes	Yes

MBS( "Log"; Params )

### Parameters

#### Params

Several parameters which are concated.

"Test: ";\$test

### Description

On Mac use Console.app in the Application Utilities folder. On Windows use DebugView application from Microsoft.

On Windows with a FileMaker Server, you can see debug messages in DebugView if you run DebugView application as admin and enable global Win32 listening.

For FileMaker Server on Mac OS X you can see messages in /Library/FileMaker Server/Logs/stderr file.

### Examples

Log a message:

MBS( "Log"; "Test: "; \$test )

### See also

- 80.48 FM.MouseWheelScriptTrigger

4032

### 178.4.1 Blog Entries

- [Logging in FileMaker](#)

Created 18th August 2014, last changed 4th June 2015.

## 178.5 Modbus.CalculateRTUMessageCRC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Modbus.CalculateRTUMessageCRC"; message )

### Parameters

#### message

The modbus message.

"010600000021"

**Result** Returns the CRC as hex string.

### Description

### Examples

Calculate the CRC for two texts:

```
MBS("Modbus.CalculateRTUMessageCRC"; "010600000021")
```

```
MBS("Modbus.CalculateRTUMessageCRC"; "010400010001")
```

### 178.5.1 Blog Entries

- [MBS Filemaker Plugin, version 3.1pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 178.6 MouseCursor.Hide

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	7.5	Yes	Yes	No	No	No

MBS( "MouseCursor.Hide" )

**Result** Returns OK or error.

### Description

As FileMaker may reset the cursor to be visible when scripts end, you may not see the mouse actually hide.

### See also

- 178.7 MouseCursor.HideUntilMouseMoves 8364
- 178.8 MouseCursor.Set 8365
- 178.9 MouseCursor.Show 8368

Created 14th October 2017, last changed 14th October 2017.

## 178.7 MouseCursor.HideUntilMouseMoves

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	7.5	Yes	Yes	No	No	No

MBS( "MouseCursor.HideUntilMouseMoves" )

**Result** Returns OK or error.

### Description

Good for forms where mouse cursor is not needed and text input required.

### Examples

Hide mouse until it moves:

Set Variable [ \$r; Value: MBS( "MouseCursor.HideUntilMouseMoves" ) ]

### See also

- 178.6 MouseCursor.Hide

8363

### 178.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr2](#)

Created 14th October 2017, last changed 14th October 2017.



## 178.8 MouseCursor.Set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.6	Yes	Yes	Yes	No	No

MBS( "MouseCursor.Set"; CursorName )

### Parameters

#### CursorName

The name of cursor you'd like to set.

"openHand"

**Result** Returns "OK" or error message.

### Description

As FileMaker loves to reset the cursor, you can't use it only in places where FileMaker does not reset it. Like in a script without pauses.

Cursor names allowed on Mac OS X:

- arrow
- IBeam
- pointingHand
- closedHand
- openHand
- resizeLeft
- resizeRight
- resizeLeftRight
- resizeUp
- resizeDown
- resizeUpDown
- crosshair
- disappearingItem

With Mac OS X 10.6 and newer you can also use this cursors:

- operationNotAllowed

- dragLink
- dragCopy
- contextualMenu

Cursor names allowed on Windows:

- AppStarting
- Arrow
- IBeam
- Hand
- OpenHand
- resizeLeftRight
- resizeUpDown
- crosshair
- operationNotAllowed
- Help
- SizeNESW
- SizeNS
- SizeNWSE
- SizeWE
- SizeAll
- UpArrow
- Wait

### Examples

Set hand cursor:

```
MBS( "MouseCursor.Set"; "openHand" )
```

Set crosshair cursor:

```
MBS( "MouseCursor.Set"; "crosshair" )
```

**See also**

178.8. <i>MOUSECURSOR.SET</i>	8367
• 178.6 MouseCursor.Hide	8363
• 178.9 MouseCursor.Show	8368

### **Example Databases**

- [Utility functions/MouseCursors](#)

### **178.8.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.6pr3](#)

Created 18th August 2014, last changed 12nd August 2016.

## 178.9 MouseCursor.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	7.5	Yes	Yes	No	No	No

MBS( "MouseCursor.Show" )

**Result** Returns OK or error.

### Description

### See also

- 178.6 MouseCursor.Hide 8363
- 178.8 MouseCursor.Set 8365

Created 14th October 2017, last changed 14th October 2017.

## 178.10 MsgBox

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.2	Yes	Yes	Yes	Yes	Yes

MBS( "Msgbox"; Values )

### Parameters

#### Values

The values to show. You can put several values there  
"Hello World"

**Result** Returns OK.

### Description

#### Examples

Shows a message box:

```
MBS("Msgbox"; "The client "; $ClientName; " needs project "; $project; " done.")
```

### 178.10.1 Blog Entries

- [Trigger FileMaker Scripts from JavaScript in FileMaker without fmp URL](#)
- [Trigger FileMaker Scripts from JavaScript in FileMaker 16](#)

Created 18th August 2014, last changed 18th August 2014.

## 178.11 SendCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.0	Yes	Yes	Yes	Yes	Yes

MBS( "SendCommand"; Host; Port; Parameters )

### Parameters

#### Host

IP or domain name of the target computer.  
127.0.0.1

#### Port

Port number to use.  
9999

#### Parameters

Parameters to send.  
"RunScript"

**Result** Returns function result or an error message.

### Description

The result is parsed and a string returned as function result. Note that all plugin error messages start with " [ MBS ] ".

See the examples for a sample project and a detailed Readme on the data format.

Version 6.3 now supports passing IPv4, IPv6, or a host name.

### Examples

Sends a SQL select command:

```
MBS("SendCommand"; "127.0.0.1"; 9999; "SQLSelect"; "SELECT * FROM testTable")
```

### 178.11.1 Blog Entries

- [The annoyance of Non-public API usage message from App Store](#)
- [MBS FileMaker Plugin, version 8.3pr3](#)
- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 18th August 2014, last changed 22nd June 2016.

## 178.12 ShowURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	2.4	Yes	Yes	Yes	No	Yes

MBS( "ShowURL"; URL )

### Parameters

#### URL

The URL to open.

"http://www.filemaker.com/"

**Result** Returns "OK" on success.

### Description

Depending on URL the matching client will be launched and passed the URL. Similar to FileMaker's Open URL script step, but passes through all schema.

### Examples

Open MBS Website:

MBS("ShowURL"; "http://www.monkeybreadsoftware.com/filemaker/")

Open Mail client for sending email:

MBS("ShowURL"; "mailto:support@monkeybreadsoftware.de")

Trigger FaceTime call on MacOS using tel URL scheme::

MBS("ShowURL"; "tel:+0123456789")

Open Skype and call someone:

MBS("ShowURL"; "skype:UserName")

### 178.12.1 Blog Entries

- [New functions of the MBS Plugin Version 9.5](#)
- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)
- [Tipp of the day: showurl](#)

Created 18th August 2014, last changed 5th February 2020.

## 178.13 Time.Sleep

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	4.1	Yes	Yes	Yes	Yes	Yes

MBS( "Time.Sleep"; duration )

### Parameters

#### duration

Number of milliseconds to wait.

10

**Result** Returns OK or error.

### Description

You can use this to delay something on purpose. The while FileMaker Pro app is locked for the given time.

Pass 1000 for a one second delay.

This pauses execution of evaluation or a script.

Created 18th August 2014, last changed 15th March 2016.



## 178.14 Time.UnixTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
178 Utility	3.1	Yes	Yes	Yes	Yes	Yes

MBS( "Time.UnixTimeStamp" { ; timestamp } )

### Parameters

#### timestamp

Optional

Optional, a FileMaker timestamp to convert.

Get(SystemTimeStamp)

**Result** Returns time stamp as number.

### Description

If called with no parameters, returns current time stamp (GMT).

If you pass a timestamp, this timestamp is converted. Be aware that the system timezone is used.

Convert back to FileMaker with Time.UnixTimeStampToFileMaker function.

### Examples

Calc current time:

MBS( "Time.UnixTimeStamp"; Get(CurrentTimeStamp) )

Example result: 1481452626

### See also

- [62.390 CURL.SetupOAuth](#) 2365
- [169.5 Time.UnixTimeStampToFileMaker](#) 8063

### Example Databases

- [CURL/WebServices/Twitter OAuth](#)

#### 178.14.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr2](#)
- [MBS Filemaker Plugin, version 3.2pr7](#)

Created 18th August 2014, last changed 31st May 2018.



# Chapter 179

## UUID

UUID functions.

### 179.1 UUID.Formatted

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	2.3	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.Formatted" { ; WithBrackets } )

#### Parameters

##### WithBrackets

Optional

Default is 1 to include curly brackets.

1

**Result** The UUID. e.g. " { 7B374233-3734-3233-332D-333733342D33 } "

#### Description

Please use 2.6 plugins, if you need this functions. We fixed important bug in 2.6pr1.

#### Examples

Creates formatted UUID:

```
MBS( "UUID.Formatted" )
```

UUID without curly brackets:

```
MBS( "UUID.Formatted" ; 0)
```

### 179.1.1 Blog Entries

- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 14th March 2015.

## 179.2 UUID.FromNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.FromNumber"; UUID Number )

### Parameters

#### UUID Number

The UUID number to convert.

"113621887307998538083879161464090829483"

**Result** Returns OK or error.

### Description

### Examples

Convert UUID:

MBS( "UUID.FromNumber"; "274265811883194525999390578526946467087" )

Example result: CE55AC8A-2236-4E05-A654-C2B092E61D0F

Convert from one to other direction:

```
Let ( [
u = Get(UUID) ;
n = MBS( "UUID.ToNumber"; u );
b = MBS( "UUID.FromNumber"; n ) ] ;
u & §& n & §& b )
```

Example result: 819AD32B-23D3-4CA7-ACAB-F2BE48B6200F

172274308178793290359797804461655990287

819AD32B-23D3-4CA7-ACAB-F2BE48B6200F

### See also

- [179.4 UUID.Number](#) 8380
- [179.6 UUID.ToNumber](#) 8382

### 179.2.1 Blog Entries

- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [UUID Numbers](#)
- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 15th May 2018.

## 179.3 UUID.Hex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	2.3	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.Hex" )

**Result** The UUID, e.g. 0190323C667611E09DD27C6D628C4C29

### Description

same as MBS("Text.EncodeToHex"; MBS("UUID.Raw")).

Please use 2.6 plugins, if you need this functions. We fixed important bug in 2.6pr1.

### Examples

Creates hex encoded UUID:

MBS( "UUID.Hex" )

### See also

- [167.32 Text.EncodeToHex](#) 7947
- [179.5 UUID.Raw](#) 8381

### 179.3.1 Blog Entries

- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 18th October 2014.

## 179.4 UUID.Number

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.Number" )

**Result** Returns UUID as number or error.

### Description

Same as Get(UUIDNumber) in FileMaker 17, but works for older FileMaker versions, too.

### Examples

Create new number:

```
MBS( "UUID.Number" )
```

Convert from one to other direction:

```
Let ( [
u = MBS( "UUID.Number" ) ;
n = MBS( "UUID.FromNumber"; u );
b = MBS( "UUID.ToNumber"; n ) ] ;
u & §& n & §& b )
```

### See also

- [179.2 UUID.FromNumber](#) 8377
- [179.6 UUID.ToNumber](#) 8382

### 179.4.1 Blog Entries

- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [UUID Numbers](#)
- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 16th May 2018, last changed 16th May 2018.



**179.5 UUID.Raw**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	2.3	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.Raw" )

**Result** The raw UUID value, e.g. 4°\$Dfv§ª | mb\$L)

**Description**

Please use 2.6 plugins, if you need this functions. We fixed important bug in 2.6pr1.

**Examples**

Creates raw UUID:

MBS( "UUID.Raw" )

**See also**

- [179.3 UUID.Hex](#)

8379

**179.5.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 6th October 2015.

## 179.6 UUID.ToNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
179 UUID	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "UUID.ToNumber"; UUID )

### Parameters

#### UUID

The UUID to convert.

"CE55AC8A-2236-4E05-A654-C2B092E61D0F"

**Result** Returns OK or error.

### Description

#### Examples

Convert UUID:

```
MBS( "UUID.ToNumber"; "CE55AC8A-2236-4E05-A654-C2B092E61D0F" )
```

Example result: 274265811883194525999390578526946467087

Convert from one to other direction:

```
Let ( [
u = Get(UUID) ;
n = MBS( "UUID.ToNumber"; u );
b = MBS( "UUID.FromNumber"; n ) ] ;
u & §& n & §& b )
```

#### See also

- [179.2 UUID.FromNumber](#) 8377
- [179.4 UUID.Number](#) 8380

### 179.6.1 Blog Entries

- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [UUID Numbers](#)
- [MBS FileMaker Plugin, version 8.2pr8](#)

Created 15th May 2018, last changed 15th May 2018.

# Chapter 180

## Validate

Validation of App store receipt for Apple Mac App Store.

### 180.1 Validate.CheckReceipt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
180 Validate	2.2	Yes	No	Yes, macOS only	No	No

MBS( "Validate.CheckReceipt"; ReceiptPath; BundleVersion; BundleID )

#### Parameters

##### ReceiptPath

The path to your application.  
MBS( "Validate.FindReceipt" )

##### BundleVersion

The bundle Version of your application.  
"1.0"

##### BundleID

The bundle ID for your application.  
"de.monkeybreadsoftware.test"

**Result** Returns OK or error code 173.

#### Description

If you upload your application the Mac App Store, Apple will deliver it with a receipt file included. It is your job to validate this receipt file to avoid unlimited copies of your application. You can pass the path to Apples sample receipt and bundle version "1.0.2" and bundle identifier "com.example.SampleApp" to test with the sample receipt.

#### Examples

Exist if the receipt is not valid:

```
MBS( "Validate.Exit"; MBS( "Validate.CheckReceipt"; MBS( "Validate.FindReceipt" ); "1.0"; "de.monkey-breadsoftware.test" ) )
```

### See also

- 180.2 Validate.Exit 8385
- 180.3 Validate.FindReceipt 8386

### Example Databases

- [Mac only/Receipt Check for Mac App Store/Receipt Check](#)

Created 18th August 2014, last changed 18th August 2014.

## 180.2 Validate.Exit

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
180 Validate	2.2	Yes	No	Yes, macOS only	No	No

MBS( "Validate.Exit" )

**Result** Returns OK or exists FileMaker.

### Description

Normally you pass 173 to quit with error code 173, so the Finder shows an error message about it. You can of course use this function to exit with other error codes. Any value between 0 and 255 is okay. If you pass not a number (e.g. a string), the function returns OK. This allows the function to be chained with other Validate functions.

### Examples

Exists if checking failed:

```
MBS( "Validate.Exit"; MBS( "Validate.CheckReceipt"; MBS( "Validate.FindReceipt" ); "1.0"; "de.monkey-breadsoftware.test" ) )
```

### See also

- 180.1 Validate.CheckReceipt 8383
- 180.3 Validate.FindReceipt 8386

### Example Databases

- [Mac only/Receipt Check for Mac App Store/Receipt Check](#)

Created 18th August 2014, last changed 18th August 2014.

### 180.3 Validate.FindReceipt

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
180 Validate	2.2	Yes	No	Yes, macOS only	No	No

MBS( "Validate.FindReceipt" )

**Result** Returns the path to the receipt. e.g. `"/Applications/MyApp.app/Contents/receipt"`

#### Description

#### Examples

Searches receipt:

MBS( "Validate.FindReceipt" )

#### See also

- [180.1 Validate.CheckReceipt](#) 8383
- [180.2 Validate.Exit](#) 8385

#### Example Databases

- [Mac only/Receipt Check for Mac App Store/Receipt Check](#)

Created 18th August 2014, last changed 18th August 2014.

# Chapter 181

## Variables

Plugin managed global variables preserving data type.

### 181.1 FM.VariableAdd

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	8.3	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableAdd"; Name; Value )

#### Parameters

##### Name

the name of the variable  
"test"

##### Value

the value to add to the variable  
5

**Result** Returns new value or error.

#### Description

Internally does similar to FM.VariableGet to read value, then adds given parameter and stores like FM.VariableSet, all in one operation, so no other script or calculation can get between.

Creates variable, if it's not existing yet.

#### Examples

Sets \$ID and counts up with each call:

```
Set Variable [ $ID ; Value: MBS( "FM.VariableAdd"; "ID"; 1 ) ]
```

**See also**

- 181.2 FM.VariableAppend 8389
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.10 FM.VariableSet 8398

**181.1.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 8th June 2018, last changed 13th January 2020.



## 181.2 FM.VariableAppend

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	9.5	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableAppend"; Name; Value )

### Parameters

#### Name

the name of the variable

"test"

#### Value

the value to add to the variable

5

**Result** Returns new value or error.

### Description

Internally does similar to FM.VariableGet to read value, then adds given parameter and stores like FM.VariableSet, all in one operation, so no other script or calculation can get between.

Creates variable, if it's not existing yet.

### Examples

Test append function:

Let ( [

```
r1 = MBS( "FM.VariableAppend"; "hello"; "Line 1" & $);
```

```
r2 = MBS( "FM.VariableAppend"; "hello"; "Line 2" & $);
```

```
r3 = MBS( "FM.VariableAppend"; "hello"; "Line 3" & $)
```

```
]; MBS( "FM.VariableGet"; "hello" ) )
```

### See also

- 181.1 FM.VariableAdd 8387
- 181.6 FM.VariableGet 8393
- 181.10 FM.VariableSet 8398

### 181.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 28th October 2019, last changed 28th October 2019.

## 181.3 FM.VariableClear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableClear"; Name )

### Parameters

#### Name

The name of the variable to destroy

**Result** Returns OK.

### Description

### Examples

Destroy a variable

```
MBS( "FM.VariableClear" ; "MyVar" )
```

### See also

- [181.4 FM.VariableClearAll](#) 8391
- [181.6 FM.VariableGet](#) 8393
- [181.8 FM.VariableNames](#) 8396
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

### 181.3.1 Blog Entries

- [The power of global variables](#)

### 181.3.2 FileMaker Magazin

- [Ausgabe 2/2014, Seite 31](#)

Created 18th August 2014, last changed 21st June 2017.

## 181.4 FM.VariableClearAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	5.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableClearAll" )

**Result** Returns OK or error.

**Description**

**See also**

- [181.3 FM.VariableClear](#) 8390
- [181.8 FM.VariableNames](#) 8396
- [181.10 FM.VariableSet](#) 8398

### 181.4.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr2](#)

Created 3th June 2015, last changed 8th June 2015.

## 181.5 FM.VariableExists

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableExists"; Name )

### Parameters

#### Name

The name of the variable.

"x"

**Result** Returns 1 if variable exists, else 0.

### Description

#### See also

- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395

### 181.5.1 Blog Entries

- [The power of global variables](#)

### 181.5.2 FileMaker Magazin

- Ausgabe 2/2014, Seite 31

Created 18th August 2014, last changed 21st June 2017.

## 181.6 FM.VariableGet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableGet"; Name )

### Parameters

#### Name

The Name of the variable

### Description

Unlike the variables that were introduced in FileMaker 8 these variables are not limited to the File or Script. In other words they can be retrieved from any file in the system regardless of where they were declared.

You can check with FM.VariableExists whether a variable exists.

### Examples

Retrieve a variable

MBS( "FM.VariableGet" ; "myVar" )

### See also

- [181.1 FM.VariableAdd](#) 8387
- [181.2 FM.VariableAppend](#) 8389
- [181.3 FM.VariableClear](#) 8390
- [181.5 FM.VariableExists](#) 8392
- [181.7 FM.VariableList](#) 8395
- [181.8 FM.VariableNames](#) 8396
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### Example Databases

- [CURL/WebViewer Download Images with CURL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drop](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drop](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

### 181.6.1 Blog Entries

- [Data structures in FileMaker with MBS Plugins](#)
- [The power of global variables](#)

### 181.6.2 FileMaker Magazin

- Ausgabe 6/2019, Seite 34
- Ausgabe 6/2019, Seite 33
- Ausgabe 2/2014, Seite 32
- Ausgabe 2/2014, Seite 31

Created 18th August 2014, last changed 21st June 2017.

## 181.7 FM.VariableList

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableList" { ; Delimiter } )

### Parameters

#### Delimiter

Optional

Optionally, the delimiter to use. Default is tab character.

”.”

**Result** Returns list.

### Description

Container values or multiline texts will probably not be handled correctly for the result. So works best if you have just single line values.

### See also

- [181.1 FM.VariableAdd](#) 8387
- [181.5 FM.VariableExists](#) 8392
- [181.6 FM.VariableGet](#) 8393
- [181.8 FM.VariableNames](#) 8396
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### Example Databases

- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

#### 181.7.1 Blog Entries

- [The power of global variables](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)

#### 181.7.2 FileMaker Magazin

- [Ausgabe 2/2014, Seite 31](#)

Created 18th August 2014, last changed 21st June 2017.

## 181.8 FM.VariableNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableNames" )

**Result** Returns list or error.

### Description

### Examples

Test functions:

```
MBS( "FM.VariableClearAll" ) &
MBS( "FM.VariableSet"; "Hello"; "World" ) &
MBS( "FM.VariableSet"; "other"; "value" ) &
§&
MBS( "FM.VariableList" ) &
§&
MBS( "FM.VariableNames" )
```

Example result: OKOKOK

other value

Hello World

other

Hello

### See also

- [181.3 FM.VariableClear](#) 8390
- [181.4 FM.VariableClearAll](#) 8391
- [181.6 FM.VariableGet](#) 8393
- [181.7 FM.VariableList](#) 8395
- [181.9 FM.VariableReset](#) 8397
- [181.10 FM.VariableSet](#) 8398

### 181.8.1 Blog Entries

- [MBS FileMaker Plugin, version 7.6pr3](#)

Created 13th December 2017, last changed 8th July 2018.



## 181.9 FM.VariableReset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	4.0	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableReset" )

**Result** Returns OK.

### Description

You can fill again with FM.VariableSet or remove individual variables with FM.VariableClear.

### See also

- 181.3 FM.VariableClear 8390
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.10 FM.VariableSet 8398

### 181.9.1 Blog Entries

- [MBS Filemaker Plugin, version 4.0pr1](#)

Created 18th August 2014, last changed 21st June 2017.

## 181.10 FM.VariableSet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
80 FM 181 Variables	1.2	Yes	Yes	Yes	Yes	Yes

MBS( "FM.VariableSet"; Name; Value )

### Parameters

#### Name

the name of the variable

#### Value

the value to assign to the variable

### Description

Unlike the variables that were introduced in FileMaker 8 these variables are not limited to the File or Script. In other words they can be retrieved from any file in the system regardless of where they were declared. All values are stored in their native data types (up to version 4.4 only text).

Use FM.VariableClear to clear the variables or FM.VariableClearAll to clear them all. FM.VariableList returns list of all defined variables.

On server, the variables are shared by all users connected to the server. So e.g. on Web Direct all users have the same set of global variables via plugin. You can prefix variables with user ID/Name to make them per use unique.

### Examples

Set a variable

```
MBS( "FM.VariableSet" ; "myVar"; "Hello" )
```

### See also

- 181.1 FM.VariableAdd 8387
- 181.2 FM.VariableAppend 8389
- 181.3 FM.VariableClear 8390
- 181.4 FM.VariableClearAll 8391
- 181.6 FM.VariableGet 8393
- 181.7 FM.VariableList 8395
- 181.8 FM.VariableNames 8396
- 181.9 FM.VariableReset 8397

## Example Databases

- [CURL/WebView Download Images with CURL](#)
- [Drag and Drop/for Mac/Image drag from one database to other/Image drag](#)
- [Drag and Drop/for Mac/Text drag from one database to other/Text drag](#)
- [Third Party/FileMaker Snippet Storage](#)
- [Utility functions/Global Variables](#)

### 181.10.1 Blog Entries

- [Data structures in FileMaker with MBS Plugins](#)
- [The power of global variables](#)

### 181.10.2 FileMaker Magazin

- [Ausgabe 6/2019, Seite 33](#)
- [Ausgabe 2/2014, Seite 31](#)

Created 18th August 2014, last changed 24th July 2018.



# Chapter 182

## Vision

Functions for the Vision framework from Apple

### 182.1 Vision.ClassifyImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

```
MBS( "Vision.ClassifyImage"; Image { ; Best } )
```

#### Parameters

##### Image

The image to analyze. Can be container value with JPEG, PNG or other image formats supported by Vision framework.

\$image

##### Best

Optional

Whether to return only identifier of best. Default is 1. If you pass 0, you get back JSON with all classifications and their confidence.

1

**Result** Returns text or error.

#### Description

Requires MacOS 10.15 or iOS 13.0 or newer.

If you like to use your own CoreML model, please try our own CoreML functions.

#### Examples

Classify image in container:

Set Field [ Vision::Result ; MBS( "Vision.ClassifyImage"; Vision::Image) ]

### See also

- [58.1 CoreImage.Detect](#) 1703
- [60.13 CoreML.OpenModel](#) 1762
- [60.14 CoreML.PredictionFromFeatures](#) 1764

### Example Databases

- [Mac and iOS/Vision](#)

#### 182.1.1 Blog Entries

- [Vision Framework for FileMaker](#)

Created 18th August 2019, last changed 19th August 2019.

## 182.2 Vision.DetectBarcode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "Vision.DetectBarcode"; Image { ; symbologies } )

### Parameters

#### Image

The image to analyze. Can be container value with JPEG, PNG or other image formats supported by Vision framework.

\$image

#### symbologies

Optional

Which symbologies to allow. Default is all, e.g. the list returned by Vision.SupportedSymbologies function. "VNBarcodeSymbologyQR"

**Result** Returns JSON or error.

### Description

Returns JSON array with all recognized barcodes.

You may improve recognition by cropping the picture to the area with barcode and providing a good resolution.

If you need cross platform barcode detection, please use Barcode.Detect function.

### Examples

Detect barcode:

```
Set Field [ Vision::Result ; MBS( "Vision.DetectBarcode"; Vision::Image) ]
```

### See also

- [44.1 Barcode.Detect](#) 1171
- [58.1 CoreImage.Detect](#) 1703
- [182.6 Vision.SupportedSymbologies](#) 8409

### Example Databases

- [Mac and iOS/Vision Barcodes](#)
- [Mac and iOS/Vision](#)

### 182.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr1](#)
- [Vision Framework for FileMaker](#)

Created 18th August 2019, last changed 13th April 2020.



## 182.3 Vision.KnownClassifications

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "Vision.KnownClassifications" )

**Result** Returns list or error.

### Description

Obtain the collection of classifications currently recognized by the Vision framework.  
Requires MacOS 10.15 or iOS 13.0 or newer.

### Examples

Query classifications:

```
Set Field [ Vision::Result ; MBS( "Vision.KnownClassifications" ) ]
```

### Example Databases

- [Mac and iOS/Vision](#)

Created 18th August 2019, last changed 19th August 2019.

## 182.4 Vision.RecognizeText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "Vision.RecognizeText"; Image { ; Recognition Levels; Languages; CustomWords } )

### Parameters

#### Image

The image to analyze. Can be container value with JPEG, PNG or other image formats supported by Vision framework.

\$image

#### Recognition Levels

Optional

Can be "Fast" or "Accurate".

"Accurate"

#### Languages

Optional

Specify the languages used for the detection. The order of the languages in the array defines the order in which languages will be used during the language processing. The languages are specified as ISO language codes.

"en\_US"

#### CustomWords

Optional

An array of strings that will be used at the word recognition stage in addition to the recognition languages. The customWords list takes precedence over the standard lexicon.

"FileMaker\$Claris"

**Result** Returns list or error.

### Description

Requires MacOS 10.15 or iOS 13.0 or newer.

If you need cross platform text recognition, please check our OCR functions.

### Examples

Recognize text:

```
Set Field [ Vision::Result ; MBS( "Vision.RecognizeText"; Vision::Image; "Accurate" ) ]
```

### See also

- 58.1 CoreImage.Detect

1703

### Example Databases

- [Mac and iOS/Vision](#)

### 182.4.1 **Blog Entries**

- [Vision Framework for FileMaker](#)

Created 18th August 2019, last changed 19th August 2019.

## 182.5 Vision.SupportedRecognitionLanguages

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "Vision.SupportedRecognitionLanguages" { ; Recognition Levels } )

### Parameters

#### Recognition Levels

Optional

Can be "Fast" or "Accurate".

"Accurate"

**Result** Returns list or error.

#### Description

Requires MacOS 10.15 or iOS 13.0 or newer.

#### Examples

Queries language list for accurate mode:

```
Set Field [ Vision::Result ; MBS( "Vision.SupportedRecognitionLanguages"; "Accurate" ) ]
```

Example result: "en-US"

Queries language list for fast mode:

```
MBS( "Vision.SupportedRecognitionLanguages"; "Fast" )
```

#### Example Databases

- [Mac and iOS/Vision](#)

Created 18th August 2019, last changed 19th August 2019.

## 182.6 Vision.SupportedSymbologies

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
182 Vision	9.4	Yes	No	Yes, macOS only	No	Yes

MBS( "Vision.SupportedSymbologies" )

**Result** Returns list or error.

### Description

The vision framework from Apple supports 17 types in MacOS 10.14.

### Examples

Queries supported symbologies:

```
Set Field [ Vision::Result ; MBS( "Vision.SupportedSymbologies" ) ]
```

Example result: VNBarcodeSymbologyAztec

VNBarcodeSymbologyCode128

VNBarcodeSymbologyCode39

VNBarcodeSymbologyCode39Checksum

VNBarcodeSymbologyCode39FullASCII

VNBarcodeSymbologyCode39FullASCIIChecksum

VNBarcodeSymbologyCode93

VNBarcodeSymbologyCode93i

VNBarcodeSymbologyDataMatrix

VNBarcodeSymbologyEAN13

VNBarcodeSymbologyEAN8

VNBarcodeSymbologyI2of5

VNBarcodeSymbologyI2of5Checksum

VNBarcodeSymbologyITF14

VNBarcodeSymbologyPDF417

VNBarcodeSymbologyQR

VNBarcodeSymbologyUPCE

### See also

- [182.2 Vision.DetectBarcode](#)

8403

### Example Databases

- [Mac and iOS/Vision Barcodes](#)
- [Mac and iOS/Vision](#)

Created 18th August 2019, last changed 19th August 2019.



# Chapter 183

## WebView

Control webviewer.

Fill form fields, run javascript or copy content of webviewer.

Only for local webviewer on Mac, Windows and iOS. Does not work in WebDirect.

### 183.1 WebDownloadDelegate.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.Cancel" )

**Result** Returns OK on success or error.

#### Description

Make sure you cleanup your stuff like a progress dialog.

#### See also

- 183.10 WebDownloadDelegate.Install 8420
- 183.12 WebDownloadDelegate.Path 8422
- 183.18 WebDownloadDelegate.URL 8431

#### Example Databases

- [WebView/WebKit 1.x only/WebViewer Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebViewer Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.2 WebDownloadDelegate.ClearBeginDownloadHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ClearBeginDownloadHandler" )

**Result** Returns OK.

**Description**

**See also**

- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.13 WebDownloadDelegate.SetBeginDownloadHandler 8423
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424

Created 18th August 2014, last changed 18th August 2014.



## 183.3 WebDownloadDelegate.ClearDidDownloadHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ClearDidDownloadHandler" )

**Result** Returns OK.

### Description

### See also

- 183.2 WebDownloadDelegate.ClearBeginDownloadHandler 8412
- 183.4 WebDownloadDelegate.ClearFailHandler 8414
- 183.6 WebDownloadDelegate.ClearProgressHandler 8416
- 183.13 WebDownloadDelegate.SetBeginDownloadHandler 8423
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424

Created 18th August 2014, last changed 18th August 2014.

## 183.4 WebDownloadDelegate.ClearFailHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ClearFailHandler" )

**Result** Returns OK.

**Description**

**See also**

- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.5 WebDownloadDelegate.ClearFolder 8415
- 183.6 WebDownloadDelegate.ClearProgressHandler 8416
- 183.15 WebDownloadDelegate.SetFailHandler 8426
- 183.17 WebDownloadDelegate.SetProgressHandler 8429

Created 18th August 2014, last changed 18th August 2014.

## 183.5 WebDownloadDelegate.ClearFolder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.8	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ClearFolder" )

**Result** Returns OK on success.

### Description

Next download will go to temporary folder (which is default).

### See also

- [183.4 WebDownloadDelegate.ClearFailHandler](#) 8414
- [183.9 WebDownloadDelegate.GetFolder](#) 8419
- [183.16 WebDownloadDelegate.SetFolder](#) 8427

### 183.5.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr8](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.6 WebDownloadDelegate.ClearProgressHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ClearProgressHandler" )

**Result** Returns OK.

### Description

### See also

- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.4 WebDownloadDelegate.ClearFailHandler 8414
- 183.17 WebDownloadDelegate.SetProgressHandler 8429

Created 18th August 2014, last changed 18th August 2014.

## 183.7 WebDownloadDelegate.DownloadedLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.DownloadedLength" )

**Result** Returns downloaded bytes count.

### Description

Useful to show progress together with WebDownloadDelegate.expectedContentLength.

### See also

- [183.19 WebDownloadDelegate.expectedContentLength](#) 8432
- [183.13 WebDownloadDelegate.SetBeginDownloadHandler](#) 8423
- [183.17 WebDownloadDelegate.SetProgressHandler](#) 8429

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.8 WebDownloadDelegate.ErrorMessage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.ErrorMessage" )

**Result** Returns the localized error message.

### Description

Typically you read this in your registered download fail script.

### See also

- [183.15 WebDownloadDelegate.SetFailHandler](#) 8426

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.9 WebDownloadDelegate.GetFolder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.8	Yes	No	No	No	No

MBS( "WebDownloadDelegate.GetFolder" )

**Result** Returns path setting.

### Description

Returns empty text if default folder is used from system (temp folder).

### See also

- 183.5 WebDownloadDelegate.ClearFolder 8415
- 183.10 WebDownloadDelegate.Install 8420
- 183.11 WebDownloadDelegate.MIMETYPE 8421
- 183.15 WebDownloadDelegate.SetFailHandler 8426
- 183.16 WebDownloadDelegate.SetFolder 8427

### 183.9.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr8](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.10 WebDownloadDelegate.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.Install"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK on success or error.

### Description

This needs to be made whenever you want to receive download script calls for a webviewer.

If webviewer is part of a data record in FileMaker, you may need to set it for each record whenever a record is loaded.

Not supported for WebKit 2.x (FileMaker 16 Mac).

### Examples

Makes sure all PDF files are downloaded:

```
MBS( "WebDownloadDelegate.Install" ; "web" )
MBS( "WebPolicyDelegate.AddMimeType"; "application/pdf"; "download" )
```

### See also

- 183.1 WebDownloadDelegate.Cancel 8411
- 183.9 WebDownloadDelegate.GetFolder 8419
- 183.11 WebDownloadDelegate.MIMEType 8421
- 183.12 WebDownloadDelegate.Path 8422
- 183.16 WebDownloadDelegate.SetFolder 8427
- 183.22 WebPolicyDelegate.AddMimeType 8435
- 183.23 WebPolicyDelegate.Install 8436
- 183.46 WebView.FindByName 8469

### Example Databases

- [WebViewer/WebKit 1.x only/WebViewer Download Delegate for Mac with Custom Webviewer](#)
- [WebViewer/WebKit 1.x only/WebViewer Download Delegate for Mac](#)

Created 18th August 2014, last changed 19th February 2017.



**183.11 WebDownloadDelegate.MIMETYPE**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.MIMETYPE" )

**Result** Returns the MIME type.

**Description**

The MIME type is often provided by the response's originating source. However, that value may be changed or corrected by a protocol implementation if it can be determined that the response's source reported the information incorrectly.

If the response's originating source does not provide a MIME type, an attempt to guess the MIME type may be made.

**See also**

- 183.9 WebDownloadDelegate.GetFolder 8419
- 183.10 WebDownloadDelegate.Install 8420
- 183.16 WebDownloadDelegate.SetFolder 8427

Created 18th August 2014, last changed 18th August 2014.

## 183.12 WebDownloadDelegate.Path

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.Path" )

**Result** Returns file path.

### Description

This is a temporary file and you should import, move, rename or copy it. If you don't delete this file, it will be on the next restart of the Mac.

You may need to use Files.MoveFile later to move the file to the place you like.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 79.43 Files.MoveFile 3894
- 124.2 Path.FileMakerPathToNativePath 6247
- 183.1 WebDownloadDelegate.Cancel 8411
- 183.10 WebDownloadDelegate.Install 8420
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424
- 183.17 WebDownloadDelegate.SetProgressHandler 8429
- 183.18 WebDownloadDelegate.URL 8431

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 28th October 2019.

## 183.13 WebDownloadDelegate.SetBeginDownloadHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.SetBeginDownloadHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DownloadBegin"

**Result** Returns OK or error.

### Description

You can show progress dialog if you like. Properties are not yet set, so you can only show that download started and wait for other script calls.

The plugin only supports one download at a time. Still you could have several, but functions like WebDownloadDelegate.DownloadedLength will not work correct.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "WebDownloadDelegate.SetBeginDownloadHandler"; Get ( FileName ); "DownloadBegin")
```

### See also

- 183.2 WebDownloadDelegate.ClearBeginDownloadHandler 8412
- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.7 WebDownloadDelegate.DownloadedLength 8417
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 27th January 2016.

## 183.14 WebDownloadDelegate.SetDidDownloadHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.SetDidDownloadHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DownloadFinished"

**Result** Returns OK or error.

### Description

Use WebDownloadDelegate.URL to learn which URL has been loaded.  
Use WebDownloadDelegate.Path to learn where file has been created.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "WebDownloadDelegate.SetDidDownloadHandler"; Get ( FileName ); "DownloadFinished"
```

### See also

- 183.2 WebDownloadDelegate.ClearBeginDownloadHandler 8412
- 183.3 WebDownloadDelegate.ClearDidDownloadHandler 8413
- 183.12 WebDownloadDelegate.Path 8422
- 183.13 WebDownloadDelegate.SetBeginDownloadHandler 8423
- 183.15 WebDownloadDelegate.SetFailHandler 8426
- 183.17 WebDownloadDelegate.SetProgressHandler 8429
- 183.18 WebDownloadDelegate.URL 8431

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 27th January 2016.

## 183.15 WebDownloadDelegate.SetFailHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.SetFailHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DownloadFailed"

**Result** Returns OK or error.

### Description

Use WebDownloadDelegate.ErrorMessage to get a localized error message.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "WebDownloadDelegate.SetFailHandler"; Get ( FileName ); "DownloadFailed")
```

### See also

- 183.4 WebDownloadDelegate.ClearFailHandler 8414
- 183.8 WebDownloadDelegate.ErrorMessage 8418
- 183.9 WebDownloadDelegate.GetFolder 8419
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424
- 183.16 WebDownloadDelegate.SetFolder 8427
- 183.17 WebDownloadDelegate.SetProgressHandler 8429

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 27th January 2016.

## 183.16 WebDownloadDelegate.SetFolder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.8	Yes	No	No	No	No

MBS( "WebDownloadDelegate.SetFolder"; Path )

### Parameters

#### Path

The native path to the download folder.

\$path

**Result** Returns OK on success.

### Description

Make sure the folder is empty as with duplicate file name you get an error.

If you do not set download folder, it goes to default temporary folder.

Version 9.5 or newer check if folder is valid before setting it.

Sadly macOS Catalina may ignore this folder setting and still use temporary folder, so you may need to use Files.MoveFile later to move the file to the place you like.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Download to desktop:

```
Set Variable [ $result ; Value: MBS("WebDownloadDelegate.SetFolder"; MBS( "Folders.UserDesktop" )) ]
```

### See also

- 79.43 Files.MoveFile 3894
- 82.8 Folders.UserDesktop 4235
- 124.2 Path.FileMakerPathToNativePath 6247
- 183.5 WebDownloadDelegate.ClearFolder 8415
- 183.9 WebDownloadDelegate.GetFolder 8419
- 183.10 WebDownloadDelegate.Install 8420
- 183.11 WebDownloadDelegate.MIMETYPE 8421
- 183.15 WebDownloadDelegate.SetFailHandler 8426

### 183.16.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)
- [MBS Filemaker Plugin, version 2.8pr8](#)

Created 18th August 2014, last changed 28th October 2019.



## 183.17 WebDownloadDelegate.SetProgressHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.SetProgressHandler"; FileName; ScriptName )

### Parameters

#### FileName

The name of the FileMaker File that contains the script  
"MyDatabase.fp7"

#### ScriptName

The name of the script to run  
"DownloadFailed"

**Result** Returns OK or error.

### Description

This event is called at maximum once a second.

Use WebDownloadDelegate.URL to learn which URL is loading.

Use WebDownloadDelegate.Path to learn where file has been created.

Use WebDownloadDelegate.expectedContentLength to learn how much data is expected and WebDownloadDelegate.DownloadedLength how much data has already been loaded.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Registers fail handler:

```
MBS( "WebDownloadDelegate.SetProgressHandler"; Get ( FileName ); "DownloadFailed"
```

### See also

- 183.4 WebDownloadDelegate.ClearFailHandler 8414
- 183.6 WebDownloadDelegate.ClearProgressHandler 8416
- 183.7 WebDownloadDelegate.DownloadedLength 8417
- 183.19 WebDownloadDelegate.expectedContentLength 8432
- 183.12 WebDownloadDelegate.Path 8422
- 183.14 WebDownloadDelegate.SetDidDownloadHandler 8424
- 183.15 WebDownloadDelegate.SetFailHandler 8426

- 183.18 WebDownloadDelegate.URL

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 27th January 2016.

**183.18 WebDownloadDelegate.URL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.URL" )

**Result** Returns URL of download.

**Description**

This is first the requested URL, but can later be the URL where we got redirected to.

**See also**

- [183.1 WebDownloadDelegate.Cancel](#) 8411
- [183.12 WebDownloadDelegate.Path](#) 8422
- [183.14 WebDownloadDelegate.SetDidDownloadHandler](#) 8424
- [183.17 WebDownloadDelegate.SetProgressHandler](#) 8429

**Example Databases**

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.19 WebDownloadDelegate.expectedContentLength

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.expectedContentLength" )

**Result** Returns the expected content length, or -1 if the length can't be determined.

### Description

Some protocol implementations report the content length as part of the response, but not all protocols guarantee to deliver that amount of data. Clients should be prepared to deal with more or less data.

### See also

- [183.7 WebDownloadDelegate.DownloadedLength](#) 8417
- [183.17 WebDownloadDelegate.SetProgressHandler](#) 8429

### Example Databases

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

**183.20 WebDownloadDelegate.suggestedFilename**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.suggestedFilename" )

**Result** Returns a suggested filename.

**Description**

The method tries to create a filename using the following, in order:

- A filename specified using the content disposition header.
- The last path component of the URL.
- The host of the URL.

If the host of URL can't be converted to a valid filename, the filename "unknown" is used.

In most cases, this method appends the proper file extension based on the MIME type. This method will always return a valid filename regardless of whether or not the resource is saved to disk.

**Example Databases**

- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.21 WebDownloadDelegate.textEncodingName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebDownloadDelegate.textEncodingName" )

**Result** The name of the receiver's text encoding provided by the response's originating source, or empty text if no text encoding was provided by the protocol.

### Description

Created 18th August 2014, last changed 18th August 2014.

## 183.22 WebPolicyDelegate.AddMimeType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebPolicyDelegate.AddMimeType"; type; action )

### Parameters

#### type

MIME Type as text.

"application/pdf"

#### action

The action you want to be made. This can be "use" when file should be viewed, "download" if file should be downloaded and "ignore" if file should be ignored.

"download"

**Result** Returns OK or error.

### Description

### Examples

Makes sure all PDF files are downloaded:

```
MBS( "WebDownloadDelegate.Install" ; "web" )
```

```
MBS( "WebPolicyDelegate.AddMimeType"; "application/pdf"; "download" )
```

Add a type to download:

```
MBS( "WebPolicyDelegate.AddMimeType"; "unknown/exe"; "download" )
```

### See also

- 183.10 WebDownloadDelegate.Install 8420
- 183.23 WebPolicyDelegate.Install 8436
- 183.24 WebPolicyDelegate.RemoveMimeType 8437

Created 18th August 2014, last changed 11st August 2018.

## 183.23 WebPolicyDelegate.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebPolicyDelegate.Install"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK on success or error.

### Description

When using our WebDownloadDelegate, you may see that it prefers to show a PDF with the build in PDF Viewer rather than downloading it. This set of functions serves to fix on problem: Getting the webviewer to download files instead of showing them.

So you can for example register that PDF files (mime type "application/pdf") are downloaded instead of viewed.

All other policy things are forwarded to normal FileMaker policy delegate. And the plugin makes sure you don't install the policy delegate twice.

Not supported for WebKit 2.x (FileMaker 16 Mac), but may work with plugin made web viewers (see WebView.Create).

### Examples

Makes sure all PDF files are downloaded:

```
MBS( "WebDownloadDelegate.Install" ; "web" )
```

```
MBS( "WebPolicyDelegate.AddMimeType"; "application/pdf"; "download" )
```

### See also

- 183.10 WebDownloadDelegate.Install 8420
- 183.22 WebPolicyDelegate.AddMimeType 8435
- 183.39 WebView.Create 8456
- 183.46 WebView.FindByName 8469

Created 18th August 2014, last changed 1st March 2019.



## 183.24 WebPolicyDelegate.RemoveMimeType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.7	Yes	No	No	No	No

MBS( "WebPolicyDelegate.RemoveMimeType"; type )

### Parameters

#### type

MIME Type as text.

"application/pdf"

**Result** Returns OK or error.

### Description

When you remove all types you have the FileMaker default behavior. You can use type parameter "all" to remove all mime types.

### See also

- 183.22 WebPolicyDelegate.AddMimeType

8435

Created 18th August 2014, last changed 11st August 2018.

## 183.25 WebView.AddScriptMessageHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	8.0	Yes	No	No	No	Yes

MBS( "WebView.AddScriptMessageHandler"; Name )

### Parameters

#### Name

The name of the message handler.

"test"

**Result** Returns OK or error.

### Description

Adding a script message handler with name name causes the JavaScript function `window.webkit.messageHandlers.name.postMessage(messageBody)` to be defined in all frames in all web views that use the user content controller.

Only for FileMaker 16 and newer.

Trigger script in FileMaker from JavaScript:

```
window.webkit.messageHandlers.test.postMessage( { 'filename':'WebView Message Handler.fmp12', 'parameter':'Hello World from JavaScript', 'scriptName':'test' } );
```

Evaluate expression in JavaScript:

```
window.webkit.messageHandlers.test.postMessage( { 'evaluate':'MBS( & quot;Msgbox& quot;; & quot;Hello from Evaluate in JavaScript& quot; )' } );
```

Added iOS for version 9.5.

### Examples

Add script handler:

```
Set Variable [ $r ; Value: MBS( "Webview.AddScriptMessageHandler"; "test" ) ]
```

### See also

- 183.86 [WebView.InstallCallback](#) 8521
- 183.108 [WebView.RemoveScriptMessageHandler](#) 8552

### **183.25.1 Blog Entries**

- [Trigger FileMaker Scripts from JavaScript in FileMaker without fmp URL](#)
- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr8](#)
- [FileMaker and WebViewer communication](#)
- [Trigger FileMaker Scripts from JavaScript in FileMaker 16](#)

Created 15th December 2017, last changed 5th January 2020.

## 183.26 WebView.AddUserScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.5	Yes	No	No	No	Yes

MBS( "WebView.AddUserScript"; WebViewerRef; Source; injectionTime; forMainFrameOnly )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Source

The source code.

#### injectionTime

The time when the script should be injected into the webpage. AtDocumentStart: Inject the script after the document element is created, but before any other content is loaded. AtDocumentEnd: Inject the script after the document finishes loading, but before other subresources finish loading.

"AtDocumentEnd"

#### forMainFrameOnly

A Boolean value indicating whether the script should be injected only into the main frame (true) or into all frames (false).

1

**Result** Returns OK or error.

### Description

Only for FileMaker 16 and newer in WebKit 2.x web viewer on Mac and iOS.

### Examples

Add a test script:

```
MBS( "Webview.AddUserScript"; "web"; "alert('Hello');"; "AtDocumentEnd"; 1 )
```

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.143 WebView.UserScripts](#) 8616

### 183.26.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr3](#)
- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)

- [MBS FileMaker Plugin, version 9.5pr8](#)

Created 8th November 2019, last changed 5th January 2020.

## 183.27 WebView.AllCookies

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	8.4	Yes	No	No	No	Yes

MBS( "WebView.AllCookies"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

For WebKit 1.x, this returns global list of cookies.

For WebKit 2.x, this returns list of cookies associated to the web viewer, which may be a persistent list. For WebKit 2.x we need MacOS 10.13 or iOS 11.0 to work.

### Examples

Get all cookies:

```
Set Field [ WebView SelectedText::Cookies ; MBS("Webview.AllCookies"; "web") ]
```

Example result: [

```
{
"domain" : "www.filemaker.com",
"secure" : false,
"HTTPOnly" : false,
"commentURL" : null,
"portList" : [

],
"expiresDate" : "2027-11-03 21:43:00 +0000",
"value" : "192.123.25.13.123456789",
"path" : "\/",
"comment" : null,
"name" : "fmi_cookie",
"sessionOnly" : false
}
]
```

### See also

- 183.46 WebView.FindByName

8469

### 183.27.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr3](#)

183.27. *WEBVIEW.ALLCOOKIES*

8443

Created 11st August 2018, last changed 5th January 2020.

## 183.28 WebView.AllowsAnyHTTSPCertificateForHost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.2	Yes	No	Yes, macOS only	No	No

MBS( "WebView.AllowsAnyHTTSPCertificateForHost"; Hostname )

### Parameters

#### Hostname

The hostname to allow.

"www.macs.w.de"

**Result** Returns OK or error.

### Description

Sometimes you have to load a website where the SSL Zertifikate ist not for the given domain. With putting a domain on the exception list, we can allow loading the given site.

Supported for WebKit 2.x (FileMaker 16 Mac) with MBS Plugin 9.3 or newer.

### Examples

Allow some domains and load website:

```
Set Variable [ $r; Value:MBS("Webview.AllowsAnyHTTSPCertificateForHost"; "macsw.de") ]
Set Variable [ $r; Value:MBS("Webview.AllowsAnyHTTSPCertificateForHost"; "www.macs.w.de") ]
Set Web Viewer [ Object Name: "web"; URL: "https://www.macs.w.de/plugin/Prerelease/" ]
```

### 183.28.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr5](#)
- [Webviewer certificate overwrite](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)

Created 19th May 2016, last changed 28th June 2019.



## 183.29 **WebView.CallFunction**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	10.0	No	Yes	No	No	No

MBS( "WebView.CallFunction"; WebViewRef; FunctionName { ; Parameters... } )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FunctionName

The function name.

"test"

#### Parameters...

Optional

Pass as many parameters as needed.

"Hello"

**Result** Returns OK or error.

### Description

Returns result as text or number.

You can pass as many parameters as needed.

### Examples

Call with 2 parameters:

```
MBS( "Webview.CallFunction"; "web"; "test"; "Hello"; "World")
```

### See also

- [183.46 WebView.FindByName](#)

8469

### 183.29.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.0pr6](#)

Created 4th January 2020, last changed 5th January 2020.

## 183.30 WebView.ClearBrowserSession

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	8.5	No	Yes	No	No	No

MBS( "WebView.ClearBrowserSession" )

**Result** Returns OK or error.

### Description

Flushes entries not in use from the password cache on the hard disk drive. Also resets the cache time used when the synchronization mode is once-per-session.

This should clear current session cookies.

For web viewer using Internet Explorer engine. If you close one by closing the window with web viewer control, this method should end session and a new window would start fresh again.

### 183.30.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr7](#)

Created 13th November 2018, last changed 5th January 2020.

## 183.31 **WebView.ClearSelection**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	Yes	No	No	No

MBS( "WebView.ClearSelection"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

Not supported for FileMaker 16 on Mac, but works in FileMaker 9 to 15.

#### **See also**

- 183.46 [WebView.FindByName](#)

8469

### 183.31.1 **Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 25th August 2017.

## 183.32 WebView.ClickInput

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.ClickInput"; WebViewerRef; FormNameOrIndex; InputNameOrIndex { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### InputNameOrIndex

Either the Name of the Button or the Index starting at 0

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

#### Examples

Load a website with login if needed:

```
# Load website
Set Web Viewer [ Object Name: "web" ; URL: "https://somedomain/search" ]
# Wait for it
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS("webview.isloading"; "web") = 1 ]
End Loop
#
# Set login name
Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue"; "web"; "login_form"; "__ac_name";
"xxx" ) ]
If [ MBS("iserror") ]
# No form, so we are already logged in?
If [ Position ( $r ; "failed to find form" ; 1 ; 1 ) = 0 ]
Show Custom Dialog [ "Fehler" ; $r ]
End If
Exit Script [ Text Result: ]
End If
# Set password
Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue"; "web"; "login_form"; "__ac_password";
"yyy" ) ]
If [ MBS("iserror") ]
```

```

Show Custom Dialog [ "Fehler" ; $r ]
End If
# Wait
Pause/Resume Script [ Duration (seconds): ,1 ]
# Click login button
Set Variable [ $r ; Value: MBS( "WebView.ClickInput"; "web"; "login_form"; "submit" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Fehler" ; $r ]
End If
# or submit form
// Set Variable [ $r ; Value: MBS( "WebView.formsubmit"; "web"; "login_form" ) ]
// If [ MBS("iserror") ]
// Show Custom Dialog [ "Fehler" ; $r ]
// End If
#
# Wait for page loading after login
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS("webview.isloading"; "web") = 1 ]
End Loop
# Go to search page where we want to be after login
Set Web Viewer [ Object Name: "web" ; URL: "https://somedomain/search" ]

```

**See also**

- [127.6 IsError](#) 6374
- [183.46 WebView.FindByName](#) 8469
- [183.50 WebView.FormSubmit](#) 8475
- [183.89 WebView.IsLoading](#) 8526
- [183.130 WebView.SetFormInputValue](#) 8593

**183.32.1 Blog Entries**

- [Automate web viewer in FileMaker](#)
- [Login in FileMaker web viewer if needed](#)

**183.32.2 FileMaker Magazin**

- [Ausgabe 5/2013, Seite 24](#)

## 183.33 WebView.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	No	No	No	No

MBS( "WebView.Close"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

Only for web viewer created with Webview.Create.

### Examples

Close webview:

```
If [ Length($$web) >0 ]
Set Variable [ $r ; Value: MBS("Webview.Close"; $$web) ]
Set Variable [ $$web ; Value: "" ]
End If
```

### See also

- [183.37 WebView.Copy](#) 8454
- [183.39 WebView.Create](#) 8456
- [183.46 WebView.FindByName](#) 8469

### 183.33.1 Blog Entries

- [WebViewer on Popover with MBS Plugin](#)
- [Print WebViewer on macOS in FileMaker](#)
- [MBS FileMaker Plugin, version 7.4pr5](#)

Created 6th September 2017, last changed 16th February 2018.

## 183.34 **WebView.Cookies.ClearForURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Cookies.ClearForURL"; URL )

### Parameters

#### URL

The target URL of the website to use.

"http://www.mbsplugins.de"

**Result** Returns count or error.

### Description

Returns number of deleted cookies.

For WebKit 1.x, so only for web viewers created in FileMaker 15 or older or web viewers created with WebView.Create function.

### See also

- 183.39 [WebView.Create](#)

8456

### 183.34.1 **Blog Entries**

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 19th November 2014, last changed 11st August 2018.

## 183.35 WebView.Cookies.Count

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Cookies.Count" { ; URL } )

### Parameters

#### URL

Optional

The target URL of the website to use.

"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

Can search global cookies (no URL parameter) or for a given URL.

For WebKit 1.x, so only for web viewers created in FileMaker 15 or older or web viewers created with WebView.Create function.

### See also

- 183.36 WebView.Cookies.Query 8453
- 183.39 WebView.Create 8456

### 183.35.1 Blog Entries

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 19th November 2014, last changed 11st August 2018.



## 183.36 **WebView.Cookies.Query**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Cookies.Query"; Index; Selector; URL )

### Parameters

#### Index

The index of the cookie from 0 to WebView.Cookies.Count-1.

#### Selector

Which value to query. Can be path, name, value, expiresDate, SessionOnly, domain, Secure, HTTPOnly, comment, commentURL, version or portList.

"Name"

#### URL

The target URL of the website to use.

"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

For WebKit 1.x, so only for web viewers created in FileMaker 15 or older or web viewers created with WebView.Create function.

URL should have https:// prefix if this is for SSL.

### Examples

Get a cookie for a domain:

MBS( "WebView.Cookies.Query"; \$index; "Name"; "https://xing.com" )

### See also

- 183.35 [WebView.Cookies.Count](#) 8452
- 183.39 [WebView.Create](#) 8456

### 183.36.1 **Blog Entries**

- [MBS Filemaker Plugin, version 4.5pr1](#)

Created 19th November 2014, last changed 27th February 2020.

## 183.37 WebView.Copy

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	Yes	No	No	Yes

MBS( "WebView.Copy"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

This is like choosing the menu command to copy, but without using the menu.  
See also Clipboard.GetStyledText.

As webviewer functions often run asynchronously, you need to make a short script pause to let the webviewer do the job.

### Examples

Select all and copy:

```
MBS( "Webview.SelectAll"; "web" ) & MBS( "Webview.Copy"; "web" )
```

### See also

- 52.8 Clipboard.GetStyledText 1478
- 168.2 TextView.Copy 8006
- 183.33 WebView.Close 8450
- 183.41 WebView.Cut 8460
- 183.46 WebView.FindByName 8469
- 183.120 WebView.SelectAll 8578

### Example Databases

- [WebView/WebView Copy and Paste](#)

#### 183.37.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 25th August 2017.

**183.38 WebView.CopyFormattedText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.1	Yes	Yes	No	No	Yes

MBS( "WebView.CopyFormattedText"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

**Description**

You can insert it with the insert script step.

Works well in FileMaker 12. In FileMaker 11 there are bugs so FileMaker doesn't import styles right from clipboard.

Works for WebKit 2.x with plugin version 9.0.

On windows, we do select all, copy and unselect to get all text to clipboard.

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.64 [WebView.GetFormattedText](#) 8494

**183.38.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr7](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

Created 18th August 2014, last changed 4th January 2019.

## 183.39 WebView.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	No	No	No	No

MBS( "WebView.Create"; WindowRef; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### x

The left coordinate in the window.

0

#### y

The top coordinate in the window.

0

#### w

The width of the drop area in the window.

600

#### h

The height of the drop area in the window.

400

**Result** Returns webviewer reference number or error.

### Description

This is WebKit 1.x view, so all the PDF/Image rendering functions, download delegate and callback should work.

The view is released automatically when window closes.

Webview created via `WebView.Create` or `WebView.CreateOnPopover` are independent of FileMaker, so they don't reload with a record change. They also don't print with the layout and stay if you change the layout.

### Examples

Create WebView:

Set Variable [ \$x ; Value: 40 ]

Set Variable [ \$y ; Value: 80 ]

Set Variable [ \$w ; Value: 970 ]

Set Variable [ \$h ; Value: 440 ]

Set Variable [ \$\$web ; Value: MBS("WebView.Create"; 0; \$x; \$y; \$w; \$h) ]

183.39. *WEBVIEW.CREATE* 8457  
Set Variable [ \$r ; Value: MBS( "WebView.LoadURL"; \$\$web; "http://www.mbs-plugins.com") ]

### See also

- 183.34 *WebView.Cookies.ClearForURL* 8451
- 183.35 *WebView.Cookies.Count* 8452
- 183.40 *WebView.CreateOnPopover* 8458
- 183.64 *WebView.GetFormattedText* 8494
- 183.105 *WebView.Release* 8549
- 183.109 *WebView.RenderImage* 8553
- 183.110 *WebView.RenderPDF* 8555
- 183.119 *WebView.SearchText* 8576
- 185.15 *Window.FindByIndex* 8686
- 185.16 *Window.FindByTitle* 8688

### Example Databases

- [WebViewer/Custom WebView](#)
- [WebViewer/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebViewer/WebKit 1.x only/WebViewer Download Delegate for Mac with Custom Webviewer](#)

### 183.39.1 Blog Entries

- [Web viewer exists only with URL loaded](#)
- [MBS FileMaker Plugin, version 9.1pr6](#)
- [Trigger FileMaker Scripts from JavaScript in FileMaker 16](#)
- [Print WebViewer on macOS in FileMaker](#)
- [MBS FileMaker Plugin, version 7.5pr2](#)
- [MBS FileMaker Plugin 7.4 - More than 4900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 7.4pr4](#)
- [Custom WebView in FileMaker 16](#)

Created 26th August 2017, last changed 16th October 2018.

## 183.40 WebView.CreateOnPopover

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	8.1	Yes	No	No	No	No

MBS( "WebView.CreateOnPopover"; WindowRef; Popover Name; x; y; w; h )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Popover Name

The name of the popover to look for on the window.

"MyPopover"

**x**

The left coordinate in the popover.

0

**y**

The top coordinate in the popover.

0

**w**

The width of the drop area in the popover.

600

**h**

The height of the drop area in the popover.

400

**Result** Returns webviewer reference number or error.

### Description

This is WebKit 1.x view, so all the PDF/Image rendering functions, download delegate and callback should work.

The view is released automatically when window closes.

Webview created via `WebView.Create` or `WebView.CreateOnPopover` are independent of FileMaker, so they don't reload with a record change. They also don't print with the layout and stay if you change the layout.

### Examples

Create WebView:

```
Set Variable [ $x ; Value: 10 ]
```

```
Set Variable [ $y ; Value: 55 ]
```

```
Set Variable [ $w ; Value: 837 - 10 - $x ]
```

#### 183.40. WEBVIEW.CREATEONPOPOVER

8459

```
Set Variable [ $h ; Value: 522 - 10 - $y ]
#
Set Variable [ $w ; Value: MBS("WebView.CreateOnPopover"; 0; "MyPopover"; $x; $y; $w; $h) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $$web ; Value: $w ]
Set Field [ WebViewer on Popover::URL ; "http://www.mbs-plugins.com" ]
Set Variable [ $r ; Value: MBS( "WebView.LoadURL"; $$web; WebViewer on Popover::URL) ]
End If
```

#### See also

- [127.6 IsError](#) 6374
- [183.39 WebView.Create](#) 8456
- [183.92 WebView.LoadURL](#) 8530
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

#### Example Databases

- [WebViewer/WebViewer on Popover](#)

#### 183.40.1 Blog Entries

- [Web viewer exists only with URL loaded](#)
- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr4](#)
- [WebViewer on Popover with MBS Plugin](#)

Created 16th February 2018, last changed 16th October 2018.

## 183.41 WebView.Cut

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	Yes	No	No	Yes

MBS( "WebView.Cut"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

This is like choosing the menu command to cut, but without using the menu.

### Examples

Cut in web viewer:

```
Set Variable [ $r ; Value: MBS("WebView.Cut"; "web") ]
```

### See also

- [168.8 TextView.Cut](#) 8014
- [183.37 WebView.Copy](#) 8454
- [183.46 WebView.FindByName](#) 8469

### Example Databases

- [WebView/WebView Copy and Paste](#)

### 183.41.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 26th December 2019.



## 183.42 **WebView.DisableJavascriptAlerts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.5	Yes	No	No	No	No

MBS( "WebView.DisableJavascriptAlerts" )

**Result** Returns "OK" on success.

### **Description**

Call this once on your FileMaker solution in the startup script.

Added support for FileMaker 16 in plugin version 7.1

### **Examples**

Disable alerts:

```
$error = MBS( "WebView.DisableJavascriptAlerts" )
```

### **Example Databases**

- [WebViewer/Disable Javascript alerts on Webviewer Mac](#)

### **183.42.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.5pr5](#)

Created 18th August 2014, last changed 26th February 2017.

## 183.43 WebView.EstimatedProgress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.EstimatedProgress"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns progress as value between 0.0 and 1.0.

### Description

### Examples

Check loading progress for webviewer named web

```
$progress = MBS( "WebView.EstimatedProgress"; "web")
```

### See also

- [183.46 WebView.FindByName](#)

8469

### 183.43.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)
- [MBS Filemaker Plugin, version 2.7fc](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.44 **WebView.Evaluate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Webview	10.0	Yes	Yes	No	No	Yes

MBS( "WebView.Evaluate"; WebViewerRef; Expression )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Expression

The JavaScript expression to evaluate.

"1+"

**Result** Returns value or error.

### Description

In contrast to `WebView.RunJavaScript` this function returns the result on Windows, but needs IE 9 or newer. Use `WebView.SetInternetExplorerVersion` to configure the IE version used in web viewer.

For MacOS and iOS this passes through to `WebView.RunJavaScript` function.

Returns result on MacOS/iOS if possible in original data type, so numbers and booleans are returned as number and not as text. We try to return array or objects as JSON.

On Windows booleans and numbers are returned as numbers.

### Examples

Evaluate an expression:

```
MBS( "WebView.Evaluate"; "web"; "1+2" )
```

Build some JavaScript object and return as JSON:

```
MBS("WebView.Evaluate"; "web"; "var obj = { name: \"John\", age: 30, city: \"New York\" } ;
JSON.stringify(obj);")
```

Defines and runs a function in JavaScript in the web viewer:

```
MBS("WebView.Evaluate"; "web";
"function makeCRCTable() {
var c;
var crcTable = [ ] ;
for(var n =0; n <256; n++) {
c = n;
for(var k =0; k <8; k++) {
c = ((c& 1) ? (0xEDB88320 ^ (c »>1)) : (c »>1));
```

```

}
crcTable [ n ] = c;
}
return crcTable;
}

function crc32(str) {
var crcTable = crcTable || (crcTable = makeCRCTable());
var crc = 0 ^(-1);

for (var i = 0; i <str.length; i++) {
crc = (crc »>8) ^crcTable [ (crc ^str.charCodeAt(i) & 0xFF) ];
}

return (crc ^(-1)) »>0;
};

crc32('Hello World');")

```

Fill a search form, submit and query result:

```

# load website with search field:
Set Web Viewer [ Object Name: "web" ; URL: "https://something.com/searchpage" ]
#
# wait for website to finish loading
Pause/Resume Script [ Duration (seconds): ,5 ]
Loop
Exit Loop If [ MBS("WebView.IsLoading"; "web") 1 ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# fill in search term and send change event, so this website sees it:
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "document.getElementById('search-Field').value = '" & Substitute ( Web::SearchTerm ; "" ; "" ) & """) ]
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "var o = document.getElementById('search-Field'); var evt = document.createEvent('Events'); evt.initEvent('change', true, true); o.dispatchEvent(evt); } ") ]
#
# wait a bit
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# send click event to search button
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "var o = document.getElementById('search-Button'); var evt = document.createEvent('Events'); evt.initEvent('click', true, true); o.dispatchEvent(evt); } ") ]
#
# wait for website to finish loading

```

```

Pause/Resume Script [ Duration (seconds): ,5 ]
Loop
Exit Loop If [ MBS("WebView.IsLoading"; "web") 1 ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# query values from website
Set Field [ Web::articleId ; MBS("WebView.Evaluate"; "web"; "document.getElementById('articleId').innerHTML;") ]
Set Field [ Web::price ; MBS("WebView.Evaluate"; "web"; "document.getElementById('price').innerHTML;")
]

```

Wait for field named Remember to show up on website:

```

Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $count ; Value: 0 ]
Loop
Set Variable [ $r ; Value: MBS("WebView.Evaluate"; "web"; "(null == document.getElementById('Remember'))") ]
Exit Loop If [ $r = 0 ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $count ; Value: $count + 1 ]
If [ $count = 20 ]
Show Custom Dialog [ "Timeout" ; "Failed to load website and get the remember checkbox." ]
Exit Script [ Text Result: ]
End If
End Loop
Pause/Resume Script [ Duration (seconds): 1 ]
# now you can set/query it

```

Query scroll position via JavaScript:

```
MBS( "WebView.Evaluate"; "web"; "document.scrollingElement.scrollTop" )
```

### See also

- 101.2 JavaScript.EvaluateScript 5289
- 183.46 WebView.FindByName 8469
- 183.89 WebView.IsLoading 8526
- 183.111 WebView.RunJavaScript 8557
- 183.112 WebView.RunJavaScriptReturnTitle 8567
- 183.136 WebView.SetInternetExplorerVersion 8604

**Example Databases**

- [List/Sort Benchmark](#)
- [WebView/JavaScript Evaluate](#)

**183.44.1 Blog Entries**

- [New Examples 2020](#)
- [FileMaker and JavaScript - the perfect combination](#)
- [Automate web viewer in FileMaker](#)
- [CRC function in FileMaker using JavaScript](#)
- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.0pr6](#)

Created 4th January 2020, last changed 5th April 2020.

## 183.45 **WebView.ExecCommand**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.3	No	Yes	No	No	No

MBS( "WebView.ExecCommand"; WebViewerRef; Command; ShowUI { ; Parameter } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Command

The command to pass.

"Print"

#### ShowUI

Whether to show user interface. Pass 1 to enable user interface or 0 to disable.

1

#### Parameter

Optional

The parameter to pass. Number, text or boolean are currently passed.

**Result** Returns OK, Failed or error.

### Description

Returns OK if command was sent successfully. Returns Failed if command was not sent. Returns other windows errors, e.g. if WebViewer was not found.

### Examples

Print webviewer:

```
MBS( "Webview.ExecCommand"; "web"; "Print"; 1)
```

Select all text:

```
MBS( "Webview.ExecCommand"; "web"; "SelectAll"; 1)
```

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.122 [WebView.SendCommand](#) 8581

### Example Databases

- [WebViewer/Windows only/WebViewer Commands on Windows](#)

### 183.45.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 31st May 2017, last changed 25th August 2017.



## 183.46 **WebView.FindByName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

MBS( "WebView.FindByName"; WindowRef; WebViewerObjectName )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### WebViewerObjectName

The name of the Web Viewer as set in the object info palette.

"web"

### Description

This function is used by all the other functions to target the correct web viewer. This function requires the WindowRef that is returned by the WebView.FindWindowByTitle function. **Known Issues:** In FileMaker 9, the WebView control must have the Display Progress Bar and Display Status Messages check boxes set to "unchecked" FileMaker 8, Windows PC only. The WebView Control can not be set to have "zero" line width on it's border. With the release of 1.4 this function became optional. You can now access a WebViewer by its name. But this is still useful in some scenarios. If you are trying to get a handle on WebViewer that is displayed in List mode, you must use this method.

The Webview reference is only valid until FileMaker destroys the Webviewer. So better search again when you move to a new record or change the window.

The webviewer must have content to be found. If you don't load a page, you should still put an "about:blank" URL there.

### Examples

Find the Web View ID

```
Let(
[
  WebViewerName = "web";
  WindowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
MBS("WebView.FindByName"; WindowRef; WebViewerName)
)
```

Find Webviewer in current window:

```
MBS("WebView.FindByName"; Get(WindowName); "web")
```

**See also**

- 183.144 `WebView.canResetPageZoom` 8617
- 183.145 `WebView.canZoomPageIn` 8618
- 183.48 `WebView.FindWindowByTitle` 8472
- 183.148 `WebView.getPageSizeMultiplier` 8621
- 183.133 `WebView.SetFormValue` 8600
- 183.152 `WebView.setZoom` 8625
- 183.142 `WebView.StopLoading` 8615
- 183.143 `WebView.UserScripts` 8616
- 185.15 `Window.FindByIndex` 8686
- 185.16 `Window.FindByTitle` 8688

**Example Databases**

- [WebViewer/Disable Javascript alerts on Webviewer Mac](#)
- [WebViewer/Form Fields/Benchmark](#)
- [WebViewer/Form Fields/Forms Sample 2](#)
- [WebViewer/Form Fields/Forms Sample](#)
- [WebViewer/Form Fields/WebViewer Forms](#)
- [WebViewer/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebViewer/Javascript calls Filemaker Script/callbacks](#)

**183.46.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr7](#)
- [Web viewer exists only with URL loaded](#)
- [MBS FileMaker Plugin, version 9.1pr4](#)
- [MBS FileMaker Plugin, version 9.1pr1](#)

**183.46.2 FileMaker Magazin**

- [Ausgabe 1/2008, Seite 32](#)

Created 18th August 2014, last changed 8th February 2016.

**183.47 WebView.FindWindowByIndex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

MBS( "WebView.FindWindowByIndex"; Index )

**Parameters****Index**

any number starting with 0

**Description**

The Window Reference is a unique ID handed out by the operating system. It is used by the rest of the WebView Functions Caution: Passing 0 for Index will grab the front most window which should be your FileMaker window, but it could be any window including dialogs. This is a particular problem with the "Data Viewer" which is always in the front. Window.FindByTitle was added to version 1.1 as a more reliable way of getting the Window.Ref.

The window reference is only valid until the window is closed.

**See also**

- 183.48 [WebView.FindWindowByTitle](#) 8472
- 185.16 [Window.FindByTitle](#) 8688

Created 18th August 2014, last changed 18th August 2014.

## 183.48 WebView.FindWindowByTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

MBS( "WebView.FindWindowByTitle"; Title )

### Parameters

#### Title

The title of the widow

"Hello"

**Result** Returns window reference number or error.

### Description

The Window Reference is a unique ID.

The window reference is only valid until the window is closed.

On normal FileMaker on desktop you can use Get(WindowName), but on FileMaker Server the name includes the server name, so you need to use: Get(WindowName) & " (" & Get(HostName) & ")"

If 0 is returned, no window was found.

### Examples

Get the Window Reference of the current window

MBS( "WebView.FindWindowByTitle" ; Get(WindowName) )

Find window reference on FileMaker Server where FileMaker includes server name in window name:

MBS( "WebView.FindWindowByTitle"; Get(WindowName) & " (" & Get(HostName) & ")" )

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.47 WebView.FindWindowByIndex](#) 8471

### Example Databases

- [WebView/Disable Javascript alerts on Webviewer Mac](#)
- [WebView/Form Fields/Benchmark](#)
- [WebView/Form Fields/WebViewer Forms](#)
- [WebView/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebView/Javascript calls Filemaker Script/callbacks](#)

- [Window/Window Fade](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.49 WebView.FormReset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.FormReset"; WebViewerRef; FormNameOrIndex )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.50 [WebView.FormSubmit](#) 8475

### 183.49.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.50 **WebView.FormSubmit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.FormSubmit"; WebViewerRef; FormNameOrIndex )

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

### Description

### Examples

Submit form f:

MBS( "WebView.FormSubmit"; "web"; "f" )

### See also

- 183.32 [WebView.ClickInput](#) 8448
- 183.46 [WebView.FindByName](#) 8469
- 183.49 [WebView.FormReset](#) 8474
- 183.130 [WebView.SetFormInputValue](#) 8593

### 183.50.1 **Blog Entries**

- [Automate web viewer in FileMaker](#)
- [Login in FileMaker web viewer if needed](#)

Created 18th August 2014, last changed 31st August 2017.

## 183.51 WebView.GetAllowsLinkPreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.3	Yes	No	No	No	Yes

MBS( "WebView.GetAllowsLinkPreview"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns 1, 0 or error.

### Description

A boolean value indicating whether link preview is allowed for any links inside this webview. The default value is true on Mac and iOS.

Returns 1 if allowed or 0 if disallowed.

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.123 [WebView.SetAllowsLinkPreview](#) 8582

### 183.51.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 5th January 2020.



## 183.52 **WebView.GetAutoResizingMask**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Webview	7.5	Yes	No	No	No	No

MBS( "WebView.GetAutoResizingMask"; WebViewerRef )

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns number or error.

### Description

This defines whether view changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### See also

- 41.5 [AVPlayer.GetAutoResizingMask](#) 1077
- 41.29 [AVPlayer.SetAutoResizingMask](#) 1104
- 70.9 [DragDrop.GetAutoResizingMask](#) 2536
- 108.15 [MapView.GetAutoResizingMask](#) 5744
- 108.65 [MapView.SetAutoResizingMask](#) 5798
- 168.10 [TextView.GetAutoResizingMask](#) 8016
- 168.30 [TextView.SetAutoResizingMask](#) 8036
- 183.46 [WebView.FindByName](#) 8469
- 183.124 [WebView.SetAutoResizingMask](#) 8583

### 183.52.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr8](#)

Created 14th November 2017, last changed 20th February 2019.

## 183.53 **WebView.GetCustomUserAgent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.9	Yes	No	No	No	Yes

MBS( "WebView.GetCustomUserAgent"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns current user agent text or error.

### Description

Use `WebView.SetCustomUserAgent` to set it.

Add iOS with version 9.3.

### See also

- 183.46 `WebView.FindByName` 8469
- 183.125 `WebView.SetCustomUserAgent` 8585

### 183.53.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 15th July 2019.

## 183.54 WebView.GetEditable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.0	Yes	Yes	No	No	Yes

MBS( "WebView.GetEditable"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns 1 if editable and 0 if not editable.

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.81 [WebView.GetTitle](#) 8516
- 183.126 [WebView.SetEditable](#) 8587

### 183.54.1 Blog Entries

- [MBS Filemaker Plugin, version 3.0pr8](#)

Created 18th August 2014, last changed 18th August 2014.

**183.55 WebView.GetForm**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.6	Yes	Yes	No	No	Yes

MBS( "WebView.GetForm"; WebViewerRef; Index )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Index**

The index of the form to query. From 0 to WebView.GetFormCount-1.

0

**Result** The name of the form or an empty string.

**Description****See also**

- 183.57 [WebView.GetFormCount](#) 8483
- 183.63 [WebView.GetFormValue](#) 8492
- 183.65 [WebView.GetHTMLText](#) 8496
- 183.67 [WebView.GetIcon](#) 8499
- 183.72 [WebView.GetLink](#) 8505
- 183.79 [WebView.GetSource](#) 8514
- 183.82 [WebView.GetURL](#) 8517
- 183.121 [WebView.SelectedText](#) 8579
- 183.127 [WebView.SetFocus](#) 8588
- 183.152 [WebView.setZoom](#) 8625

Created 18th August 2014, last changed 23th February 2018.

## 183.56 `WebView.GetFormButtonValue`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormButtonValue"; WebViewerRef; FormNameOrIndex; ButtonNameOrIndex { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### ButtonNameOrIndex

The name of the button or the index

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

#### See also

- 183.46 `WebView.FindByName` 8469
- 183.59 `WebView.GetFormInputValue` 8485
- 183.61 `WebView.GetFormSelectValue` 8488
- 183.62 `WebView.GetFormTextAreaValue` 8490
- 183.128 `WebView.SetFormButtonValue` 8589
- 183.130 `WebView.SetFormInputValue` 8593
- 183.131 `WebView.SetFormSelectValue` 8596

Created 18th August 2014, last changed 19th January 2015.

**183.57 WebView.GetFormCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.6	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormCount"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** The number of forms found on the website.

**Description**

May not work for websites with frames.

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481
- 183.63 [WebView.GetFormValue](#) 8492
- 183.69 [WebView.GetImageCount](#) 8502
- 183.73 [WebView.GetLinkCount](#) 8506

Created 18th August 2014, last changed 18th August 2014.

## 183.58 WebView.GetFormInputChecked

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormInputChecked"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.59 [WebView.GetFormInputValue](#) 8485
- 183.129 [WebView.SetFormInputChecked](#) 8591
- 183.130 [WebView.SetFormInputValue](#) 8593

### Example Databases

- [WebViewer/Form Fields/Formfield sample](#)
- [WebViewer/Form Fields/Forms Sample 2](#)

Created 18th August 2014, last changed 18th August 2014.



## 183.59 **WebView.GetFormInputValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormInputValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex { ; OnlyVisible } )

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

#### **FieldNameOrIndex**

You can either pass the field name of the field index. 0 is the first item

#### **OnlyVisible**

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.56 [WebView.GetFormButtonValue](#) 8482
- 183.58 [WebView.GetFormInputChecked](#) 8484
- 183.61 [WebView.GetFormSelectValue](#) 8488
- 183.63 [WebView.GetFormValue](#) 8492
- 183.128 [WebView.SetFormButtonValue](#) 8589
- 183.129 [WebView.SetFormInputChecked](#) 8591
- 183.130 [WebView.SetFormInputValue](#) 8593
- 183.131 [WebView.SetFormSelectValue](#) 8596

### Example Databases

- [WebViewer/Form Fields/Formfield sample](#)
- [WebViewer/Form Fields/Forms Sample 2](#)
- [WebViewer/Form Fields/Hidden Fields](#)
- [WebViewer/Form Fields/Try fields](#)

### 183.59.1 Blog Entries

- [FileMaker and WebView communication](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.60 **WebView.GetFormSelectOptions**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.1	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormSelectOptions"; WebViewRef; FormNameOrIndex; FieldNameOrIndex { ; OnlyVisible } )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

#### **FieldNameOrIndex**

You can either pass the field name of the field index. 0 is the first item

#### **OnlyVisible**

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

**Result** Returns list of values or error.

### Description

Returns the values of all options attached to this select control with the value string.

Each line in the result is one option.

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.61 [WebView.GetFormSelectValue](#) 8488

### 183.60.1 **Blog Entries**

- [MBS Filemaker Plugin, version 3.1pr9](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.61 WebView.GetFormSelectValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormSelectValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

In HTML the Options of a Select tag can include a "value" attribute. If they do then this function gets the value of that attribute.

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.56 [WebView.GetFormButtonValue](#) 8482
- 183.59 [WebView.GetFormInputValue](#) 8485
- 183.60 [WebView.GetFormSelectOptions](#) 8487
- 183.62 [WebView.GetFormTextAreaValue](#) 8490
- 183.128 [WebView.SetFormButtonValue](#) 8589
- 183.130 [WebView.SetFormInputValue](#) 8593
- 183.131 [WebView.SetFormSelectValue](#) 8596

### Example Databases

- [WebViewer/Form Fields/Formfield sample](#)

### 183.61.1 **Blog Entries**

- [MBS Filemaker Plugin 2.1 prerelease 2](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.62 WebView.GetFormTextAreaValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetFormTextAreaValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

#### See also

- [183.46 WebView.FindByName](#) 8469
- [183.56 WebView.GetFormButtonValue](#) 8482
- [183.61 WebView.GetFormSelectValue](#) 8488
- [183.132 WebView.SetFormTextAreaValue](#) 8598

### Example Databases

- [WebViewer/Form Fields/Formfield sample](#)
- [WebViewer/Form Fields/Forms Sample 2](#)
- [WebViewer/MethodDraw SVG Editor/MethodDraw](#)
- [WebViewer/Signature Field](#)
- [WebViewer/TinyMCE/TinyMCE](#)
- [WebViewer/WebViewer Markdown/WebViewer Markdown](#)

### **183.62.1 Blog Entries**

- [Signature Field in FileMaker](#)
- [Using Markdown Javascript converter in FileMaker](#)
- [MBS FileMaker Plugin, version 5.1pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.63 WebView.GetFormValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

```
MBS( "WebView.GetFormValue"; WebViewerRef; FormName; FieldName { ; OnlyVisible } )
```

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormName

The Form containing the field to read, case sensitive

#### FieldName

The field to read, case sensitive

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

The forms and fields must be have valid "name" attributes in the html. These are case sensitive. So a field with the name="Test" is not the same as a field with the name="test". replaced by `WebView.GetInputValue`

### Examples

Read a Field

```
Let(
[
Field = "name";
Form = "myForm";
WebViewerName = "MyWebViewer";

WindowRef = MBS("Window.FindByTitle"; Get(WindowName));
WebViewerID = MBS("WebView.FindByName"; WindowRef; WebViewerName)

];
```

```
MBS("WebView.GetFormValue"; WebViewerID; Form; Field)
```

```
)
```

**See also**



183.63. <i>WEBVIEW.GETFORMVALUE</i>	8493
• 183.46 WebView.FindByName	8469
• 183.55 WebView.GetForm	8481
• 183.57 WebView.GetFormCount	8483
• 183.59 WebView.GetFormInputValue	8485
• 183.133 WebView.SetFormValue	8600
• 185.16 Window.FindByTitle	8688

### **Example Databases**

- [WebView/Form Fields/WebView Forms](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.64 WebView.GetFormattedText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	Yes

MBS( "WebView.GetFormattedText"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns text or error.

### Description

If possible with formatting, but only the text. This may show more/less text than you see.

See also `WebView.GetPlainText`, `WebView.GetHTMLText` and `WebView.SelectedText`.

Not supported for WebKit 2.x (FileMaker 16 Mac), but works in FileMaker 16, when using a Web Viewer created using `WebView.Create`.

### Examples

Query plain text from webviewer:

```
MBS("WebView.GetPlainText"; "web")
```

Query html text from webviewer:

```
MBS("WebView.GetHTMLText"; "web")
```

Query formatted text from webviewer:

```
MBS("WebView.GetFormattedText"; "web")
```

Query selected text:

```
MBS("WebView.SelectedText"; "web")
```

### See also

- 183.38 `WebView.CopyFormattedText` 8455
- 183.39 `WebView.Create` 8456
- 183.46 `WebView.FindByName` 8469
- 183.55 `WebView.GetForm` 8481

183.64. <i>WEBVIEW.GETFORMATTEDTEXT</i>	8495
• 183.65 <i>WebView.GetHTMLText</i>	8496
• 183.74 <i>WebView.GetPlainText</i>	8507
• 183.121 <i>WebView.SelectedText</i>	8579

### **Example Databases**

- [WebView/Custom WebView](#)
- [WebView/WebView SelectedText](#)

### **183.64.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [MBS FileMaker Plugin, version 8.2pr7](#)
- [MBS FileMaker Plugin, version 5.0pr11](#)

Created 12nd February 2015, last changed 25th February 2020.

## 183.65 WebView.GetHTMLText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.8	Yes	Yes	No	No	Yes

MBS( "WebView.GetHTMLText"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns html code as text or error.

### Description

This is not the HTML code loaded from the server, but the current state.

Typically the website is modified with Javascript to add widgets or hide/show things at runtime.

For websites with frames, result may only contain the main frame and not any child frames.

See also `WebView.GetPlainText`, `WebView.GetFormattedText` and `WebView.SelectedText`.

### Examples

Query plain text from webviewer:

```
MBS("WebView.GetPlainText"; "web")
```

Query html text from webviewer:

```
MBS("WebView.GetHTMLText"; "web")
```

Query formatted text from webviewer:

```
MBS("WebView.GetFormattedText"; "web")
```

Query selected text:

```
MBS("WebView.SelectedText"; "web")
```

### See also

- 168.11 `TextView.GetHTMLText` 8017
- 168.34 `TextView.SetHTMLText` 8041
- 183.46 `WebView.FindByName` 8469
- 183.55 `WebView.GetForm` 8481
- 183.64 `WebView.GetFormattedText` 8494

183.65. <i>WEBVIEW.GETHTMLTEXT</i>	8497
• 183.74 <i>WebView.GetPlainText</i>	8507
• 183.79 <i>WebView.GetSource</i>	8514
• 183.121 <i>WebView.SelectedText</i>	8579

### **Example Databases**

- [WebViewer/Custom WebView](#)
- [WebViewer/Editable Webview](#)
- [WebViewer/WebView SelectedText](#)

### **183.65.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [Zooming video containers on Windows](#)
- [FileMaker and WebViewer communication](#)
- [Interactive FileMaker Containers are Webviewers](#)

Created 18th August 2014, last changed 14th April 2020.

## 183.66 WebView.GetHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.1	Yes	No	No	No	No

MBS( "WebView.GetHidden"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns 0, 1 or error.

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.78 [WebView.GetSilent](#) 8513
- 183.81 [WebView.GetTitle](#) 8516
- 183.134 [WebView.SetHidden](#) 8602
- 183.140 [WebView.SetSilent](#) 8613

### 183.66.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 24th February 2017, last changed 25th August 2017.

## 183.67 **WebView.GetIcon**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.GetIcon"; WebViewRef { ; ImageType; Filename } )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns OK or error.

### Description

Not supported for WebKit 2.x (FileMaker 16 Mac), but works in FileMaker 16, when using a Web Viewer created using WebView.Create.

### See also

- 183.39 [WebView.Create](#) 8456
- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481
- 183.68 [WebView.GetImage](#) 8500
- 183.72 [WebView.GetLink](#) 8505
- 183.82 [WebView.GetURL](#) 8517
- 183.152 [WebView.setZoom](#) 8625

### 183.67.1 **Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr8](#)

Created 19th January 2015, last changed 8th October 2017.

## 183.68 WebView.GetImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.2	Yes	Yes	No	No	Yes

MBS( "WebView.GetImage"; WebViewRef; ImageIndex; PropertyName )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### ImageIndex

The index of the image. From 0 to ImageCount-1.

5

#### PropertyName

The name of the property you want to query: Mac and Windows: name, src, align, usemap, lowsrc, alt, title, complete, lang, border, height, ismap, longdesc, vspace, hspace, width, innerhtml, innertext. Only Mac OS X: altdisplaystring, absoluteimageurl, naturalheight, naturalwidth, x, y. Only Windows: href, vml, start, readystate, protocol, nameprop, mimetype, filecreateddate, fileupdateddate, filemodifieddate, filesize, dynsrc, loop.

"src"

### Description

#### Examples

Queries source of 6th image:

MBS( "WebView.GetImage"; "web"; 5; "src" )

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.67 WebView.GetIcon](#) 8499
- [183.69 WebView.GetImageCount](#) 8502
- [183.81 WebView.GetTitle](#) 8516

### Example Databases

- [CURL/WebViewer Download Images with CURL](#)
- [WebViewer/WebViewer Images](#)



### **183.68.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.2pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.69 WebView.GetImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.2	Yes	Yes	No	No	Yes

MBS( "WebView.GetImageCount"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

### Examples

Queries image count:

MBS( "WebView.GetImageCount"; "web" )

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.57 WebView.GetFormCount](#) 8483
- [183.68 WebView.GetImage](#) 8500
- [183.73 WebView.GetLinkCount](#) 8506

### Example Databases

- [CURL/WebViewer Download Images with CURL](#)
- [WebViewer/WebViewer Images](#)

### 183.69.1 Blog Entries

- [MBS Filemaker Plugin, version 2.2pr6](#)

Created 18th August 2014, last changed 18th August 2014.

**183.70 WebView.GetInternetExplorerHiDPI**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	10.2	No	Yes	No	No	No

MBS( "WebView.GetInternetExplorerHiDPI" )

**Result** Returns 1, 0 or error.

**Description**

We can opt-in for your FileMaker installation to let web viewer use proper resolution handling for web viewer.

**See also**

- 183.71 [WebView.GetInternetExplorerVersion](#) 8504
- 183.135 [WebView.SetInternetExplorerHiDPI](#) 8603
- 183.136 [WebView.SetInternetExplorerVersion](#) 8604

**183.70.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 22nd April 2020, last changed 22nd April 2020.

## 183.71 WebView.GetInternetExplorerVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.4	No	Yes	No	No	No

MBS( "WebView.GetInternetExplorerVersion" )

**Result** Returns number or error.

### Description

### Examples

Query value, set it and query again:

```
Set Variable [ $R; Value:MBS( "Webview.GetInternetExplorerVersion" ) ]
Set Variable [ $R; Value:MBS( "Webview.SetInternetExplorerVersion"; 11000 ) ]
Set Variable [ $R; Value:MBS( "Webview.GetInternetExplorerVersion" ) ]
```

### See also

- [183.70 WebView.GetInternetExplorerHiDPI](#) 8503
- [183.135 WebView.SetInternetExplorerHiDPI](#) 8603
- [183.136 WebView.SetInternetExplorerVersion](#) 8604

### 183.71.1 Blog Entries

- [MBS FileMaker Plugin, version 6.4pr9](#)

Created 20th September 2016, last changed 25th August 2017.

## 183.72 **WebView.GetLink**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.8	Yes	Yes	No	No	Yes

MBS( "WebView.GetLink"; WebViewerRef; LinkIndex; PropertyName )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### LinkIndex

The index of the link. From 0 to LinkCount-1.

5

#### PropertyName

The name of the property you want to query: href, rev, name, rel, accessKey, target, coords, hrefLang, type, charset, title lang, innerHTML, innerText  
"href"

### Description

#### Examples

Queries 6th link:

MBS( "WebView.GetLink"; "web"; 5; "href" )

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481
- 183.67 [WebView.GetIcon](#) 8499
- 183.73 [WebView.GetLinkCount](#) 8506
- 183.78 [WebView.GetSilent](#) 8513
- 183.81 [WebView.GetTitle](#) 8516
- 183.82 [WebView.GetURL](#) 8517

### Example Databases

- [WebViewer/WebViewer Links](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.73 WebView.GetLinkCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.8	Yes	Yes	No	No	Yes

MBS( "WebView.GetLinkCount"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

### Examples

Queries number of links:

MBS( "WebView.GetLinkCount"; "web" )

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.57 [WebView.GetFormCount](#) 8483
- 183.69 [WebView.GetImageCount](#) 8502
- 183.72 [WebView.GetLink](#) 8505

### Example Databases

- [WebViewer/WebViewer Links](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.74 **WebView.GetPlainText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.1	Yes	Yes	No	No	Yes

MBS( "WebView.GetPlainText"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns text or error.

### Description

No formatting, but only the text. This may show more/less text than you see.

For websites with frames, result may only contain the main frame and not any child frames.

See also `WebView.GetHTMLText`, `WebView.GetFormattedText` and `Webview.SelectedText`.  
Due to a bug in IE on Windows, you may see CSS in the text returned.

### Examples

Query plain text from webviewer:

```
MBS("WebView.GetPlainText"; "web")
```

Query html text from webviewer:

```
MBS("WebView.GetHTMLText"; "web")
```

Query formatted text from webviewer:

```
MBS("WebView.GetFormattedText"; "web")
```

Query selected text:

```
MBS("WebView.SelectedText"; "web")
```

Wait for some text to show up on website:

```
Pause/Resume Script [ Duration (seconds): 1 ]
```

```
Set Variable [ $count ; Value: 0 ]
```

```
Loop
```

```
Set Variable [ $text ; Value: MBS("WebView.GetPlainText"; "web") ]
```

```
Exit Loop If [ Position ( $text; "following quotes"; 1; 1 ) >1 ]
```

```
Pause/Resume Script [ Duration (seconds): 1 ]
```

```
Set Variable [ $count ; Value: $count + 1 ]
```

```
If [ $count = 60 ]
```

```
Show Custom Dialog [ "Timeout" ; "Failed to load website and get the quotes text." ]  
Exit Script [ Text Result: ]  
End If  
End Loop  
Pause/Resume Script [ Duration (seconds): 1 ]
```

**See also**

- 168.14 [TextView.GetPlainText](#) 8020
- 168.35 [TextView.SetPlainText](#) 8042
- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481
- 183.64 [WebView.GetFormattedText](#) 8494
- 183.65 [WebView.GetHTMLText](#) 8496
- 183.121 [WebView.SelectedText](#) 8579

**Example Databases**

- [CURL/WebServices/AdobeSign Webservice](#)
- [CURL/WebServices/ebay webservice/ebay Webservice](#)
- [WebViewer/WebView SelectedText](#)

**183.74.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.2pr3](#)
- [FileMaker and WebViewer communication](#)
- [MBS Filemaker Plugin, version 3.2pr2](#)

Created 18th August 2014, last changed 14th April 2020.



## 183.75 **WebView.GetPreferences**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.2	Yes	No	No	No	Yes

MBS( "WebView.GetPreferences"; WebViewerRef; ParameterName )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### ParameterName

The name of the parameter.

isJavaEnabled

**Result** Returns a boolean value for allowsAnimatedImageLooping, allowsAnimatedImages, javaEnabled, javaScriptCanOpenWindowsAutomatically, javaScriptEnabled, loadsImagesAutomatically, plugInsEnabled, privateBrowsingEnabled, shouldPrintBackgrounds, tabsToLinks, userStyleSheetEnabled and usesPageCache; a number for cacheModel, defaultFixedFontSize, defaultFontSize, minimumFontSize or minimumLogicalFontSize; a string for cursiveFontFamily, defaultTextEncodingName, fantasyFontFamily, fixedFontFamily, sansSerifFontFamily, serifFontFamily or standardFontFamily.

### Description

For WebKit 1.x you can pass empty WebViewerRef to access global preferences.

Available keys for WebKit 1.x: allowsAnimatedImageLooping, allowsAnimatedImages, cacheModel, cursiveFontFamily, defaultFixedFontSize, defaultFontSize, defaultTextEncodingName, fantasyFontFamily, fixedFontFamily, javaEnabled, javaScriptCanOpenWindowsAutomatically, javaScriptEnabled, loadsImagesAutomatically, minimumFontSize, minimumLogicalFontSize, plugInsEnabled, privateBrowsingEnabled, sansSerifFontFamily, serifFontFamily, shouldPrintBackgrounds, standardFontFamily, tabsToLinks, userStyleSheetEnabled or usesPageCache.

Available keys for WebKit 2.x (FileMaker 16): developerExtrasEnabled, logsPageMessagesToSystemConsoleEnabled, minimumFontSize, javaScriptEnabled, javaScriptCanOpenWindowsAutomatically, allowFileAccessFromFileURLs, allowUniversalAccessFromFileURLs, telephoneNumberDetectionIsEnabled, javaEnabled and plugInsEnabled.

Please check WebKit documentation for details.

### Examples

Queries setting for background printing:

```
MBS("WebView.GetPreferences"; "shouldPrintBackgrounds")
```

Query developer extras enabled state for webviewer:

Set Variable [ \$r; Value:MBS("Webview.GetPreferences"; "web"; "developerExtrasEnabled") ]

Set developer extras enabled state for webviewer:

Set Variable [ \$r; Value:MBS("Webview.SetPreferences"; "web"; "developerExtrasEnabled"; 1) ]

#### See also

- 183.46 WebView.FindByName 8469
- 183.137 WebView.SetPreferences 8607

### 183.75.1 Blog Entries

- [MBS Filemaker Plugin, version 2.2pr3](#)

Created 18th August 2014, last changed 20th December 2017.

## 183.76 **WebView.GetPrintParameter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	No	No	No	No

MBS( "WebView.GetPrintParameter"; ParameterName )

### Parameters

#### ParameterName

The name of the parameter. Can be horizontallyCentered, verticallyCentered, showPrintPanel, orientation, printer, bottomMargin, topMargin, leftMargin or rightMargin.  
orientation

**Result** Returns a boolean value for horizontallyCentered, verticallyCentered and showPrintPanel. Returns "portrait" or "landscape" for orientation. Returns name for printer. Returns a number for bottomMargin, topMargin, leftMargin or rightMargin.

### Description

### Examples

Queries bottom margin:

MBS("WebView.GetPrintParameter"; "bottomMargin")

### See also

- 183.102 [WebView.Print](#) 8544
- 183.104 [WebView.PrintToFile](#) 8547
- 183.138 [WebView.SetPrintParameter](#) 8610

### 183.76.1 **Blog Entries**

- [MBS Filemaker Plugin, version 2.1 final candidate](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.77 WebView.GetPrivateBrowsing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.5	Yes	No	No	No	Yes

MBS( "WebView.GetPrivateBrowsing"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns 1, 0 or error.

### Description

Returns 1 if enabled or 0 if not.

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.139 [WebView.SetPrivateBrowsing](#) 8612

### 183.77.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 27th October 2019, last changed 5th January 2020.

**183.78 WebView.GetSilent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.5	No	Yes	No	No	No

MBS( "WebView.GetSilent"; WebViewRef )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns 0, 1 or error.

**Description****See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.66 [WebView.GetHidden](#) 8498
- 183.72 [WebView.GetLink](#) 8505
- 183.79 [WebView.GetSource](#) 8514
- 183.81 [WebView.GetTitle](#) 8516
- 183.134 [WebView.SetHidden](#) 8602
- 183.140 [WebView.SetSilent](#) 8613

**183.78.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 24th November 2016, last changed 25th August 2017.

## 183.79 WebView.GetSource

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.5	Yes	Yes	No	No	Yes

MBS( "WebView.GetSource"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** The HTML text.

### Description

This is the original downloaded source. If you want the source of what is visible, please use `WebView.GetHTMLText` function.

Text is considered either being valid UTF-8 or ISO Latin1 text encoded.

### See also

- 183.46 `WebView.FindByName` 8469
- 183.55 `WebView.GetForm` 8481
- 183.65 `WebView.GetHTMLText` 8496
- 183.78 `WebView.GetSilent` 8513
- 183.80 `WebView.GetSourceData` 8515

Created 18th August 2014, last changed 25th February 2017.

**183.80 WebView.GetSourceData**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	No	No	No	Yes

MBS( "WebView.GetSourceData"; WebViewRef { ; Filename } )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Filename**

Optional

The filename to use for the container.

"test.pdf"

**Result** The data in the webviewer as a container value. For example for a PDF document, the PDF document is returned.

**Description**

If you provide a filename, we'll use this name for the container value. But if you provide a name, your name will be used.

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.79 [WebView.GetSource](#) 8514

**Example Databases**

- [WebView/Data from URL](#)
- [WebView/WebView Save PDF \(Mac\)](#)

**183.80.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.2pr4](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.81 WebView.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.GetTitle"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

### Description

### Examples

Queries title:

```
$title = MBS( "WebView.GetTitle" ; "web" )
```

### See also

- 183.46 WebView.FindByName 8469
- 183.54 WebView.GetEditable 8480
- 183.66 WebView.GetHidden 8498
- 183.68 WebView.GetImage 8500
- 183.72 WebView.GetLink 8505
- 183.78 WebView.GetSilent 8513
- 183.141 WebView.SetTitle 8614

Created 18th August 2014, last changed 18th August 2014.



**183.82 WebView.GetURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.2	Yes	Yes	No	No	Yes

MBS( "WebView.GetURL"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** The URL of the webviewer.

**Description****Examples**

Queries current URL:

```
$URL = MBS( "WebView.GetURL" ; "web" )
```

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481
- 183.67 [WebView.GetIcon](#) 8499
- 183.72 [WebView.GetLink](#) 8505
- 183.92 [WebView.LoadURL](#) 8530
- 183.100 [WebView.PostURL](#) 8541

**Example Databases**

- [WebViewer/WebViewer GetURL](#)

**183.82.1 Blog Entries**

- [MBS Releases the MBS Filemaker plug-in in version 2.2](#)
- [MBS Filemaker Plugin, version 2.2pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.83 WebView.GoBack

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.4	Yes	Yes	No	No	Yes

MBS( "WebView.GoBack"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### Examples

Go back in a webviewer:

```
MBS( "WebView.GoBack"; "web" )
```

Go forward in a webviewer:

```
MBS( "WebView.GoForward"; "web" )
```

### See also

- 183.46 WebView.FindByName 8469
- 183.84 WebView.GoForward 8519

### Example Databases

- [WebViewer/Forward and Back](#)

Created 18th August 2014, last changed 31st August 2017.

**183.84 WebView.GoForward**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.4	Yes	Yes	No	No	Yes

MBS( "WebView.GoForward"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Description****Examples**

Go forward in a webviewer:

```
MBS( "WebView.GoForward"; "web" )
```

Go back in a webviewer:

```
MBS( "WebView.GoBack"; "web" )
```

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.83 [WebView.GoBack](#) 8518

**Example Databases**

- [WebViewer/Forward and Back](#)

Created 18th August 2014, last changed 31st August 2017.

## 183.85 WebView.HasOnlySecureContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.3	Yes	Yes	No	No	Yes

MBS( "WebView.HasOnlySecureContent"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns 1, 0 or error.

### Description

Returns a boolean value indicating whether all resources on the page have been loaded over securely encrypted connections.

On Windows and older WebKit 1.x, just returns whether URL is https.

### See also

- 183.46 [WebView.FindByName](#) 8469

### 183.85.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.

**183.86 WebView.InstallCallback**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	No

MBS( "WebView.InstallCallback" )

**Description**

This function needs to be called one time to enable JavaScript to reach out from the web viewer to run a FileMaker Script.

One strategy is to call this function on start-up before any WebViews have been displayed.

To call back from Javascript to FileMaker, you assign a string to the window.status property:

```
window.status="Filename:Scriptname"
or
window.status="Filename:Scriptname:Parameter"
```

The Parameter part can contain ":". Filename must include file extensions so FileMaker finds the database file.

You can also call it within a link with "javascript:window.status='Filename:Scriptname:Parameter'". Like this: href="javascript:window.status='callbacks.fp7:Another Script:Hello World'".

Does not work currently with Internet Explorer 10 on Windows.

Not supported for WebKit 2.x (FileMaker 16 Mac), but works in FileMaker 16, when using a Web Viewer created using WebView.Create.

For FileMaker 16, please check Webview.AddScriptMessageHandler function as a replacement.

**Examples**

Install Callbacks

```
MBS("WebView.InstallCallback")
```

**See also**

- 183.25 [WebView.AddScriptMessageHandler](#) 8438
- 183.39 [WebView.Create](#) 8456

**Example Databases**

- [WebViewer/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)

- [WebView/Javascript calls Filemaker Script/callbacks](#)
- [WebView/Switch Control/Switch](#)
- [Window/Window Scrollbar Position](#)

### 183.86.1 Blog Entries

- [FileMaker and WebView communication](#)
- [Trigger FileMaker Scripts from JavaScript in FileMaker 16](#)
- [MBS FileMaker Plugin, version 7.5pr2](#)
- [The Internet Explorer 10 Problem](#)

Created 18th August 2014, last changed 31st July 2019.

## 183.87 **WebView.InstallMultiFileOpenDialog**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.1	Yes	No	No	No	No

MBS( "WebView.InstallMultiFileOpenDialog" )

**Result** Returns OK or error.

### **Description**

Call once when solution opens to have all webviewer allow multiple selections on webpages which support that.

Added support for FileMaker 16 in plugin version 7.1

### **Example Databases**

- [WebViewer/Form with Multiple Files](#)

### **183.87.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.1pr4](#)
- [Multiple file selection for WebViewer/HTMLViewer](#)

Created 7th April 2015, last changed 26th February 2017.

## 183.88 WebView.InstallUserMediaAccess

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	10.2	Yes	No	No	No	Yes

MBS( "WebView.InstallUserMediaAccess"; Devices )

### Parameters

#### Devices

Which devices to enable. Pass 1 for microphone. Pass 2 for camera. Pass 4 for display. For multiple values, just add them together.

1+2

**Result** Returns OK or error.

### Description

Call once on start of FileMaker to enable user media access.

See AVRecorder.AuthorizationStatusForMediaType to query status for camera/microphone access.

### Examples

Installs it, enable in preferences and load an URL:

```
# Make sure it's installed
Set Variable [ $r ; Value: MBS("WebView.InstallMediaAccess"; 1+2+4) ]
# make sure you have a web viewer with about:blank as URL

# enable via preferences
Set Variable [ $r ; Value: MBS( "WebView.SetPreferences"; "web"; "mediaStreamEnabled"; 1 ) ]
Set Variable [ $r ; Value: MBS( "WebView.SetPreferences"; "web"; "mediaDevicesEnabled"; 1 ) ]

# load some website
Set Web Viewer [ Object Name: "web" ; URL: "https://test.webrtc.org" ]
```

### See also

- 42.4 AVRecorder.AuthorizationStatusForMediaType 1128
- 183.137 WebView.SetPreferences 8607

### Example Databases

- [WebViewer/InstallUserMediaAccess](#)

### 183.88.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)



183.88. *WEBVIEW.INSTALLUSERMEDIAACCESS*

8525

Created 6th May 2020, last changed 11st May 2020.

## 183.89 WebView.IsLoading

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.IsLoading"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

This useful if you need to delay making a javascript call to WebViewer until it is done loading.

If you use this in a loop to wait for webviewer, please exit loop when this function doesn't return a 1. So you exit also when an error occurs.

For websites which load more data (e.g. pictures) while you surf the page, the plugin will not notice that.

### Examples

Check loading state for webviewer named web

```
MBS( "WebView.IsLoading"; "web")
```

Wait for WebViewer to finish loading

Loop

```
Exit Loop If [ MBS("WebView.IsLoading"; "web") = 1 ]
```

```
Pause/Resume Script [ Duration (seconds): ,1 ]
```

End Loop

### See also

- 183.32 [WebView.ClickInput](#) 8448
- 183.44 [WebView.Evaluate](#) 8463
- 183.46 [WebView.FindByName](#) 8469
- 183.111 [WebView.RunJavaScript](#) 8557
- 183.130 [WebView.SetFormInputValue](#) 8593
- 183.142 [WebView.StopLoading](#) 8615

### Example Databases

- [CURL/WebServices/Twitter OAuth](#)
- [WebViewer/WebKit 1.x only/WebView Icons](#)

- [WebView/WebView Copy Text](#)
- [WebView/WebView IsLoading](#)

### **183.89.1 Blog Entries**

- [Login in FileMaker web viewer if needed](#)
- [Print WebView on macOS in FileMaker](#)

Created 18th August 2014, last changed 16th February 2017.

## 183.90 WebView.LoadHTML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.0	Yes	Yes	No	No	Yes

MBS( "WebView.LoadHTML"; WebViewerRef; HTMLString { ; URL } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### HTMLString

The HTML String.

"<P>Hello World</P>"

#### URL

Optional

The base URL for finding relative resources like images. (mac only)

"http://www.mbsplugins.de"

**Result** Returns OK or error.

### Description

Added Windows support with version 5.1.

On Windows you may need to reset webviewer before or load "about:blank" to initialize the webviewer by FileMaker.

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.92 [WebView.LoadURL](#) 8530

### Example Databases

- [Mac only/RichText/Write Document](#)
- [Markdown](#)
- [WebViewer/Editable Webview](#)

### 183.90.1 Blog Entries

- [FileMaker and WebViewer communication](#)
- [MBS FileMaker Plugin, version 5.4pr1](#)
- [MBS FileMaker Plugin, version 5.1pr5](#)
- [MBS Filemaker Plugin, version 3.0pr8](#)

Created 18th August 2014, last changed 13th April 2015.

## 183.91 **WebView.LoadJavascriptURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	Yes	No	No	Yes

MBS( "WebView.LoadJavascriptURL"; WebViewerRef; URL )

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **URL**

The URL to load. URL Escapes are expected to be in UTF-8.

### Description

This method is for URLs starting with "javascript:".

#### **See also**

- 183.46 [WebView.FindByName](#)

8469

### Example Databases

- [WebViewer/WebViewer LoadURL](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.92 WebView.LoadURL

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	Yes	No	No	Yes

MBS( "WebView.LoadURL"; WebViewRef; URL { ; cachePolicy; timeoutInterval } )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### URL

The URL to load.

"http://www.mbsplugins.eu/"

#### cachePolicy

Optional

The cache policy. Can be 0 for default, 1 for ignoring local cache, 2 return cache data else load, 3 to return cache data and don't load. (Mac only)

1

#### timeoutInterval

Optional

The timeout interval. (Mac only)

120.0

**Result** Returns "OK" on success.

### Description

In FileMaker 10 (or newer) you can only use LoadURL with a webviewer where FileMaker loaded an URL before. This can be "about:blank".

On Mac and iOS you can specify optionally the timeout and cache policy.

### Examples

Load website from cache only with 2 minutes timeout:

```
MBS("WebView.LoadURL"; "web"; "http://www.monkeybreadsoftware.de/"; 3; 120)
```

Load data URL:

```
MBS( "Webview.LoadURL"; "web"; "data:image/svg+xml;charset=utf-8," & MBS( "Text.EncodeURLComponent"; $svgData); "utf8")
```

### See also

- 167.36 Text.EncodeURLComponent 7954
- 183.39 WebView.Create 8456

183.92. <i>WEBVIEW.LOADURL</i>	8531
• 183.40 <i>WebView.CreateOnPopover</i>	8458
• 183.46 <i>WebView.FindByName</i>	8469
• 183.82 <i>WebView.GetURL</i>	8517
• 183.90 <i>WebView.LoadHTML</i>	8528
• 183.100 <i>WebView.PostURL</i>	8541

### **Example Databases**

- [WebView/Custom WebView](#)
- [WebView/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebView/WebKit 1.x only/WebView Download Delegate for Mac with Custom Webviewer](#)
- [WebView/WebView LoadURL](#)
- [WebView/WebView on Popover](#)

### **183.92.1 Blog Entries**

- [FileMaker and WebView communication](#)
- [Print WebView on macOS in FileMaker](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr7](#)

Created 18th August 2014, last changed 15th August 2018.

## 183.93 WebView.MakeTextLarger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.MakeTextLarger"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### Examples

Increase text size:

```
MBS("Webview.MakeTextLarger"; "web")
```

### See also

- 183.46 WebView.FindByName 8469
- 183.94 WebView.MakeTextSmaller 8533

Created 18th August 2014, last changed 25th August 2017.



## 183.94 **WebView.MakeTextSmaller**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.MakeTextSmaller"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

### Examples

Decreases test size:

```
MBS("Webview.MakeTextSmaller"; "web")
```

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.93 [WebView.MakeTextLarger](#) 8532

Created 18th August 2014, last changed 25th August 2017.

## 183.95 WebView.MakeTextStandardSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.MakeTextStandardSize"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### See also

- 183.46 WebView.FindByName

8469

Created 18th August 2014, last changed 25th August 2017.

## 183.96 **WebView.Passwords.Clear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.3	Yes	No	No	No	No

MBS( "WebView.Passwords.Clear" )

**Result** Returns OK or error.

### **Description**

### **See also**

- 183.97 [WebView.Passwords.Install](#) 8536
- 183.98 [WebView.Passwords.Set](#) 8538

### **183.96.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 24th June 2016, last changed 24th June 2016.

## 183.97 WebView.Passwords.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.3	Yes	No	No	No	No

MBS( "WebView.Passwords.Install"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns OK or error.

### Description

The plugin keeps a list of passwords and provides them to webviewer on request.

The standard password dialog may not show up. So on use this for automated website loading. Our password feature is for HTTP Authentication, not for login forms.

Supported for WebKit 2.x (FileMaker 16 Mac) with plugin version 7.3.

### Examples

Set password and open webpage asking for it:

```
Set Variable [ $r; Value:MBS("WebView.Passwords.Install"; "web") ]
Set Variable [ $r; Value:MBS("WebView.Passwords.Set"; "192.168.2.103"; "admin"; "webcam123") ]
Set Web Viewer [ Object Name: "web"; URL: "http://192.168.2.103/main.htm" ]
```

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.96 [WebView.Passwords.Clear](#) 8535
- 183.98 [WebView.Passwords.Set](#) 8538

### Example Databases

- [WebViewer/Web Password](#)

### 183.97.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr1](#)
- [MBS FileMaker Plugin, version 6.3pr4](#)

183.97. *WEBVIEW.PASSWORDS.INSTALL*

8537

Created 24th June 2016, last changed 10th August 2018.

## 183.98 WebView.Passwords.Set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.3	Yes	No	No	No	No

MBS( "WebView.Passwords.Set"; Host; Name; Password { ; Persistence } )

### Parameters

#### Host

The host name.

"monkeybreadsoftware.de"

#### Name

The user name.

"admin"

#### Password

The password to use.

"890245456"

#### Persistence

Optional

Defines the persistance of the password. Can be Permanent, ForSession, Synchronizable or None. Default is none.

"None"

**Result** Returns OK or error.

### Description

The password is saved and when a website with right host name asks for it, the plugin will tell the webviewer about it.

### Examples

Set password and open webpage asking for it:

```
Set Variable [ $r; Value:MBS("WebView.Passwords.Install"; "web") ]
```

```
Set Variable [ $r; Value:MBS("WebView.Passwords.Set"; "192.168.2.103"; "admin"; "webcam123") ]
```

```
Set Web Viewer [ Object Name: "web"; URL: "http://192.168.2.103/main.htm" ]
```

### See also

- 183.96 WebView.Passwords.Clear 8535
- 183.97 WebView.Passwords.Install 8536

### Example Databases

- [WebViewer/Web Password](#)

### **183.98.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.3pr4](#)

Created 24th June 2016, last changed 27th June 2016.

## 183.99 WebView.Paste

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	Yes	No	No	Yes

MBS( "WebView.Paste"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

This is like choosing the menu command to paste, but without using the menu.

### Examples

Paste content of clipboard to web viewer:

```
Set Variable [ $r ; Value: MBS("WebView.Paste"; "web") ]
```

### See also

- [168.26 TextView.Paste](#) 8032
- [183.46 WebView.FindByName](#) 8469

### Example Databases

- [WebViewer/WebView Copy and Paste](#)

### 183.99.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 26th December 2019.



## 183.100 **WebView.PostURL**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	10.1	Yes	Yes	No	No	Yes

MBS( "WebView.PostURL"; WebViewerRef; URL { ; PostData; Headers } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### URL

The URL, full path, or Universal Naming Convention (UNC) location and name of the resource to display. "http://monkeybreadsoftware.com/filemaker/echo.cgi"

#### PostData

Optional

The data to post. The post data that is sent to the server as part of a HTTP POST transaction. A POST transaction is typically used to send data gathered by an HTML form. If this parameter does not specify any post data, this method issues an HTTP GET transaction. This parameter is ignored if the URL is not an HTTP URL.

"<test>Hello World</test>"

#### Headers

Optional

The text list that contains additional HTTP headers to send to the server. These headers are added to the default headers. For example, headers can specify the action required of the server, the type of data being passed to the server, or a status code. This parameter is ignored if the URL is not an HTTP URL.

"Test: MyHeader 123 User-Agent: Mozilla/5.0 (Macintosh; Intel Mac OS X 10\_14\_6) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/13.0.4 Safari/605.1.15"

**Result** Returns OK or error.

### Description

This function is similar to `WebView.LoadURL`, but can pass additional headers or POST data. For MacOS and iOS, please use `WebView.SetCustomUserAgent` to overwrite user agent.

### Examples

Load URL in webviewer by doing a POST with custom header to overwrite user agent:

```
MBS( "WebView.PostURL"; "web";
// URL
"https://www.monkeybreadsoftware.com/filemaker/echo.cgi";
// some POST data
"Hello World";
// and our custom headers
"Test: MyHeader 123§User-Agent: Mozilla/5.0 (FileMaker; Macintosh; Intel Mac OS X 10_14_6) AppleWeb-
bKit/605.1.15 (KHTML, like Gecko) Version/13.0.4 Safari/605.1.15 )" )
```

**See also**

- [183.46 WebView.FindByName](#) 8469
- [183.82 WebView.GetURL](#) 8517
- [183.92 WebView.LoadURL](#) 8530
- [183.125 WebView.SetCustomUserAgent](#) 8585

**183.100.1 Blog Entries**

- [New Examples 2020](#)
- [Neues MBS FileMaker Plugin 10.1 - Über 6100 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 10.1 - More than 6100 Functions In One Plugin](#)
- [WebView PostURL function](#)
- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 29th January 2020, last changed 29th January 2020.

## 183.101 **WebView.PressKey**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.2	No	Yes	No	No	No

MBS( "WebView.PressKey"; WebViewerRef; Key )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Key

The key to press. Can be text or number.

"@"

**Result** Returns OK or error.

### Description

Useful for entering @ key in Windows where webviewer does not react on AltGr key which is required in some languages to enter @.

### Examples

Press @:

MBS( "Webview.PressKey"; "web"; "@" )

### See also

- 183.46 [WebView.FindByName](#)

8469

### 183.101.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.2pr9](#)
- [FileMaker Webviewer and @ key](#)

Created 12nd May 2016, last changed 25th August 2017.

## 183.102 WebView.Print

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.8	Yes	Yes	No	No	Yes

MBS( "WebView.Print"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

You can get/set some parameters on Mac OS X using the WebView.GetPrintParameter/WebView.SetPrintParameter functions.

Not supported for WebKit 2.x (FileMaker 16 Mac). We tried it, but as of macOS 10.12.4 we only get white pages. Works in FileMaker 16, when using a Web Viewer created using WebView.Create.

### Examples

Print web viewer:

```
Set Variable [ $r; Value:MBS( "WebView.Print"; "web" ) ]
```

### See also

- 183.39 [WebView.Create](#) 8456
- 183.46 [WebView.FindByName](#) 8469
- 183.76 [WebView.GetPrintParameter](#) 8511
- 183.103 [WebView.PrintPreview](#) 8546
- 183.104 [WebView.PrintToFile](#) 8547
- 183.110 [WebView.RenderPDF](#) 8555
- 183.138 [WebView.SetPrintParameter](#) 8610

### Example Databases

- [WebViewer/WebKit 1.x only/WebViewer Print](#)

### 183.102.1 Blog Entries

- [MBS Filemaker Plugin, version 2.1 final candidate](#)

- [MBS Filemaker Plugin 1.8pr4](#)

Created 18th August 2014, last changed 25th November 2019.

## 183.103 WebView.PrintPreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.6	No	Yes	No	No	No

MBS( "WebView.PrintPreview"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns "OK" if dialog runs or error if not.

### Description

The function returns right away and does not wait for the user to finish the dialog.

### Examples

Shows print preview:

```
Set Variable [ $r; Value:MBS( "WebView.PrintPreview"; "web" ) ]
```

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.102 WebView.Print](#) 8544

### 183.103.1 Blog Entries

- [MBS Filemaker Plugin, version 2.6pr5](#)

Created 18th August 2014, last changed 25th November 2019.

## 183.104 **WebView.PrintToFile**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.0	Yes	No	No	No	No

MBS( "WebView.PrintToFile"; WebViewRef; Path )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Path

Native file path where to save PDF.

"/tmp/test.pdf"

**Result** Returns OK or error.

### Description

You can get/set some parameters on Mac OS X using the `WebView.GetPrintParameter/WebView.SetPrintParameter` functions.

Especially you can control whether to print background or not.

If needed you can import this PDF file with `Files.ReadPDF` into a container file.

See also `WebView.RenderPDF`.

Not supported for WebKit 2.x (FileMaker 16 Mac). We tried it, but as of macOS 10.12.4 we only get damaged files, crashes or white pages. Works in FileMaker 16 or later, when using a Web Viewer created using `WebView.Create`.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions.

### Examples

Create PDF and import it:

```
Set Variable [ $path ; Value: MBS( "Folders.UserDesktop" ) ]
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; $path; "test.pdf" ) ]
Set Variable [ $r ; Value: MBS( "WebView.PrintToFile"; $$web; $path ) ]
Set Field [ Own WebView::Container ; MBS( "Files.ReadPDF"; $path ) ]
```

### See also

- 79.47 `Files.ReadPDF` 3903
- 82.8 `Folders.UserDesktop` 4235
- 124.1 `Path.AddPathComponent` 6243

- 124.2 Path.FileMakerPathToNativePath 6247
- 183.39 WebView.Create 8456
- 183.46 WebView.FindByName 8469
- 183.76 WebView.GetPrintParameter 8511
- 183.102 WebView.Print 8544
- 183.110 WebView.RenderPDF 8555
- 183.138 WebView.SetPrintParameter 8610

### Example Databases

- [WebViewer/Custom WebView](#)
- [WebViewer/WebKit 1.x only/WebViewer Print](#)

### 183.104.1 Blog Entries

- [Print WebViewer on macOS in FileMaker](#)
- [Custom WebView in FileMaker 16](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)

Created 18th August 2014, last changed 6th May 2020.



## 183.105 **WebView.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.Release"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### See also

- 108.53 [MapView.Release](#) 5785
- 168.27 [TextView.Release](#) 8033
- 183.39 [WebView.Create](#) 8456
- 183.46 [WebView.FindByName](#) 8469
- 183.106 [WebView.Reload](#) 8550

Created 18th August 2014, last changed 18th August 2014.

## 183.106 WebView.Reload

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.Reload"; WebViewRef { ; Force } )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Force

Optional

Whether to ignore cache and reload from website. Default is 0 for normal reloading which may use cached content.

0

**Result** Returns OK on success.

### Description

Similar to the built in reload script step.

### Examples

Reload web viewer:

```
Set Variable [ $r; Value:MBS( "WebView.Reload"; "web" ) ]
```

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.105 WebView.Release](#) 8549

### Example Databases

- [WebView/Reload Test](#)

### 183.106.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 25th November 2019.

## 183.107 **WebView.RemoveAllUserScripts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.5	Yes	No	No	No	Yes

MBS( "WebView.RemoveAllUserScripts"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

#### See also

- 183.46 [WebView.FindByName](#)

8469

### 183.107.1 **Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr8](#)

Created 8th November 2019, last changed 5th January 2020.

## 183.108 WebView.RemoveScriptMessageHandler

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	8.0	Yes	No	No	No	Yes

MBS( "WebView.RemoveScriptMessageHandler"; Name )

### Parameters

#### Name

The name of the message handler to remove.  
"test"

**Result** Returns OK or error.

### Description

Only for FileMaker 16 and newer.  
Added iOS for version 9.5.

### See also

- 183.25 WebView.AddScriptMessageHandler

8438

### 183.108.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr8](#)

Created 15th December 2017, last changed 5th January 2020.

## 183.109 **WebView.RenderImage**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	Yes	No	No	Yes

MBS( "WebView.RenderImage"; WebViewRef { ; ImageType; Filename } )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **ImageType**

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### **Filename**

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns a container with a JPEG picture of the webpage. You can store it in a media field.

### Description

Added Windows support in version 3.0. Due the way we capture image on Windows (we ask webviewer to print to image), some things do not show up in the image. In that case, please use `WebView.Screenshot` function.

On Mac you can use `WebView.RenderPDF` to get a PDF of the website.

For Mac OS X the image size is the size of the full website. On Windows we only capture the area of the webviewer, so you may see scrollbars.

For OS X please use `WebView.SetPreferences` to set whether to include background images.

Added support for macOS 10.13 in FileMaker 16 or newer to render webpage in v7.4.

Works in FileMaker 15 and older in all MacOS versions.

Works in all FileMaker Mac versions, when using a Web Viewer with WebKit 1.x created using `WebView.Create`.

Fixed for iOS for 8.2 release.

On Windows seems not to work well in latest IE versions. so you may better use `WebView.Screenshot`.

### Examples

Render Image:

```
Set Field [ Own WebView::Container ; MBS( "WebView.RenderImage"; $$web; "PNG"; "webview.png" ) ]
```

### See also

- 183.39 [WebView.Create](#) 8456
- 183.46 [WebView.FindByName](#) 8469
- 183.110 [WebView.RenderPDF](#) 8555
- 183.113 [WebView.Screenshot](#) 8569
- 183.137 [WebView.SetPreferences](#) 8607

### Example Databases

- [WebViewer/Custom WebView](#)
- [WebViewer/WebViewer Render Image \(Mac\)](#)
- [WebViewer/WebViewer Render PDF \(Mac\)](#)

### 183.109.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr5](#)
- [MBS FileMaker Plugin, version 7.4pr7](#)
- [MBS FileMaker Plugin, version 7.1pr4](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr11](#)
- [MBS Filemaker Plugin, version 2.4pr2](#)
- [MBS Filemaker Plugin, version 2.4pr1](#)
- [MBS Filemaker Plugin, version 2.1pr5](#)

Created 18th August 2014, last changed 26th November 2019.

**183.110 WebView.RenderPDF**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.0	Yes	No	No	No	No

MBS( "WebView.RenderPDF"; WebViewerRef { ; Filename; DontRenderPreview } )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Filename**

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.  
"test.jpg"

**DontRenderPreview**

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

**Result** Returns a container with a PDF of the webpage (and a JPEG preview). You can store it in a media field.

**Description**

For OS X please use `WebView.SetPreferences` to set whether to include background images.

If you need a multi page PDF file, please use `WebView.PrintToFile` function.

Not supported for WebKit 2.x (FileMaker 16 Mac), but works in FileMaker 16, when using a Web Viewer created using `WebView.Create`.

**Examples**

Render PDF:

```
Set Field [ Own WebView::Container ; MBS( "WebView.RenderPDF"; $$web; "webview.pdf" ) ]
```

**See also**

- 183.39 `WebView.Create` 8456
- 183.46 `WebView.FindByName` 8469
- 183.102 `WebView.Print` 8544
- 183.104 `WebView.PrintToFile` 8547
- 183.109 `WebView.RenderImage` 8553
- 183.113 `WebView.Screenshot` 8569

- 183.137 WebView.SetPreferences

### Example Databases

- [WebView/Custom WebView](#)
- [WebView/WebView Render PDF \(Mac\)](#)

### 183.110.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin, version 3.0pr2](#)

Created 18th August 2014, last changed 8th October 2017.



## 183.111 WebView.RunJavaScript

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

MBS( "WebView.RunJavaScript"; WebViewerRef; Javascript { ; Async } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Javascript

The Javascript to be executed

#### Async

Optional

Available in MBS FileMaker Plugin 10.0 or newer.

Whether to run asynchronously. On MacOS and iOS you can choose between running sync and waiting for result (and returns result) or running asynchronously and returning just OK.

For older WebKit 1.x in FileMaker 15 or older or web viewers created with WebView.Create function, we always use synchronous mode.

Windows is always synchronously.

Default is 0 for synchronous mode.

0

### Description

Allows you to call any Javascript function that is in loaded in the WebViewer OR you can just run arbitrary JavaScript on an empty web page. The results of the JavaScript are returned on Macintosh only. There is another function called WebView.RunJavaScriptReturnTitle which can be used to return the value of a Javascript function on both platforms. Use "\n" in javascript strings for a newline character.

Does not work on WebDirect!

See newer WebView.Evaluate function which works better on Windows and returns results.

Check JS Functions for JavaScript engine for cross platform code to run without web viewer.

Version 10.0 or newer return result on MacOS/iOS if possible in original data type, so numbers are returned as number and not as text. We try to return array or objects as JSON.

### Examples

Set the htmlcode of a field as string:

```
MBS( "WebView.RunJavaScript"; "browser"; "document.getElementById('td_ProcName_v').innerHTML='hello';"
)
```

Run JavaScript

```

Let(
[

// very simple javascript

javascript = "alert('OK');";

webViewName = "myWebViewer";
windowRef = MBS("Window.FindByTitle"; Get ( WindowName ));
webViewerID = MBS("WebView.FindByName"; windowRef; webViewName)

];
Case(
webViewerID = 0; "Web Viewer \" & webViewName & "\" Not Found: " & windowRef ;

MBS("WebView.RunJavaScript"; webViewerID; javascript)

)

)

```

Start a video inside an interactive container on Mac:

```
MBS( "WebView.RunJavaScript" ; "movie"; "document.getElementsByTagName('video') [ 0 ] .play();" )
```

Send change event to send to a field with ID \$FieldID so javascript code on webpage knows we changed something:

```

MBS( "WebView.RunJavaScript" ; "web"; "var o = document.getElementById('\" & $FieldID & "')
if (document.createEvent) {
var evt = document.createEvent('Events');
evt.initEvent('change', true, true);
o.dispatchEvent(evt); } "

```

Clear onBeforeLoad event handler:

```
MBS( "WebView.RunJavaScript" ; "HTMLEditor"; "window.onbeforeunload = null;" )
```

Send click event:

```

MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ] .loginButton;
if (document.createEvent)
{
var evt = document.createEvent('Events');
evt.initEvent('click', true, true);

```

```
o.dispatchEvent(evt);
} ")
```

Filling a complex form of a web app with help of Javascript:

```
# go to Vouchers
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.getEle-
mentsByClassName('appGlobalSideNav') [ 0 ] .getElementsByTagName('a') [ 2 ] ; if (document.createEvent)
{ var evt = document.createEvent('Events'); evt.initEvent('click', tr... ]
Pausa/continua lo script [ Durata (secondi): ,3 ]
# open popup
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "document.getElementsBy-
ClassName('appMainButton') [ 0 ] .click();") ]
Pausa/continua lo script [ Durata (secondi): ,3 ]
# Set Values in various fields and trigger change/click events
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; "number"; "1") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [
0 ] .number; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change',
true, true); o.dispatchEvent(evt); } ") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormSelectValue" ; "browser"; "vouchersCreateC-
trl.form"; "quota"; "0") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormSelectValue" ; "browser"; "vouchersCreateC-
trl.form"; "expire"; "custom") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [
0 ] .expire; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,3 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; "expire_number"; "2") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormSelectValue" ; "browser"; "vouchersCreateC-
trl.form"; "expire_unit"; "1440") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.expire_number; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change',
true, true); o.dispatchEvent(evt); } ") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "document.forms [ 0 ] .limit-
Download.checked = true;") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.limitDownload; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('click',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,1 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; "down"; "512") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.down; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change', true,
true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,1 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "document.forms [ 0 ] .limi-
```

```

tUpload.checked = true;") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0
] .limitUpload; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('click',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,1 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; "up"; "512") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0
] .up; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change', true,
true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,1 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "document.forms [ 0 ] .byte-
Quota [ 0 ] .checked = true;") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.byteQuota [ 0 ]; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('click',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,1 ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; "byteQuota"; "123") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.byteQuota [ 1 ]; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change',
true, true); o.dispatchEvent(evt); } ") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.SetFormInputValue" ; "browser"; "vouchersCreateC-
trl.form"; 8; "CLIENTE") ]
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.elements [ 11 ]; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('change',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,3 ]
# press save button
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "var o = document.forms [ 0 ]
.elements [ 13 ]; if (document.createEvent) { var evt = document.createEvent('Events'); evt.initEvent('click',
true, true); o.dispatchEvent(evt); } ") ]
Pausa/continua lo script [ Durata (secondi): ,3 ]
# find the voucher ID and save it to field.
Imposta variabile [ $r ; Valore: MBS( "WebView.RunJavaScript" ; "browser"; "document.getElement-
ById('vouchersTable').getElementsByClassName('voucherCode') [ 1 ] .innerText") ]
Imposta campo [ Browser Web::VAR txt ; $r ]

```

Start a video inside an interactive container on Win:

```
MBS( "WebView.RunJavaScript" ; "player"; "document.getElementById('Player').controls.play();" )
```

```
# see https://msdn.microsoft.com/en-us/library/windows/desktop/dd562656\(v=vs.85\).aspx
```

Redirect Window.Open to trigger a FileMaker Script:

```
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "window.open = function(url, name,
```

```
features, replace) { location.href='fmp://$/MyDatabase.fmp12?script=NewWindow& param='+url; } ") ]
// may not work for all platforms!
```

Query text of an element found by it's CSS class name:

```
MBS( "WebView.RunJavaScript"; WebViewRef; "document.getElementsByClassName('topteaaser__master') [ 0 ] .innerText")
```

Query duration of video in interactive container on Mac:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.getElementsByTagName('video') [ 0 ] .duration;" )
```

Query current time of video in interactive container on Mac:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.getElementsByTagName('video') [ 0 ] .currentTime;" )
```

Login for realtytrac website:

```
Set Web Viewer [ Object Name: "web" ; URL: "https://www.realtytrac.com/login" ]
#
# wait for website loading
#
Loop
Pause/Resume Script [ Duration (seconds): .1 ]
Exit Loop If [ MBS("WebView.IsLoading"; "web") 1 ]
End Loop
Pause/Resume Script [ Duration (seconds): .1 ]
#
# fill in form values with login:
Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue" ; "web"; 0; "userName"; "xxx" ) ]
Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue" ; "web"; 0; "password"; "yyy" ) ]
#
# send change events to let the javascript framework know we changed them
#
Set Variable [ $r ; Value: MBS( "WebView.RunJavaScript" ; "web"; "var o = document.getElementById('loginFormPagePassword'); if (document.createEvent)
{
var evt = document.createEvent('Events');
evt.initEvent('change', true, true);
o.dispatchEvent(evt);
} ") ]
Set Variable [ $r ; Value: MBS( "WebView.RunJavaScript" ; "web"; "var o = document.forms [ 0 ] .userName.value;
if (document.createEvent)
{
var evt = document.createEvent('Events');
evt.initEvent('change', true, true);
```

```

o.dispatchEvent(evt);
} ") ]
#
Pause/Resume Script [ Duration (seconds): .1 ]
#
# Send click event to submit button
#
Set Variable [ $r ; Value: MBS( "WebView.RunJavaScript" ; "web"; "var o = document.getElement-
ById('btnLoginPageSubmit'); if (document.createEvent)
{
var evt = document.createEvent('Events');
evt.initEvent('click', true, true);
o.dispatchEvent(evt);
} ") ]

```

Go to record, wait and than jump to position to play video from there: (Mac)

```

# Go to record with video
Go to Record/Request/Page [ Next ; Exit after last: Off ]
# give time to load movie
Pause/Resume Script [ Duration (seconds): .5 ]
# jump to position
Set Variable [ $r ; Value: MBS( "WebView.RunJavaScript"; "MovieView"; "document.getElementById('fm-
player').currentTime = 30;" ) ]
# play
Set Variable [ $r ; Value: MBS( "WebView.RunJavaScript"; "MovieView"; "document.getElementById('fm-
player').play();" ) ]

```

Work with form fields via JavaScript:

```
// Query number of forms on website:
```

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms.length;" )
```

Query name of form number 0:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms [ 0 ] .name;" )
```

Query number of elements on first form:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms [ 0 ] .elements.length" )
```

Query name of first element in first form:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms [ 0 ] .elements [ 0 ] .name" )
```

Query value of first element in first form:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms [ 0 ] .elements [ 0 ] .value")
```

Query value of element by name in form by name:

```
MBS( "WebView.RunJavaScript" ; "web"; "document.forms [ 'RegisterForm' ] .elements [ 'path' ] .value")
```

You can mix index or field/form names as needed.

Call doSave with try/catch to show error messages:

```
MBS( "WebView.RunJavaScript"; WebViewerRef; "try { doSave(); } catch(error) { alert(error); } " )
```

Switch windows media player for a container to fill the field:

```
MBS( "WebView.RunJavaScript";
"MovieField"; // name of layout element for container
document.getElementById('Player').uiMode='none';
document.body.style.transform="";
document.getElementById('Player').stretchToFit=true; " )
```

Fill a search form, submit and query result:

```
# load website with search field:
Set Web Viewer [ Object Name: "web" ; URL: "https://something.com/searchpage" ]
#
# wait for website to finish loading
Pause/Resume Script [ Duration (seconds): ,5 ]
Loop
Exit Loop If [ MBS("WebView.IsLoading"; "web") 1 ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# fill in search term and send change event, so this website sees it:
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "document.getElementById('search-Field').value = '" & Substitute ( Web::SearchTerm ; "" ; "" ) & "'" ) ]
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "var o = document.getElementById('search-Field'); var evt = document.createEvent('Events'); evt.initEvent('change', true, true); o.dispatchEvent(evt); } " ) ]
#
# wait a bit
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# send click event to search button
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "var o = document.getElementById('search-Button'); var evt = document.createEvent('Events'); evt.initEvent('click', true, true); o.dispatchEvent(evt);
```

```

") ]
#
# wait for website to finish loading
Pause/Resume Script [ Duration (seconds): ,5 ]
Loop
Exit Loop If [ MBS("WebView.IsLoading"; "web") 1 ]
Pause/Resume Script [ Duration (seconds): ,1 ]
End Loop
Pause/Resume Script [ Duration (seconds): ,5 ]
#
# query values from website
Set Field [ Web::articleId ; MBS("WebView.Evaluate"; "web"; "document.getElementById('articleId').innerHTML;") ]
Set Field [ Web::price ; MBS("WebView.Evaluate"; "web"; "document.getElementById('price').innerHTML;") ]
]

```

Send change, input and blur events to text field:

```

# define sendChangeEvent function
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; " function sendChangeEvent(ID) { var o = document.getElementById(ID); var evt = document.createEvent('Events'); evt.initEvent('change', true, true); o.dispatchEvent(evt); } ") ]
#
# define sendInputEvent function
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; " function sendInputEvent(ID) { var o = document.getElementById(ID); var evt = document.createEvent('Events'); evt.initEvent('input', true, true); o.dispatchEvent(evt); } ") ]
#
# define sendBlurEvent function
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; " function sendBlurEvent(ID) { var o = document.getElementById(ID); var evt = document.createEvent('Events'); evt.initEvent('blur', true, true); o.dispatchEvent(evt); } ") ]
#
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "document.getElementById('name').value = "" & Substitute ( $Name ; "" ; "" ) & """) ]
#
# send three events as we often don't know which one is used on the website to recognize the change
#
# send input event, so JavaScript code notices we put something in
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "sendInputEvent('name');") ]
# send change event, so JavaScript code notices we changed text
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "sendChangeEvent('name');") ]
# send blur event, so JavaScript code notices the user left the field
Set Variable [ $r ; Value: MBS("WebView.RunJavaScript"; "web"; "sendBlurEvent('name');") ]
# give time for web viewer to run all the events
Pause/Resume Script [ Duration (seconds): ,5 ]

```



183.111. *WEBVIEW.RUNJAVASCRIPT* 8565

Zoom website to 200% :

```
MBS( "WebView.RunJavaScript"; "web"; "document.body.style.zoom = \"200% \"; ")
```

# see also `WebView.SetInternetExplorerHiDPI`

### See also

- 167.55 `Text.RemoveNewLine` 7980
- 183.39 `WebView.Create` 8456
- 183.44 `WebView.Evaluate` 8463
- 183.89 `WebView.IsLoading` 8526
- 183.112 `WebView.RunJavaScriptReturnTitle` 8567
- 183.128 `WebView.SetFormButtonValue` 8589
- 183.129 `WebView.SetFormInputChecked` 8591
- 183.130 `WebView.SetFormInputValue` 8593
- 183.132 `WebView.SetFormTextAreaValue` 8598
- 183.133 `WebView.SetFormValue` 8600

### Example Databases

- [Mac only/Movies/Control Interactive Container Movie](#)
- [WebView/Admin Console Login](#)
- [WebView/Click Link with Javascript](#)
- [WebView/Disable Javascript alerts on Webviewer Mac](#)
- [WebView/Form Fields/Forms Sample 2](#)
- [WebView/Javascript calls Filemaker Script/callbacks](#)
- [WebView/MethodDraw SVG Editor/MethodDraw](#)
- [WebView/Slider/Slider](#)
- [WebView/WebView link targets](#)
- [WebView/WebView Markdown/WebView Markdown](#)

### 183.111.1 Blog Entries

- [Enable HiDPI aware web viewer for FileMaker](#)
- [MBS FileMaker Plugin, version 10.2pr4](#)
- [Trigger FileMaker Scripts from JavaScript in FileMaker without fmp URL](#)
- [Automate login to FileMaker Admin Console in web viewer](#)
- [FileMaker and JavaScript - the perfect combination](#)
- [Automate web viewer in FileMaker](#)
- [CRC function in FileMaker using JavaScript](#)
- [MBS FileMaker Plugin, version 10.0pr8](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)
- [Zooming video containers on Windows](#)

### 183.111.2 FileMaker Magazin

- [Ausgabe 1/2008, Seite 32](#)

Created 18th August 2014, last changed 25th April 2020.

**183.112 WebView.RunJavaScriptReturnTitle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.RunJavaScriptReturnTitle"; WebViewerRef; Javascript )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Javascript**

the text source of the javascript

**Description**

To return a result of the JavaScript to FileMaker, simply set "document.title" to the return value. Why did we do this? Because it was the way we could get the result back from the web view on windows. Use "\n" in javascript strings for a newline character.

See newer `WebView.Evaluate` function which works better on Windows and returns results. Check JS Functions for JavaScript engine for cross platform code to run without web viewer.

**Examples**

Return the htmlcode of a field as string:

```
MBS( "WebView.RunJavaScriptReturnTitle"; "browser"; "document.title=document.getElementById('td_Proc-Name_v').innerHTML;" )
```

Return the text of a html item referenced by id as string:

```
MBS( "WebView.RunJavaScriptReturnTitle"; "browser"; "document.title=document.getElementById('Result').innerText;" )
```

**See also**

- 167.55 `Text.RemoveNewLine` 7980
- 183.44 `WebView.Evaluate` 8463
- 183.46 `WebView.FindByName` 8469
- 183.111 `WebView.RunJavaScript` 8557

**Example Databases**

- [WebViewer/Copy text from nicedit.com website](#)
- [WebViewer/Form Fields/Forms Sample 2](#)

- [WebView/Form Fields/Forms Sample](#)

### 183.112.1 Blog Entries

- [FileMaker and WebView communication](#)
- [Mapping addresses to geo coordinates](#)

Created 18th August 2014, last changed 5th January 2020.

## 183.113 **WebView.Screenshot**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.0	Yes	Yes	No	No	Yes

MBS( "WebView.Screenshot"; WebViewRef { ; ImageType; Filename } )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **ImageType**

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### **Filename**

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type.

"test.jpg"

**Result** Returns image for storing in container.

### Description

The plugin offers several methods. `WebView.RenderImage` works fine on Mac, but not always on Windows. `WebView.RenderPDF` is Mac only. So especially for websites with flash or other content which can't be printed, the screenshot method is the best one.

(older versions before 5.2 would have an unused extra parameter before ImageType)

Windows only supports JPEG as type.

Added iOS support for version 8.5.

On Windows may get wrong rectangle if Windows runs desktop with 200% resolution, but you have a 100% resolution screen.

### Examples

Store screenshot in container:

```
Set Variable [ $image; Value:MBS("WebView.Screenshot"; "web") ]
```

```
Set Field [ Anlagen::My Container; $image ]
```

### See also

- 108.59 `MapView.Screenshot` 5791
- 183.46 `WebView.FindByName` 8469
- 183.109 `WebView.RenderImage` 8553

- [183.110 WebView.RenderPDF](#) 8555
- [185.66 Window.Screenshot](#) 8749

### Example Databases

- [WebViewer/Custom WebView](#)
- [WebViewer/MethodDraw SVG Editor/MethodDraw](#)
- [WebViewer/WebViewer Screenshot](#)

### 183.113.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)
- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr5](#)
- [MBS FileMaker Plugin, version 7.2pr4](#)
- [MBS FileMaker Plugin, version 5.3pr5](#)
- [MBS FileMaker Plugin, version 5.2pr4](#)

Created 18th August 2014, last changed 2nd December 2019.

**183.114 WebView.Scrollbar.getHorizontalMaximum**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Scrollbar.getHorizontalMaximum"; WebViewRef )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns value or error.

**Description**

Not supported for WebKit 2.x (FileMaker 16 Mac).

**Examples**

Query current and maximum:

MBS( "Webview.Scrollbar.getHorizontalPosition"; "web" ) & " of " & MBS( "Webview.Scrollbar.getHorizontalMaximum"; "web" )

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.115 [WebView.Scrollbar.getHorizontalPosition](#) 8572
- 183.116 [WebView.Scrollbar.getVerticalMaximum](#) 8573
- 185.69 [Window.Scrollbar.getHorizontalMaximum](#) 8754

**183.114.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 22nd December 2014, last changed 25th August 2017.

## 183.115 `WebView.Scrollbar.getHorizontalPosition`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Scrollbar.getHorizontalPosition"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns value or error.

### Description

Not supported for WebKit 2.x (FileMaker 16 Mac).

### Examples

Query current and maximum:

```
MBS( "Webview.Scrollbar.getHorizontalPosition"; "web" ) & " of " & MBS( "Webview.Scrollbar.getHorizontalMaximum"; "web" )
```

### See also

- 183.46 `WebView.FindByName` 8469
- 183.114 `WebView.Scrollbar.getHorizontalMaximum` 8571
- 183.117 `WebView.Scrollbar.getVerticalPosition` 8574
- 183.118 `WebView.Scrollbar.set` 8575
- 185.70 `Window.Scrollbar.getHorizontalPosition` 8755

### 183.115.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 22nd December 2014, last changed 25th August 2017.



**183.116 WebView.Scrollbar.getVerticalMaximum**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Scrollbar.getVerticalMaximum"; WebViewRef )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns value or error.

**Description**

Not supported for WebKit 2.x (FileMaker 16 Mac).

**Examples**

Query current and maximum:

MBS( "Webview.Scrollbar.getVerticalPosition"; "web" ) & " of " & MBS( "Webview.Scrollbar.getVerticalMaximum"; "web" )

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.114 [WebView.Scrollbar.getHorizontalMaximum](#) 8571
- 183.117 [WebView.Scrollbar.getVerticalPosition](#) 8574
- 185.71 [Window.Scrollbar.getVerticalMaximum](#) 8756

**183.116.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 22nd December 2014, last changed 25th August 2017.

## 183.117 WebView.Scrollbar.getVerticalPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Scrollbar.getVerticalPosition"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**Result** Returns value or error.

### Description

Not supported for WebKit 2.x (FileMaker 16 Mac).

### Examples

Query current and maximum:

MBS( "Webview.Scrollbar.getVerticalPosition"; "web" ) & " of " & MBS( "Webview.Scrollbar.getVertical-Maximum"; "web" )

### See also

- 183.46 WebView.FindByName 8469
- 183.115 WebView.Scrollbar.getHorizontalPosition 8572
- 183.116 WebView.Scrollbar.getVerticalMaximum 8573
- 183.118 WebView.Scrollbar.set 8575
- 185.72 Window.Scrollbar.getVerticalPosition 8757

### 183.117.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 22nd December 2014, last changed 25th August 2017.

**183.118 WebView.Scrollbar.set**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	No	No	No	No

MBS( "WebView.Scrollbar.set"; WebViewRef; X; Y )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

**X**

The new X position.

100

**Y**

The new Y position.

100

**Result** Returns OK or error.

**Description**

You can query the position using `Webview.Scrollbar.getHorizontalPosition` and `Webview.Scrollbar.getVerticalPosition` and than adjust if needed with this function to scroll to the right position in your web viewer.

Not supported for WebKit 2.x (FileMaker 16 Mac).

**See also**

- 183.46 `WebView.FindByName` 8469
- 183.115 `WebView.Scrollbar.getHorizontalPosition` 8572
- 183.117 `WebView.Scrollbar.getVerticalPosition` 8574
- 185.73 `Window.Scrollbar.set` 8758

**183.118.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.5pr2](#)
- [MBS Filemaker Plugin, version 5.0pr5](#)

Created 22nd December 2014, last changed 25th August 2017.

## 183.119 WebView.SearchText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.3	Yes	Yes	No	No	No

MBS( "WebView.SearchText"; WebViewerRef; Text { ; Backward; CaseSensitive; Wrap } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### Text

The text to search for.

"Hello"

#### Backward

Optional

A boolean value to determinate direction. Pass 0 for forward and 1 for backward. Default is 0. (This option has problems on Windows currently.)

0

#### CaseSensitive

Optional

Whether to search case sensitive. Pass 1 for case sensitive and 0 for case insensitive. Default is 0.

0

#### Wrap

Optional

A boolean value to decide whether to wrap around. If text is not found, we start search on the top again.

0

**Result** Returns 1 if the text was found and 0 if not.

### Description

This is like the search field in Safari. Please note that this feature works fine in FileMaker 10, but has problems in FileMaker 11.

Not supported for WebKit 2.x (FileMaker 16 Mac), but works in FileMaker 16, when using a Web Viewer created using WebView.Create.

### Examples

Searches for text in webviewer:

```
MBS("WebView.SearchText"; "web"; "Hello")
```

### See also

- 183.39 WebView.Create

183.119. <i>WEBVIEW.SEARCHTEXT</i>	8577
• 183.46 <i>WebView.FindByName</i>	8469
• 183.121 <i>WebView.SelectedText</i>	8579

### **Example Databases**

- [WebViewer/WebKit 1.x only/Search in WebView](#)

### **183.119.1 Blog Entries**

- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 8th October 2017.

## 183.120 WebView.SelectAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.4	Yes	Yes	No	No	Yes

MBS( "WebView.SelectAll"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

This is like choosing the menu command to select all, but without using the menu.

As webviewer functions often run asynchronously, you need to make a short script pause to let the webviewer do the job.

### Examples

Select all and copy:

```
MBS( "Webview.SelectAll"; "web" ) & MBS( "Webview.Copy"; "web" )
```

### See also

- [183.37 WebView.Copy](#) 8454
- [183.46 WebView.FindByName](#) 8469

### Example Databases

- [WebViewer/WebView Copy and Paste](#)

### 183.120.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr2](#)

Created 11st August 2017, last changed 25th August 2017.

## 183.121 **WebView.SelectedText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	5.0	Yes	Yes	No	No	Yes

MBS( "WebView.SelectedText"; WebViewerRef { ; Formatted } )

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **Formatted**

Optional

Optional for Mac. If 1, tries to get text with formatting.

1

**Result** Returns text or error.

### Description

If you put this in a button, the focus may leave WebViewer and selection is lost. In a menu it works better.

See also [WebView.GetPlainText](#), [WebView.GetHTMLText](#) and [WebView.GetFormattedText](#).

### Examples

Query plain text from webviewer:

```
MBS("WebView.GetPlainText"; "web")
```

Query html text from webviewer:

```
MBS("WebView.GetHTMLText"; "web")
```

Query formatted text from webviewer:

```
MBS("WebView.GetFormattedText"; "web")
```

Query selected text:

```
MBS("WebView.SelectedText"; "web")
```

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.55 WebView.GetForm](#) 8481
- [183.64 WebView.GetFormattedText](#) 8494

- 183.65 `WebView.GetHTMLText` 8496
- 183.74 `WebView.GetPlainText` 8507
- 183.119 `WebView.SearchText` 8576

### Example Databases

- [WebViewer/WebView SelectedText](#)

### 183.121.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr11](#)
- [MBS FileMaker Plugin, version 5.0pr9](#)

Created 28th January 2015, last changed 25th August 2017.



## 183.122 **WebView.SendCommand**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.3	No	Yes	Yes, Windows only	No	No

MBS( "WebView.SendCommand"; WebViewRef; CommandID )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **CommandID**

The command ID to send.

93

**Result** Returns OK or error.

### Description

This is to send command message to webbrowser control.

See identifiers here:

[https://msdn.microsoft.com/en-us/library/aa741315\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/aa741315(v=vs.85).aspx)

### Examples

Print:

MBS( "Webview.SendCommand"; "web"; 93)

View source code:

MBS( "Webview.SendCommand"; "web"; 2139)

### See also

- 183.45 [WebView.ExecCommand](#) 8467
- 183.46 [WebView.FindByName](#) 8469

### Example Databases

- [WebView/Windows only/WebView Messages on Windows](#)

### 183.122.1 **Blog Entries**

- [MBS FileMaker Plugin, version 7.3pr1](#)

Created 31st May 2017, last changed 25th August 2017.

## 183.123 WebView.SetAllowsLinkPreview

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.3	Yes	No	No	No	Yes

MBS( "WebView.SetAllowsLinkPreview"; WebViewerRef; Value )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Value

The new value.

1

**Result** Returns OK or error.

### Description

A boolean value indicating whether link preview is allowed for any links inside this webview. The default value is true on Mac and iOS.

Pass 1 to allow or 0 to disallow.

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.51 [WebView.GetAllowsLinkPreview](#) 8476

### 183.123.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 5th January 2020.

## 183.124 **WebView.SetAutoresizingMask**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
?? Webview	7.5	Yes	No	No	No	No

MBS( "WebView.SetAutoresizingMask"; WebViewRef; Value )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Value

The new setting.

4+8

**Result** Returns OK or error.

### Description

This defines whether web viewer changes its size based on the surrounding window.

Name	Value	Description
NotSizable	0	The view cannot be resized.
MinXMargin	1	The left margin between the view and its superview is flexible.
WidthSizable	2	The view's width is flexible.
MaxXMargin	4	The right margin between the view and its superview is flexible.
MinYMargin	8	The bottom margin between the view and its superview is flexible.
HeightSizable	16	The view's height is flexible.
MaxYMargin	32	The top margin between the view and its superview is flexible.

e.g. the value 18 means the view can resize both horizontally and vertically with the parent view (window).

### Examples

Make the webviewer stay on position in window:

```
MBS( "WebView.SetAutoresizingMask"; "web"; 4+8 )
```

Resize with window growing:

```
MBS( "WebView.SetAutoresizingMask"; $$web; 4+2+8+16 )
```

### See also

- 41.5 AVPlayer.GetAutoresizingMask 1077
- 41.29 AVPlayer.SetAutoresizingMask 1104
- 70.38 DragDrop.SetAutoresizingMask 2573

- 108.15 MapView.GetAutoResizingMask 5744
- 108.65 MapView.SetAutoResizingMask 5798
- 168.10 TextView.GetAutoResizingMask 8016
- 168.30 TextView.SetAutoResizingMask 8036
- 183.46 WebView.FindByName 8469
- 183.52 WebView.GetAutoResizingMask 8477

### 183.124.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr8](#)

Created 14th November 2017, last changed 16th January 2019.

## 183.125 **WebView.SetCustomUserAgent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.9	Yes	No	No	No	No

MBS( "WebView.SetCustomUserAgent"; WebViewRef; UserAgent )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### UserAgent

The new useragent.  
"FileMaker Browser"

**Result** Returns OK or error.

### Description

This user agent is reported to websites. By using a different user agent string you can tell a website that FileMaker is using Firefox, Chrome or Internet Explorer instead of Safari (WebKit).

Add iOS with version 9.3.

### Examples

Set custom user agent to be Internet Explorer 7:

```
MBS( "WebView.SetCustomUserAgent"; "web"; "Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.0)" )
```

Set custom user agent to be Firefox 15:

```
MBS( "WebView.SetCustomUserAgent"; "web"; "Mozilla/5.0 (Macintosh; Intel Mac OS X 10.6; rv:15.0) Gecko/20100101 Firefox/15.0.1" )
```

Set custom user agent to be Safari 13.1:

```
MBS( "WebView.SetCustomUserAgent"; "web"; "Mozilla/5.0 (Macintosh; Intel Mac OS X 10_14_6) AppleWebKit/605.1.15 (KHTML, like Gecko) Version/13.1 Safari/605.1.15" )
```

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.53 [WebView.GetCustomUserAgent](#) 8479
- 183.100 [WebView.PostURL](#) 8541

### Example Databases

- [WebViewer/Custom User Agent \(Mac\)](#)

### 183.125.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.3 - Über 5900 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 9.3 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.3pr6](#)
- [MBS Filemaker Plugin, version 2.9pr7](#)

Created 18th August 2014, last changed 10th April 2020.

## 183.126 **WebView.SetEditable**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	3.0	Yes	Yes	No	No	Yes

MBS( "WebView.SetEditable"; WebViewRef; Editable )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### Editable

Whether to make the webviewer editable or not. Pass 1 to make editable or 0 to make it not editable.

1

**Result** Returns OK or error.

### Description

You can change the receiver's document programmatically regardless of this setting. By default a WebView object is not editable.

Normally, an HTML document is not editable unless the elements within the document are editable. This method provides a low-level way to make the contents of a WebView object editable without altering the document or DOM structure.

### Examples

Turn editing on for a webviewer:

```
Set Variable [ $r ; Value: MBS( "WebView.SetEditable"; "web"; 1 ) ]
```

### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.54 [WebView.GetEditable](#) 8480
- 183.141 [WebView.SetTitle](#) 8614

### 183.126.1 **Blog Entries**

- [MBS Filemaker Plugin, version 3.0pr8](#)

Created 18th August 2014, last changed 31st August 2017.

## 183.127 WebView.SetFocus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetFocus"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

Usually you use Go To Object, but this sets via OS function directly.  
FileMaker may overwrite the focus quickly!

### See also

- 168.31 [TextView.SetFocus](#) 8038
- 183.46 [WebView.FindByName](#) 8469
- 183.55 [WebView.GetForm](#) 8481

### 183.127.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr7](#)

Created 11st September 2019, last changed 11st September 2019.



**183.128 WebView.SetFormButtonValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetFormButtonValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex; Value { ; OnlyVisible } )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

**FieldNameOrIndex**

You can either pass the field name of the field index. 0 is the first item

**Value**

The new value for the button.

**OnlyVisible**

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

**Description**

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via `WebView.RunJavaScript` so the javascript is notified about the changes.

**See also**

- 183.46 `WebView.FindByName` 8469
- 183.56 `WebView.GetFormButtonValue` 8482
- 183.59 `WebView.GetFormInputValue` 8485
- 183.61 `WebView.GetFormSelectValue` 8488
- 183.111 `WebView.RunJavaScript` 8557
- 183.130 `WebView.SetFormInputValue` 8593
- 183.131 `WebView.SetFormSelectValue` 8596
- 183.132 `WebView.SetFormTextAreaValue` 8598

### 183.128.1 Blog Entries

- [Automate web viewer in FileMaker](#)

Created 18th August 2014, last changed 3th September 2017.

## 183.129 **WebView.SetFormInputChecked**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetFormInputChecked"; WebViewRef; FormNameOrIndex; FieldNameOrIndex; Value { ; OnlyVisible } )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### Value

The value to set the input to.

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via `WebView.RunJavaScript` so the javascript is notified about the changes.

### Examples

Set a field checked:

```
MBS( "WebView.SetFormInputChecked"; "web"; "myForm"; "isValid"; 1)
```

### See also

- 183.46 `WebView.FindByName` 8469
- 183.58 `WebView.GetFormInputChecked` 8484
- 183.59 `WebView.GetFormInputValue` 8485
- 183.111 `WebView.RunJavaScript` 8557
- 183.130 `WebView.SetFormInputValue` 8593

**Example Databases**

- [WebView/Form Fields/Formfield sample](#)
- [WebView/Form Fields/Forms Sample 2](#)
- [WebView/Form Fields/Forms Sample](#)

**183.129.1 Blog Entries**

- [Automate web viewer in FileMaker](#)

Created 18th August 2014, last changed 3th September 2017.

## 183.130 **WebView.SetFormInputValue**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetFormInputValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex; Value { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### Value

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via WebView.RunJavaScript so the javascript is notified about the changes.

### Examples

Fill field q on form f on a webpage:

```
MBS( "WebView.SetFormInputValue"; $WebViewerRef; "f"; "q"; "Hello" )
```

Load a website with login if needed:

```
# Load website
Set Web Viewer [ Object Name: "web" ; URL: "https://somedomain/search" ]
# Wait for it
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS("webview.isloading"; "web") = 1 ]
End Loop
#
# Set login name
```

```

Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue"; "web"; "login_form"; "__ac_name";
"xxx" ) ]
If [ MBS("iserror") ]
# No form, so we are already logged in?
If [ Position ( $r ; "failed to find form" ; 1 ; 1 ) = 0 ]
Show Custom Dialog [ "Fehler" ; $r ]
End If
Exit Script [ Text Result: ]
End If
# Set password
Set Variable [ $r ; Value: MBS( "WebView.SetFormInputValue"; "web"; "login_form"; "__ac_password";
"yyy" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Fehler" ; $r ]
End If
# Wait
Pause/Resume Script [ Duration (seconds): ,1 ]
# Click login button
Set Variable [ $r ; Value: MBS( "WebView.ClickInput"; "web"; "login_form"; "submit" ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Fehler" ; $r ]
End If
# or submit form
// Set Variable [ $r ; Value: MBS( "WebView.formsubmit"; "web"; "login_form" ) ]
// If [ MBS("iserror") ]
// Show Custom Dialog [ "Fehler" ; $r ]
// End If
#
# Wait for page loading after login
Loop
Pause/Resume Script [ Duration (seconds): ,1 ]
Exit Loop If [ MBS("webview.isloading"; "web") = 1 ]
End Loop
# Go to search page where we want to be after login
Set Web Viewer [ Object Name: "web" ; URL: "https://somedomain/search" ]

```

**See also**

- 183.32 `WebView.ClickInput` 8448
- 183.50 `WebView.FormSubmit` 8475
- 183.56 `WebView.GetFormButtonValue` 8482
- 183.58 `WebView.GetFormInputChecked` 8484
- 183.59 `WebView.GetFormInputValue` 8485
- 183.61 `WebView.GetFormSelectValue` 8488

<i>183.130. WEBVIEW.SETFORMINPUTVALUE</i>	8595
• 183.111 WebView.RunJavaScript	8557
• 183.129 WebView.SetFormInputChecked	8591
• 183.131 WebView.SetFormSelectValue	8596
• 183.133 WebView.SetFormValue	8600

### **Example Databases**

- [WebView/Form Fields/Formfield sample](#)
- [WebView/Form Fields/Forms Sample 2](#)

### **183.130.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr6](#)
- [Automate web viewer in FileMaker](#)
- [Login in FileMaker web viewer if needed](#)
- [FileMaker and WebViewer communication](#)
- [Mapping addresses to geo coordinates](#)

### **183.130.2 FileMaker Magazin**

- [Ausgabe 5/2013, Seite 24](#)
- [Ausgabe 5/2013, Seite 23](#)

Created 18th August 2014, last changed 11st March 2019.

## 183.131 `WebView.SetFormSelectValue`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetFormSelectValue"; WebViewerRef; FormNameOrIndex; FieldNameOrIndex; Value { ; OnlyVisible } )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### FormNameOrIndex

Either the Name of the Form or the Index starting at 0

#### FieldNameOrIndex

You can either pass the field name of the field index. 0 is the first item

#### Value

The value to set the input to.

#### OnlyVisible

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

Note: In HTML the Options of a Select tag can include a "value" attribute. If they do then this function sets the selection based on the value of the "value" attribute.

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via `WebView.RunJavaScript` so the javascript is notified about the changes.

### Examples

Fill a select input item:

```
MBS( "WebView.SetFormSelectValue" ; "web"; "search"; "borough"; "BROOKLYN" )
```

### See also

- 183.46 `WebView.FindByName` 8469
- 183.56 `WebView.GetFormButtonValue` 8482
- 183.59 `WebView.GetFormInputValue` 8485
- 183.61 `WebView.GetFormSelectValue` 8488



<i>183.131. WEBVIEW.SETFORMSELECTVALUE</i>	8597
• 183.111 WebView.RunJavaScript	8557
• 183.128 WebView.SetFormButtonValue	8589
• 183.130 WebView.SetFormInputValue	8593
• 183.132 WebView.SetFormTextAreaValue	8598

### **Example Databases**

- [WebView/Form Fields/Formfield sample](#)
- [WebView/Form Fields/Forms Sample 2](#)

### **183.131.1 Blog Entries**

- [Automate web viewer in FileMaker](#)
- [MBS FileMaker Plugin, version 5.1pr5](#)
- [MBS Filemaker Plugin 2.1 prerelease 2](#)

Created 18th August 2014, last changed 9th July 2019.

## 183.132 `WebView.SetFormTextAreaValue`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

```
MBS( "WebView.SetFormTextAreaValue"; WebViewRef; FormNameOrIndex; FieldNameOrIndex; Value
{ ; OnlyVisible } )
```

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

#### **FieldNameOrIndex**

You can either pass the field name of the field index. 0 is the first item

#### **Value**

the value you want to set

#### **OnlyVisible**

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

**Result** Returns "OK" or error message.

### Description

Please note that this method does not work for other field types.

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via `WebView.RunJavaScript` so the javascript is notified about the changes.

### Examples

set field named "InputText" for form named "form1" in webview named "web" to "Hello World":

```
MBS("WebView.SetFormTextAreaValue"; "web"; "form1"; "InputText"; "Hello World")
```

### See also

- 183.46 `WebView.FindByName` 8469
- 183.62 `WebView.GetFormTextAreaValue` 8490
- 183.111 `WebView.RunJavaScript` 8557
- 183.128 `WebView.SetFormButtonValue` 8589

183.132. *WEBVIEW.SETFORMTEXTAREAValue*

8599

- 183.131 *WebView.SetFormSelectValue*

8596

### **Example Databases**

- [WebView/Form Fields/Formfield sample](#)
- [WebView/Form Fields/Forms Sample 2](#)
- [WebView/MethodDraw SVG Editor/MethodDraw](#)
- [WebView/TinyMCE/TinyMCE](#)
- [WebView/WebView Markdown/WebView Markdown](#)

### **183.132.1 Blog Entries**

- [Automate web viewer in FileMaker](#)
- [Signature Field in FileMaker](#)
- [FileMaker and WebView communication](#)
- [Using Markdown Javascript converter in FileMaker](#)

Created 18th August 2014, last changed 3th September 2017.

## 183.133 `WebView.SetFormValue`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.3	Yes	Yes	No	No	Yes

```
MBS( "WebView.SetFormValue"; WebViewerRef; FormNameOrIndex; Field; NewValue { ; OnlyVisible } )
```

### Parameters

#### **WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **FormNameOrIndex**

Either the Name of the Form or the Index starting at 0

#### **Field**

the name of the field, case sensitive

#### **NewValue**

the value to set

#### **OnlyVisible**

Optional

Whether to look for all fields or only the visible ones. Default is false.

0

### Description

To learn about forms and fields on a website, you can use the Form Utility application included with our plugin.

Some websites use a lot of JavaScript, so you may need to send change event to control via `WebView.RunJavaScript` so the javascript is notified about the changes.

### Examples

Set A form value

```
Let(
[
Field = "name";
NewValue = "Clark Kent";
Form = "myForm";
WebViewerName = "MyWebViewer";

WindowRef = MBS("Window.FindByTitle"; Get(WindowName));
WebViewerID = MBS("WebView.FindByName"; WindowRef; WebViewerName)

];
```

### 183.133. *WEBVIEW.SETFORMVALUE*

8601

```
MBS("WebView.SetFormValue"; WebViewID; Form; Field; NewValue)  
)
```

Fill a form:

```
MBS( "WebView.SetFormValue" ; "web"; "search"; "street_name"; "test2" )
```

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.63 [WebView.GetFormValue](#) 8492
- 183.111 [WebView.RunJavaScript](#) 8557
- 183.130 [WebView.SetFormInputValue](#) 8593
- 185.16 [Window.FindByTitle](#) 8688

#### Example Databases

- [WebView/Disable Javascript alerts on Webviewer Mac](#)
- [WebView/Form Fields/Benchmark](#)
- [WebView/Form Fields/Forms Sample 2](#)
- [WebView/Form Fields/Forms Sample](#)
- [WebView/Form Fields/WebView Forms](#)
- [WebView/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebView/Javascript calls Filemaker Script/callbacks](#)

#### 183.133.1 Blog Entries

- [Automate web viewer in FileMaker](#)

Created 18th August 2014, last changed 3th September 2017.

## 183.134 WebView.SetHidden

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	7.1	Yes	No	No	No	No

MBS( "WebView.SetHidden"; WebViewerRef; Value )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Value

The new value. Pass 1 to hide or 0 to show.

1

**Result** Returns OK or error.

### Description

On Mac we can turn a web viewer invisible without FileMaker noticing and so you can do things without the user seeing it.

### Examples

Hide a webviewer:

MBS( "Webview.SetHidden"; "web"; 1 )

### See also

- 183.46 WebView.FindByName 8469
- 183.66 WebView.GetHidden 8498
- 183.78 WebView.GetSilent 8513
- 183.140 WebView.SetSilent 8613
- 183.141 WebView.SetTitle 8614

### 183.134.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr4](#)

Created 24th February 2017, last changed 25th August 2017.

**183.135 WebView.SetInternetExplorerHiDPI**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	10.2	No	Yes	No	No	No

MBS( "WebView.SetInternetExplorerHiDPI"; Enable )

**Parameters****Enable**

Whether to enable. Pass 1 to enable or 0 to disable.

1

**Result** Returns OK or error.

**Description**

We can opt-in for your FileMaker installation to let web viewer use proper resolution handling for web content.

You may just call this in your start script and it may take effect after the next restart of FileMaker.

**Examples**

Enable high resolution aware WebViewer:

MBS( "WebView.SetInternetExplorerHiDPI"; 1 )

Disable high resolution aware WebViewer:

MBS( "WebView.SetInternetExplorerHiDPI"; 0 )

**See also**

- [183.70 WebView.GetInternetExplorerHiDPI](#) 8503
- [183.71 WebView.GetInternetExplorerVersion](#) 8504
- [183.111 WebView.RunJavaScript](#) 8557
- [183.136 WebView.SetInternetExplorerVersion](#) 8604
- [183.152 WebView.setZoom](#) 8625

**183.135.1 Blog Entries**

- [Enable HiDPI aware web viewer for FileMaker](#)
- [MBS FileMaker Plugin, version 10.2pr5](#)

Created 22nd April 2020, last changed 25th April 2020.

## 183.136 `WebView.SetInternetExplorerVersion`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.4	No	Yes	No	No	No

MBS( "WebView.SetInternetExplorerVersion"; Version )

### Parameters

#### Version

The version to use. Set to zero to go back to default.

11000

**Result** Returns OK or error.

### Description

By default FileMaker uses IE7 for the web viewer, even if you have version 11 enabled.

In a test on Windows 10, we get by default this browser version:

Mozilla/4.0 (compatible; MSIE 7.0; Windows NT 6.2; Win64; x64; Trident/7.0; .NET4.0C; .NET4.0E; Tablet PC 2.0; .NET CLR 2.0.50727; .NET CLR 3.0.30729; .NET CLR 3.5.30729)

and with setting it to 11000, we get this:

Mozilla/5.0 (Windows NT 6.2; Win64; x64; Trident/7.0; rv:11.0) like Gecko

FileMaker 16 defaults to Internet Explorer 11.

See also `WebView.SetInternetExplorerHiDPI`.

### Examples

Set version to IE 11:

MBS( "Webview.SetInternetExplorerVersion"; 11000 )

### See also

- 183.44 `WebView.Evaluate` 8463
- 183.70 `WebView.GetInternetExplorerHiDPI` 8503
- 183.71 `WebView.GetInternetExplorerVersion` 8504
- 183.135 `WebView.SetInternetExplorerHiDPI` 8603



### **183.136.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.4pr9](#)
- [Select Internet Explorer version for FileMaker](#)

Created 20th September 2016, last changed 25th April 2020.

Value	Description
11001	Internet Explorer 11. Webpages are displayed in IE11 edge mode, regardless of the declared !DOCTYPE directive. Failing to declare a !DOCTYPE directive causes the page to load in Quirks.
11000	IE11. Webpages containing standards-based !DOCTYPE directives are displayed in IE11 edge mode. Default value for IE11.
10001	Internet Explorer 10. Webpages are displayed in IE10 Standards mode, regardless of the !DOCTYPE directive.
10000	Internet Explorer 10. Webpages containing standards-based !DOCTYPE directives are displayed in IE10 Standards mode. Default value for Internet Explorer 10.
9999	Windows Internet Explorer 9. Webpages are displayed in IE9 Standards mode, regardless of the declared !DOCTYPE directive. Failing to declare a !DOCTYPE directive causes the page to load in Quirks.
9000	Internet Explorer 9. Webpages containing standards-based !DOCTYPE directives are displayed in IE9 mode. Default value for Internet Explorer 9. In Internet Explorer 10, Webpages containing standards-based !DOCTYPE directives are displayed in IE10 Standards mode.
8888	Webpages are displayed in IE8 Standards mode, regardless of the declared !DOCTYPE directive. Failing to declare a !DOCTYPE directive causes the page to load in Quirks.
8000	Webpages containing standards-based !DOCTYPE directives are displayed in IE8 mode. Default value for Internet Explorer 8. In Internet Explorer 10, Webpages containing standards-based !DOCTYPE directives are displayed in IE10 Standards mode.
7000	Webpages containing standards-based !DOCTYPE directives are displayed in IE7 Standards mode. Default value for applications hosting the WebBrowser Control.

## 183.137 **WebView.SetPreferences**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.2	Yes	No	No	No	Yes

MBS( "WebView.SetPreferences"; WebViewRef; ParameterName; ParameterValue )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### ParameterName

The name of the parameter.  
isJavaEnabled

#### ParameterValue

The value for the given parameter: A boolean value for allowsAnimatedImageLooping, allowsAnimatedImages, javaEnabled, javaScriptCanOpenWindowsAutomatically, javaScriptEnabled, loadsImagesAutomatically, plugInsEnabled, privateBrowsingEnabled, shouldPrintBackgrounds, tabsToLinks, userStyleSheetEnabled and usesPageCache. A number for cacheModel, defaultFixedFontSize, defaultFontSize, minimumFontSize or minimumLogicalFontSize. A string for cursiveFontFamily, defaultTextEncodingName, fantasyFontFamily, fixedFontFamily, sansSerifFontFamily, serifFontFamily or standardFontFamily.

0

**Result** Returns OK or an error message.

### Description

For WebKit 1.x you can pass empty WebViewRef to access global preferences.

Available keys for WebKit 1.x (FileMaker till version 15 and WebView.Create): allowsAnimatedImageLooping, allowsAnimatedImages, cacheModel, cursiveFontFamily, defaultFixedFontSize, defaultFontSize, defaultTextEncodingName, fantasyFontFamily, fixedFontFamily, javaEnabled, javaScriptCanOpenWindowsAutomatically, javaScriptEnabled, loadsImagesAutomatically, minimumFontSize, minimumLogicalFontSize, plugInsEnabled, privateBrowsingEnabled, sansSerifFontFamily, serifFontFamily, shouldPrintBackgrounds, standardFontFamily, tabsToLinks, userStyleSheetEnabled or usesPageCache.

Available keys for WebKit 2.x (FileMaker 16): developerExtrasEnabled, logsPageMessagesToSystemConsoleEnabled, minimumFontSize, javaScriptEnabled, javaScriptCanOpenWindowsAutomatically, allowFileAccessFromFileURLs, allowUniversalAccessFromFileURLs, telephoneNumberDetectionIsEnabled, javaEnabled and plugInsEnabled.

New in version 10.2: mediaDevicesEnabled and mediaStreamEnabled

Please check WebKit documentation for details.

### Examples

set print background option:

```
MBS("WebView.SetPreferences"; $WebViewRef; "shouldPrintBackgrounds", 1)
```

Disables image loading:

```
MBS("WebView.SetPreferences"; $WebViewRef; "loadsImagesAutomatically", 1)
```

Disable Java:

```
MBS("WebView.SetPreferences"; $WebViewRef; "javaEnabled"; 0)
```

Disable Plugins:

```
MBS("WebView.SetPreferences"; $WebViewRef; "plugInsEnabled"; 0)
```

Set developer extras enabled state for webviewer to show inspector:

```
Set Variable [ $r; Value:MBS("Webview.SetPreferences"; "web"; "developerExtrasEnabled"; 1) ]
```

Enable file URLs:

```
Set Variable [ $r; Value:MBS("Webview.SetPreferences"; "web"; "allowFileAccessFromFileURLs"; 1) ]
```

### See also

- 183.39 [WebView.Create](#) 8456
- 183.46 [WebView.FindByName](#) 8469
- 183.75 [WebView.GetPreferences](#) 8509
- 183.88 [WebView.InstallUserMediaAccess](#) 8524
- 183.109 [WebView.RenderImage](#) 8553
- 183.110 [WebView.RenderPDF](#) 8555

### Example Databases

- [WebView/InstallUserMediaAccess](#)
- [WebView/Web Preferences \(Mac\)](#)

### 183.137.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr7](#)

- [Automate web viewer in FileMaker](#)
- [MBS FileMaker Plugin, version 7.6pr5](#)
- [Enable Web Inspector for WebViewer](#)
- [MBS Filemaker Plugin, version 2.2pr3](#)

Created 18th August 2014, last changed 6th May 2020.

## 183.138 WebView.SetPrintParameter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	2.1	Yes	No	No	No	No

MBS( "WebView.SetPrintParameter"; ParameterName; ParameterValue )

### Parameters

#### ParameterName

The name of the parameter. Can be horizontallyCentered, verticallyCentered, showPrintPanel, orientation, printer, bottomMargin, topMargin, leftMargin or rightMargin.  
orientation

#### ParameterValue

The value for the given parameter: A boolean value for horizontallyCentered, verticallyCentered and showPrintPanel. "portrait" or "landscape" for orientation. The printer name for printer. A number for bottomMargin, topMargin, leftMargin or rightMargin.  
portrait

**Result** Returns OK or an error message.

### Description

If showPrintPanel (Default 1) if set to 0, then no print window is shown. verticallyCentered and horizontallyCentered define if content is centered. If printer name is not valid, it will be ignored.

Version 5.2 adds PaperName, PaperWidth and PaperHeight.

### Examples

Sets bottom margin to 5 points:

```
MBS("WebView.SetPrintParameter"; "bottomMargin"; 5)
```

Use square paper size:

```
Set Variable [ $r; Value:MBS("WebView.SetPrintParameter"; "paperWidth"; 800) ]
Set Variable [ $r; Value:MBS("WebView.SetPrintParameter"; "paperHeight"; 800) ]
```

Use A4 paper:

```
MBS("WebView.SetPrintParameter"; "paperName"; "iso-a4")
```

Set landscape:

```
MBS("WebView.SetPrintParameter"; "orientation"; "landscape")
```

### See also

183.138. <i>WEBVIEW.SETPRINTPARAMETER</i>	8611
• 183.76 <i>WebView.GetPrintParameter</i>	8511
• 183.102 <i>WebView.Print</i>	8544
• 183.104 <i>WebView.PrintToFile</i>	8547

### **Example Databases**

- [WebView/WebKit 1.x only/WebView Print](#)

### **183.138.1 Blog Entries**

- [Print WebView on macOS in FileMaker](#)
- [MBS FileMaker Plugin, version 5.2pr8](#)
- [MBS Filemaker Plugin, version 4.0pr4](#)
- [MBS Filemaker Plugin, version 2.1 final candidate](#)

Created 18th August 2014, last changed 5th April 2017.

## 183.139 WebView.SetPrivateBrowsing

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.5	Yes	No	No	No	Yes

MBS( "WebView.SetPrivateBrowsing"; WebViewerRef; Value )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function. "web"

#### Value

The new mode. Pass 1 to enable private browsing. Pass 0 to disable.

1

**Result** Returns OK or error.

### Description

If enabled, no data should be stored for cookies or cache on disk, so it's cleared when web viewer is destroyed. Default is non-private mode for the web viewer.

For WebKit 2.x, it looks like you can't change mode after web viewer was created.

### Examples

Enable private browsing:

```
Set Variable [ $r ; Value: MBS( "Webview.SetPrivateBrowsing"; "web"; 1 ) ]
```

### See also

- [183.46 WebView.FindByName](#) 8469
- [183.77 WebView.GetPrivateBrowsing](#) 8512

### 183.139.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr5](#)

Created 27th October 2019, last changed 5th January 2020.



**183.140 WebView.SetSilent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	6.5	No	Yes	No	No	No

MBS( "WebView.SetSilent"; WebViewerRef; Value )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Value**

The new setting. Pass 1 to make silent or 0 to allow errors.

1

**Result** Returns OK or error.

**Description**

Default is 0 to enable errors to show.

**Examples**

Disable errors:

```
Set Variable [ $r; Value:MBS( "Webview.SetSilent"; "web"; 1 ) ]
```

Enable errors:

```
MBS( "Webview.SetSilent"; "web"; 0 )
```

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.66 [WebView.GetHidden](#) 8498
- 183.78 [WebView.GetSilent](#) 8513
- 183.134 [WebView.SetHidden](#) 8602
- 183.141 [WebView.SetTitle](#) 8614

**183.140.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr9](#)
- [Silent WebViewer on Windows](#)

Created 24th November 2016, last changed 25th August 2017.

## 183.141 WebView.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	1.4	Yes	Yes	No	No	Yes

MBS( "WebView.SetTitle"; WebViewerRef; Value )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### Value

The value to set

### Description

The same as document.write = "Something"

### See also

- 183.46 WebView.FindByName 8469
- 183.81 WebView.GetTitle 8516
- 183.126 WebView.SetEditable 8587
- 183.134 WebView.SetHidden 8602
- 183.140 WebView.SetSilent 8613

### 183.141.1 Blog Entries

- [FileMaker and WebViewer communication](#)

Created 18th August 2014, last changed 18th August 2014.

## 183.142 **WebView.StopLoading**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.3	Yes	No	No	No	Yes

MBS( "WebView.StopLoading"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK or error.

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.89 [WebView.IsLoading](#) 8526

### 183.142.1 **Blog Entries**

- [MBS FileMaker Plugin, version 9.3pr6](#)

Created 16th July 2019, last changed 16th July 2019.

## 183.143 WebView.UserScripts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	9.5	Yes	No	No	No	Yes

MBS( "WebView.UserScripts"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns JSON or error.

### Description

Returns JSON array of objects with three fields for each script: source, injectionTime and forMainFrameOnly. injectionTime is either AtDocumentStart or AtDocumentEnd.

forMainFrameOnly is a boolean value.

### Examples

Query user scripts:

```
MBS( "Webview.UserScripts"; "web" )
```

Example result: [

```
{
  "forMainFrameOnly" : true,
  "source" : "alert('Hello');",
  "injectionTime" : "AtDocumentEnd"
}
```

### See also

- 183.26 [WebView.AddUserScript](#) 8440
- 183.46 [WebView.FindByName](#) 8469

### 183.143.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr8](#)

Created 8th November 2019, last changed 5th January 2020.

## 183.144 **WebView.canResetPageZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.canResetPageZoom"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### See also

- 183.46 [WebView.FindByName](#) 8469
- 183.149 [WebView.resetPageZoom](#) 8622

Created 18th August 2014, last changed 25th August 2017.

**183.145 WebView.canZoomPageIn**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.canZoomPageIn"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Description**

See also `WebView.GetPageSizeMultiplier` and `WebView.SetPageSizeMultiplier` functions.

**See also**

- 183.146 `WebView.canZoomPageOut` 8619
- 183.46 `WebView.FindByName` 8469
- 183.148 `WebView.getPageSizeMultiplier` 8621
- 183.151 `WebView.setPageSizeMultiplier` 8624
- 183.153 `WebView.zoomPageIn` 8626

Created 18th August 2014, last changed 10th September 2018.

**183.146 WebView.canZoomPageOut**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.canZoomPageOut"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Description**

See also `WebView.GetPageSizeMultiplier` and `WebView.SetPageSizeMultiplier` functions.

**See also**

- 183.145 `WebView.canZoomPageIn` 8618
- 183.46 `WebView.FindByName` 8469
- 183.148 `WebView.getPageSizeMultiplier` 8621
- 183.151 `WebView.setPageSizeMultiplier` 8624
- 183.154 `WebView.zoomPageOut` 8627

Created 18th August 2014, last changed 10th September 2018.

## 183.147 `WebView.getMediaVolume`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	No

MBS( "WebView.getMediaVolume"; WebViewRef )

### Parameters

#### WebViewRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### See also

- 183.46 `WebView.FindByName` 8469
- 183.150 `WebView.setMediaVolume` 8623

Created 18th August 2014, last changed 25th August 2017.



## 183.148 **WebView.getPageSizeMultiplier**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.getPageSizeMultiplier"; WebViewRef )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

### Description

#### See also

- 183.145 [WebView.canZoomPageIn](#) 8618
- 183.146 [WebView.canZoomPageOut](#) 8619
- 183.46 [WebView.FindByName](#) 8469
- 183.151 [WebView.setPageSizeMultiplier](#) 8624

Created 18th August 2014, last changed 25th August 2017.

## 183.149 `WebView.resetPageZoom`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "`WebView.resetPageZoom`"; `WebViewRef` )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "`WebView.FindByName`" function.

### Description

#### See also

- 183.144 `WebView.canResetPageZoom` 8617
- 183.46 `WebView.FindByName` 8469

Created 18th August 2014, last changed 25th August 2017.

**183.150 WebView.setMediaVolume**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	No

MBS( "WebView.setMediaVolume"; WebViewRef; Value )

**Parameters****WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Value**

The new volume.

0.5

**Description**

Sets a master volume control for all media elements in the WebView. Valid values are 0..1.

**See also**

- 183.46 [WebView.FindByName](#) 8469
- 183.147 [WebView.getMediaVolume](#) 8620

Created 18th August 2014, last changed 25th August 2017.

## 183.151 `WebView.setPageSizeMultiplier`

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "`WebView.setPageSizeMultiplier`"; `WebViewRef`; `value` )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "`WebView.FindByName`" function.

#### **value**

A fractional percentage value, 1.0 is 100% .

0.5

**Result** Returns OK on success or error message on failure.

### Description

Change the zoom factor of the page in views managed by this `webView`.

This function is only for MacOS and iOS. Please use `Webview.setZoom` for Windows.

### See also

- 183.145 `WebView.canZoomPageIn` 8618
- 183.146 `WebView.canZoomPageOut` 8619
- 183.46 `WebView.FindByName` 8469
- 183.148 `WebView.getPageSizeMultiplier` 8621
- 183.152 `WebView.setZoom` 8625

Created 18th August 2014, last changed 15th July 2019.

## 183.152 **WebView.setZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.2	No	Yes	No	No	No

MBS( "WebView.setZoom"; WebViewRef; factor )

### Parameters

#### **WebViewRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

#### **factor**

The scaling factor. Range is 10 to 1000.

50

**Result** Returns OK on success or error.

### Description

This is the function for Windows. Please use `Webview.setPageSizeMultiplier`, `Webview.zoomPageIn` or `Webview.zoomPageOut` for MacOS.

See also `WebView.SetInternetExplorerHiDPI` function.

### Examples

Zooms page out:

```
Set Variable [ $r; MBS("Webview.setZoom"; "web"; 50) ]
```

### See also

- 183.46 `WebView.FindByName` 8469
- 183.55 `WebView.GetForm` 8481
- 183.67 `WebView.GetIcon` 8499
- 183.135 `WebView.SetInternetExplorerHiDPI` 8603
- 183.151 `WebView.setPageSizeMultiplier` 8624
- 183.153 `WebView.zoomPageIn` 8626
- 183.154 `WebView.zoomPageOut` 8627

### 183.152.1 **Blog Entries**

- [MBS Filemaker Plugin, version 4.2pr1](#)

Created 18th August 2014, last changed 25th April 2020.

## 183.153 WebView.zoomPageIn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.zoomPageIn"; WebViewerRef )

### Parameters

#### WebViewerRef

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK on success or error message on failure.

### Description

This function is only for Mac OS X. Please use Webview.setZoom for Windows.

### Examples

Zooms page in:

```
Set Variable [ $r; MBS("Webview.ZoomPageIn"; "web") ]
```

### See also

- 183.145 WebView.canZoomPageIn 8618
- 183.46 WebView.FindByName 8469
- 183.152 WebView.setZoom 8625
- 183.154 WebView.zoomPageOut 8627

Created 18th August 2014, last changed 16th May 2019.

**183.154 WebView.zoomPageOut**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
183 WebView	4.1	Yes	No	No	No	Yes

MBS( "WebView.zoomPageOut"; WebViewerRef )

**Parameters****WebViewerRef**

Either the Web Viewer Object Name or the Web Viewer ID as returned by "WebView.FindByName" function.

**Result** Returns OK on success or error message on failure.

**Description**

This function is only for Mac OS X. Please use Webview.setZoom for Windows.

**Examples**

Zooms page out:

```
Set Variable [ $r; MBS("Webview.zoomPageOut"; "web") ]
```

**See also**

- 183.146 [WebView.canZoomPageOut](#) 8619
- 183.46 [WebView.FindByName](#) 8469
- 183.152 [WebView.setZoom](#) 8625
- 183.153 [WebView.zoomPageIn](#) 8626

Created 18th August 2014, last changed 16th May 2019.





# Chapter 184

## WIA

Scan images from flatbed scanners on Windows.

See ImageCapture functions for MacOS or older TWAIN functions.

### 184.1 WIA.ClearCurrentDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ClearCurrentDevice" )

**Result** Returns OK or error.

#### Description

See also

- 184.6 WIA.GetCurrentDevice 8639
- 184.19 WIA.SetCurrentDevice 8660

Created 6th November 2016, last changed 6th November 2016.

## 184.2 WIA.DeviceCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.DeviceCount" )

**Result** Returns number or error.

### Description

### Examples

Walk over list of devices and query properties:

```

Go to Layout [ "WIA Scan" (WIA Scan) ]
Delete All Records [ No dialog ]
Set Variable [ $c; Value:MBS("WIA.DeviceCount") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $c ]
Else
If [ $c >0 ]
Set Variable [ $i; Value:0 ]
Loop
Perform Script [ "List Properties"; Parameter: $i ]
# Next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $c ]
End Loop
End If
End If

```

### See also

- 127.6 IsError

6374

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 6th November 2016.

## 184.3 WIA.DeviceProperties

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	8.3	No	Yes	No	No	No

MBS( "WIA.DeviceProperties"; Device )

### Parameters

#### Device

You can pass index of device to check them in a row. Or pass name or unique ID of device. Pass empty string for current device.

\$index

**Result** Returns JSON or error.

### Description

Use WIA.DevicePropertyKeys is you only need the keys.

### Examples

Queries properties of first device:

MBS( "WIA.DeviceProperties"; 0 )

```
Example result: {
  "Unique Device ID": " { 6BDD1FC6-810F-11D0-BEC7-08002BE2092F } \\0000",
  "Manufacturer": "Brother",
  "Description": "Brother DCP-8085DN LAN",
  "Type": 65537,
  "Port": "BRNET",
  "Name": "Brother DCP-8085DN LAN",
  "Server": "local",
  "Remote Device ID": "",
  "UI Class ID": " { 4B29E704-7E5A-466c-A5FD-8BAEC62DC2BA } ",
  "Hardware Configuration": 0,
  "BaudRate": "",
  "STI Generic Capabilities": 57,
  "WIA Version": "2.0",
  "Driver Version": "3.10.6.13",
  "PnP ID String": "\\?\\root# image# 0000# { 6bdd1fc6-810f-11d0-bec7-08002be2092f } ",
  "STI Driver Version": 3
}
```

Query current device properties:

MBS( "WIA.DeviceProperties"; MBS( "WIA.GetCurrentDevice" ) )

**See also**

- 184.4 WIA.DevicePropertyKeys 8633
- 184.6 WIA.GetCurrentDevice 8639
- 184.20 WIA.SetDevicePropertyValue 8661

### 184.3.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 17th June 2018, last changed 15th November 2019.

## 184.4 WIA.DevicePropertyKeys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.DevicePropertyKeys"; Device )

### Parameters

#### Device

You can pass index of device to check them in a row. Or pass name or unique ID of device. Pass empty string for current device.

\$index

**Result** Returns OK or error.

### Description

The current device (connected) may show more device properties than just the information from the registry, which you get without connection.

Use WIA.DeviceProperties to query all values with keys as JSON.

### Examples

Query properties of current device:

MBS( "WIA.DevicePropertyKeys"; "" )

Example result: Item Name

Full Item Name

Item Flags

Unique Device ID

Manufacturer

Description

Type

Port

Name

Server

Remote Device ID

UI Class ID

Hardware Configuration

BaudRate

STI Generic Capabilities

WIA Version

Driver Version

PnP ID String

STI Driver Version

User Name

Item Category

Document Handling Capabilities

Document Handling Status

Max Scan Time  
Access Rights  
Horizontal Optical Resolution  
Vertical Optical Resolution  
Preview  
Show preview control  
Maximum Horizontal Scan Size  
Maximum Vertical Scan Size  
Minimum Vertical Scan Size  
Minimum Horizontal Scan Size  
Horizontal Bed Registration  
Vertical Bed Registration  
Page Size  
Current Intent  
Firmware Version  
Horizontal Resolution  
Vertical Resolution  
Horizontal Start Position  
Vertical Start Position  
Horizontal Extent  
Vertical Extent  
Rotation  
Orientation  
DeskewX  
DeskewY  
Brightness  
Contrast  
Item Size  
Data Type  
Bits Per Pixel  
Preferred Format  
Format  
Compression  
Photometric Interpretation  
Lamp Warm up Time  
Media Type  
Channels Per Pixel  
Bits Per Channel  
Planar  
Pixels Per Line  
Number of Lines  
Bytes Per Line  
Threshold  
Buffer Size  
Filename extension  
Sheet Feeder Registration  
Pages  
Document Handling Select

Page Width

Page Height

List properties:

```

Set Variable [ $device; Value:Get(ScriptParameter) ]
Set Variable [ $list; Value:MBS("WIA.DevicePropertyKeys"; $device) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $list ]
Else
Set Variable [ $count; Value:ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i; Value:1 ]
Loop
Set Variable [ $key; Value:GetValue ( $list; $i ) ]
Set Variable [ $value; Value:MBS("WIA.DevicePropertyValue"; $device; $key) ]
New Record/Request
Set Field [ WIA Scan::Device; $device ]
Set Field [ WIA Scan::Key; $key ]
Set Field [ WIA Scan::Value; $value ]
Commit Records/Requests [ No dialog ]
# Next
Set Variable [ $i; Value:$i+1 ]
Exit Loop If [ $i >$count ]
End Loop
End If
End If

```

#### See also

- [127.6 IsError](#) 6374
- [184.3 WIA.DeviceProperties](#) 8631
- [184.5 WIA.DevicePropertyValue](#) 8636
- [184.20 WIA.SetDevicePropertyValue](#) 8661

#### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 15th November 2019.

## 184.5 WIA.DevicePropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.DevicePropertyValue"; Device; Key )

### Parameters

#### Device

You can pass index of device to check them in a row. Or pass name or unique ID of device. Pass empty string for current device.

\$index

#### Key

The property key. Can be a text with the name of the property or the corresponding ID.

"Name"

**Result** Returns value or error.

### Description

You can use WIA.DevicePropertyKeys to learn about available keys.

Values are returned as numbers, booleans or converted to text.

Document Handling Status values:

FEED_READY	1	The document feeder has a page loaded and is ready for use.
FLAT_READY	2	The flatbed is ready for use.
DUP_READY	4	The duplexer is enabled and ready to use.
FLAT_COVER_UP	8	The flatbed cover is up.
PATH_COVER_UP	16	The paper path is covered and is preventing proper operation.
PAPER_JAM	32	A document is stuck in the document feeder.
FILM_TPA_READY	64	A transparency adapter is installed and ready for use.
STORAGE_READY	128	A storage device is installed and ready for use.
STORAGE_FULL	256	The storage is full; no upload operations are possible.
MULTIPLE_FEED	512	A multiple feed occurred; this type of feed usually occurs with a PAPER_JAM value.
DEVICE_ATTENTION	1024	There is an error that requires user intervention on the scanner.
LAMP_ERR	2048	The scanner has a problem with the lamp and is not ready.
IMPRINTER_READY	4096	The imprinter capabilities of an imprinter/endorser are enabled and ready for use.
ENDORSER_READY	8192	The endorser capabilities of an imprinter/endorser are enabled and ready for use.
BARCODE_READER_READY	16384	The barcode reader is enabled and ready for use.
PATCH_CODE_READER_READY	32768	The patch code reader is enabled and ready for use.
MICR_READER_READY	65536	The MICR reader is enabled and ready for use.

e.g. if you get back 5, this is feed and duplex ready.



## Document Handling Capabilities:

FEED	1	The scanner has a document feeder installed.
FLAT	2	The scanner has a flatbed platen.
DUP	4	The scanner has a duplexer.
DETECT_FLAT	8	The scanner can detect a document on the flatbed platen.
DETECT_SCAN	16	The scanner can detect a document in the feeder only by scanning.
DETECT_FEED	32	The scanner can detect a document in the feeder.
DETECT_DUP	64	The scanner can detect a duplex scan request from a user.
DETECT_FEED_AVAIL	128	The scanner can detect when a document feeder is installed.
DETECT_DUP_AVAIL	256	The scanner can detect when a duplexer is installed.
FILM_TPA	512	The scanner has a transparency or film scanning adapter.
DETECT_FILM_TPA	1024	The scanner can detect when the transparency or film scanning adapter is ready to scan.
STOR	2048	The scanner is equipped with an internal storage device.
DETECT_STOR	4096	The scanner can detect when there is a document in the internal storage.
ADVANCED_DUP	8192	The device supports advanced duplex scan configuration, independently on each document size.
AUTO_SOURCE	16384	The device supports auto-configured scanning.
IMPRINTER	65536	Imprinter
ENDORSER	131072	Endorser
BARCODE_READER	262144	Barcode Reader
PATCH_CODE_READER	524288	Patch Code Reader
MICR_READER	1048576	MICR Reader

e.g. if you get back 21, this is detect scan, duplex and feeder.

**Examples**

Query name of current device:

```
MBS( "WIA.DevicePropertyValue"; "" ; "Name" )
```

List properties:

```
Set Variable [ $device; Value:Get(ScriptParameter) ]
Set Variable [ $list; Value:MBS("WIA.DevicePropertyKeys"; $device) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $list ]
Else
Set Variable [ $count; Value:ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i; Value:1 ]
Loop
Set Variable [ $key; Value:GetValue ( $list; $i ) ]
Set Variable [ $value; Value:MBS("WIA.DevicePropertyValue"; $device; $key) ]
New Record/Request
Set Field [ WIA Scan::Device; $device ]
Set Field [ WIA Scan::Key; $key ]
Set Field [ WIA Scan::Value; $value ]
Commit Records/Requests [ No dialog ]
```

```
# Next
Set Variable [ $i; Value:$i+1 ]
Exit Loop If [ $i >$count ]
End Loop
End If
End If
```

Query maximum vertical optical resolution:

```
// via name
MBS("Wia.DevicePropertyValue"; ""; "Vertical Optical Resolution")
// via ID
MBS("Wia.DevicePropertyValue"; ""; 3091)
```

Query Manufacturer of first device:

```
MBS( "WIA.DevicePropertyValue"; 0; "Manufacturer")
```

Example result: "Brother"

Query Document Handling Status:

```
MBS( "WIA.DevicePropertyValue"; ""; "Document Handling Status" )
```

### See also

- [127.6 IsError](#) 6374
- [184.4 WIA.DevicePropertyKeys](#) 8633
- [184.15 WIA.ItemPropertyValue](#) 8653
- [184.18 WIA.SelectDeviceDialog](#) 8659
- [184.19 WIA.SetCurrentDevice](#) 8660
- [184.20 WIA.SetDevicePropertyValue](#) 8661
- [184.21 WIA.SetItemPropertyValue](#) 8663

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

### 184.5.1 Blog Entries

- [Scanning Options](#)

Created 6th November 2016, last changed 16th November 2019.

## 184.6 WIA.GetCurrentDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.GetCurrentDevice" )

**Result** Returns text or error.

### Description

### See also

- [184.1 WIA.ClearCurrentDevice](#) 8629
- [184.3 WIA.DeviceProperties](#) 8631
- [184.18 WIA.SelectDeviceDialog](#) 8659
- [184.19 WIA.SetCurrentDevice](#) 8660

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 6th November 2016.

## 184.7 WIA.GetCurrentItem

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	8.3	No	Yes	No	No	No

MBS( "WIA.GetCurrentItem" )

**Result** Returns text or error.

### Description

All items where you can pass item, you can pass this ID or empty string to use current item.

### 184.7.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 18th June 2018, last changed 18th June 2018.

## 184.8 WIA.Image

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.Image"; Index )

### Parameters

#### Index

The index of the image from 0 to WIA.ImageCount-1.

0

**Result** Returns text or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Import Images Script:

```

Set Variable [ $count; Value:MBS( "WIA.ImageCount" ) ]
If [ $count >0 ]
Set Variable [ $i; Value:0 ]
Go to Layout [ "Images" (Images) ]
Loop
Set Variable [ $ImagePath; Value:MBS( "WIA.Image"; $i ) ]
If [ MBS( "Files.FileExists"; $ImagePath ) ]
Set Variable [ $image; Value:MBS( "Container.ReadFile"; $ImagePath ) ]
New Record/Request
Set Field [ Images::Name; MBS( "Path.LastPathComponent"; $ImagePath ) ]
Set Field [ Images::Image; $image ]
Commit Records/Requests [ No dialog ]
End If
# Next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $count ]
End Loop
End If

```

### See also

- 56.28 Container.ReadFile 1681
- 79.19 Files.FileExists 3855
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.5 Path.LastPathComponent 6252

- 184.9 WIA.ImageCount 8643
- 184.10 WIA.ImageDialog 8644
- 184.11 WIA.Images 8646
- 184.17 WIA.Scan 8657

### Example Databases

- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 25th November 2019.

## 184.9 WIA.ImageCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ImageCount" )

**Result** Returns number or error.

### Description

### Examples

Import Images Script:

```
Set Variable [ $count; Value:MBS( "WIA.ImageCount" ) ]
If [ $count >0 ]
Set Variable [ $i; Value:0 ]
Go to Layout [ "Images" (Images) ]
Loop
Set Variable [ $ImagePath; Value:MBS( "WIA.Image"; $i ) ]
If [ MBS( "Files.FileExists"; $ImagePath ) ]
Set Variable [ $image; Value:MBS( "Container.ReadFile"; $ImagePath ) ]
New Record/Request
Set Field [ Images::Name; MBS( "Path.LastPathComponent"; $ImagePath ) ]
Set Field [ Images::Image; $image ]
Commit Records/Requests [ No dialog ]
End If
# Next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $count ]
End Loop
End If
```

### See also

- 56.28 Container.ReadFile 1681
- 79.19 Files.FileExists 3855
- 124.5 Path.LastPathComponent 6252
- 184.8 WIA.Image 8641
- 184.10 WIA.ImageDialog 8644

### Example Databases

- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 25th November 2019.

## 184.10 WIA.ImageDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ImageDialog"; Flags; FolderPath { ; FileName } )

### Parameters

#### Flags

Specifies dialog box behavior. Currently only UseCommonUI is available. Use this flag to use the system UI instead of the vendor-supplied UI.

"UseCommonUI"

#### FolderPath

The native path to the folder where images are stored. Your application must have write permissions for this folder.

"C:\Scans\"

#### FileName

Optional

The file name to use. Extensions and/or numbers are added if needed.

"Scan"

**Result** Returns Cancel, OK or error.

### Description

This may ask the user for the device to use.

If a current device is selected, this one will be used.

When the function returns, you can use WIA.ImageCount to query how many images got scanned. Even if the user cancels, there may be some images already available.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### Examples

Show image dialog:

```
Set Variable [ $folder; Value:MBS( "Folders.UserTemporary" ) ]
Set Variable [ $path; Value:MBS( "Path.AddPathComponent"; $folder; "FileMakerScans" ) ]
Set Variable [ $r; Value:MBS( "Files.CreateDirectory"; $path ) ]
# Scan...
Set Variable [ $r; Value:MBS("WIA.ImageDialog"; "Default"; $path; "scan" ) ]
Set Variable [ $count; Value:MBS( "WIA.ImageCount" ) ]
# Result can be OK or Cancel and in both cases some images may be there
If [ $r = "OK" ]
Show Custom Dialog [ "Scan Result"; $r ]
End If
```



```

If [ $count >0 ]
Set Variable [ $i; Value:0 ]
Go to Layout [ "Images" (Images) ]
Loop
Set Variable [ $ImagePath; Value:MBS( "WIA.Image"; $i) ]
Set Variable [ $image; Value:MBS( "Container.ReadFile"; $ImagePath) ]
New Record/Request
Set Field [ Images::Name; MBS( "Path.LastPathComponent"; $ImagePath ) ]
Set Field [ Images::Image; $image ]
Commit Records/Requests [ No dialog ]
# Next
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $i >= $count ]
End Loop
End If

```

**See also**

- 56.28 Container.ReadFile 1681
- 79.10 Files.CreateDirectory 3839
- 82.16 Folders.UserTemporary 4245
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 124.5 Path.LastPathComponent 6252
- 184.8 WIA.Image 8641
- 184.9 WIA.ImageCount 8643

**Example Databases**

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 6th November 2016.

## 184.11 WIA.Images

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	9.1	No	Yes	No	No	No

MBS( "WIA.Images" )

**Result** Returns path list or error.

### Description

You can path list of image file paths to DynaPDF.AppendImagePages function to add them to a PDF file.

### Examples

Query path list:

```
Set Variable [ $paths; Value:MBS( "WIA.Images" ) ]
```

### See also

- [71.14 DynaPDF.AppendImagePage](#) 2615
- [71.15 DynaPDF.AppendImagePages](#) 2617
- [184.8 WIA.Image](#) 8641

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)

#### 184.11.1 Blog Entries

- [Create PDF from scanned images and skip blank pages](#)
- [Neues MBS FileMaker Plugin 9.1](#)
- [MBS FileMaker Plugin 9.1 - More than 5700 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.1pr2](#)

Created 11st February 2019, last changed 25th November 2019.

## 184.12 WIA.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.Initialize" )

**Result** Returns OK or error.

### Description

This is done automatically if needed, but you can explicit call it in solution startup if you like. Calls FM.InitMessageFilter automatically.

### Examples

Initialize:

```
Set Variable [ $r; Value:MBS("WIA.Initialize") ]
Show Custom Dialog [ "WIA Initialize"; $r ]
```

### See also

- [80.31 FM.InitMessageFilter](#) 3992
- [99.6 Java.Initialize](#) 5238
- [123.9 OCR.Initialize](#) 6227
- [134.2 Proj.Initialize](#) 6659
- [166.21 TAPI.Initialize](#) 7876
- [193.117 XL.Initialize](#) 9145

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 18th June 2018.

## 184.13 WIA.ItemProperties

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	8.3	No	Yes	No	No	No

MBS( "WIA.ItemProperties"; Item )

### Parameters

#### Item

The item of current device to query. For a scanner this is typical Flatbed or Feeder. see WIA.ListItems  
"Flatbed"

**Result** Returns JSON or error.

### Description

### Examples

Query feeder properties:

MBS( "WIA.ItemProperties"; "Feeder" )

```
Example result: {
  "Item Name": "Feeder",
  "Full Item Name": "0000\\Root\\Feeder",
  "Item Flags": 532483,
  "Color Profile Name": "sRGB Color Space Profile.icm",
  "Access Rights": 1,
  "Horizontal Optical Resolution": 1200,
  "Vertical Optical Resolution": 2400,
  "Preview": 0,
  "Show preview control": 1,
  "Maximum Horizontal Scan Size": 8500,
  "Maximum Vertical Scan Size": 14000,
  "Sheet Feeder Registration": 1,
  "Minimum Vertical Scan Size": 1,
  "Minimum Horizontal Scan Size": 0,
  "Document Handling Select": 32,
  "Pages": 0,
  "Page Size": 0,
  "Current Intent": 0,
  "Item Category": " { FE131934-F84C-42AD-8DA4-6129CDDD7288 } ",
  "Horizontal Resolution": 200,
  "Vertical Resolution": 200,
  "Horizontal Start Position": 0,
  "Vertical Start Position": 0,
  "Horizontal Extent": 1700,
  "Page Width": 850,
  "Vertical Extent": 2800,
```

```

"Page Height": 1400,
"Rotation": 0,
"Orientation": 0,
"DeskewX": 0,
"DeskewY": 0,
"Brightness": 0,
"Contrast": 0,
"Item Size": 0,
"Data Type": 3,
"Bits Per Pixel": 24,
"Preferred Format": " { B96B3CAB-0728-11D3-9D7B-0000F81EF32E } ",
"Format": " { B96B3CAB-0728-11D3-9D7B-0000F81EF32E } ",
"Compression": 0,
"Photometric Interpretation": 0,
"Lamp Warm up Time": 10000,
"Media Type": 2,
"Channels Per Pixel": 3,
"Bits Per Channel": 8,
"Planar": 0,
"Pixels Per Line": 1700,
"Number of Lines": 2800,
"Bytes Per Line": 0,
"Threshold": 128,
"Buffer Size": 131072,
"Filename extension": "BMP"
}

```

**See also**

- 184.14 WIA.ItemPropertyKeys 8650
- 184.15 WIA.ItemPropertyValue 8653
- 184.16 WIA.ListItems 8656
- 184.21 WIA.SetItemPropertyValue 8663

**184.13.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 17th June 2018, last changed 19th February 2019.

## 184.14 WIA.ItemPropertyKeys

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ItemPropertyKeys"; Item )

### Parameters

#### Item

The item of current device to query. For a scanner this is typical Flatbed or Feeder. see WIA.ListItems "Flatbed"

**Result** Returns list or error.

### Description

Use WIA.ItemProperties to query all values with keys as JSON.

### Examples

List properties of Flatbed unit:

MBS( "WIA.ItemPropertyKeys"; "Flatbed" )

Example result: Item Name

Full Item Name

Item Flags

Color Profile Name

Access Rights

Horizontal Optical Resolution

Vertical Optical Resolution

Preview

Show preview control

Maximum Horizontal Scan Size

Maximum Vertical Scan Size

Minimum Vertical Scan Size

Minimum Horizontal Scan Size

Horizontal Bed Registration

Vertical Bed Registration

Page Size

Current Intent

Item Category

Horizontal Resolution

Vertical Resolution

Horizontal Start Position

Vertical Start Position

Horizontal Extent

Vertical Extent

Rotation

Orientation

DeskewX  
 DeskewY  
 Brightness  
 Contrast  
 Item Size  
 Data Type  
 Bits Per Pixel  
 Preferred Format  
 Format  
 Compression  
 Photometric Interpretation  
 Lamp Warm up Time  
 Media Type  
 Channels Per Pixel  
 Bits Per Channel  
 Planar  
 Pixels Per Line  
 Number of Lines  
 Bytes Per Line  
 Threshold  
 Buffer Size  
 Filename extension

List properties of feeder:

```

Set Variable [ $item ; Value: "Feeder" ]
Set Variable [ $list ; Value: MBS("WIA.ItemPropertyKeys"; $item) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $list ]
Else
Set Variable [ $count ; Value: ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i ; Value: 1 ]
Loop
Set Variable [ $key ; Value: GetValue ( $list; $i ) ]
Set Variable [ $value ; Value: MBS("WIA.ItemPropertyValue"; $item; $key) ]
New Record/Request
Set Field [ WIA Scan::Device ; $item ]
Set Field [ WIA Scan::Key ; $key ]
Set Field [ WIA Scan::Value ; $value ]
Commit Records/Requests [ With dialog: Off ]
# Next
Set Variable [ $i ; Value: $i+1 ]
Exit Loop If [ $i >$count ]
End Loop
End If
End If
  
```

**See also**

- 127.6 IsError 6374
- 184.13 WIA.ItemProperties 8648
- 184.15 WIA.ItemPropertyValue 8653
- 184.16 WIA.ListItems 8656

**184.14.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 28th November 2016, last changed 15th November 2019.



## 184.15 WIA.ItemPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ItemPropertyValue"; Item; Key )

### Parameters

#### Item

The item of current device to query. For a scanner this is typical Flatbed or Feeder. see WIA.ListItems "Flatbed"

#### Key

The property key. Can be a text with the name of the property or the corresponding ID. "Name"

**Result** Returns value or error.

### Description

File formats UUIDs:

BMP	B96B3CAB-0728-11D3-9D7B0000F81EF32E
JPEG	B96B3CAE-0728-11D3-9D7B0000F81EF32E
PNG	B96B3CAF-0728-11D3-9D7B0000F81EF32E
GIF	B96B3CB0-0728-11D3-9D7B0000F81EF32E
TIFF	B96B3CB1-0728-11D3-9D7B0000F81EF32E

Document Handling Flags:

Name	Value	Description
FEEDER 1	From the setting the document feeder.	
FLATBED 1	From the setting the flatbed.	
FEEDER 2	From the setting duplicate operation.	
FRONT FEED 1	From the front of the document feed. This value is valid only when DUPLEX is set.	
BACK FEED 1	From the back of the document feed. This value is valid only when DUPLEX is set.	
FRONT FEED 2	From the front side.	
BACK FEED 2	From the back side. This value is valid only when DUPLEX is set.	
FEED 1	From the front stage of the document.	
FEED 2	From the back stage of the document.	
FEED 3	Enable per-feed mode. Prohibit the user document while scanning.	
FEED 4	Enable automatic feeding of the user document after a scan.	
ADVANCED_DUPLEX 101	From the using individual configuration settings for each MIB feeder from (WIA_CATEGORY_FEEDER, FEEDER, FRONT and WIA_CATEGORY_FEEDER, BACK). This flag cannot be set together with DUPLEX. A device that supports different scan settings for the front and back feeds should implement the optional ADF front and back feeds and it should support both DUPLEX and ADVANCED_DUPLEX.	

Use WIA.ItemProperties to query all values with keys as JSON.

Use WIA.SetItemPropertyValue to set a value.

### Examples

Queries resolution:

MBS( "WIA.ItemPropertyValue"; "Flatbed"; "Horizontal Resolution" )

Queries file extension:

MBS( "WIA.ItemPropertyValue"; "Flatbed"; "Filename extension" )

Queries media type:

```
MBS( "WIA.ItemPropertyValue"; "Flatbed"; "Media Type" )
```

Queries orientation:

```
MBS( "WIA.ItemPropertyValue"; "Flatbed"; "Orientation" )
// 0 = Portrait, 1 = Landscape, 2 = Rotate 180, 3 = Rotate 270
```

List properties of feeder:

```
Set Variable [ $item ; Value: "Feeder" ]
Set Variable [ $list ; Value: MBS("WIA.ItemPropertyKeys"; $item) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $list ]
Else
Set Variable [ $count ; Value: ValueCount ( $list ) ]
If [ $count >0 ]
Set Variable [ $i ; Value: 1 ]
Loop
Set Variable [ $key ; Value: GetValue ( $list; $i ) ]
Set Variable [ $value ; Value: MBS("WIA.ItemPropertyValue"; $item; $key) ]
New Record/Request
Set Field [ WIA Scan::Device ; $item ]
Set Field [ WIA Scan::Key ; $key ]
Set Field [ WIA Scan::Value ; $value ]
Commit Records/Requests [ With dialog: Off ]
# Next
Set Variable [ $i ; Value: $i+1 ]
Exit Loop If [ $i >$count ]
End Loop
End If
End If
```

Query document handling select:

```
MBS( "WIA.ItemPropertyValue"; "feeder"; "Document Handling Select")
```

### See also

- 127.6 IsError 6374
- 184.5 WIA.DevicePropertyValue 8636
- 184.13 WIA.ItemProperties 8648
- 184.14 WIA.ItemPropertyKeys 8650
- 184.16 WIA.ListItems 8656

184.15. *WIA.ITEMPROPERTYVALUE*

8655

- 184.21 *WIA.SetItemPropertyValue*

8663

### **184.15.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 28th November 2016, last changed 21st November 2019.

## 184.16 WIA.ListItems

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.ListItems" )

**Result** Returns list or error.

### Description

Returns a list with items, e.g. Flatbed and Feeder for a scanner.

### Examples

List items:

MBS( "WIA.ListItems" )

### See also

- [184.13 WIA.ItemProperties](#) 8648
- [184.14 WIA.ItemPropertyKeys](#) 8650
- [184.15 WIA.ItemPropertyValue](#) 8653
- [184.17 WIA.Scan](#) 8657
- [184.21 WIA.SetItemPropertyValue](#) 8663

### 184.16.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 28th November 2016, last changed 28th November 2016.

## 184.17 WIA.Scan

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.Scan"; Item )

### Parameters

#### Item

The item of current device to query. For a scanner this is typical Flatbed or Feeder. see WIA.ListItems "Flatbed"

**Result** Returns OK or error.

### Description

We normally put the files on successful transfer into temp file and you get paths back from WIA.Image function.

If the document feeder fails to supply an image, the returned path to image file will be empty.

### Examples

Scan via flatbed:

```
MBS( "WIA.Scan"; "Flatbed" )
```

Scan via feeder:

```
MBS( "WIA.Scan"; "Feeder" )
```

Scan duplex from document feeder:

```
# switch on duplex mode
Set Variable [ $r ; Value: MBS( "WIA.SetItemPropertyValue"; "Feeder"; "Document Handling Select"; 4 )
/* 1 = feeder 2 = flatbed 4 = duplex 8 = front first 16 = back first 32 = front only 64 = back only 128 =
next page 256 = preferred 512 = auto advance see https://docs.microsoft.... ]
#
# Scan via document Feeder
Set Variable [ $r ; Value: MBS( "WIA.Scan"; "Feeder" ) ]
#
# Result can be OK or Cancel and in both cases some images may be there
If [ $r "OK" ]
Show Custom Dialog [ "Scan Result" ; $r ]
Else
Perform Script [ Specified: From list ; "Import Images" ; Parameter: ]
End If
```

**See also**

- 184.8 WIA.Image 8641
- 184.16 WIA.ListItems 8656
- 184.21 WIA.SetItemPropertyValue 8663

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

### 184.17.1 Blog Entries

- [Create PDF from scanned images and skip blank pages](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Scanning Options](#)
- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 28th November 2016, last changed 11st February 2019.

## 184.18 WIA.SelectDeviceDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.SelectDeviceDialog"; DeviceType )

### Parameters

#### DeviceType

Which type of device to be selected. Can be Default, Scanner or DigitalCamera.  
"Default"

**Result** Returns OK or error.

### Description

### Examples

Select a device:

```
Set Variable [ $r; Value:MBS("WIA.SelectDeviceDialog"; "Scanner") ]
If [ $r = "OK" ]
Show Custom Dialog [ "Select Device Dialog Result"; "DeviceID: " & MBS("WIA.GetCurrentDevice") &
$& "Name: " & MBS("WIA.DevicePropertyValue"; """); "Nam... ]
Else
Show Custom Dialog [ "Select Device Dialog Result"; $r ]
End If
```

### See also

- [184.5 WIA.DevicePropertyValue](#) 8636
- [184.6 WIA.GetCurrentDevice](#) 8639

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 6th November 2016.

## 184.19 WIA.SetCurrentDevice

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.SetCurrentDevice"; DeviceID )

### Parameters

#### DeviceID

Pass name or unique ID for device.  
"Brother DCP-8085DN LAN"

**Result** Returns OK or error.

### Description

#### Examples

Select a device:

```
Set Variable [ $r; Value:MBS("WIA.SetCurrentDevice"; WIA Scan::Value) ]
If [ $r = "OK" ]
Show Custom Dialog [ "Select Device Dialog Result"; "DeviceID: " & MBS("WIA.GetCurrentDevice") &
$& "Name: " & MBS("WIA.DevicePropertyValue"; """); "Nam... ]
Else
Show Custom Dialog [ "Select Device Dialog Result"; $r ]
End If
```

### See also

- [184.1 WIA.ClearCurrentDevice](#) 8629
- [184.5 WIA.DevicePropertyValue](#) 8636
- [184.6 WIA.GetCurrentDevice](#) 8639

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

Created 6th November 2016, last changed 6th November 2016.



## 184.20 WIA.SetDevicePropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.SetDevicePropertyValue"; Device; Key; Value { ; Type } )

### Parameters

#### Device

You can pass index of device to check them in a row. Or pass name or unique ID of device. Pass empty string for current device.

"""

#### Key

The property key.

"Horizontal Resolution"

#### Value

The value to use.

300

#### Type

Optional

The data type to use. By default if empty or auto, we detect it based on the type of the existing property. Can be Boolean, Int16, Int32, Int64, UInt16, UInt32, UInt64, String or Double.

"Int32"

**Result** Returns OK or error.

### Description

You can use WIA.DevicePropertyKeys to learn about available keys.

To learn about properties you may need to visit Microsoft websites and figure out the options and the values for the listed constants:

[https://msdn.microsoft.com/en-us/library/windows/desktop/ms630196\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/windows/desktop/ms630196(v=vs.85).aspx)

Page sizes are listed here:

[https://msdn.microsoft.com/en-us/library/aa360096\(v=VS.85\).aspx](https://msdn.microsoft.com/en-us/library/aa360096(v=VS.85).aspx)

Please query with WIA.DeviceProperties to see what keys and values are possible. You may want to query before and after setting the value via dialog.

### Examples

Set to scan all pages:

MBS( "WIA.SetDevicePropertyValue"; "" ; 3096; 0)

Set media type to file:

```
MBS( "WIA.SetDevicePropertyValue"; ""; "Media Type"; 2)
```

Set page size to A4:

```
MBS( "WIA.SetDevicePropertyValue"; ""; "Page Size"; 0)
```

Request feeder with duplex:

```
MBS( "WIA.SetDevicePropertyValue"; ""; "Device Handling Document"; 5 ) // 1 for feeder + 4 for duplex
```

Request to keep one page in memory:

```
MBS( "WIA.SetDevicePropertyValue"; ""; "Pages"; 1 ) // keep one page in memory
```

### See also

- 184.3 WIA.DeviceProperties 8631
- 184.4 WIA.DevicePropertyKeys 8633
- 184.5 WIA.DevicePropertyValue 8636
- 184.21 WIA.SetItemPropertyValue 8663

Created 10th November 2016, last changed 15th November 2019.

## 184.21 WIA.SetItemPropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
184 WIA	6.5	No	Yes	No	No	No

MBS( "WIA.SetItemPropertyValue"; Item; Key; Value )

### Parameters

#### Item

The item of current device to query. For a scanner this is typical Flatbed or Feeder. see WIA.ListItems "Flatbed"

#### Key

The property key. Can be a text with the name of the property or the corresponding ID. "Name"

#### Value

The new value for this property.

**Result** Returns OK or error.

### Description

Please query with WIA.ItemProperties to see what keys and values are possible. You may want to query before and after setting the value via dialog.

### Examples

Set resolution:

```
MBS( "WIA.SetItemPropertyValue"; "Flatbed"; "Horizontal Resolution"; 300 ) &
MBS( "WIA.SetItemPropertyValue"; "Flatbed"; "Vertical Resolution"; 300 )
```

Set rotation:

```
MBS( "WIA.SetItemPropertyValue"; "Flatbed"; "Rotation"; 2 )
// 0 = Portrait, 1 = Landscape, 2 = Rotate 180, 3 = Rotate 270
```

Set gray or color:

```
MBS( "WIA.SetItemPropertyValue"; "Feeder"; "Current Intent"; 2)
// 1 = color
// 2 = gray
```

Set duplex:

```
Set Variable [ $r ; Value: MBS( "WIA.SetItemPropertyValue"; "Feeder"; "Document Handling Select"; 4 )
/*
1 = feeder
2 = flatbed
```

4 = duplex  
 8 = front first  
 16 = back first  
 32 = front only  
 64 = back only  
 128 = next page  
 256 = preferred  
 512 = auto advance

see

<https://docs.microsoft.com/en-us/windows-hardware/drivers/image/wia-dps-document-handling-select>

```
/ ]
Show Custom Dialog [ "Set duplex" ; $r ]
```

Set to ignore blank pages:

```
Set Variable [ $r ; Value: MBS( "WIA.SetItemPropertyValue"; "Feeder"; "Blank Pages"; 1 )
```

```
/*
```

0 = Blank page detection is disabled. This is the required default value if the property is supported.

1 = The device detects blank pages and automatically skips scanning them (discards scanned data if any) and continues scanning.

2 = The device detects blank pages and acts as configured through the Job Separators property. This value is valid only when the Feeder item supports the Job Separators property.

see

<https://docs.microsoft.com/en-us/windows-hardware/drivers/image/wia-ips-blank-pages>

```
/ ]
Show Custom Dialog [ "Set blank pages" ; $r ]
```

Set to scan only front page:

```
Set Variable [ $r ; Value: MBS( "WIA.SetItemPropertyValue"; "Feeder"; "Document Handling Select"; 32 )
```

Set image format to JPEG:

```
MBS( "WIA.SetItemPropertyValue"; "Flatbed"; "Format"; "B96B3CAE-0728-11D3-9D7B0000F81EF32E"
)
```

#### See also

- 184.5 WIA.DevicePropertyValue 8636
- 184.13 WIA.ItemProperties 8648
- 184.15 WIA.ItemPropertyValue 8653

184.21. WIA.SETITEMPROPERTYVALUE	8665
• 184.16 WIA.ListItems	8656
• 184.17 WIA.Scan	8657
• 184.20 WIA.SetDevicePropertyValue	8661

### Example Databases

- [DynaPDF/Scan with WIA to PDF](#)
- [Win Only/WIA Scan](#)

### 184.21.1 Blog Entries

- [Scanning Options](#)
- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 28th November 2016, last changed 15th November 2019.



# Chapter 185

## Window

Control windows.

Move window, fade in/out, change title or disable close button.

### 185.1 Toolbar.Install

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Install" )

**Result** Returns OK or error.

#### Description

You call this functions once at startup. You can use `Toolbar.Register` after or before to introduce new identifiers. Use `Window.SetToolbarConfiguration` to install a new configuration including your custom identifiers or use customize toolbar palette.

#### See also

- 185.3 `Toolbar.Register` 8670
- 170.4 `Toolbar.SetImage` 8070
- 170.5 `Toolbar.SetLabel` 8072
- 170.6 `Toolbar.SetPaletteLabel` 8074
- 170.7 `Toolbar.SetTooltip` 8075
- 185.99 `Window.SetToolbarConfiguration` 8793

#### Example Databases

- [Mac only/Toolbar/Custom Toolbar Items](#)

### 185.1.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 20th August 2014, last changed 20th August 2014.



## 185.2 Toolbar.InstallBackground

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.InstallBackground"; Image { ; Mode; DisableTitle } )

### Parameters

#### Image

The image to you. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$img

#### Mode

Optional

Can be 0 to stretch (default) or 1 to left align image.

0

#### DisableTitle

Optional

If 1, we do not draw the window title on top of the image.

0

**Result** Returns OK or error.

### Description

There is currently only one style for all FileMaker windows on Mac OS X.

We draw an image below the toolbar buttons. Either we stretch it to full width we align it to left and fill the space on the right with last pixel colors.

There are little redraw issues, especially when resizing window.

Currently doesn't work in FileMaker 14 and newer. If you need that to work, please contact us.

### 185.2.1 Blog Entries

- [MBS FileMaker Plugin 4.3 for OS X/Windows - More than 2700 Functions In One Plugin](#)
- [Toolbar functions for FileMaker on Mac](#)

Created 25th August 2014, last changed 28th August 2016.

## 185.3 Toolbar.Register

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Register"; Identifier; FileName; ScriptName; Parameter; Label; PaletteLabel; Tooltip; Image )

### Parameters

#### Identifier

The toolbar identifier. Must be an unique string.

"Test"

#### FileName

The file name of the FileMaker database where the script is located.

"Toolbar.fmp12"

#### ScriptName

The name of the script to call when toolbar item is pressed.

"ToolbarScript"

#### Parameter

The parameter to pass to the script. This can be same as identifier. Using different parameters allows you to use one script for all toolbar items.

"SwitchToMainLayout"

#### Label

The label, which normally appears in the toolbar and in the overflow menu.

"Hello"

#### PaletteLabel

The label that appears when it is in the customization palette. Can be same as label or different.

"Hello World"

#### Tooltip

The tooltip for the label!

"click me"

#### Image

The image to use for the toolbar item. Pass a container value with JPEG, TIFF, PNG or other image formats.

\$image

**Result** Returns OK or error.

### Description

Please use an identifier with your own prefix/suffix to make sure you have no conflict with existing identifiers.

Once your item is registered, the next time the toolbar updates itself it will use it.

You can use Window.SetToolbarConfiguration or the customize palette to add your toolbar item.

You need to call `Toolbar.Install` at least once before using this command to have it take effect.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

**See also**

- 185.1 `Toolbar.Install` 8667
- 185.4 `Toolbar.Unregister` 8672
- 185.99 `Window.SetToolbarConfiguration` 8793

**Example Databases**

- [Mac only/Toolbar/Custom Toolbar Items](#)

### 185.3.1 Blog Entries

- [Replace toolbar images and labels](#)
- [Toolbar functions for FileMaker on Mac](#)

Created 20th August 2014, last changed 12nd September 2016.

## 185.4 Toolbar.Unregister

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Toolbar.Unregister"; Identifier )

### Parameters

#### Identifier

The toolbar item identifier.

"Test"

**Result** Returns OK or error.

### Description

The changes apply as soon as the toolbar updates itself.

### See also

- 185.3 Toolbar.Register

8670

Created 20th August 2014, last changed 20th August 2014.

## 185.5 Window.Activate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.Activate"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK on success.

### Description

This function does more than just show. if the window has been minimized, it will restore it. Also the window is moved to front and made the current window for keyboard input.

Sadly windows limits which windows can go to front, so some windows may not come to front unless they are clicked on.

As activation can be asynchronously, the window may activate later, e.g. in a script pause or at the end of the script.

Use MBS( "Process.SetFrontMost" ) to move the whole app to the front.

### See also

- [132.10 Process.SetFrontMost](#) 6596
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### Example Databases

- [RemoteControl/Control Windows Calculator](#)

#### 185.5.1 Blog Entries

- [SetFrontMost for Windows](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS Filemaker Plugin, version 2.8pr4](#)

Created 18th August 2014, last changed 29th March 2019.

## 185.6 Window.AddBottomOverlay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	5.3	Yes	No	No	No	No

MBS( "Window.AddBottomOverlay" { ; WindowRef; Color } )

### Parameters

#### WindowRef

Optional

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Color

Optional

The color to use. Can be a color name or hex notation like in HTML. Default is OS X window color. "red"

**Result** Returns OK or error.

### Description

Deprecated as it should no longer be needed.

### Examples

Add red bottom control:

```
MBS( "Window.AddBottomOverlay"; 0; "# FF0000" )
```

Add gray bottom control:

```
MBS( "Window.AddBottomOverlay"; 0; "# ECECEC" )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Mac only/Hide Bottom Controls](#)

#### 185.6.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)

185.6. *WINDOW.ADDBOTTOMOVERLAY*

8675

- [MBS FileMaker Plugin, version 5.3pr1](#)

Created 11st August 2015, last changed 3th March 2020.

## 185.7 Window.AsPDF

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.3	Yes	No	No	No	No

MBS( "Window.AsPDF"; WindowRef { ; Filename; DontRenderPreview } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Filename

Optional

The filename for the PDF file. Default is "window.pdf".

"mywindow.pdf"

#### DontRenderPreview

Optional

Pass 1 to not create a JPEG with preview of first page as part of the container.

0

### Description

#### Examples

Queries PDF of current window:

```
MBS( "Window.AsPDF"
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### Example Databases

- [Window/PDF from Window \(Mac\)](#)

## 185.7.1 Blog Entries

- [MBS FileMaker Plugin, version 5.1pr1](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr3](#)



- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 9th March 2015.

## 185.8 Window.ClearFocus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.1	Yes	Yes	No	No	No

MBS( "Window.ClearFocus"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

The focus goes back to the window with no control having focus.

Works only for OS controls like Webviewer, not for FileMaker's custom controls.

See also Window.SetFocus.

### Examples

Clears focus of window:

```
MBS( "Window.ClearFocus"; Get(WindowName) )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.80 Window.SetFocus 8769

### 185.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.1pr3](#)
- [Render Image from a HTMLViewer](#)

Created 19th February 2016, last changed 5th October 2018.

## 185.9 Window.ClearTouchBar

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window 171 TouchBar	8.4	Yes	No	No	No	No

MBS( "Window.ClearTouchBar"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

You assign the TouchBar with TouchBar.AssignToWindow function.

### Examples

Clear touch bar for front window:

```
MBS( "Window.ClearTouchBar"; 0 )
```

### See also

- 171.4 TouchBar.AssignToWindow 8093
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### 185.9.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr2](#)

Created 8th August 2018, last changed 25th November 2019.

## 185.10 Window.ConfigureToolBarMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	8.3	Yes	No	No	No	No

MBS( "Window.ConfigureToolBarMenu"; Mode )

### Parameters

#### Mode

Pass 1 to disable menu completely. Pass 2 to remove the show/hide command. Pass 4 to remove the configuration command. Pass 6 to remove both commands.

1

**Result** Returns OK or error.

### Description

The plugin can watch what menu is about to show up for the toolbar. We can remove menu or remove some entries.

### Examples

Disable toolbar menus:

Set Variable [ \$r; Value: MBS( "Window.ConfigureToolBarMenu"; 1 ) ]

### 185.10.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)
- [Configure Toolbar Menu with MBS FileMaker Plugin](#)

### 185.10.2 FileMaker Magazin

- [Ausgabe 4/2018, Seite 38](#)

Created 9th June 2018, last changed 27th August 2019.

## 185.11 Window.Current

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	5.2	Yes	Yes	No	No	No

MBS( "Window.Current" )

**Result** Returns number or error.

### Description

This is same window the plugin would pick if you pass reference number 0 or empty to a window function. It can be that the plugin does reference here the data viewer, debugger or some calculation dialog, if one is open.

The number returned is a number starting 15001 and counting up for each window the plugin sees.

### Examples

Query current window:

```
MBS("Window.Current")
```

Show title of current window:

```
MBS( "Window.GetTitle" ; MBS( "Window.Current" ) )
```

### See also

- 185.28 Window.GetTitle 8704
- 185.94 Window.SetTag 8787

### 185.11.1 Blog Entries

- [MBS FileMaker Plugin, version 5.2pr2](#)

Created 6th June 2015, last changed 8th June 2015.

## 185.12 Window.DisableScrollbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.9	Yes	Yes	No	No	No

MBS( "Window.DisableScrollbars"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns "OK" on success.

### Description

This can stop users from scrolling.

FileMaker may reset this whenever it thinks it needs to reset it. Like with moving to other window or selecting another record.

### Examples

Looks up window reference for the window named test and disables scrollbars there:

```
MBS("Window.DisableScrollbars"; MBS("Window.FindByTitle"; "test"))
```

Disables scrollbars on front window:

```
MBS("Window.DisableScrollbars")
```

### See also

- 185.13 Window.EnableScrollbars 8683
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.44 Window.HideScrollbars 8721

### 185.12.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr5](#)

Created 18th August 2014, last changed 28th April 2016.

## 185.13 Window.EnableScrollbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.9	Yes	Yes	No	No	No

MBS( "Window.EnableScrollbars"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns "OK" on success.

### Description

It is possible that the scrollbar does not redraw until something happens.

### Examples

Looks up window reference for the window named test and disables scrollbars there:

```
MBS("Window.EnableScrollbars"; MBS("Window.FindByTitle"; "test"))
```

Enables scrollbars on front window:

```
MBS("Window.DisableScrollbars")
```

### See also

- [185.12 Window.DisableScrollbars](#) 8682
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.44 Window.HideScrollbars](#) 8721
- [185.108 Window.ShowScrollbars](#) 8805

### 185.13.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr5](#)

Created 18th August 2014, last changed 28th April 2016.

## 185.14 Window.Fade

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	5.4	Yes	Yes	No	No	No

MBS( "Window.Fade"; WindowRef; fadeIn { ; NoAnimation; Duration } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### fadeIn

Pass 1 to fade in or 0 for fade out.

#### NoAnimation

Optional

Whether to avoid animation. Pass 1 to disable animation. Default is 0 to allow animation.

0

#### Duration

Optional

The duration in seconds. Can be a value between 0.1 and 5.0.

0.5

**Result** Returns OK or error.

### Description

On Windows fading child windows does not work currently.

### Examples

Fade out:

```
Set Variable [ $r ; Value: MBS( "Window.Fade"; 0 /* current window */; 0 /* fade out */; 0; 1 ) ]
```

Fade in:

```
Set Variable [ $r ; Value: MBS( "Window.Fade"; 0 /* current window */; 1 /* fade in */; 0; 1 ) ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.41 Window.Hide 8717
- 185.58 Window.Move 8736



## Example Databases

- [Window/Window Fade](#)

### 185.14.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr6](#)

Created 17th November 2015, last changed 27th August 2017.

## 185.15 Window.FindByIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.FindByIndex"; Index )

### Parameters

#### Index

0 based index of the current windows open in FileMaker. If no value is entered then 0 is assumed. Using 0 will give the window reference for the current window. See caution in description

**Result** Returns window reference number or error.

### Description

The Window Reference is a unique ID handed out by the operating system. It is used by the rest of the Window Functions. Caution: Passing 0 for Index will grab the front most window which should be your FileMaker window, but it could be any window including dialogs. This is a particular problem with the "Data Viewer" which is always in the front. Window.FindByTitle was added to version 1.1 as a more reliable way of getting the Window.Ref

The window reference is only valid until the window is closed.

On normal FileMaker on desktop you can use Get(WindowName), but on FileMaker Server the name includes the server name, so you need to use: Get(WindowName) & " (" & Get(HostName) & ")"

Window reference numbers are starting at 15000 and counting up for each new window.

### Examples

Find the window ref

```
MBS( "Window.FindByIndex" ; 0 )
```

Find window reference on FileMaker Server where FileMaker includes server name in window name:

```
MBS( "Window.FindByTitle"; Get(WindowName) & " (" & Get(HostName) & ")" )
```

### See also

- 185.28 Window.GetTitle 8704
- 185.95 Window.SetTitle 8788
- 185.98 Window.SetTitlebarAppearsTransparent 8792
- 185.97 Window.SetTitleVisible 8791
- 185.99 Window.SetToolbarConfiguration 8793

<i>185.15. WINDOW.FINDBYINDEX</i>	8687
• 185.100 Window.SetToolBarVisible	8794
• 185.102 Window.SetZoomButton	8796
• 185.105 Window.ShowContent	8801
• 185.107 Window.ShowOverlay	8803
• 185.111 Window.ToggleFullScreen	8809

Created 18th August 2014, last changed 9th January 2015.

## 185.16 Window.FindByTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.FindByTitle"; WindowName )

### Parameters

#### WindowName

The Name of the window to find

MBS\_DevTool

**Result** Returns window reference number or error.

### Description

The reference is the Operating System's unique ID for the the window. Many of the other functions use the WindowReference to target the window.

The window reference is only valid until the window is closed.

If 0 is returned, no window was found.

Window reference numbers are starting at 15000 and counting up for each new window.

### Examples

Application Window Window Ref

```
Let(
[
/*-----PARAMETERS-----*/
WindowName =
Case(
Position(Get ( ApplicationVersion ); "Advanced"; 1; 1);"FileMaker Pro Advanced";
"FileMaker Pro"
)
];
/*-----FUNCTION-----*/
MBS(
"Window.FindByTitle";
WindowName
)
)
```

Set the Transparency of a window by name

```
Let(
[
/*-----PARAMETERS-----*/
FileMakerApplicationWindowName =
```

```
Case(
Position(Get ( ApplicationVersion ); "Advanced"; 1; 1);"FileMaker Pro Advanced";
"FileMaker Pro"
);
```

```
WindowRef =
```

```
MBS(
"Window.FindByTitle";
FileMakerApplicationWindowName
);
```

```
Alpha = .5
```

```
];
/*-----FUNCTION-----*/
```

```
MBS(
"Window.SetAlpha";
WindowRef;
Alpha
)
)
```

State of the Window Close Button

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
GetAsBoolean(
MBS(
"Window.HasCloseButton";
WindowRef
) = "true"
)
```

```
)
```

Hide a window by name

```
Let(
[
/*-----PARAMETERS-----*/
```

```

WindowRef = MBS( "Window.FindByTitle" ; "My Window")
];
/*-----FUNCTION-----*/
MBS(
" Window.Hide ";
WindowRef
)
)

```

Find window:

```
MBS( "Window.FindByTitle" ; Get(WindowName))
```

### See also

- 185.13 Window.EnableScrollbars 8683
- 185.15 Window.FindByIndex 8686
- 185.52 Window.IsVisible 8730
- 185.75 Window.SetAlpha 8760
- 185.77 Window.SetCloseButton 8764
- 185.95 Window.SetTitle 8788
- 185.102 Window.SetZoomButton 8796
- 185.110 Window.ShowsToolbarButton 8808
- 185.112 Window.TopHeight 8810
- 185.113 Window.Update 8811

### Example Databases

- [WebView/Disable Javascript alerts on Webviewer Mac](#)
- [WebView/Form Fields/Forms Sample](#)
- [WebView/Form Fields/WebView Forms](#)
- [WebView/Javascript calls Filemaker Script/Callbacks with Custom Webviewer](#)
- [WebView/Javascript calls Filemaker Script/callbacks](#)
- [Win Only/Window Icon](#)
- [Window/Flash Window and Jump Dock](#)
- [Window/Fullscreen](#)
- [Window/Popover CardWindow](#)
- [Window/WindowEffects](#)

### **185.16.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr5](#)

### **185.16.2 FileMaker Magazin**

- Ausgabe 1/2019, Seite 16
- Ausgabe 1/2008, Seite 32

Created 18th August 2014, last changed 10th May 2015.

## 185.17 Window.FlashWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.1	No	Yes	No	No	No

```
MBS( "Window.FlashWindow"; WindowRef { ; Invert } )
```

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Invert

Optional

If this parameter is 1, the window is flashed from one state to the other. If it is 0, the window is returned to its original state (either active or inactive). When an application is minimized and this parameter is 1, the taskbar window button flashes active/inactive. If it is 0, the taskbar window button flashes inactive, meaning that it does not change colors. It flashes, as if it were being redrawn, but it does not provide the visual invert clue to the user.

1

**Result** Returns 1, 0 or error.

### Description

It does not change the active state of the window.

The return value specifies the window's state before the call to the FlashWindow function. If the window caption was drawn as active before the call, the return value is nonzero. Otherwise, the return value is zero.

Flashing a window means changing the appearance of its caption bar as if the window were changing from inactive to active status, or vice versa. (An inactive caption bar changes to an active caption bar; an active caption bar changes to an inactive caption bar.)

Typically, a window is flashed to inform the user that the window requires attention but that it does not currently have the keyboard focus.

The FlashWindow function flashes the window only once; for repeated flashing, the application should create a system timer.

Please use the main window from FileMaker, not the window of solution.

### Examples

Flash Window:

```
MBS( "Window.FlashWindow"; "FileMaker Pro Advanced"; 1)
```

### See also



185.17. <i>WINDOW.FLASHWINDOW</i>	8693
• 185.15 Window.FindByIndex	8686
• 185.16 Window.FindByTitle	8688

### **Example Databases**

- [Window/Flash Window and Jump Dock](#)

### **185.17.1 Blog Entries**

- [MBS FileMaker Plugin 6.1 für OS X/Windows](#)
- [MBS FileMaker Plug-in 6.1 for OS X/Windows](#)
- [MBS FileMaker Plugin, version 6.1pr4](#)

Created 2nd March 2016, last changed 2nd March 2016.

## 185.18 Window.GetAlpha

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.7	Yes	Yes	No	No	No

MBS( "Window.GetAlpha"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Return alpha value.

### Description

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.75 Window.SetAlpha](#) 8760

### 185.18.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.19 Window.GetClassName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.GetClassName"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns class name as text.

### Description

Sometimes it's easier to identify a window by the class name than the title. The title may change or be localized, but the class name typically stays the same.

Added Mac support in Plugin version 3.3.

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### Example Databases

- [RemoteControl/Windows List](#)
- [Window/Window List](#)

### 185.19.1 Blog Entries

- [MBS Filemaker Plugin, version 3.3pr6](#)
- [MBS Filemaker Plugin, version 2.8pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.20 Window.GetCurrentTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.3	Yes	Yes	No	No	No

MBS( "Window.GetCurrentTag" )

**Result** Returns text or error.

### Description

The MBS Plugin manages a list of open windows, so you can query tag value for current window.

### See also

- 185.78 Window.SetCurrentTag

8766

### 185.20.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 10th June 2016, last changed 10th June 2016.

## 185.21 Window.GetHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.GetHeight"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Return height of window.

### Description

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.22 Window.GetLeft](#) 8698
- [185.23 Window.GetMaxHeight](#) 8699
- [185.25 Window.GetMinHeight](#) 8701
- [185.34 Window.GetTop](#) 8710
- [185.36 Window.GetWidth](#) 8712
- [185.84 Window.SetMaxHeight](#) 8773
- [185.86 Window.SetMinHeight](#) 8775
- [185.112 Window.TopHeight](#) 8810

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [RemoteControl/Windows List](#)
- [Window/Window List](#)
- [Window/Window Position and Size](#)
- [Window/Window Scrollbar Position](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.22 Window.GetLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.GetLeft"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Return left of window.

### Description

See also Window.GetTop, Window.GetWidth and Window.GetHeight.

### Examples

Get position of front window:

```
MBS( "Window.GetLeft"; 0 ) & "/" & MBS( "Window.GetTop"; 0 )
```

### See also

- [64.13 Dialog.GetLeft](#) 2394
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.21 Window.GetHeight](#) 8697
- [185.34 Window.GetTop](#) 8710
- [185.36 Window.GetWidth](#) 8712

### Example Databases

- [RemoteControl/Windows List](#)
- [Window/Window Position and Size](#)

Created 18th August 2014, last changed 26th December 2019.

## 185.23 Window.GetMaxHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.GetMaxHeight"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user.

### Examples

Query maximum height for current window:

MBS( "Window.GetMaxHeight"; Get(WindowName) )

Example result: 10000000000057

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.21 Window.GetHeight 8697
- 185.24 Window.GetMaxWidth 8700
- 185.25 Window.GetMinHeight 8701
- 185.84 Window.SetMaxHeight 8773
- 185.85 Window.SetMaxWidth 8774
- 185.86 Window.SetMinHeight 8775

Created 11st December 2016, last changed 11st December 2016.

## 185.24 Window.GetMaxWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.GetMaxWidth"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user.

### Examples

Query maximum width for current window:

MBS( "Window.GetMaxWidth"; Get(WindowName) )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.23 Window.GetMaxHeight 8699
- 185.26 Window.GetMinWidth 8702
- 185.36 Window.GetWidth 8712
- 185.84 Window.SetMaxHeight 8773
- 185.85 Window.SetMaxWidth 8774
- 185.87 Window.SetMinWidth 8776

Created 11st December 2016, last changed 11st December 2016.



## 185.25 Window.GetMinHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.GetMinHeight"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user.

### Examples

Query minimum width for current window:

```
MBS( "Window.GetMinHeight"; Get(WindowName) )
```

Example result: 439

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.21 Window.GetHeight 8697
- 185.23 Window.GetMaxHeight 8699
- 185.26 Window.GetMinWidth 8702
- 185.84 Window.SetMaxHeight 8773
- 185.86 Window.SetMinHeight 8775
- 185.87 Window.SetMinWidth 8776

Created 11st December 2016, last changed 11st December 2016.

## 185.26 Window.GetMinWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.GetMinWidth"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user.

### Examples

Query minimum width for current window:

```
MBS( "Window.GetMinWidth"; Get(WindowName) )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.24 Window.GetMaxWidth 8700
- 185.25 Window.GetMinHeight 8701
- 185.36 Window.GetWidth 8712
- 185.85 Window.SetMaxWidth 8774
- 185.86 Window.SetMinHeight 8775
- 185.87 Window.SetMinWidth 8776

Created 11st December 2016, last changed 11st December 2016.

## 185.27 Window.GetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.3	Yes	Yes	No	No	No

MBS( "Window.GetTag"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns text or error.

### Description

The MBS Plugin manages a list of open windows, so you can query tag value for a window.

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.34 Window.GetTop 8710
- 185.94 Window.SetTag 8787

### 185.27.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 10th June 2016, last changed 10th June 2016.

## 185.28 Window.GetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.2	Yes	Yes	No	No	No

MBS( "Window.GetTitle"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

The WindowRef is returned by either Window.FindByTitle or Window.FindByIndex. Although it works on both platforms it was added specifically for Windows, where it can be used to get the the Name of the Application Window.

### Examples

Query title of front window:

```
MBS( "Window.GetTitle"; 0 )
```

### See also

- 185.11 Window.Current 8681
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.36 Window.GetWidth 8712
- 185.95 Window.SetTitle 8788

### Example Databases

- [RemoteControl/Windows List](#)
- [Window/Window List](#)

Created 18th August 2014, last changed 26th December 2019.

## 185.29 Window.GetTitleVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	No	No	No	No

MBS( "Window.GetTitleVisible"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Returns 1 if visible and 0 if hidden.

Requires OS X 10.10 or newer.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.33 Window.GetToolbarVisible 8709
- 185.97 Window.SetTitleVisible 8791
- 185.100 Window.SetToolbarVisible 8794

### 185.29.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 16th January 2016, last changed 16th January 2016.

## 185.30 Window.GetTitlebarAppearsTransparent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	No	No	No	No

MBS( "Window.GetTitlebarAppearsTransparent"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Returns 1 if transparent or 0 if opaque.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.98 Window.SetTitlebarAppearsTransparent 8792

### 185.30.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 16th January 2016, last changed 16th January 2016.

## 185.31 Window.GetToolBarConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarConfiguration"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns configuration xml or error.

### Description

Contains displayMode, visible, and a list of the item identifiers currently in the toolbar.

Do not depend on any details of the normal contents of a configuration dictionary. This may change with an update to Mac OS X or FileMaker.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.99 Window.SetToolBarConfiguration 8793

### Example Databases

- [Mac only/Toolbar/Window Toolbar](#)

### 185.31.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.

## 185.32 Window.GetToolBarCustomizationPaletteIsRunning

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarCustomizationPaletteIsRunning"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns state or error.

### Description

Returns 1 if palette is visible or 0 if not.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.65 Window.RunToolBarCustomizationPalette 8748

Created 19th August 2014, last changed 20th August 2014.



**185.33 Window.GetToolBarVisible**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.GetToolBarVisible"; WindowRef )

**Parameters****WindowRef**

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns state or error.

**Description**

Value is 0 if invisible or 1 if visible.

**See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.29 Window.GetTitleVisible 8705
- 185.74 Window.ScrollbarsVisible 8759
- 185.97 Window.SetTitleVisible 8791
- 185.100 Window.SetToolBarVisible 8794

**Example Databases**

- [Mac only/Toolbar/Window Toolbar](#)

Created 19th August 2014, last changed 20th August 2014.

## 185.34 Window.GetTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.GetTop"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns top of window.

### Description

See also Window.GetLeft, Window.GetWidth and Window.GetHeight.

### Examples

Get position of front window:

```
MBS( "Window.GetLeft"; 0 ) & "/" & MBS( "Window.GetTop"; 0 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.21 Window.GetHeight 8697
- 185.22 Window.GetLeft 8698
- 185.27 Window.GetTag 8703
- 185.36 Window.GetWidth 8712
- 185.94 Window.SetTag 8787

### Example Databases

- [RemoteControl/Windows List](#)
- [Window/Window Position and Size](#)

Created 18th August 2014, last changed 26th December 2019.

## 185.35 Window.GetTopMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	4.2	Yes	Yes	No	No	No

MBS( "Window.GetTopMost"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 1 or 0 or error.

### Description

If window is topmost, it floats over all other windows.

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.101 Window.SetTopMost](#) 8795

### Example Databases

- [Window/Window TopMost](#)

### 185.35.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.36 Window.GetWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.GetWidth"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns width of window.

### Description

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.21 Window.GetHeight](#) 8697
- [185.22 Window.GetLeft](#) 8698
- [185.24 Window.GetMaxWidth](#) 8700
- [185.26 Window.GetMinWidth](#) 8702
- [185.28 Window.GetTitle](#) 8704
- [185.34 Window.GetTop](#) 8710
- [185.85 Window.SetMaxWidth](#) 8774
- [185.87 Window.SetMinWidth](#) 8776

### Example Databases

- [Mac and iOS/Machine Learning/Core ML Photos](#)
- [RemoteControl/Windows List](#)
- [Window/Window List](#)
- [Window/Window Position and Size](#)
- [Window/Window Scrollbar Position](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.37 Window.HasCloseButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.HasCloseButton"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

This function returns the current state of the window's close button.

### Examples

State of the Window Close Button

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
GetAsBoolean(
MBS(
"Window.HasCloseButton";
WindowRef
) = "true"
)
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.40 Window.HasZoomButton 8716
- 185.77 Window.SetCloseButton 8764

### Example Databases

- [Window/WindowEffects](#)

Created 18th August 2014, last changed 28th November 2019.

## 185.38 Window.HasMiniaturizeButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.HasMiniaturizeButton"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

On Mac OS X, Miniaturize minimizes the window to the Dock. On Windows the window is minimized to a "brick" at the bottom of the Application Window.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.88 Window.SetMiniaturizeButton 8777

### Example Databases

- [Window/WindowEffects](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.39 Window.HasShadow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.HasShadow"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 or 1.

### Description

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.92 Window.SetShadow 8784

Created 18th August 2014, last changed 18th August 2014.

## 185.40 Window.HasZoomButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.HasZoomButton"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

This function returns the current state of the window's close button.

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.37 Window.HasCloseButton 8713
- 185.102 Window.SetZoomButton 8796

### Example Databases

- [Window/WindowEffects](#)

Created 18th August 2014, last changed 28th November 2019.



## 185.41 Window.Hide

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.Hide"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

### Examples

Hide a window by name

```
Let(
[
/*-----PARAMETERS-----*/
WindowRef = MBS( "Window.FindByTitle" ; "My Window" )
];
/*-----FUNCTION-----*/
MBS(
" Window.Hide ";
WindowRef
)
)
```

### See also

- 63.6 Debugger.Window 2380
- 145.26 ScriptWorkspace.Window 6988
- 185.14 Window.Fade 8684
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.42 Window.HideContent 8719
- 185.43 Window.HideOverlay 8720
- 185.44 Window.HideScrollbars 8721
- 185.53 Window.List 8731

- 185.58 Window.Move

**Example Databases**

- [Window/giSnapShot](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.42 Window.HideContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.2	Yes	No	No	No	No

MBS( "Window.HideContent"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

Warning: Evaluating the MBS( "Window.HideContent"; Get(WindowName) ) function from the data viewer causes the data viewer to hide its content, including locking up the data viewer so that it cannot be exited. The only way to get out is to force quit the application.

Deprecated.

### Examples

Hides content:

```
MBS( "Window.HideContent"; Get(WindowName) )
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.41 Window.Hide](#) 8717
- [185.105 Window.ShowContent](#) 8801

### 185.42.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)
- [MBS Filemaker Plugin, version 2.2pr5](#)

Created 18th August 2014, last changed 3th March 2020.

## 185.43 Window.HideOverlay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.3	Yes	No	No	No	No

MBS( "Window.HideOverlay"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns "OK" on success.

### Description

Deprecated.

### Examples

Hides overlay:

MBS( "Window.HideOverlay"; Get(WindowName) )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.41 Window.Hide 8717
- 185.107 Window.ShowOverlay 8803

### 185.43.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)
- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 3th March 2020.

## 185.44 Window.HideScrollbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.4	Yes	Yes	No	No	No

MBS( "Window.HideScrollbars"; WindowRef { ; NoResizeHandler } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### NoResizeHandler

Optional

Optionally, whether to not watch for window resizing to keep scrollbars hidden even if FileMaker normally shows them. Default is 0. You can pass 1 to disable the default behavior.

0

**Result** Returns "OK" on success.

### Description

Please also use Window.SetResizable to disable resize.

Works fine with FileMaker 11/12 on Mac and Windows. Also works with FileMaker 10 on Windows (but not on Mac).

Please update plugins to latest 2.7 release to have this function work in FileMaker 12.

FileMaker may decide to show scrollbars when resizing, so please disable resizing, too.

The plugin installs a resize handler for Mac, so we can keep scrollbars hidden in FileMaker 12 for now while resizing.

Disabled for FileMaker 16, so it returns only an error.

Deprecated.

### Examples

Looks up window reference for the window named test and hides scrollbars there:

```
MBS("Window.HideScrollbars"; MBS("Window.FindByTitle"; "test"))
```

### See also

- 185.12 Window.DisableScrollbars 8682
- 185.13 Window.EnableScrollbars 8683
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.41 Window.Hide 8717

- 185.91 Window.SetResizable 8782
- 185.108 Window.ShowScrollbars 8805

### Example Databases

- [Window/Dialog from Filemaker Form](#)

### 185.44.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr6](#)
- [MBS Filemaker Plugin, version 2.8pr2](#)
- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr9](#)

### 185.44.2 FileMaker Magazin

- [Ausgabe 5/2011, Seite 55](#)

Created 18th August 2014, last changed 3th March 2020.

## 185.45 Window.IgnoresMouseEvents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.IgnoresMouseEvents"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

On Mac OS X you can disable mouse events for a given window. All Mouse Events will fall to the window behind.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.83 Window.SetIgnoresMouseEvents 8772

Created 18th August 2014, last changed 18th August 2014.

**185.46 Window.IsFullScreen**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.IsFullScreen"; WindowRef )

**Parameters****WindowRef**

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 or 1.

**Description**

Indicates that a window has fullscreen appearance.

A fullscreen window does not draw its titlebar, and may have special handling for its toolbar.

Available in Mac OS X v10.7 and later.

**See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

Created 18th August 2014, last changed 18th August 2014.



**185.47 Window.IsFullScreenAuxiliary**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.IsFullScreenAuxiliary"; WindowRef )

**Parameters****WindowRef**

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 or 1.

**Description****See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.48 Window.IsFullScreenPrimary 8726
- 185.81 Window.SetFullScreenAuxiliary 8770
- 185.82 Window.SetFullScreenPrimary 8771

Created 18th August 2014, last changed 18th August 2014.

## 185.48 Window.IsFullScreenPrimary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.IsFullScreenPrimary"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 or 1.

### Description

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.47 Window.IsFullScreenAuxiliary 8725
- 185.82 Window.SetFullScreenPrimary 8771

Created 18th August 2014, last changed 18th August 2014.

## 185.49 Window.IsMaximized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	9.0	Yes	Yes	No	No	No

MBS( "Window.IsMaximized"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 1, 0 or error.

### Description

See Window.Maximize and Window.Minimize.

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.50 Window.IsMinimized](#) 8728
- [185.51 Window.IsModified](#) 8729
- [185.55 Window.Maximize](#) 8733
- [185.56 Window.Minimize](#) 8734

### 185.49.1 Blog Entries

- [New MBS FileMaker Plugin 9.0](#)
- [Neues MBS FileMaker Plugin 9.0](#)
- [MBS FileMaker Plugin, version 8.6pr3](#)

Created 11st December 2018, last changed 11st December 2018.

## 185.50 Window.IsMinimized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	9.0	Yes	Yes	No	No	No

MBS( "Window.IsMinimized"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 1, 0 or error.

### Description

See Window.Maximize and Window.Minimize.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.49 Window.IsMaximized 8727
- 185.51 Window.IsModified 8729
- 185.55 Window.Maximize 8733
- 185.56 Window.Minimize 8734

### 185.50.1 Blog Entries

- [New MBS FileMaker Plugin 9.0](#)
- [Neues MBS FileMaker Plugin 9.0](#)
- [MBS FileMaker Plugin, version 8.6pr3](#)

Created 11st December 2018, last changed 11st December 2018.

## 185.51 Window.IsModified

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.IsModified"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

In many OS X applications OS a little dark red dot inside the Red Close button signifies that a window has been modified. FileMaker normally doesn't use this.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728
- 185.89 Window.SetModified 8779

Created 18th August 2014, last changed 17th June 2018.

## 185.52 Window.IsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.IsVisible"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

The WindowRef can be obtained by using either Window.FindByTitle or Window.FindByIndex.

### Examples

Check if window in invisible

```
Let(
[
/*-----PARAMETERS-----*/
WindowRef = MBS( "Window.FindByTitle" ; "Contacts" )
];
/*-----FUNCTION-----*/
MBS(
"Window.IsVisible";
WindowRef
)
)
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [RemoteControl/Windows List](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.53 Window.List

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.3	Yes	Yes	No	No	No

MBS( "Window.List" )

**Result** Returns the list of window references.

### Description

See also RemoteControl.GetWindowsList function on Windows.

We filter this list to have no windows of zero size and avoid having controls listed here on Windows.

### See also

- [140.3 RemoteControl.GetWindowsList](#) 6810
- [185.41 Window.Hide](#) 8717
- [185.54 Window.ListCommands](#) 8732
- [185.64 Window.RunCommand](#) 8746

### Example Databases

- [Window/Window List](#)

### 185.53.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr1](#)
- [MBS Filemaker Plugin, version 3.3pr6](#)

Created 18th August 2014, last changed 17th June 2018.

## 185.54 Window.ListCommands

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.ListCommands"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns list or error.

### Description

This allows you to see what commands are available for Window.RunCommand.

### Examples

Shows list of commands for a window:

```
Show Custom Dialog [ "list"; MBS("Window.ListCommands"; 0) ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.53 Window.List 8731
- 185.64 Window.RunCommand 8746

### 185.54.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 27th November 2016, last changed 27th November 2016.



## 185.55 Window.Maximize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	Yes	No	No	No

MBS( "Window.Maximize"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

On Windows the window maximizes.

On Mac the window zooms to fit content.

### Examples

Maximize front window:

```
MBS( "Window.Maximize"; 0)
```

Maximize database window:

```
MBS( "Window.Maximize"; Get(WindowName))
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728
- 185.56 Window.Minimize 8734

### 185.55.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr8](#)

Created 22nd January 2016, last changed 22nd January 2016.

## 185.56 Window.Minimize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	Yes	No	No	No

MBS( "Window.Minimize"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

On Mac the window is moved to the dock.

On Windows it goes to the task bar.

### Examples

Minimize front window:

```
MBS( "Window.Minimize"; 0)
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.49 Window.IsMaximized 8727
- 185.50 Window.IsMinimized 8728
- 185.55 Window.Maximize 8733

### 185.56.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr8](#)

Created 22nd January 2016, last changed 22nd January 2016.

## 185.57 Window.ModalDialogFront

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	5.4	Yes	Yes	No	No	No

MBS( "Window.ModalDialogFront" )

**Result** Returns 1, 0 or error.

### Description

This allows you to know in a trigger if a dialog window is currently open and maybe you better wait?  
Created 29th October 2015, last changed 22nd November 2015.

## 185.58 Window.Move

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.2	Yes	Yes	No	No	No

MBS( "Window.Move"; WindowRef; X; Y { ; NoAnimation; Duration } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### X

The new X position of the window.

300

#### Y

The new Y position of the window.

200

#### NoAnimation

Optional

Whether to avoid animation. Pass 1 to disable animation. Default is 0 to allow animation.

0

#### Duration

Optional

The duration in seconds. Can be a value between 0.1 and 5.0.

0.5

**Result** Returns OK on success.

### Description

On Mac OS X we use Apples functions for animated move. On Windows we have our own code.

### Examples

Moves a window:

```
MBS("Window.Move"; $WindowRef; 300; 200)
```

### See also

- 185.14 Window.Fade 8684
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.41 Window.Hide 8717

## Example Databases

- [Window/Resize Window Animated](#)

### 185.58.1 Blog Entries

- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 5.4pr6](#)
- [MBS Filemaker Plugin, version 2.7fc](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.2pr5](#)

Created 18th August 2014, last changed 17th November 2015.

## 185.59 Window.PositionNextDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	10.0	Yes	Yes	No	No	No

MBS( "Window.PositionNextDialog"; X; Y { ; Width; Height; Center } )

### Parameters

#### X

The X position in points to use for the dialog. Can be empty.

300

#### Y

The Y position in points to use for the dialog. Can be empty.

200

#### Width

Optional

The width in points to use for the dialog. Can be empty. We check against min/max size for dialog.

500

#### Height

Optional

The height in points to use for the dialog. Can be empty. We check against min/max size for dialog.

400

#### Center

Optional

Whether to center dialog. Pass 1 to center on screen or 0 to not center. Pass 2 to center in front of the frontmost FileMaker document window.

1

**Result** Returns OK or error.

### Description

MBS Plugin watches for new windows to show and resize/move the next dialog.

The dialog may briefly show before we can move it.

There is the possibility you position a dialog outside visible screen area, so please check screen size yourself.

To clear the settings, you can call function without parameters or with empty values.

### Examples

Shows dialog at specific location:

```
Set Variable [ $r ; Value: MBS("Window.PositionNextDialog"; 300; 300; 500; 400) ]
Show Custom Dialog [ "Test" ; "Hello World" ]
```

Center next dialog:

```
Set Variable [ $r ; Value: MBS("Window.PositionNextDialog"; "" ; "" ; "" ; "" ; 1) ]  
Show Custom Dialog [ "Test" ; "Hello World" ]
```

Clear settings:

```
MBS("Window.PositionNextDialog")
```

### 185.59.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 10.0pr5](#)
- [Position and resize FileMaker's dialogs](#)

Created 27th December 2019, last changed 29th December 2019.

## 185.60 Window.RemoveMenu

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.3	No	Yes	No	No	No

MBS( "Window.RemoveMenu"; WindowRef; Mode )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Mode

Can be 1 to remove menu entries instead of whole menu. That may be more permanent and allows you to get back invisible menu when you switch to layout mode and back. Default value 0 unassigns menu from Window.

1

**Result** Returns OK on success.

### Description

You can use this function to remove the FileMaker menu bar.

### Examples

Remove menu:

```
$h = MBS("Window.FindByTitle"; "FileMaker Pro Advanced")
$r = MBS("Window.RemoveMenu"; $h)
```

Clear menu entries:

```
$h = MBS("Window.FindByTitle"; "FileMaker Pro Advanced")
$r = MBS("Window.RemoveMenu"; $h; 1)
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### 185.60.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)
- [MBS Filemaker Plugin, version 3.3pr3](#)

Created 18th August 2014, last changed 14th May 2016.



## 185.61 Window.Resizable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.4	Yes	Yes	No	No	No

MBS( "Window.Resizable"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 1 if window is resizable, else 0.

### Description

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.62 Window.Resize](#) 8742
- [185.91 Window.SetResizable](#) 8782

### 185.61.1 Blog Entries

- [MBS Filemaker Plugin, version 2.9pr4](#)
- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 185.61.2 FileMaker Magazin

- [Ausgabe 5/2011, Seite 55](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.62 Window.Resize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.2	Yes	Yes	No	No	No

MBS( "Window.Resize"; WindowRef; width; height { ; NoAnimation; Duration } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### width

The new width of the window.

300

#### height

The new height of the window.

200

#### NoAnimation

Optional

Whether to avoid animation. Pass 1 to disable animation. Default is 0 to allow animation.

0

#### Duration

Optional

The duration in seconds. Can be a value between 0.1 and 5.0.

0.5

**Result** Returns OK on success.

### Description

On Mac OS X we use Apples functions for animated resizing. On Windows we have our own code. Please make sure on Windows that the window is not maximized as resizing a maximized window puts it in a mode where you can't manual resize it.

### Examples

Resizes a window:

```
MBS("Window.Resize"; $WindowRef; 300; 200)
```

Resize main window on windows:

```
MBS("Window.Resize"; "FileMaker Pro Advanced"; 800; 600)
```

### See also

185.62. <i>WINDOW.RESIZE</i>	8743
• 185.15 Window.FindByIndex	8686
• 185.16 Window.FindByTitle	8688
• 185.61 Window.Resizable	8741
• 185.63 Window.ResizeContentView	8744
• 185.84 Window.SetMaxHeight	8773
• 185.85 Window.SetMaxWidth	8774
• 185.86 Window.SetMinHeight	8775
• 185.87 Window.SetMinWidth	8776
• 185.98 Window.SetTitlebarAppearsTransparent	8792

### Example Databases

- [Window/Resize Window Animated](#)

#### 185.62.1 Blog Entries

- [MBS Filemaker Plugin, version 2.7fc](#)
- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.5pr3](#)
- [MBS Filemaker Plugin, version 2.2pr4](#)

Created 18th August 2014, last changed 11st March 2016.

## 185.63 Window.ResizeContentView

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	No	No	No	No

MBS( "Window.ResizeContentView"; WindowRef { ; X; Y; W; H } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### X

Optional

Delta for x position of content view. Use positive value to move to right or negative to move to left.

0

#### Y

Optional

Delta for y position of content view. Use positive value to move to top or negative to move to bottom.

-5

#### W

Optional

Delta for width of content view. Use positive value to make wider or negative value to make narrower.

0

#### H

Optional

Delta for height of content view. Use positive value to make heigher or negative value to make smaller.

0

**Result** Returns OK or error.

### Description

This allows you to move the content view within any window.

e.g. on a FileMaker window to stretch content to move scrollbars out of sight.

### Examples

Resizes to hide scrollbar partial:

```
MBS("Window.ResizeContentView"; 0; 0; -5; 0; 5)
```

Reset content view:

```
MBS("Window.ResizeContentView"; $window; 0; 0; 0; 0)
```

Resizes to hide scrollbar:

185.63. *WINDOW.RESIZECONTENTVIEW*

8745

MBS("Window.ResizeContentView"; 0; 0; -16; 0; 16)

Hide bottom area with controls:

MBS("Window.ResizeContentView"; 0; 0; -16; 0; 16)

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.62 Window.Resize 8742
- 185.98 Window.SetTitlebarAppearsTransparent 8792

#### 185.63.1 Blog Entries

- [MBS FileMaker Plugin, version 5.5pr3](#)

Created 13th December 2015, last changed 15th January 2016.

## 185.64 Window.RunCommand

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.RunCommand"; WindowRef; Command )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Command

The name of the command.

**Result** Returns OK or error.

### Description

Please use Window.ListCommands to find available commands.

Please run as last command in script, so the function can do the job properly.

Be aware that this is not supported by FileMaker. Some commands work correctly, but others do nothing or can crash FileMaker.

### Examples

Shows dialog to customize table fields:

```
Set Variable [ $r; Value:MBS("Window.RunCommand"; 0; "onModifyTableView") ]
```

Zooms window:

```
Set Variable [ $r; Value:MBS("Window.RunCommand"; 0; "zoom") ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.53 Window.List 8731
- 185.54 Window.ListCommands 8732

### 185.64.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 27th November 2016, last changed 27th November 2016.

## 185.65 Window.RunToolbarCustomizationPalette

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.RunToolbarCustomizationPalette"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

You can use Window.GetToolbarCustomizationPaletteIsRunning to query if customization sheet is open.

### Examples

Run toolbar customization for current window:

MBS( "Window.RunToolbarCustomizationPalette"; 0 )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.32 Window.GetToolbarCustomizationPaletteIsRunning 8708

### Example Databases

- [Mac only/Toolbar/Custom Toolbar Items](#)
- [Mac only/Toolbar/Window Toolbar](#)

### 185.65.1 Blog Entries

- [Toolbar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.



## 185.66 Window.Screenshot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	5.4	Yes	Yes	No	No	Yes

MBS( "Window.Screenshot"; WindowRef { ; MarginLeft; MarginTop; MarginRight; MarginBottom; ImageType; Filename } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### MarginLeft

Optional

The margin from left to cut away border.

0

#### MarginTop

Optional

The margin from top to cut away border.

0

#### MarginRight

Optional

The margin from right to cut away border.

0

#### MarginBottom

Optional

The margin from bottom to cut away border.

0

#### ImageType

Optional

The type of image to return. Either JPEG, PNG, GIF or BMP. Default is JPEG.

"JPEG"

#### Filename

Optional

The filename to use for the picture. Default is "image" with the extension matching the image type. The image is not written to disk. This file name is just added to the container for later export.

"test.jpg"

**Result** Returns image or error.

### Description

Returns the image as container value, so you can assign it to a container field or save to disk with Container.WriteFile function.

Margins are different for Mac and Windows.

Added iOS support in version 8.5, but margins are not supported there, so we always take full screen.

On Windows may get wrong rectangle if Windows runs desktop with 200% resolution, but you have a 100% resolution screen.

### Examples

Creates screenshot:

```
MBS("Window.Screenshot"; Get(WindowName); Window Screenshot::Margin Left; Window Screenshot::Margin Top; Window Screenshot::Margin Right; Window Screenshot::Margin Bottom)
```

Screenshot of current window as JPEG:

```
MBS( "Window.Screenshot"; 0)
```

### See also

- [56.35 Container.WriteFile](#) 1694
- [183.113 WebView.Screenshot](#) 8569
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688

### Example Databases

- [Window/PDF from Window \(Mac\)](#)
- [Window/Window Screenshot](#)

### 185.66.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr5](#)
- [Neues MBS FileMaker Plugin 8.5 - Über 5500 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.5 - More than 5500 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.5pr5](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)

Created 27th October 2015, last changed 2nd December 2019.

## 185.67 Window.Scrollbar.GetScrollElasticity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.Scrollbar.GetScrollElasticity"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Value can be none, auto or allowed.

Returns ? if something goes wrong or empty result if no scrollbar is found.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.68 Window.Scrollbar.SetScrollElasticity 8752

### 185.67.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr3](#)
- [Scrollbar Elasticity in FileMaker](#)

Created 15th October 2016, last changed 15th October 2016.

## 185.68 Window.Scrollbar.SetScrollElasticity

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.Scrollbar.SetScrollElasticity"; WindowRef; Mode )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Mode

The new mode to use. Can be auto, none or allowed.

"none"

**Result** Returns OK or error.

### Description

Since FileMaker 14 windows bounce on the scrolling edge and this function can change behavior.

### Examples

Sets the mode to none for front window:

```
MBS("Window.Scrollbar.SetScrollElasticity"; 0; "none")
```

Set scrollbar elasticity after delay of 0.1 seconds:

```
Set Variable [ $r ; Value: MBS( "Schedule.EvaluateAfterDelay"; 0.1; "MBS(\\"Window.Scrollbar.SetScrollElasticity\\"; 0; \\"none\\")" ) ]
```

### See also

- 143.4 Schedule.EvaluateAfterDelay 6902
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.67 Window.Scrollbar.GetScrollElasticity 8751
- 185.73 Window.Scrollbar.set 8758

### 185.68.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr3](#)
- [MBS FileMaker Plugin, version 6.5pr3](#)

- [Scrollbar Elasticity in FileMaker](#)

Created 15th October 2016, last changed 16th October 2019.

## 185.69 Window.Scrollbar.getHorizontalMaximum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.2	Yes	Yes	No	No	Yes

MBS( "Window.Scrollbar.getHorizontalMaximum"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Added Windows and iOS support for version 8.5.

Looks like the maximum on Windows is always 65535.

### Examples

Query maximum value:

MBS( "Window.Scrollbar.getHorizontalMaximum"; 0 )

### See also

- 183.114 [WebView.Scrollbar.getHorizontalMaximum](#) 8571
- 185.15 [Window.FindByIndex](#) 8686
- 185.16 [Window.FindByTitle](#) 8688
- 185.70 [Window.Scrollbar.getHorizontalPosition](#) 8755
- 185.71 [Window.Scrollbar.getVerticalMaximum](#) 8756

### Example Databases

- [Window/Window Scrollbar Position](#)

### 185.69.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)
- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 26th April 2016, last changed 13th November 2018.

## 185.70 Window.Scrollbar.getHorizontalPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.2	Yes	Yes	No	No	Yes

MBS( "Window.Scrollbar.getHorizontalPosition"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Added Windows and iOS support for version 8.5.

### Examples

Query horizontal position:

MBS( "Window.Scrollbar.getHorizontalPosition"; 0 )

### See also

- 183.115 WebView.Scrollbar.getHorizontalPosition 8572
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.69 Window.Scrollbar.getHorizontalMaximum 8754
- 185.72 Window.Scrollbar.getVerticalPosition 8757

### Example Databases

- [Window/Window Scrollbar Position](#)

### 185.70.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 26th April 2016, last changed 13th November 2018.

## 185.71 Window.Scrollbar.getVerticalMaximum

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.2	Yes	Yes	No	No	Yes

MBS( "Window.Scrollbar.getVerticalMaximum"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Added Windows and iOS support for version 8.5.

Looks like the maximum on Windows is always 65535.

### See also

- [183.116 WebView.Scrollbar.getVerticalMaximum](#) 8573
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.69 Window.Scrollbar.getHorizontalMaximum](#) 8754
- [185.72 Window.Scrollbar.getVerticalPosition](#) 8757

### Example Databases

- [Window/Window Scrollbar Position](#)

### 185.71.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)
- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 26th April 2016, last changed 13th November 2018.



## 185.72 Window.Scrollbar.getVerticalPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.2	Yes	Yes	No	No	Yes

MBS( "Window.Scrollbar.getVerticalPosition"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns value or error.

### Description

Added Windows and iOS support for version 8.5.

#### See also

- 183.117 [WebView.Scrollbar.getVerticalPosition](#) 8574
- 185.15 [Window.FindByIndex](#) 8686
- 185.16 [Window.FindByTitle](#) 8688
- 185.70 [Window.Scrollbar.getHorizontalPosition](#) 8755
- 185.71 [Window.Scrollbar.getVerticalMaximum](#) 8756

### Example Databases

- [Window/Window Scrollbar Position](#)

#### 185.72.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 26th April 2016, last changed 13th November 2018.

## 185.73 Window.Scrollbar.set

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.2	Yes	Yes	No	No	Yes

MBS( "Window.Scrollbar.set"; WindowRef; X; Y )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### X

The new X position.

100

#### Y

The new Y position.

100

**Result** Returns OK or error.

### Description

Added Windows and iOS support for version 8.5.

### See also

- [143.4 Schedule.EvaluateAfterDelay](#) 6902
- [183.118 WebView.Scrollbar.set](#) 8575
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.68 Window.Scrollbar.SetScrollElasticity](#) 8752

### Example Databases

- [Window/Window Scrollbar Position](#)

#### 185.73.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr6](#)

Created 26th April 2016, last changed 13th November 2018.

## 185.74 Window.ScrollbarsVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.7	Yes	Yes	No	No	No

MBS( "Window.ScrollbarsVisible"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 1 if scrollbars are visible or 0 if not.

### Description

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.33 Window.GetToolbarVisible 8709
- 185.100 Window.SetToolbarVisible 8794

### 185.74.1 Blog Entries

- [MBS Filemaker Plugin 2.7 Release notes](#)
- [MBS Filemaker Plugin, version 2.7pr6](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.75 Window.SetAlpha

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.SetAlpha"; WindowRef; Alpha )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Alpha

The new alpha value as a float value between 0.0 (invisible) to 1.0 (opaque).

0.5

**Result** Returns OK or error.

### Description

NOTE: If you set the Alpha of a window too low it will not accept mouse clicks. Windows limitation: Currently the plug-in can only set the transparency of Application Window, not the individual database windows.

Seems not to work for FileMaker 11 on Windows with document windows. So please test if it works on your version.

### Examples

Set the Transparency of a window by name

```
Let(
[
/*----- PARAMETERS -----*/

FileMakerApplicationWindowName =
Case(
Position(Get ( ApplicationVersion ); "Advanced"; 1; 1);"FileMaker Pro Advanced";
"FileMaker Pro"
);

WindowRef =

MBS(
"Window.FindByTitle";
FileMakerApplicationWindowName
);

Alpha = .5

];
```

185.75. WINDOW.SETALPHA

8761

```
/*-----FUNCTION-----*/
```

```
MBS(  
"Window.SetAlpha";  
WindowRef;  
Alpha  
)  
)
```

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.18 Window.GetAlpha 8694

#### Example Databases

- [Window/giSnapShot](#)
- [Window/WindowEffects](#)

#### 185.75.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr2](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.76 Window.SetBounds

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.SetBounds"; WindowRef; Left; Top; Right; Bottom )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Left

the LEFT bound of the window

100

#### Top

the TOP bound of the window

100

#### Right

the RIGHT bound of the window

500

#### Bottom

the BOTTOM bound of the window

500

### Description

This is another way of resizing the window. On Windows this function can be used to adjust the size of the application window as well.

### Examples

Set Window Bounds

```
Let(
[
/*-----PARAMETERS-----*/
WindowRef = 0;
Left = 100;
Top = 100;
Right = 500;
Bottom = 500
];
/*-----FUNCTION-----*/
MBS(
"Window.SetBounds";
WindowRef;
```

185.76. *WINDOW.SETBOUNDS*

8763

```
Left;  
Top;  
Right;  
Bottom  
)  
)
```

**See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.80 Window.SetFocus 8769

Created 18th August 2014, last changed 18th August 2014.

## 185.77 Window.SetCloseButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

```
MBS( "Window.SetCloseButton"; WindowRef; State { ; AddMenu; DatabaseFilename; ScriptName; Parameter } )
```

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### State

The new state of the close button.

1

#### AddMenu

Optional

Whether to add a close menu if needed. Default is false here.

0

#### DatabaseFilename

Optional

The name of the filename database where the script can be found.

"test.fp7"

#### ScriptName

Optional

The name of the script.

"WindowClose"

#### Parameter

Optional

Parameter for the script call.

""

**Result** Returns OK on success.

### Description

Please note! On Windows that SetCloseButton removes all buttons from the title bar and not just the close button.

For runtime solution a special handling is needed. First on Mac you can simply use this function as normal to enable the close button and the window will close.

On Windows simply enabling will not work as the close button is linked to a close menu entry in the system menu for this window. So if AddMenu is true, the plugin will check the menu. If there is no close entry, it will install a default window menu. This way we can enable the close button. To actually close the window,



we also install a callback to catch the clicks on this close button. We call your script so you can use the close window script step. This way we can have a close button on the runtimes.

Enjoy and use at your own risk. This function may not work with every FileMaker version, so please test carefully before you deliver. Tested with FileMaker 11.

With plugin version 6.0 or newer the script name can be a script ID number. In that case the plugin queries the script name for the given script ID. This allows to call scripts by ID and avoid problems if scripts are later renamed.

### Examples

Disable the Window Close button

```
MBS( "Window.SetCloseButton" ; 0; 0)
```

Enable the Window Close button

```
MBS( "Window.SetCloseButton" ; 0; 1)
```

Disable the Window Close button in a runtime on Windows:

```
MBS( "Window.SetCloseButton" ; MBS( "Window.FindByTitle" ; "window title" ); 1; 1; "mydatabase.usr"; "CloseWindow" )
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.37 Window.HasCloseButton](#) 8713
- [185.102 Window.SetZoomButton](#) 8796

### Example Databases

- [Window/Dialog from Filemaker Form](#)
- [Window/WindowEffects](#)

#### 185.77.1 Blog Entries

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr10](#)

Created 18th August 2014, last changed 27th January 2016.

## 185.78 Window.SetCurrentTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.3	Yes	Yes	No	No	No

MBS( "Window.SetCurrentTag"; Tag )

### Parameters

#### Tag

The new tag value.

**Result** Returns OK or error.

### Description

The MBS Plugin manages a list of open windows, so you can set tag value for current window. Be aware that current window could be debugger window or data viewer window!

### See also

- 185.20 Window.GetCurrentTag 8696
- 185.94 Window.SetTag 8787

### 185.78.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 10th June 2016, last changed 10th June 2016.

## 185.79 Window.SetDockImage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	7.5	Yes	No	No	No	No

```
MBS( "Window.SetDockImage"; WindowRef { ; Image } )
```

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Image

Optional

The image to use. Can be container in various formats, e.g. PNG. If empty, clears existing picture.

\$MyImage

**Result** Returns OK or error.

### Description

The miniaturized window image is the image displayed in the Dock when the window is minimized. If you did not assign a custom image to the window, the value of this property is empty.

When the user minimizes the window, the Dock displays this image in the corresponding Dock tile, scaling it as needed to fit in the tile. If you do not specify a custom image using this property, the Dock creates one for you automatically.

You can also set this property as needed to change the minimized window image. Typically, you would specify a custom image immediately prior to a window being minimized. You can set this image while the window is minimized to update the current image in the Dock. However, you should not use this property to create complex animations in the Dock.

Support for custom images is disabled by default. To enable support the plugin automatically sets the AppleDockIconEnabled key to true when updating the image. Due to this enable process, the function may only work the second time you call it after restarting FileMaker.

### Examples

Set image for current window:

```
Set Variable [ $r ; Value: MBS( "Window.SetDockImage"; 0; Assets::Image) ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### 185.79.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr7](#)

Created 10th November 2017, last changed 10th November 2017.

## 185.80 Window.SetFocus

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	8.5	Yes	Yes	No	No	No

MBS( "Window.SetFocus"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK or error.

### Description

The focus goes back to the window.

Works only for OS controls like Webviewer, not for FileMaker's custom controls.

This can be used to move away focus from Webviewer and back to a FileMaker text field.

### See also

- 185.8 Window.ClearFocus 8678
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.76 Window.SetBounds 8762

### 185.80.1 Blog Entries

- [MBS FileMaker Plugin, version 8.5pr2](#)

Created 5th October 2018, last changed 5th October 2018.

## 185.81 Window.SetFullScreenAuxiliary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.SetFullScreenAuxiliary"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Pass 1 or 0 to indicate new status.

1

**Result** Returns OK on success.

### Description

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.47 Window.IsFullScreenAuxiliary 8725
- 185.82 Window.SetFullScreenPrimary 8771

Created 18th August 2014, last changed 18th August 2014.

## 185.82 Window.SetFullScreenPrimary

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.SetFullScreenPrimary"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Pass 1 or 0 to indicate new status.

1

**Result** Returns OK on success.

### Description

If true, the window receives the fullscreen widget in the title bar.

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.47 Window.IsFullScreenAuxiliary 8725
- 185.48 Window.IsFullScreenPrimary 8726
- 185.81 Window.SetFullScreenAuxiliary 8770

### Example Databases

- [Window/Fullscreen](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.83 Window.SetIgnoresMouseEvents

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.SetIgnoresMouseEvents"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Whether to ignore mouse events or not. Pass 1 to ignore mouse events or 0 to not ignore mouse events.

1

### Description

On Mac OS X you can disable mouse events for a given window. All Mouse Events will fall to the window behind.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.45 Window.IgnoresMouseEvents 8723

Created 18th August 2014, last changed 18th August 2014.



## 185.84 Window.SetMaxHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.SetMaxHeight"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new value.

500

**Result** Returns OK or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user. Those limits may have no impact on what Window.Resize can do.

### Examples

Set maximum height to 800 point:

```
MBS( "Window.SetMaxHeight"; Get(WindowName); 800 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.21 Window.GetHeight 8697
- 185.23 Window.GetMaxHeight 8699
- 185.24 Window.GetMaxWidth 8700
- 185.25 Window.GetMinHeight 8701
- 185.62 Window.Resize 8742
- 185.85 Window.SetMaxWidth 8774
- 185.86 Window.SetMinHeight 8775

Created 11st December 2016, last changed 11st December 2016.

## 185.85 Window.SetMaxWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.SetMaxWidth"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new value.

500

**Result** Returns OK or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user. Those limits may have no impact on what Window.Resize can do.

### Examples

Set maximum width to 800 point:

```
MBS( "Window.SetMaxWidth"; Get(WindowName); 800 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.23 Window.GetMaxHeight 8699
- 185.24 Window.GetMaxWidth 8700
- 185.26 Window.GetMinWidth 8702
- 185.36 Window.GetWidth 8712
- 185.62 Window.Resize 8742
- 185.84 Window.SetMaxHeight 8773
- 185.87 Window.SetMinWidth 8776

Created 11st December 2016, last changed 11st December 2016.

## 185.86 Window.SetMinHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.SetMinHeight"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new value.

500

**Result** Returns OK or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user. Those limits may have no impact on what Window.Resize can do.

### Examples

Set minimum height to only 200:

```
MBS( "Window.SetMinHeight"; Get(WindowName); 200 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.21 Window.GetHeight 8697
- 185.23 Window.GetMaxHeight 8699
- 185.25 Window.GetMinHeight 8701
- 185.26 Window.GetMinWidth 8702
- 185.62 Window.Resize 8742
- 185.84 Window.SetMaxHeight 8773
- 185.87 Window.SetMinWidth 8776

Created 11st December 2016, last changed 11st December 2016.

## 185.87 Window.SetMinWidth

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.SetMinWidth"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new value.

500

**Result** Returns OK or error.

### Description

The maximum/minimum window sizes define how much a window can be resized by the user. Those limits may have no impact on what Window.Resize can do.

### Examples

Set minimum width to 200 point:

```
MBS( "Window.SetMinWidth"; Get(WindowName); 200 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.24 Window.GetMaxWidth 8700
- 185.25 Window.GetMinHeight 8701
- 185.26 Window.GetMinWidth 8702
- 185.36 Window.GetWidth 8712
- 185.62 Window.Resize 8742
- 185.85 Window.SetMaxWidth 8774
- 185.86 Window.SetMinHeight 8775

Created 11st December 2016, last changed 11st December 2016.

**185.88 Window.SetMiniaturizeButton**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.SetMiniaturizeButton"; WindowRef; On or Off )

**Parameters****WindowRef**

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**On or Off**

1

**Description****Examples**

Set the Miniturize buton off

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
MBS(
"Window.SetMiniaturizeButton";
windowRef;
0
)
)
```

Set the Miniturize buton On

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
MBS(
"Window.SetMiniaturizeButton";
windowRef;
1
)
)
```

)

**See also**

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.38 Window.HasMiniaturizeButton 8714

**Example Databases**

- [Window/Dialog from Filemaker Form](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.89 Window.SetModified

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.SetModified"; WindowRef; On or Off )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### On or Off

0

### Description

On Mac OS X, a window has a "Modified" State. If the content's of a window have been modified the Red Close button shows this by displaying a dark center. This function gives you control over that setting. Normally FileMaker window's do not display the modified state of a the window.

### Examples

Clear modified flag for front window:

```
MBS( "Window.SetModified"; 0; 1 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.51 Window.IsModified 8729

Created 18th August 2014, last changed 25th November 2019.

## 185.90 Window.SetProgress

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	7.3	No	Yes	No	No	No

MBS( "Window.SetProgress"; WindowRef; State { ; Value; Maximum } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### State

The state to set. Can be NoProgress, Indeterminate, normal, error or paused.

"Normal"

#### Value

Optional

Current progress value.

50

#### Maximum

Optional

The maximum value for progress.

100

**Result** Returns OK or error.

### Description

You can show progress on the task bar icon of your window.

Usually start with setting to indeterminate, than could up in a script with normal state and finally disable progress indication with setting no progress.

Requires Windows 7.

### Examples

Sets progress to 50% :

```
MBS( "Window.SetProgress"; Get(FensterName); "normal"; 50; 100)
```

Set progress to indeterminate:

```
MBS( "Window.SetProgress"; Get(FensterName); "indeterminate"
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688



**Example Databases**

- [Progress Dialog](#)

**185.90.1 Blog Entries**

- [Show progress in task bar on Windows](#)

Created 29th May 2017, last changed 29th May 2017.

## 185.91 Window.SetResizable

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.4	Yes	Yes	No	No	No

MBS( "Window.SetResizable"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Whether window should be resizable: 0 for non resizable or 1 for resizable.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Disable resize for frontmost window:

```
MBS("Window.SetResizable"; 0; 0)
```

Enable resize for window:

```
MBS("Window.SetResizable"; $WindowRef; 1)
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.44 Window.HideScrollbars](#) 8721
- [185.61 Window.Resizable](#) 8741

### Example Databases

- [Window/Dialog from Filemaker Form](#)

#### 185.91.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)

- [MBS Filemaker Plugin 2.4 release notes](#)
- [Dialogs with Filemaker](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.92 Window.SetShadow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	No	No	No	No

MBS( "Window.SetShadow"; WindowRef; On or Off )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### On or Off

1

### Description

On Mac OS X window's normally have a shadow, this function lets you turn the shadow on and off

#### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.39 Window.HasShadow 8715

Created 18th August 2014, last changed 18th August 2014.

## 185.93 Window.SetShowsToolBarButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	2.4	Yes	No	No	No	No

MBS( "Window.SetShowsToolBarButton"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

Whether to ignore mouse events or not. Pass 1 to ignore mouse events or 0 to not ignore mouse events.

1

**Result** Returns "OK" on success.

### Description

#### Examples

Hide toolbar button for frontmost window:

```
MBS("Window.SetShowsToolBarButton"; 0; 0)
```

Show toolbar button for window:

```
MBS("Window.SetShowsToolBarButton"; $WindowRef; 1)
```

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.110 Window.ShowsToolBarButton](#) 8808

### Example Databases

- [Window/Dialog from Filemaker Form](#)

### 185.93.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)

- [Dialogs with Filemaker](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 185.93.2 FileMaker Magazin

- Ausgabe 5/2011, Seite 55

Created 18th August 2014, last changed 20th August 2014.

## 185.94 Window.SetTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.3	Yes	Yes	No	No	No

MBS( "Window.SetTag"; WindowRef; Tag )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Tag

The new tag value.

**Result** Returns OK or error.

### Description

The MBS Plugin manages a list of open windows, so you can set tag value for a window.

Please be aware that referencing windows just by name is not good as window names may not be unique.

Use Window.Current to get ID for current window. Or use function Window.SetCurrentTag to set tag of current window.

### See also

- 185.11 Window.Current 8681
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.27 Window.GetTag 8703
- 185.34 Window.GetTop 8710
- 185.78 Window.SetCurrentTag 8766

### 185.94.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr3](#)

Created 10th June 2016, last changed 10th June 2016.

## 185.95 Window.SetTitle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.2	Yes	Yes	No	No	No

MBS( "Window.SetTitle"; WindowRef; Title )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Title

The title

"Hello World"

### Description

The WindowRef is returned by either Window.FindByTitle or Window.FindByIndex. Although it works on both platforms it was added specifically for Windows, where it can be used to Change the Name of the Application Window.

### Examples

Set the Title of the Application Window

```
MBS( "Window.SetTitle" ; $$WindowRef; "New Title")
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.28 Window.GetTitle 8704
- 185.98 Window.SetTitlebarAppearsTransparent 8792
- 185.96 Window.SetTitleIcon 8789
- 185.97 Window.SetTitleVisible 8791

Created 18th August 2014, last changed 18th August 2014.



## 185.96 Window.SetTitleIcon

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.2	No	Yes	No	No	No

MBS( "Window.SetTitleIcon"; WindowRef; ImageRef { ; bigIcon } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ImageRef

The image reference for the picture image, a number returned from the GImage.New functions

1

#### bigIcon

Optional

Pass 1 to set big icon (for app switcher) or 0 for small icon (icon in title bar). Default is 0.

1

**Result** Returns OK or error status.

### Description

Version 6.2 no longer takes a mask image like previous versions, so you now pass a picture with transparency like a PNG file for example.

You may need to use GImage.NewImagesFromContainer to read image from container first.

### See also

- 87.191 GImage.New 4642
- 87.196 GImage.NewImagesFromContainer 4651
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.95 Window.SetTitle 8788

### Example Databases

- [Win Only/Window Icon](#)

### 185.96.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr2](#)
- [MBS Filemaker Plugin, version 3.2pr9](#)



## 185.97 Window.SetTitleVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	No	No	No	No

MBS( "Window.SetTitleVisible"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new visible setting.

1

**Result** Returns OK or error.

### Description

Set to 1 to make it visible and 0 to hide it.

Requires OS X 10.10 or newer.

### Examples

Hide titlebar

Set Variable [ \$r; Value:MBS("Window.SetTitleVisible"; 0; 1) ]

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.29 Window.GetTitleVisible 8705
- 185.33 Window.GetToolbarVisible 8709
- 185.95 Window.SetTitle 8788
- 185.100 Window.SetToolbarVisible 8794

### 185.97.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 16th January 2016, last changed 16th January 2016.

## 185.98 Window.SetTitlebarAppearsTransparent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.0	Yes	No	No	No	No

MBS( "Window.SetTitlebarAppearsTransparent"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new visible setting. Pass 1 to make transparent. Pass 0 to make opaque.

1

**Result** Returns OK or error.

### Description

When 1, the titlebar doesn't draw its background, allowing all buttons to show through, and "click through" to happen. In general, this is only useful when being full screen.

### Examples

Set titlebar invisible and resize content to fill space:

```
Set Variable [ $r; Value:MBS("Window.SetTitlebarAppearsTransparent"; 0; 1) ]
```

```
Set Variable [ $r; Value:MBS("Window.ResizeContentView"; 0; 0; 0; 0; 22) ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.30 Window.GetTitlebarAppearsTransparent 8706
- 185.62 Window.Resize 8742
- 185.63 Window.ResizeContentView 8744
- 185.95 Window.SetTitle 8788

### 185.98.1 Blog Entries

- [MBS FileMaker Plugin, version 6.0pr7](#)

Created 16th January 2016, last changed 16th January 2016.

## 185.99 Window.SetToolBarConfiguration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.SetToolBarConfiguration"; WindowRef; ConfigurationXML )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### ConfigurationXML

The configuration XML. Should be the one returned by Window.GetToolBarConfiguration.

\$ConfigurationXML

**Result** Returns OK or error.

### Description

Pass a xml with the toolbar's configuration information. If you want to provide a custom xml, you should first get the receiver's current configuration xml, then create a modified copy, rather than trying to construct one yourself.

Do not depend on any details of the normal contents of a configuration dictionary. This may change with an update to Mac OS X or FileMaker.

### See also

- [185.1 Toolbar.Install](#) 8667
- [185.3 Toolbar.Register](#) 8670
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.31 Window.GetToolBarConfiguration](#) 8707

### Example Databases

- [Mac only/ToolBar/Window Toolbar](#)

### 185.99.1 Blog Entries

- [ToolBar functions for FileMaker on Mac](#)

Created 19th August 2014, last changed 20th August 2014.

## 185.100 Window.SetToolbarVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	4.3	Yes	No	No	No	No

MBS( "Window.SetToolbarVisible"; WindowRef; State )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### State

The new state. Pass 0 to hide or 1 to show toolbar.

1

**Result** Returns OK or error.

### Description

#### Examples

Show toolbar in current window:

```
MBS( "Window.SetToolbarVisible"; 0; 1 )
```

Hide toolbar in current window:

```
MBS( "Window.SetToolbarVisible"; 0; 0 )
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.29 Window.GetTitleVisible 8705
- 185.33 Window.GetToolbarVisible 8709
- 185.74 Window.ScrollbarsVisible 8759
- 185.97 Window.SetTitleVisible 8791

### Example Databases

- [Mac only/Toolbar/Window Toolbar](#)

Created 19th August 2014, last changed 20th August 2014.

## 185.101 Window.SetTopMost

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	4.2	Yes	Yes	No	No	No

MBS( "Window.SetTopMost"; WindowRef; Value )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Value

The new topmost setting. Can be 0 or 1.

1

**Result** Returns OK or error.

### Description

If window is topmost, it floats over all other windows.

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.35 Window.GetTopMost](#) 8711

### Example Databases

- [Window/Window TopMost](#)

### 185.101.1 Blog Entries

- [MBS Filemaker Plugin, version 4.2pr5](#)

Created 18th August 2014, last changed 18th August 2014.

## 185.102 Window.SetZoomButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.1	Yes	Yes	No	No	No

MBS( "Window.SetZoomButton"; WindowRef; On or Off )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### On or Off

The new setting.

1

### Description

#### Examples

Set The Zoom button

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
MBS(
"Window.SetZoomButton";
windowRef;
0
)
)
```

Set The Zoom button

```
Let(
[
windowRef = MBS("Window.FindByTitle"; Get(WindowName))
];
```

```
MBS(
"Window.SetZoomButton";
windowRef;
1
)
)
```



185.102. *WINDOW.SETZOOMBUTTON*

8797

**See also**

- 185.15 *Window.FindByIndex* 8686
- 185.16 *Window.FindByTitle* 8688
- 185.40 *Window.HasZoomButton* 8716
- 185.77 *Window.SetCloseButton* 8764

**Example Databases**

- [Window/Dialog from Filemaker Form](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 22nd January 2016.

## 185.103 Window.Show

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	1.0	Yes	Yes	No	No	No

MBS( "Window.Show"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK on success.

### Description

This can be used to show a window without bringing the window to the front.

### Examples

Show a Window without bringing it the front

```
Let(
[
/*-----PARAMETERS-----*/
WindowRef = MBS( "Window.FindByTitle" ; "My Window" )
];
/*-----FUNCTION-----*/
MBS(
"Window.Show";
WindowRef
)
)
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.104 Window.ShowCharacterPalette 8800
- 185.105 Window.ShowContent 8801
- 185.106 Window.ShowKeyboard 8802
- 185.107 Window.ShowOverlay 8803
- 185.108 Window.ShowScrollbars 8805
- 185.109 Window.ShowTableViewDialog 8807

185.103. *WINDOW.SHOW*

8799

Created 18th August 2014, last changed 18th August 2014.

## 185.104 Window.ShowCharacterPalette

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	7.2	Yes	Yes	No	No	No

MBS( "Window.ShowCharacterPalette" )

**Result** Returns OK or error.

### Description

Allows you to enter Emoji and other symbols.

### Examples

Show keyboard:

```
Set Variable [ $r ; Value: MBS("Window.ShowKeyboard") ]
```

Show character palette:

```
Set Variable [ $r ; Value: MBS("Window.ShowCharacterPalette") ]
```

### See also

- 185.103 Window.Show 8798
- 185.106 Window.ShowKeyboard 8802

### 185.104.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr1](#)

Created 26th March 2017, last changed 26th September 2019.

## 185.105 Window.ShowContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.2	Yes	No	No	No	No

MBS( "Window.ShowContent"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

### Description

Deprecated.

### Examples

Shows content:

MBS( "Window.ShowContent"; Get(WindowName) )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.42 Window.HideContent 8719
- 185.103 Window.Show 8798

### 185.105.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)
- [MBS Filemaker Plugin, version 2.2pr5](#)

Created 18th August 2014, last changed 3th March 2020.

## 185.106 Window.ShowKeyboard

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	9.5	Yes	Yes	No	No	No

MBS( "Window.ShowKeyboard" )

**Result** Returns OK or error.

### Description

### Examples

Show keyboard:

```
Set Variable [ $r ; Value: MBS("Window.ShowKeyboard") ]
```

Show character palette:

```
Set Variable [ $r ; Value: MBS("Window.ShowCharacterPalette") ]
```

### See also

- [185.103 Window.Show](#) 8798
- [185.104 Window.ShowCharacterPalette](#) 8800

### 185.106.1 Blog Entries

- [Neues MBS FileMaker Plugin 9.5](#)
- [MBS FileMaker Plugin 9.5 - More than 5900 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.5pr1](#)

Created 26th September 2019, last changed 26th September 2019.

## 185.107 Window.ShowOverlay

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.3	Yes	No	No	No	No

MBS( "Window.ShowOverlay"; WindowRef; alpha; red; green; blue )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### alpha

The alpha value to use. Range 0.0 (invisible) to 1.0 (full visible). Default 0.5.

0.5

#### red

The red color value. Default 0.0.

0.0

#### green

The green color value. Default 0.0.

0.0

#### blue

The blue color value. Default 0.0.

0.0

**Result** Returns "OK" on success.

### Description

This way you can have the user focus on a dialog in front of the main window.

Does not work in FileMaker 18.

Deprecated.

### Examples

Show an overlay:

MBS( "Window.ShowOverlay"; Get(WindowName); 0.5; 0.0; 0.0; 0.0 )

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.43 Window.HideOverlay 8720

- 185.103 Window.Show

### 185.107.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr7](#)
- [MBS Filemaker Plugin, version 4.0pr1](#)
- [MBS Filemaker Plugin, version 2.3pr2](#)
- [MBS Filemaker Plugin, version 2.3pr4](#)

Created 18th August 2014, last changed 3th March 2020.



## 185.108 Window.ShowScrollbars

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.4	Yes	Yes	No	No	No

MBS( "Window.ShowScrollbars"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns "OK" on success.

### Description

Tries to reverse HideScrollbars call.

Works fine with FileMaker 11/12 on Mac and Windows. Also works with FileMaker 10 on Windows (but not on Mac).

Disabled for FileMaker 16, so it returns only an error.

### Examples

Looks up window reference for the window named test and shows scrollbars there:

```
MBS("Window.ShowScrollbars"; MBS("Window.FindByTitle"; "test"))
```

### See also

- [185.13 Window.EnableScrollbars](#) 8683
- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.44 Window.HideScrollbars](#) 8721
- [185.103 Window.Show](#) 8798

### Example Databases

- [Window/Dialog from Filemaker Form](#)

### 185.108.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)

- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr9](#)

### **185.108.2 FileMaker Magazin**

- Ausgabe 5/2011, Seite 55

Created 18th August 2014, last changed 11st May 2017.

## 185.109 Window.ShowTableViewDialog

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	6.5	Yes	No	No	No	No

MBS( "Window.ShowTableViewDialog"; WindowRef { ; Force } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### Force

Optional

Pass 1 to avoid checks whether button can be clicked. Normally plugin wants to avoid that you click there when not appropriate. But to toggle the button for a card window, you may want to force it as FileMaker does not support that.

0

**Result** Returns OK or error.

### Description

Please run as last command in script, so the function can do the job properly.

On Windows you can try similar by simulating a mouse click on the right coordinate.

### Examples

Show table view dialog command:

```
Set Variable [ $r; Value:MBS("Window.ShowTableViewDialog"; 0) ]
```

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 185.103 Window.Show 8798

### Example Databases

- [Window/Card Window Test](#)

### 185.109.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr9](#)

Created 27th November 2016, last changed 1st June 2017.

## 185.110 Window.ShowsToolBarButton

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
170 Toolbar 185 Window	2.4	Yes	No	No	No	No

MBS( "Window.ShowsToolBarButton"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns 0 if toolbar button is hidden or 1 if toolbar button is visible.

### Description

#### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.93 Window.SetShowsToolBarButton](#) 8785

### 185.110.1 Blog Entries

- [MonkeyBread Software Releases the MBS Filemaker plug-in in version 2.4](#)
- [MBS Filemaker Plugin 2.4 release notes](#)
- [MBS Filemaker Plugin, version 2.4pr8](#)

### 185.110.2 FileMaker Magazin

- Ausgabe 5/2011, Seite 55

Created 18th August 2014, last changed 20th August 2014.

## 185.111 Window.ToggleFullScreen

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	3.0	Yes	No	No	No	No

MBS( "Window.ToggleFullScreen"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK on success.

### Description

If an application supports fullscreen, it should add a menu item to the View menu with toggleFullScreen as the action.

Available in Mac OS X v10.7 and later.

This method does not much if you don't mark a window to be the primary fullscreen window.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### Example Databases

- [Window/Fullscreen](#)

#### 185.111.1 FileMaker Magazin

- Ausgabe 1/2019, Seite 16

Created 18th August 2014, last changed 18th August 2014.

## 185.112 Window.TopHeight

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	8.3	Yes	Yes	No	No	No

MBS( "Window.TopHeight"; WindowRef { ; WithFrame } )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

#### WithFrame

Optional

Whether to include frame on Mac. Pass 1 to include frame. Default is 1 to include it.

0

**Result** Returns number or error.

### Description

This is the height for any toolbars between content and the window top border.

On MacOS without frame, the top height is for example about 50 pixels for two toolbars in the window. With Frame, you include 81 pixels for toolbar and window title. So top height can be 131 as an example.

Ruler is not included in that height, as it's part of FileMaker's content.

### See also

- [185.15 Window.FindByIndex](#) 8686
- [185.16 Window.FindByTitle](#) 8688
- [185.21 Window.GetHeight](#) 8697

### 185.112.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [MBS FileMaker Plugin, version 8.3pr7](#)
- [MBS FileMaker Plugin, version 8.3pr6](#)
- [MBS FileMaker Plugin, version 8.3pr2](#)

Created 5th June 2018, last changed 14th July 2018.

## 185.113 Window.Update

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
185 Window	2.8	Yes	Yes	No	No	No

MBS( "Window.Update"; WindowRef )

### Parameters

#### WindowRef

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

**Result** Returns OK on success.

### Description

This does not cause a FileMaker window to load new or modified records. It simply asks the window to redraw all controls.

### See also

- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688

### 185.113.1 Blog Entries

- [MBS Filemaker Plugin, version 2.8pr7](#)

Created 18th August 2014, last changed 28th April 2016.





# Chapter 186

## WindowsScript

Run Windows Scripts.

Microsoft did not port the ScriptControl to 64-bit, so the official control coming with Windows, is only for 32-bit.

Alternative, you can install Tablacus Script Control 64 to get it working in 64-bit. [http://www.eonet.ne.jp/~gakana/tablacus/scriptcontrol\\_en.html](http://www.eonet.ne.jp/~gakana/tablacus/scriptcontrol_en.html)

### 186.1 WindowsScript.AddCode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.AddCode"; ScriptID; Code )

#### Parameters

##### ScriptID

The ID of a WindowsScript in memory.

##### Code

the code to add to the script

#### Description

Used to build a script in memory. You can use this function more then once on the same script. If you add code that overlaps with code that is already in the script then the last one added takes precedence. For Ex. IF you add FUNCTION HelloWorld() HelloWorld = "HELLO WORLD" END FUNCTION To a VBScript that already has the function "HelloWorld()" in it, it is replaced by your new version. If the code can't be added to the script one of the following is returned - "MBS: Missing ScriptID." - "MBS: Failed to create Windows Script object." - description of exception

If you use VBScript, you don't need "dim" keyword for defining variables.

**Examples**

Trigger a FileMaker Script Using OS Scripting

```

Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ——

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMScript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

"END FUNCTION";

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

];
Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)

```

```
)
)
```

Trigger A FileMaker Script (Custom Function)

```
MBS_TriggerScript ( "Triggered Script" ; Get ( FileName ) )
```

Custom Function Definition

```
/*#####
#####
#####*/
```

```
MBS_TriggerScript
created 10/26/06, by Todd Geist, todd@geistinteractive.com
```

Parameters: theScriptName, theFileName

Dependencies: MBS FileMaker Plug-in.

Notes: Uses VBScript and Applescript to run a script

```
#####
#####*/
```

```
Let(
```

```
[
```

```
Applescript = "do script " & Quote(theScriptName);
```

```
VBScriptText =
"FUNCTION DoFMScipt(FileName, ScriptName)" & "§" &
```

```
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
```

```
"fmApp.Visible = True" & "§" &
```

```
"Set fmDocs = fmApp.Documents" & "§" &
```

```
"For Each fmDoc In fmDocs" & "§" &
```

```
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
```

```
" fmDoc.dofmscript (ScriptName)" & "§" &
```

```
"End If" & "§" &
```

```
"Next" & "§" &
```

```
"END FUNCTION";
```

```
ScriptID = MBS("WindowsScript.Create");
```

```
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
```

```
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)
```

```
];
```

```

Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";theFileName; theScriptName) &
MBS("WindowsScript.Close"; ScriptID)

)
)

```

#### Use JScript to Get System Date

```

Let(
[
JScriptText = "function TestDate() { var d =new Date();
return d.toGMTString(); } ";
scriptID = MBS("WindowsScript.Create");
SetLang = MBS("WindowsScript.SetLanguage";1;"JScript");
addcode = MBS("WindowsScript.AddCode";1;JScriptText);
theDate = MBS("WindowsScript.ExecuteFunction";1;"TestDate");
closeScript = MBS("WindowsScript.Close";1)

];
theDate

)

```

#### See also

- 36.9 AppleScript.Run 947
- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822
- 186.12 WindowsScript.ExecuteFunction 8834
- 186.19 WindowsScript.SetLanguage 8844

#### Example Databases

- [OS Scripting/Trigger Scripts Using OS Scripting](#)

- [OS Scripting/VBScript Example](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 18th August 2014.

## 186.2 WindowsScript.Close

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.Close"; Script ID )

### Parameters

#### Script ID

The ID of a WindowsScript in memory

### Description

### Examples

Trigger a FileMaker Script Using OS Scripting

```
Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ——

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMScript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

"END FUNCTION";

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)
```

```
];
Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)

)
)
```

Trigger A FileMaker Script (Custom Function)

```
MBS_TriggerScript ( "Triggered Script" ; Get ( FileName ) )
```

Custom Function Definition

```
/*#####
#####*/
```

```
MBS_TriggerScript
created 10/26/06, by Todd Geist, todd@geistinteractive.com
```

Parameters: theScriptName, theFileName

Dependencies: MBS FileMaker Plug-in.

Notes: Uses VBScript and Applescript to run a script

```
#####
#####*/
```

```
Let(
[
Applescript = "do script " & Quote(theScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
```

```

"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

```

```

"END FUNCTION";

```

```

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

```

```

];
Case(
Get ( SystemPlatform ) = 1;

```

```

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

```

```

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";theFileName; theScriptName) &
MBS("WindowsScript.Close"; ScriptID)

```

```

)
)

```

Use JScript to Get System Date

```

Let(
[
JScriptText = "function TestDate() { var d =new Date();
return d.toGMTString(); } ";
scriptID = MBS("WindowsScript.Create");
SetLang = MBS("WindowsScript.SetLanguage";1;"JScript");
addcode = MBS("WindowsScript.AddCode";1;JScriptText);
theDate = MBS("WindowsScript.ExecuteFunction";1;"TestDate");
closeScript = MBS("WindowsScript.Close";1)

```

```

];

```

```

theDate

```

```

)

```



186.2. *WINDOWSSCRIPT.CLOSE* 8821

**See also**

- 36.9 AppleScript.Run 947
- 186.1 WindowsScript.AddCode 8813
- 186.3 WindowsScript.Create 8822
- 186.11 WindowsScript.Eval 8833
- 186.12 WindowsScript.ExecuteFunction 8834
- 186.19 WindowsScript.SetLanguage 8844

**Example Databases**

- [OS Scripting/Trigger Scripts Using OS Scripting](#)
- [OS Scripting/VBScript Example](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 18th August 2014.

## 186.3 WindowsScript.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

```
MBS( "WindowsScript.Create" )
```

### Description

Once the script is created you can add script code to by using the `WindowsScript.AddCode` function. The script is then executed using `WindowScript.Run`. The default language of a new script is `Jscript`. This can be changed by using the `WindowsScript.SetLanguage` function.

ScriptControl from Microsoft is 32-bit only. If you need 64-bit, please install a 64-bit alternative `MSScript.ocx` file.

### Examples

Trigger a FileMaker Script Using OS Scripting

```
Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ——

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

"END FUNCTION";

ScriptID = MBS("WindowsScript.Create");
```

```
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)
```

```
];
Case(
Get ( SystemPlatform ) = 1;
```

```
// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);
```

```
// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)
```

```
)
)
```

Trigger A FileMaker Script (Custom Function)

```
MBS_TriggerScript ( "Triggered Script" ; Get ( FileName ) )
```

Custom Function Definition

```
/*#####
#####
```

```
MBS_TriggerScript
created 10/26/06, by Todd Geist, todd@geistinteractive.com
```

Parameters: theScriptName, theFileName

Dependencies: MBS FileMaker Plug-in.

Notes: Uses VBScript and Applescript to run a script

```
#####
#####*/
```

```
Let(
[
```

```
Applescript = "do script " & Quote(theScriptName);
```

```
VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "$" &
```

```

"Set fmApp = CreateObject(\ "FMPro.Application\ ") & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

```

```

"END FUNCTION";

```

```

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

```

```

];
Case(
Get ( SystemPlatform ) = 1;

```

```

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

```

```

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";theFileName; theScriptName) &
MBS("WindowsScript.Close"; ScriptID)

```

```

)
)

```

Use JScript to Get System Date

```

Let(
[
JScriptText = "function TestDate() { var d =new Date();
return d.toGMTString(); } ";
scriptID = MBS("WindowsScript.Create");
SetLang = MBS("WindowsScript.SetLanguage";1;"JScript");
addcode = MBS("WindowsScript.AddCode";1;JScriptText);
theDate = MBS("WindowsScript.ExecuteFunction";1;"TestDate");
closeScript = MBS("WindowsScript.Close";1)

```

```

];

```

```

theDate

```

186.3. *WINDOWSSCRIPT.CREATE* 8825  
)

**See also**

- 36.9 AppleScript.Run 947
- 186.1 WindowsScript.AddCode 8813
- 186.2 WindowsScript.Close 8818
- 186.11 WindowsScript.Eval 8833
- 186.12 WindowsScript.ExecuteFunction 8834
- 186.19 WindowsScript.SetLanguage 8844

**Example Databases**

- [OS Scripting/Trigger Scripts Using OS Scripting](#)
- [OS Scripting/VBScript Example](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 24th August 2016.

## 186.4 WindowsScript.ErrorClear

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorClear" )

### Description

### See also

- 186.5 WindowsScript.ErrorColumn 8827
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831
- 186.10 WindowsScript.ErrorText 8832

Created 18th August 2014, last changed 18th August 2014.

## 186.5 WindowsScript.ErrorColumn

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorColumn"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

0

### Description

For example: If the script encountered an Error at column 16 of the line indicated by the ErrorLine function, "16" would be returned.

### See also

- 186.4 WindowsScript.ErrorClear 8826
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831
- 186.10 WindowsScript.ErrorText 8832

Created 18th August 2014, last changed 18th August 2014.

## 186.6 WindowsScript.ErrorDescription

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorDescription" )

### Description

Created 18th August 2014, last changed 18th August 2014.



**186.7 WindowsScript.ErrorLine**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorLine"; ScriptID )

**Parameters****ScriptID**

The ID of a WindowsScript in memory.

**Description**

For example: "1" would be returned id the script encountered an error on the first line.

**See also**

- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831
- 186.10 WindowsScript.ErrorText 8832

Created 18th August 2014, last changed 18th August 2014.

## 186.8 WindowsScript.ErrorNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorNumber" )

### Description

### See also

- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.7 WindowsScript.ErrorLine 8829
- 186.9 WindowsScript.ErrorSource 8831
- 186.10 WindowsScript.ErrorText 8832

Created 18th August 2014, last changed 18th August 2014.

**186.9 WindowsScript.ErrorSource**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorSource" )

**Description**

For example: "Runtime error in Microsoft.JScript"

**See also**

- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.10 WindowsScript.ErrorText 8832

Created 18th August 2014, last changed 18th August 2014.

## 186.10 WindowsScript.ErrorText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ErrorText"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

2

### Description

For ex. "FUNCTION myFunction(string" This line of a script is missing a ")" at the end of the line.

#### See also

- 186.4 WindowsScript.ErrorClear 8826
- 186.5 WindowsScript.ErrorColumn 8827
- 186.7 WindowsScript.ErrorLine 8829
- 186.8 WindowsScript.ErrorNumber 8830
- 186.9 WindowsScript.ErrorSource 8831

Created 18th August 2014, last changed 18th August 2014.

**186.11 WindowsScript.Eval**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.Eval"; ScriptID; Text )

**Parameters****ScriptID**

The ID of a WindowsScript in memory.

\$\$scriptID

**Text**

The text to evaluate

1

**Description****See also**

- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822

Created 18th August 2014, last changed 18th August 2014.

## 186.12 WindowsScript.ExecuteFunction

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ExecuteFunction"; ScriptID; FunctionName { ; Function Parameter; Function Parameters } )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

0

#### FunctionName

The name of the function you are using in the script

#### Function Parameter

Optional

The first function parameter

#### Function Parameters

Optional

any other function parameters that are needed

### Description

#### Examples

Trigger a FileMaker Script Using OS Scripting

```
Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ———

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
```

```
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &
```

```
"END FUNCTION";
```

```
ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)
```

```
];
Case(
Get ( SystemPlatform ) = 1;
```

```
// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);
```

```
// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)
```

```
)
)
```

Trigger A FileMaker Script (Custom Function)

```
MBS_TriggerScript ( "Triggered Script" ; Get ( FileName ) )
```

Custom Function Definition

```
/*#####
#####
#####
```

```
MBS_TriggerScript
created 10/26/06, by Todd Geist, todd@geistinteractive.com
```

Parameters: theScriptName, theFileName

Dependancies: MBS FileMaker Plug-in.

Notes: Uses VBScript and Applescript to run a script

```
#####
```

```

# # # # # # # # # # # # # # */
Let(
[

Applescript = "do script " & Quote(theScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &

"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &

"END FUNCTION";

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

];
Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMSCript";theFileName; theScriptName) &
MBS("WindowsScript.Close"; ScriptID)

)
)

```

Use JScript to Get System Date

```

Let(
[
JScriptText = "function TestDate() { var d =new Date();
return d.toGMTString(); } ";
scriptID = MBS("WindowsScript.Create");

```



## 186.12. WINDOWSSCRIPT.EXECUTEFUNCTION

8837

```
SetLang = MBS("WindowsScript.SetLanguage";1;"JScript");
addcode = MBS("WindowsScript.AddCode";1;JScriptText);
theDate = MBS("WindowsScript.ExecuteFunction";1;"TestDate");
closeScript = MBS("WindowsScript.Close";1)

];

theDate

)
```

### See also

- [36.9 AppleScript.Run](#) 947
- [186.1 WindowsScript.AddCode](#) 8813
- [186.2 WindowsScript.Close](#) 8818
- [186.3 WindowsScript.Create](#) 8822
- [186.13 WindowsScript.ExecuteStatement](#) 8838
- [186.19 WindowsScript.SetLanguage](#) 8844

### Example Databases

- [OS Scripting/Trigger Scripts Using OS Scripting](#)
- [OS Scripting/VBScript Example](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 27th January 2016.

## 186.13 WindowsScript.ExecuteStatement

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.ExecuteStatement"; Script )

### Parameters

#### Script

The script command.

#### Description

#### See also

- 186.12 WindowsScript.ExecuteFunction

8834

Created 18th August 2014, last changed 18th August 2014.

**186.14 WindowsScript.GetAllowUI**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.GetAllowUI"; ScriptID )

**Parameters****ScriptID**

The ID of a WindowsScript in memory.

**Description**

Scripts can either allow user interaction or not.

**See also**

- 186.16 WindowsScript.GetTimeout 8841
- 186.18 WindowsScript.SetAllowUI 8843

Created 18th August 2014, last changed 18th August 2014.

## 186.15 WindowsScript.GetLanguage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.GetLanguage"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

### Description

The Windows Scripting Host can run scripts that are written in any of several languages. This function returns the current language setting, for example "JScript" or "VBScript"

### See also

- 186.19 WindowsScript.SetLanguage

8844

Created 18th August 2014, last changed 18th August 2014.

## 186.16 WindowsScript.GetTimeout

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.GetTimeout"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

### Description

This function returns that setting.

### See also

- 186.14 WindowsScript.GetAllowUI 8839
- 186.20 WindowsScript.SetTimeout 8847

Created 18th August 2014, last changed 18th August 2014.

## 186.17 WindowsScript.GetUseSafeSubset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.GetUseSafeSubset"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

### Description

If Use Safe Subset is enabled then subset of the normal functions are allowed.

### See also

- 186.21 WindowsScript.SetUseSafeSubset

8848

Created 18th August 2014, last changed 18th August 2014.

**186.18 WindowsScript.SetAllowUI**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.SetAllowUI"; ScriptID; On or Off )

**Parameters****ScriptID**

The ID of a WindowsScript in memory.

\$ScriptID

**On or Off****Description**

Scripts can either allow user interaction or not.

**See also**

- 186.14 WindowsScript.GetAllowUI 8839
- 186.20 WindowsScript.SetTimeout 8847

**Example Databases**

- [OS Scripting/VBScript Example](#)

Created 18th August 2014, last changed 18th August 2014.

## 186.19 WindowsScript.SetLanguage

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.SetLanguage"; ScriptID; Language )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

#### Language

The scripting language you want to use  
"VBScript"

### Description

For ex. "FUNCTION myFunction(string" This line of a script is missing a ")" at the end of the line.

### Examples

Trigger a FileMaker Script Using OS Scripting

```
Let(
[
// — the name of the script to run —————

ScriptName = "Triggered Script";
FileName = Get(FileName);

//—————

//— don't need to edit anything below this line ——

Applescript = "do script " & Quote(ScriptName);

VBScriptText =
"FUNCTION DoFMSCript(FileName, ScriptName)" & "§" &
"Set fmApp = CreateObject(\"FMPro.Application\")" & "§" &
"fmApp.Visible = True" & "§" &
"Set fmDocs = fmApp.Documents" & "§" &
"For Each fmDoc In fmDocs" & "§" &
"If InStr(LCase(fmDoc.fullname), LCase(FileName)) >0 Then" & "§" &
" fmDoc.dofmscript (ScriptName)" & "§" &
"End If" & "§" &
"Next" & "§" &
"END FUNCTION";
```



```

ScriptID = MBS("WindowsScript.Create");
lang= MBS("WindowsScript.SetLanguage"; ScriptID; "VBScript");
addcode = MBS("WindowsScript.AddCode"; ScriptID; VBScriptText)

];
Case(
Get ( SystemPlatform ) = 1;

// Mac OSX Case
MBS(
"Applescript.Run";
Applescript
);

// Windows Case
MBS("WindowsScript.ExecuteFunction";ScriptID; "DoFMScript";FileName; ScriptName) &
MBS("WindowsScript.Close"; ScriptID)

)
)

```

Use JScript to Get System Date

```

Let(
[
JScriptText = "function TestDate() { var d =new Date();
return d.toGMTString(); } ";
scriptID = MBS("WindowsScript.Create");
SetLang = MBS("WindowsScript.SetLanguage";1;"JScript");
addcode = MBS("WindowsScript.AddCode";1;JScriptText);
theDate = MBS("WindowsScript.ExecuteFunction";1;"TestDate");
closeScript = MBS("WindowsScript.Close";1)

];

theDate

)

```

#### See also

- 36.9 AppleScript.Run 947
- 186.1 WindowsScript.AddCode 8813
- 186.2 WindowsScript.Close 8818
- 186.3 WindowsScript.Create 8822

- 186.12 WindowsScript.ExecuteFunction 8834
- 186.15 WindowsScript.GetLanguage 8840

**Example Databases**

- [OS Scripting/Trigger Scripts Using OS Scripting](#)
- [OS Scripting/VBScript Example](#)
- [Window/WindowEffects](#)

Created 18th August 2014, last changed 18th August 2014.

**186.20 WindowsScript.SetTimeout**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.SetTimeout"; ScriptID; TimeOut )

**Parameters****ScriptID**

The ID of a WindowsScript in memory.

1

**TimeOut**

Seconds, default is 10000

2

**Description**

This function allows you to change to change that setting. The units are seconds.

**See also**

- 186.16 WindowsScript.GetTimeout 8841
- 186.18 WindowsScript.SetAllowUI 8843

Created 18th August 2014, last changed 18th August 2014.

## 186.21 WindowsScript.SetUseSafeSubset

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
186 WindowsScript	1.1	No	Yes	Yes, Windows only	No	No

MBS( "WindowsScript.SetUseSafeSubset"; ScriptID )

### Parameters

#### ScriptID

The ID of a WindowsScript in memory.

### Description

If Use Safe Subset is enabled then subset of the normal functions are allowed.

### See also

- 186.17 WindowsScript.GetUseSafeSubset

8842

Created 18th August 2014, last changed 18th August 2014.

# Chapter 187

## WindowsUserNotification

Show user notifications on Windows 8 or newer.

See UNNotification functions for MacOS.

### 187.1 WindowsUserNotification.Available

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Available" )

**Result** Returns 1 or 0.

#### Description

Returns 1 on Windows 8.1 and Windows 10 if all functions are available to show notifications.

#### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

Created 2nd April 2017, last changed 24th May 2017.

## 187.2 WindowsUserNotification.GetFileName

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetFileName"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns text or error.

### Description

#### See also

- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 2nd April 2017, last changed 24th May 2017.

## 187.3 WindowsUserNotification.GetImagePath

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetImagePath"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

### Description

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

#### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 2nd April 2017, last changed 24th May 2017.

## 187.4 WindowsUserNotification.GetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.GetScriptName"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns text or error.

### Description

#### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864

Created 2nd April 2017, last changed 24th May 2017.



**187.5 WindowsUserNotification.GetText**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.GetText"; Notification; Index )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Index**

The index of the text. Range 0 to 3.  
0

**Result** Returns text or error.

**Description****See also**

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

Created 2nd April 2017, last changed 24th May 2017.

## 187.6 WindowsUserNotification.HideNotification

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.HideNotification"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

### Description

#### Examples

Hide notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.HideNotification"; Windows User Notifications::ID)
]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
```

### See also

- [127.6 IsError](#) 6374
- [187.9 WindowsUserNotification.NewNotification](#) 8858
- [187.16 WindowsUserNotification.ShowNotification](#) 8868

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 187.7 WindowsUserNotification.Initialize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Initialize"; AppName; Company; Name; Surname; VersionInfo )

### Parameters

**AppName**

The application name.

"FileMaker Pro"

**Company**

The company name. Used to build unique app id.

"Test"

**Name**

The name. Used to build unique app id.

**Surname**

The surname. Used to build unique app id.

**VersionInfo**

The version info. Used to build unique app id.

"1.0"

**Result** Returns OK or error.

**Description**

Must be called once on startup of solution.

**Examples**

Initialize:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.Initialize"; "FileMaker"; "Test"; "test"; "test"; "1.0" ) ]
```

```
Show Custom Dialog [ "Initialize"; $r ]
```

**See also**

- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.5 WindowsUserNotification.GetText 8853
- 187.8 WindowsUserNotification.Isinitialized 8857
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862

- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

**Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 187.8 WindowsUserNotification.Isinitialized

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Isinitialized" )

**Result** Returns 1, 0 or error.

### Description

Returns 1 if initialization was done successfully.

### See also

- 187.7 WindowsUserNotification.Initialize

Created 3th April 2017, last changed 24th May 2017.

## 187.9 WindowsUserNotification.NewNotification

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.NewNotification" )

**Result** Returns OK or error.

### Description

Returns an identifier which must be passed to other functions and later to WindowsUserNotification.Release.

### Examples

Create new notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.NewNotification" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
Else
Set Field [ Windows User Notifications::ID; $r ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetImagePath"; Windows User Notifications::ID;
Windows User Notifications::ImagePath) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 0; Win-
dows User Notifications::Text1) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 1; Win-
dows User Notifications::Text2) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 2; Win-
dows User Notifications::Text3) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetText"; Windows User Notifications::ID; 3; Win-
dows User Notifications::Text4) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetScriptName"; Windows User Notifications::ID;
"Trigger" ) ]
Set Variable [ $r; Value:MBS( "WindowsUserNotification.SetFileName"; Windows User Notifications::ID;
Get(FileName)) ]
End If
```

### See also

- 127.6 IsError 6374
- 177.21 UserNotification.Release 8306
- 187.6 WindowsUserNotification.HideNotification 8854
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863

<i>187.9. WINDOWSUSERNOTIFICATION.NEWNOTIFICATION</i>	8859
• 187.13 WindowsUserNotification.SetScriptName	8864
• 187.14 WindowsUserNotification.SetText	8865
• 187.16 WindowsUserNotification.ShowNotification	8868

### **Example Databases**

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 187.10 WindowsUserNotification.Release

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.Release"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

### Description

This frees up memory used.

### Examples

Free notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.Release"; Windows User Notifications::ID ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
Set Field [ Windows User Notifications::ID; "" ]
```

### See also

- 177.21 UserNotification.Release 8306
- 187.1 WindowsUserNotification.Available 8849
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.15 WindowsUserNotification.Setting 8866

### Example Databases



187.10. *WINDOWSUSERNOTIFICATION.RELEASE*

8861

- Win Only/Windows User Notifications

Created 2nd April 2017, last changed 24th May 2017.

## 187.11 WindowsUserNotification.SetFileName

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.SetFileName"; Notification; Filename )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### Filename

The database file name where the script is located.

"test.fmp12"

**Result** Returns OK or error.

### Description

The parameter to the script includes a list of values. First entry in the list is the notification reference number. Second entry is the reason to call which can be Activated, Dismissed or Failed. Third value is reason for demission or error code for failure.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 187.12 WindowsUserNotification.SetImagePath

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.SetImagePath"; Notification; Path )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### Path

Native file path for the image.

"C:\MyApp\test.png"

**Result** Returns OK or error.

### Description

May not be a network path as system needs to load it independent of your permissions.

Maybe better use image coming with application or put one in temp folder.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.5 WindowsUserNotification.GetText 8853
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 17th August 2017.

## 187.13 WindowsUserNotification.SetScriptName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187 WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.SetScriptName"; Notification; ScriptName )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### ScriptName

The script name.

"MyScript"

**Result** Returns OK or error.

### Description

The parameter to the script includes a list of values. First entry in the list is the notification reference number. Second entry is the reason to call which can be Activated, Dismissed or Failed. Third value is reason for demission or error code for failure.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.4 WindowsUserNotification.GetScriptName 8852
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 24th May 2017.

## 187.14 WindowsUserNotification.SetText

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177	UserNotification	7.2	No	Yes	No	No

MBS( "WindowsUserNotification.SetText"; Notification; Index; Text )

### Parameters

#### Notification

The reference number for the Windows User Notification.

\$Notification

#### Index

The index of the text. Range 0 to 3.

0

#### Text

The text to use.

"Hello World"

**Result** Returns OK or error.

### Description

We can show up to three texts.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.9 WindowsUserNotification.NewNotification 8858
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.15 WindowsUserNotification.Setting 8866
- 187.17 WindowsUserNotification.XMLUsed 8869

### Example Databases

- [Win Only/Windows User Notifications](#)

Created 2nd April 2017, last changed 3th January 2018.

## 187.15 WindowsUserNotification.Setting

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	8.3	No	Yes	No	No	

MBS( "WindowsUserNotification.Setting" )

**Result** Returns value or error.

### Description

Gets a value that tells you whether there is an app, user, or system block that prevents the display of a notification.

If allowed, you get back "Enabled" as setting.

When notifications have been disabled at more than one level, this property value reflects the setting with the largest scope. Precedence is as follows, from largest scope to smallest:

DisabledByManifest  
 DisabledByGroupPolicy  
 DisabledForUser  
 DisabledForApplication

If toast notifications have been disabled both by the user and by group policy, this property returns DisabledByGroupPolicy.

### See also

- 187.2 WindowsUserNotification.GetFileName 8850
- 187.3 WindowsUserNotification.GetImagePath 8851
- 187.5 WindowsUserNotification.GetText 8853
- 187.7 WindowsUserNotification.Initialize 8855
- 187.10 WindowsUserNotification.Release 8860
- 187.11 WindowsUserNotification.SetFileName 8862
- 187.12 WindowsUserNotification.SetImagePath 8863
- 187.13 WindowsUserNotification.SetScriptName 8864
- 187.14 WindowsUserNotification.SetText 8865
- 187.17 WindowsUserNotification.XMLUsed 8869

### 187.15.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.3pr1](#)

Created 22nd May 2018, last changed 8th July 2018.

## 187.16 WindowsUserNotification.ShowNotification

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.ShowNotification"; Notification )

### Parameters

#### Notification

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns OK or error.

### Description

#### Examples

Show notification:

```
Set Variable [ $r; Value:MBS( "WindowsUserNotification.ShowNotification"; Windows User Notifications::ID) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $r ]
End If
```

### See also

- [127.6 IsError](#) 6374
- [187.6 WindowsUserNotification.HideNotification](#) 8854
- [187.9 WindowsUserNotification.NewNotification](#) 8858

### Example Databases

- [Win Only/Windows User Notifications](#)

### 187.16.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 2nd April 2017, last changed 24th May 2017.



**187.17 WindowsUserNotification.XMLUsed**

	Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker
187	WindowsUserNotification 177 UserNotification	7.2	No	Yes	No	No	

MBS( "WindowsUserNotification.XMLUsed"; Notification )

**Parameters****Notification**

The reference number for the Windows User Notification.  
\$Notification

**Result** Returns xml text or error.

**Description**

For debugging only.

**See also**

- 187.1 WindowsUserNotification.Available 8849
- 187.5 WindowsUserNotification.GetText 8853
- 187.10 WindowsUserNotification.Release 8860
- 187.14 WindowsUserNotification.SetText 8865
- 187.15 WindowsUserNotification.Setting 8866

Created 23th April 2017, last changed 24th May 2017.



# Chapter 188

## WindowTransition

Perform window effects like a cube rotation on Mac.

### 188.1 WindowTransition.Perform

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
188 WindowTransition	1.5	Yes	No	No	No	No

MBS( "WindowTransition.Perform"; Duration )

#### Parameters

##### Duration

the number of seconds for the transition to complete

#### Description

You first call WindowTransition.Prepare or WindowTransition.PrepareWindow to let the OS take screenshot of window or screen. Than you switch layout or window and make a script pause of maybe 0.1 seconds to have FileMaker redraw everything. Also you can call refresh window script step. Than you call WindowTransition.Perform to actually do the transition.

Not official supported by Apple and some effects don't work well on latest OS X versions!

#### See also

- 188.2 WindowTransition.Prepare 8872
- 188.3 WindowTransition.PrepareWindow 8874

Created 18th August 2014, last changed 4th February 2015.

## 188.2 WindowTransition.Prepare

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
188 WindowTransition	1.5	Yes	No	No	No	No

MBS( "WindowTransition.Prepare"; TransitionType; TransitionOption; HasBackGround; HasBackColor; Red; Green; Blue )

### Parameters

#### TransitionType

The transition type (see description above)

#### TransitionOption

Options for each transition (see description)

#### HasBackGround

If HasBackGround is true, a background is drawn behind the transition which may have a background color.

#### HasBackColor

Whether the background on the transition has a color.

#### Red

The RED value of the back ground

#### Green

The GREEN value of the back ground

#### Blue

The BLUE value of the back ground

### Description

You select which transition you would like to use by setting the Parameter "TransitionType" to one of the numbers listed here.

- 0 - No transition effect.
- 1 - Cross-fade
- 2 - Zoom/fade towards us.
- 3 - Reveal new desktop under old.
- 4 - Slide old out and new in.
- 5 - Warp old and fade out revealing new.
- 6 - Swap desktops over graphically.
- 7 - The well-known cube effect.
- 8 - Warp old, switch and un-warp.
- 9 - The flip effect known from Dashboard

You can set the direction of the transition by Setting the TransitionOption parameter as follows:

- 0 - Old window moves down.

- 1 - Old window moves left.
- 2 - Old window moves right.
- 3 - Swap: Old window moves into screen, new comes from right.
- 5 - Swap: Old window moves to bottom left, new comes from top right.
- 6 - Old window to bottom right, New from top left.
- 7 - Swap: Old window moves down, new from top right.
- 8 - Old window moves up.
- 9 - Old window moves top left.
- 10 - Swap: old to top right. new from bottom left.
- 11 - Swap: old desktop up, new from bottom right.
- 12 - Swap: old in, new from bottom.
- 13 - Swap: old one moves left, new from bottom right.
- 14 - Swap: old one moves right, new from bottom left.
- 15 - Swap: onl one in, new from bottom right.
- 16 - Swap: old in, new out.

The options Begininning with "Swap:" Apply only to the Swap transition.

NOTE! In order to have the transition correctly swap the old view for the new view you will need to arrange you FileMaker Script to do perform the following commands in this order:

Change window contents (ie go to layout, go to record) PrepareTransition Pause script (.01 seconds) PerformTransition

The pause script step is important. It allows FileMaker to draw the new contents.

**See also**

- 188.1 WindowTransition.Perform 8871
- 188.3 WindowTransition.PrepareWindow 8874

Created 18th August 2014, last changed 18th August 2014.

## 188.3 WindowTransition.PrepareWindow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
188 WindowTransition	1.5	Yes	No	No	No	No

MBS( "WindowTransition.PrepareWindow"; TransitionType; TransitionOption; HasBackGround; HasBackColor; Red; Green; Blue )

### Parameters

#### TransitionType

The transition type (see description)

#### TransitionOption

Options for each transition (see description)

#### HasBackGround

If HasBackGround is true, a background is drawn behind the transition which may have a background color.

#### HasBackColor

Whether the background on the transition has a color.

#### Red

The RED value of the back ground

#### Green

The GREEN value of the back ground

#### Blue

The BLUE value of the back ground

### Description

You select which transition you would like to use by setting the Parameter "TransitionType" to one of the numbers listed here.

- 0 - No transition effect.
  - 1 - Cross-fade
  - 2 - Zoom/fade towards us.
  - 3 - Reveal new desktop under old.
  - 4 - Slide old out and new in.
  - 5 - Warp old and fade out revealing new.
  - 6 - Swap desktops over graphically.
  - 7 - The well-known cube effect.
  - 8 - Warp old, switch and un-warp.
  - 9 - The flip effect known from Dashboard
- Add 128 for transparent background.

You can set the direction of the transition by Setting the TransitionOption parameter as follows:

- 0 - Old window moves down.
- 1 - Old window moves left.
- 2 - Old window moves right.
- 3 - Swap: Old window moves into screen, new comes from right.
- 5 - Swap: Old window moves to bottom left, new comes from top right.
- 6 - Old window to bottom right, New from top left.
- 7 - Swap: Old window moves down, new from top right.
- 8 - Old window moves up.
- 9 - Old window moves top left.
- 10 - Swap: old to top right. new from bottom left.
- 11 - Swap: old desktop up, new from bottom right.
- 12 - Swap: old in, new from bottom.
- 13 - Swap: old one moves left, new from bottom right.
- 14 - Swap: old one moves right, new from bottom left.
- 15 - Swap: onl one in, new from bottom right.
- 16 - Swap: old in, new out.

The options Beginning with "Swap:" Apply only to the Swap transition.

NOTE! In order to have the transition correctly swap the old view for the new view you will need to arrange you FileMaker Script to do perform the following commands in this order:

Change window contents (ie go to layout, go to record) PrepareTransition Pause script (.01 seconds) PerformTransition

The pause script step is important. It allows FileMaker to draw the new contents.

**See also**

- 188.1 WindowTransition.Perform 8871
- 188.2 WindowTransition.Prepare 8872

Created 18th August 2014, last changed 18th August 2014.





# Chapter 189

## WinSendMail

Send emails via mail client on Windows.

This can use Outlook or Thunderbird on Windows to send email with or without GUI. Using Messaging Application Programming Interface (MAPI)

See SendMail functions to send via CURL and SMTP server.

### 189.1 WinSendMail.AddAttachmentContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

```
MBS( "WinSendMail.AddAttachmentContainer"; WinSendMailRef; Container { ; Name } )
```

#### Parameters

##### WinSendMailRef

The email reference number obtained using WinSendMai.CreateEmail function.  
\$Email

##### Container

The container to attach to email.  
Attachment::Container

##### Name

Optional  
The name for the attachment. If empty, we use file name from container.  
"sample.pdf"

**Result** Returns OK or error.

#### Description

You can use `AddAttachment` several times to add several attachments.

For Outlook testing shows only one attachment works, while Thunderbird works with several attachments. Outlook also allows to pass no text and a html file as attachment to build a html email.

### Examples

Adds an image as attachment:

```
MBS( "WinSendMail.AddAttachmentFile"; $mail; myTable::myImage; "birthday.jpg" )
```

### See also

- 146.1 `SendMail.AddAttachmentContainer` 6989
- 146.2 `SendMail.AddAttachmentFile` 6992
- 189.2 `WinSendMail.AddAttachmentFile` 8879
- 189.3 `WinSendMail.AddAttachmentText` 8881

### Example Databases

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 25th November 2017.

## 189.2 WinSendMail.AddAttachmentFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddAttachmentFile"; WinSendMailRef; Path { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Path

The native file path to the file to include as attachment.

"c:\sample.pdf"

#### Name

Optional

The name for the attachment. If empty, we use file name from file path.

"sample.pdf"

**Result** Returns OK or error.

### Description

You can use AddAttachment several times to add several attachments.

For Outlook testing shows only one attachment works, while Thunderbird works with several attachments.

Outlook also allows to pass no text and a html file as attachment to build a html email.

### Examples

Adds an image as attachment:

MBS( "WinSendMail.AddAttachmentFile"; \$mail; "c:\temp\test.jpg"; "birthday.jpg" )

### See also

- 146.2 SendMail.AddAttachmentFile 6992
- 146.3 SendMail.AddAttachmentText 6995
- 189.1 WinSendMail.AddAttachmentContainer 8877
- 189.3 WinSendMail.AddAttachmentText 8881
- 189.8 WinSendMail.AttachmentCount 8890

### Example Databases

- [Win Only/Send Email via Email Application](#)

8880

*CHAPTER 189. WINSENDMAIL*

Created 28th February 2017, last changed 25th November 2017.

## 189.3 WinSendMail.AddAttachmentText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddAttachmentText"; WinSendMailRef; Value { ; Encoding } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Value

The text to use for the attachment.

"Hello World"

#### Encoding

Optional

The text encoding for text parameter. Default is UTF-8.

"UTF8"

**Result** Returns OK or error.

### Description

You can use AddAttachment several times to add several attachments.

For Outlook testing shows only one attachment works, while Thunderbird works with several attachments. Outlook also allows to pass no text and a html file as attachment to build a html email.

### Examples

Adds an attachment with text field:

MBS( "WinSendMail.AddAttachmentText"; \$Mail; MyTable::MyTextField; "UTF-8" )

### See also

- 146.2 SendMail.AddAttachmentFile 6992
- 146.3 SendMail.AddAttachmentText 6995
- 189.1 WinSendMail.AddAttachmentContainer 8877
- 189.2 WinSendMail.AddAttachmentFile 8879
- 189.8 WinSendMail.AttachmentCount 8890

Created 28th February 2017, last changed 25th November 2017.

## 189.4 WinSendMail.AddBCC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddBCC"; WinSendMailRef; Email { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Email

The email address of the recipient.

"SMTP:test@mbsplugins.de"

#### Name

Optional

Optional the name of the recipient.

"John Miller"

**Result** Returns OK or error.

### Description

See also WinSendMail.AddRecipient.

You can call this method several times to add several recipients.

Email addresses need to be prefixed with "SMTP:".

### Examples

Add BCC recipient:

MBS( "WinSendMail.AddBCC"; \$Mail; "test@test.test"; "Test Tester" )

### See also

- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.7 SendMail.AddRecipient 7003
- 189.5 WinSendMail.AddCC 8884
- 189.6 WinSendMail.AddRecipient 8886
- 189.7 WinSendMail.AddTo 8888

### Example Databases

- Win Only/Send Email via Email Application

Created 28th February 2017, last changed 21st September 2018.

## 189.5 WinSendMail.AddCC

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddCC"; WinSendMailRef; Email { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

#### Email

The email address of the recipient.  
"SMTP:test@mbsplugins.de"

#### Name

Optional  
Optional the name of the recipient.  
"John Miller"

**Result** Returns OK or error.

### Description

See also WinSendMail.AddRecipient.  
You can call this method several times to add several recipients.

Email addresses need to be prefixed with "SMTP:".

### Examples

Add CC recipient:

MBS( "WinSendMail.AddCC"; \$Mail; "test@test.test"; "Test Tester" )

### See also

- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.7 SendMail.AddRecipient 7003
- 189.4 WinSendMail.AddBCC 8882
- 189.6 WinSendMail.AddRecipient 8886
- 189.7 WinSendMail.AddTo 8888
- 189.11 WinSendMail.CreateEmail 8893



**Example Databases**

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 21st September 2018.

## 189.6 WinSendMail.AddRecipient

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddRecipient"; WinSendMailRef; Type; Email { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

#### Type

The type of recipient. Can be TO, BCC, CC or ReplyTo.  
"CC"

#### Email

The email address of the recipient.  
"SMTP:test@mbsplugins.de"

#### Name

Optional  
Optional the name of the recipient.  
"John Miller"

**Result** Returns OK or error.

### Description

This function can be used easily if the type is also a field in your database.

As an alternative you can of course also use WinSendMail.AddTo, WinSendMail.AddReplyTo, WinSendMail.AddCC or WinSendMail.AddBCC.

You can call this method several times to add several recipients.

Email addresses need to be prefixed with "SMTP:".

### See also

- 146.4 SendMail.AddBCC 6997
- 146.5 SendMail.AddCC 6999
- 146.7 SendMail.AddRecipient 7003
- 146.8 SendMail.AddReplyTo 7005
- 146.9 SendMail.AddTo 7006
- 189.4 WinSendMail.AddBCC 8882
- 189.5 WinSendMail.AddCC 8884

<i>189.6. WINSENDMAIL.ADDRECIPIENT</i>	8887
• 189.7 WinSendMail.AddTo	8888
• 189.10 WinSendMail.ClearRecipients	8892

Created 28th February 2017, last changed 21st September 2018.

## 189.7 WinSendMail.AddTo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AddTo"; WinSendMailRef; Email { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

#### Email

The email address of the recipient.  
"SMTP:test@mbsplugins.de"

#### Name

Optional  
Optional the name of the recipient.  
"John Miller"

**Result** Returns OK or error.

### Description

See also WinSendMail.AddRecipient.  
You can call this method several times to add several recipients.

Some mail clients (Outlook) may fail if name is missing.

This address is provider-specific message delivery data. Generally, the messaging system provides such addresses for inbound messages. For outbound messages, the Address member can point to an address entered by the user for a recipient not in an address book (that is, a custom recipient). The format of an address pointed to by the Address member is [ address type ] [ e-mail address ] . Examples of valid addresses are FAX:206-555-1212 and SMTP:M@X.COM.

### Examples

Add To recipient:

MBS( "WinSendMail.AddTo"; \$Mail; "test@test.test"; "Test Tester" )

### See also

- 146.7 SendMail.AddRecipient 7003
- 146.9 SendMail.AddTo 7006
- 189.4 WinSendMail.AddBCC 8882

189.7. <i>WINSENDMAIL.ADDTO</i>	8889
• 189.5 WinSendMail.AddCC	8884
• 189.6 WinSendMail.AddRecipient	8886
• 189.11 WinSendMail.CreateEmail	8893

### **Example Databases**

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 21st September 2018.

## 189.8 WinSendMail.AttachmentCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.AttachmentCount"; WinSendMailRef )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns number or error.

### Description

#### See also

- 146.10 SendMail.AttachmentCount 7008
- 189.2 WinSendMail.AddAttachmentFile 8879
- 189.3 WinSendMail.AddAttachmentText 8881

Created 28th February 2017, last changed 5th March 2017.

**189.9 WinSendMail.ClearAttachments**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.ClearAttachments"; WinSendMailRef )

**Parameters****WinSendMailRef**

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns OK or error.

**Description****See also**

- 146.11 SendMail.ClearAttachments 7009
- 189.10 WinSendMail.ClearRecipients 8892

Created 28th February 2017, last changed 5th March 2017.

## 189.10 WinSendMail.ClearRecipients

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.ClearRecipients"; WinSendMailRef )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns OK or error.

### Description

Removes all TO, CC, BCC and ReplyTO entries.

### See also

- 146.13 SendMail.ClearRecipients 7011
- 189.6 WinSendMail.AddRecipient 8886
- 189.9 WinSendMail.ClearAttachments 8891

Created 28th February 2017, last changed 5th March 2017.



## 189.11 WinSendMail.CreateEmail

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.CreateEmail" )

**Result** Returns email number or error.

### Description

The reference number returned by this function can be passed to other plugin functions for setting up the email.

Later use WinSendMail.Release to free memory.

SendMail reference numbers are starting at 67000 and counting up for each new email.

### Examples

Send an email with values from field:

```

Set Variable [ $email; Value:MBS( "WinSendMail.CreateEmail" ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.AddTo"; $email; Send::To Email ; Send::To Name ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.AddCC"; $email; Send::CC Email ; Send::CC Name ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.SetFrom"; $email; Send::From Email ; Send::From Name ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.SetSubject"; $email; Send::Subject ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.SetText"; $email; Send::Text ) ]
Set Variable [ $r; Value:MBS( "WinSendMail.Send"; $email ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ Title: "Failed to send email"; Message: $r; Default Button: "OK", Commit: "Yes";
Commit: "No" ]
Else
Pause/Resume Script [ Duration (seconds): 2 ]
End If
Set Variable [ $r; Value:MBS( "WinSendMail.Release"; $email ) ]

```

### See also

- 146.5 SendMail.AddCC 6999
- 146.14 SendMail.CreateEmail 7012
- 146.26 SendMail.Release 7026
- 146.27 SendMail.SetFrom 7027
- 189.5 WinSendMail.AddCC 8884
- 189.7 WinSendMail.AddTo 8888
- 189.14 WinSendMail.Release 8897
- 189.18 WinSendMail.SetFrom 8901

- 189.19 WinSendMail.SetSubject 8902
- 189.20 WinSendMail.SetText 8903

**Example Databases**

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 25th November 2019.

## 189.12 WinSendMail.GetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.GetSubject"; WinSendMailRef )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns text or error.

### Description

#### See also

- 146.24 SendMail.GetSubject 7023
- 146.36 SendMail.SetSubject 7043
- 189.13 WinSendMail.GetText 8896
- 189.19 WinSendMail.SetSubject 8902

Created 28th February 2017, last changed 5th March 2017.

## 189.13 WinSendMail.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.GetText"; WinSendMailRef )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns text or error.

### Description

#### See also

- 189.12 WinSendMail.GetSubject 8895
- 189.18 WinSendMail.SetFrom 8901
- 189.20 WinSendMail.SetText 8903

Created 28th February 2017, last changed 5th March 2017.

**189.14 WinSendMail.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.Release"; WinSendMailRef )

**Parameters****WinSendMailRef**

The email reference number obtained using WinSendMail.CreateEmail function.  
\$Email

**Result** Returns OK or error.

**Description****See also**

- 146.26 SendMail.Release 7026
- 189.11 WinSendMail.CreateEmail 8893

**Example Databases**

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 5th March 2017.

## 189.15 WinSendMail.Send

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.Send"; WinSendMailRef; Flags )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Flags

The flags. Add 1 to show no dialog. Add 2 to disable logon user interface. Add 4 to disable parent window.

**Result** Returns OK or error.

### Description

The email is sent using the locally installed mail client.  
Some email clients seem not to like more than one attachment.

With outlook you can keep text empty and attach a html file. Then Outlook will use the html file as content of the email and allows you to send html email.

Falls back to WinSendMail.SendAnsi if Unicode support is missing in older Windows versions.

Outlook loves to return failed, if you pass in email address for To/BCC/CC and no name.  
See WinSendMail.SendAsync for having a function which does not wait.

### See also

- 189.11 WinSendMail.CreateEmail 8893
- 189.16 WinSendMail.SendAnsi 8899
- 189.17 WinSendMail.SendAsync 8900

### Example Databases

- [Win Only/Send Email via Email Application](#)

#### 189.15.1 Blog Entries

- [MBS FileMaker Plugin, version 8.3pr6](#)

Created 28th February 2017, last changed 28th February 2019.

**189.16 WinSendMail.SendAnsi**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.SendAnsi"; WinSendMailRef; Flags )

**Parameters****WinSendMailRef**

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

**Flags**

The flags. Add 1 to show no dialog. Add 2 to disable logon user interface. Add 4 to disable parent window.

**Result** Returns OK or error.

**Description**

Same as WinSendMail.Send, but limited to Windows ANSI text encoding.

Use this only if unicode MAPI interface is not supported by an older email client.

**See also**

- 189.15 WinSendMail.Send 8898
- 189.17 WinSendMail.SendAsync 8900

Created 28th February 2017, last changed 15th April 2017.

## 189.17 WinSendMail.SendAsync

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	9.1	No	Yes	No	No	No

MBS( "WinSendMail.SendAsync"; WinSendMailRef; Flags )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Flags

The flags. Add 1 to show no dialog. Add 2 to disable logon user interface. Add 4 to disable parent window.

**Result** Returns OK or error.

### Description

The email is sent using the locally installed mail client. But this function does not wait for the result. Some email clients seem not to like more than one attachment.

With outlook you can keep text empty and attach a html file. Than Outlook will use the html file as content of the email and allows you to send html email.

Falls back to WinSendMail.SendAnsi if Unicode support is missing in older Windows versions.

Outlook loves to return failed, if you pass in email address for To/BCC/CC and no name.

### See also

- 189.15 WinSendMail.Send 8898
- 189.16 WinSendMail.SendAnsi 8899

### 189.17.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr5](#)

Created 28th February 2019, last changed 28th February 2019.



## 189.18 WinSendMail.SetFrom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.SetFrom"; WinSendMailRef; Email { ; Name } )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Email

The email address of the from field.

"test@mbsplugins.de"

#### Name

Optional

Optional the name of the from field. If this name contains special characters, it will be automatically encoded with UTF-8. Do not put an email address here!

"John Miller"

**Result** Returns OK or error.

### Description

### Examples

Sets the from address:

```
Set Variable [ $r; Value:MBS( "WinSendMail.SetFrom"; $email; Send::From Email ; Send::From Name ) ]
```

### See also

- 146.27 SendMail.SetFrom 7027
- 189.11 WinSendMail.CreateEmail 8893
- 189.13 WinSendMail.GetText 8896
- 189.20 WinSendMail.SetText 8903

### Example Databases

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 25th November 2019.

## 189.19 WinSendMail.SetSubject

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.SetSubject"; WinSendMailRef; Text )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Text

The new subject line.

"Hello World"

**Result** Returns OK or error.

### Description

### Examples

Set subject:

Set Variable [ \$r; Value:MBS( "WinSendMail.SetSubject"; \$email; Send::Subject ) ]

### See also

- 146.24 SendMail.GetSubject 7023
- 146.36 SendMail.SetSubject 7043
- 189.11 WinSendMail.CreateEmail 8893
- 189.12 WinSendMail.GetSubject 8895
- 189.20 WinSendMail.SetText 8903

### Example Databases

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 25th November 2019.

## 189.20 WinSendMail.SetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
189 WinSendMail	7.1	No	Yes	No	No	No

MBS( "WinSendMail.SetText"; WinSendMailRef; Text )

### Parameters

#### WinSendMailRef

The email reference number obtained using WinSendMail.CreateEmail function.

\$Email

#### Text

The new text.

"Hello World"

**Result** Returns OK or error.

### Description

You can use Text.MergeFields to replace placeholders with values from variables, fields and expressions.

### Examples

Set text:

Set Variable [ \$r; Value:MBS( "WinSendMail.SetText"; \$email; Send::Text) ]

### See also

- 167.46 Text.MergeFields 7967
- 189.11 WinSendMail.CreateEmail 8893
- 189.13 WinSendMail.GetText 8896
- 189.18 WinSendMail.SetFrom 8901
- 189.19 WinSendMail.SetSubject 8902

### Example Databases

- [Win Only/Send Email via Email Application](#)

Created 28th February 2017, last changed 25th November 2019.



# Chapter 190

## WMFP

The Windows Media Foundation Player can play audio and video independent of a container field.

Instead of using an interactive container field, you can play audio in background or video on your layout without putting a container field there.

See also AVPlayer functions for MacOS.

### 190.1 WMFP.Create

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.Create"; URL { ; WindowRef; ControlName } )

#### Parameters

##### URL

The URL for the video. See Path.FilePathToFileURL function to convert file path.

"file://C:/Users/Christian/Desktop/test.MOV"

##### WindowRef

Optional

Window Reference is the unique OS level window ID. You can obtain this by using the Window.FindByTitle or Window.FindByIndex functions. Pass zero to access the frontmost window.

0

##### ControlName

Optional

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a rectangle.

"mymedia"

**Result** Returns reference number or error.

### Description

The player can be audio only without showing in the layout or reference a layout object to play with video. The file is loaded asynchronously, so please wait a few milliseconds or check state later.

Use WMFP.Release later to destroy the video player.

Pass no window reference and no control name to create an audio player for background playback.

### Examples

Load video into new player:

```
# Create new player and load video
Set Variable [ $URL ; Value: MBS( "Path.FilePathToFileURL"; Windows Player::Path) ]
# Player is a rectangle on the layout
Set Variable [ $$player ; Value: MBS("WMFP.Create"; $URL; 0; "Player") ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Failed to load video" ; $$player ]
Set Variable [ $$player ; Value: "" ]
Else
# Little pause to let loading happen in background
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $r ; Value: MBS("WMFP.SetPlaybackEndedScriptTrigger"; $$player; Get(FileName); "Play-
back Done") ]
Set Variable [ $r ; Value: MBS("WMFP.Play"; $$player) ]
End If
```

### See also

- 127.6 IsError 6374
- 124.3 Path.FilePathToFileURL 6249
- 185.15 Window.FindByIndex 8686
- 185.16 Window.FindByTitle 8688
- 190.16 WMFP.Play 8922
- 190.17 WMFP.Release 8923
- 190.24 WMFP.SetPlaybackEndedScriptTrigger 8930

### Example Databases

- [Win Only/Windows Player](#)

### 190.1.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.2 WMFP.FrameStep

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.FrameStep"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

### Description

The player object does not support frame stepping during reverse playback (that is, while the playback rate is negative).

### Examples

Play one frame forward:

```
Set Variable [ $r; Value: MBS( "WMFP.FrameStep"; $$Player ) ]
```

Created 25th December 2019, last changed 26th December 2019.



**190.3 WMFP.GetBalance**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetBalance"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns number or error.

**Description**

Value is between -1 (left only) to +1 (right only)

**See also**

- 190.19 WMFP.SetBalance

8925

Created 25th December 2019, last changed 25th December 2019.

## 190.4 WMFP.GetDuration

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetDuration"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns number or error.

### Description

Returns duration of the video in seconds.

### Examples

Show position, duration and state:

```
Show Custom Dialog [ "Position" ; Round(MBS("WMFP.GetPosition"; $$player);1) &
" of " &
Round(MBS("WMFP.GetDuration"; $$player);1) &
"&
MBS("WMFP.GetState"; $$player) ]
```

### See also

- [190.9 WMFP.GetPosition](#) 8915
- [190.11 WMFP.GetState](#) 8917

### Example Databases

- [Win Only/Windows Player](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.5 WMFP.GetIdealVideoSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetIdealVideoSize"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns list or error.

### Description

The sizes where the video can be displayed without significantly degrading performance or image quality. Returns a list of values with minimum width, minimum height, maximum width and maximum height

### Examples

Query size:

MBS( "WMFP.GetIdealVideoSize"; \$\$Player )

Example result: 1

1

2826

1978

### See also

- 190.8 WMFP.GetNativeVideoSize

## 190.6 WMFP.GetLoop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.1	No	Yes	No	No	No

MBS( "WMFP.GetLoop"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns 0, 1 or error.

### Description

Returns 1 if looping or 0 if not.

### See also

- 190.22 WMFP.SetLoop

8928

### 190.6.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 23th February 2020, last changed 23th February 2020.

**190.7 WMFP.GetMute**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetMute"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns 1, 0 or error.

**Description**

Returns 1 if muted and 0 otherwise.

**See also**

- 190.10 WMFP.GetRate 8916
- 190.11 WMFP.GetState 8917
- 190.23 WMFP.SetMute 8929
- 190.26 WMFP.SetRate 8932

Created 25th December 2019, last changed 25th December 2019.

## 190.8 WMFP.GetNativeVideoSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetNativeVideoSize"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns list or error.

### Description

Returns a list with width and height in pixels, aspect ratio x & y.

### Examples

Query ideal size:

MBS( "WMFP.GetNativeVideoSize"; \$\$Player )

Example result: 568

320

71

40

### See also

- 190.5 WMFP.GetIdealVideoSize

8911

Created 25th December 2019, last changed 25th December 2019.

## 190.9 WMFP.GetPosition

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetPosition"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns number or error.

### Description

Returns value in seconds.

### Examples

Show position, duration and state:

```
Show Custom Dialog [ "Position" ; Round(MBS("WMFP.GetPosition"; $$player);1) &
" of " &
Round(MBS("WMFP.GetDuration"; $$player);1) &
"&
MBS("WMFP.GetState"; $$player) ]
```

### See also

- [190.4 WMFP.GetDuration](#) 8910
- [190.11 WMFP.GetState](#) 8917
- [190.25 WMFP.SetPosition](#) 8931

### Example Databases

- [Win Only/Windows Player](#)

Created 25th December 2019, last changed 25th December 2019.

**190.10 WMFP.GetRate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetRate"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

**Description****Examples**

Query rate:

Set Variable [ \$rate ; Value: MBS( "WMFP.GetRate"; \$Player ) ]

**See also**

- 190.7 WMFP.GetMute 8913
- 190.11 WMFP.GetState 8917
- 190.12 WMFP.GetTag 8918
- 190.23 WMFP.SetMute 8929
- 190.26 WMFP.SetRate 8932

Created 25th December 2019, last changed 26th December 2019.



## 190.11 WMFP.GetState

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetState"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns text or error.

### Description

State is Empty, Paused, Playing, Stopped or Shutdown.

### Examples

Show position, duration and state:

```
Show Custom Dialog [ "Position" ; Round(MBS("WMFP.GetPosition"; $$player);1) &
" of " &
Round(MBS("WMFP.GetDuration"; $$player);1) &
"&
MBS("WMFP.GetState"; $$player) ]
```

### See also

- [190.4 WMFP.GetDuration](#) 8910
- [190.7 WMFP.GetMute](#) 8913
- [190.9 WMFP.GetPosition](#) 8915
- [190.10 WMFP.GetRate](#) 8916
- [190.26 WMFP.SetRate](#) 8932

### Example Databases

- [Win Only/Windows Player](#)

### 190.11.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

**190.12 WMFP.GetTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetTag"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns the stored tag value or an error.

**Description****See also**

- 190.10 WMFP.GetRate 8916
- 190.27 WMFP.SetTag 8933

Created 25th December 2019, last changed 25th December 2019.

## 190.13 WMFP.GetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	No	No	No

MBS( "WMFP.GetVisible"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns 1, 0 or error.

### Description

Returns 1 if visible and 0 if hidden.

### See also

- 190.28 WMFP.SetVisible

8934

Created 25th December 2019, last changed 25th December 2019.

**190.14 WMFP.GetVolume**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.GetVolume"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

**Description**

Volume is expressed as an attenuation level, where 0.0 indicates silence and 1.0 indicates full volume (no attenuation).

**Examples**

Query volume:

Set Variable [ \$volume ; Value: MBS( "WMFP.GetVolume"; \$Player ) ]

**See also**

- 190.29 WMFP.SetVolume

8935

Created 25th December 2019, last changed 26th December 2019.

## 190.15 WMFP.Pause

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.Pause"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

### Description

While playback is paused, the most recent video frame is displayed, and audio is silent.

### Examples

Pause playback:

Set Variable [ \$r ; Value: MBS("WMFP.Pause"; \$\$player) ]

### Example Databases

- [Win Only/Windows Player](#)

### 190.15.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.16 WMFP.Play

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.Play"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

### Description

### Examples

Play video:

Set Variable [ \$r ; Value: MBS("WMFP.Play"; \$\$player) ]

### See also

- [190.1 WMFP.Create](#) 8905
- [190.30 WMFP.Stop](#) 8936

### Example Databases

- [Win Only/Windows Player](#)

### 190.16.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

**190.17 WMFP.Release**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.Release"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

**Description**

Will close the playing window and release all memory used by player.

**Examples**

Release old player:

```
If [ Length($$Player) >0 ]
Set Variable [ $r ; Value: MBS("WMFP.Release"; $$player) ]
Set Variable [ $$player ; Value: "" ]
End If
```

**See also**

- 104.16 LDAP.Release 5469
- 190.1 WMFP.Create 8905
- 194.30 XML.Release 9454

**Example Databases**

- [Win Only/Windows Player](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.18 WMFP.Screenshot

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.1	No	Yes	No	No	No

MBS( "WMFP.Screenshot" )

**Result** Returns container value or error.

### Description

Currently just takes screenshot from current playing video.  
You can store image in container.

### 190.18.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr1](#)

Created 16th January 2020, last changed 16th January 2020.



**190.19 WMFP.SetBalance**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetBalance"; Player; Value )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Value**

The new value.

0

**Result** Returns OK or error.

**Description**

The value can be any number in the following range (inclusive).

Value	Meaning
-1.0	The left channel is at full volume; the right channel is silent.
+1.0	The right channel is at full volume; the left channel is silent.

If the value is zero, the left and right channels are at equal volumes. The default value is zero.

**Examples**

Set balance to play only right speaker:

MBS( "WMFP.SetBalance"; \$\$Player; 1.0)

**See also**

- 190.3 WMFP.GetBalance

8909

**190.19.1 Blog Entries**

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 13th January 2020.

## 190.20 WMFP.SetBorder

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	No	No	No

MBS( "WMFP.SetBorder"; Player; Color )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### Color

A color value. This can be a string in the following format "HSL h s l a", "YUV y u v a", "RGB r g b a", "MONO m a", "GRAY g a" or "COLOR R G B a". Alpha value a is optional. Range of values is 0 to 1.0 except if you use COLOR where RGB values are 0 to 65535. Can use hex notation. # followed by 2 digits for red, green, blue and optional alpha, e.g. # FF0000 for full red.

"# FF0000"

**Result** Returns OK or error.

### Description

The border color is used to letterbox the video.

### Examples

Set border color:

```
MBS( "WMFP.SetBorder"; $$Player; "black")
```

Set border color to red:

```
MBS( "WMFP.SetBorder"; $$Player; "# FF0000")
```

### 190.20.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 26th December 2019.

## 190.21 WMFP.SetFrame

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetFrame"; Player; ControlName { ; DX; DY } )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### ControlName

The name of the control on your FileMaker form. For example "mymedia" if you assign this name to a media field. This is not the name of the field in the database!

"mymedia"

#### DX

Optional

A delta to move player more to left or right.

0

#### DY

Optional

A delta to move player more to top or bottom.

0

**Result** Returns OK or error.

### Description

If you moved control in layout mode, this can move the text view back to the new position.

Also useful to switch between different locations on the layout.

### See also

- 190.26 WMFP.SetRate

8932

### 190.21.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.22 WMFP.SetLoop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.1	No	Yes	No	No	No

MBS( "WMFP.SetLoop"; Player { ; Loop } )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### Loop

Optional

The new setting. Pass 1 to enable looping or 0 to disable. Default is 0.

1

**Result** Returns OK or error.

### Description

You can enable looping to automatically restart playback when file reached the end.

#### See also

- 190.6 WMFP.GetLoop

8912

### 190.22.1 Blog Entries

- [MBS FileMaker Plugin, version 10.1pr5](#)

Created 23th February 2020, last changed 23th February 2020.

**190.23 WMFP.SetMute**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetMute"; Player; Value )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Value**

The new setting. Pass 1 to mute or 0 to unmute.

1

**Result** Returns OK or error.

**Description**

Pass 1 to mute.

**Examples**

Disable sound:

```
Set Variable [ $r; Value: MBS( "WMFP.SetMute"; $$Player; 1 ) ]
```

Enable sound:

```
Set Variable [ $r; Value: MBS( "WMFP.SetMute"; $$Player; 0 ) ]
```

**See also**

- [190.7 WMFP.GetMute](#) 8913
- [190.10 WMFP.GetRate](#) 8916
- [190.26 WMFP.SetRate](#) 8932

**190.23.1 Blog Entries**

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 26th December 2019.

## 190.24 WMFP.SetPlaybackEndedScriptTrigger

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetPlaybackEndedScriptTrigger"; Player; FileName; ScriptName )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### FileName

The name of the FileMaker File that contains the script.

"test.fmp12"

#### ScriptName

The name of the script to run.

"MyScript"

**Result** Returns OK or error.

### Description

The given script is triggered when player reaches the end of the video.

Pass empty file and script name to clear.

**See also**

- [190.1 WMFP.Create](#)

8905

### Example Databases

- [Win Only/Windows Player](#)

### 190.24.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

**190.25 WMFP.SetPosition**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetPosition"; Player; Value )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Value**

The new position.

\$pos

**Result** Returns OK or error.

**Description**

Pass new position in seconds.

**Examples**

Jump 10 seconds forward:

```
Set Variable [ $r ; Value: MBS("WMFP.SetPosition"; $$player; 10 + MBS("WMFP.GetPosition"; $$player)) ]
```

Jump back to start:

```
Set Variable [ $r ; Value: MBS("WMFP.SetPosition"; $$player; 0) ]
```

**See also**

- [190.9 WMFP.GetPosition](#)

8915

**Example Databases**

- [Win Only/Windows Player](#)

Created 25th December 2019, last changed 25th December 2019.

## 190.26 WMFP.SetRate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetRate"; Player; Value )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### Value

The new rate.

1.0

**Result** Returns OK or error.

### Description

The playback rate is expressed as a ratio of the current rate to the normal rate. For example, 1.0 indicates normal playback, 0.5 indicates half speed, and 2.0 indicates twice speed. Positive values indicate forward playback, and negative values indicate reverse playback.

### Examples

Set to double speed:

```
Set Variable [ $r; Value: MBS( "WMFP.SetRate"; $$Player; 2 ) ]
```

### See also

- 190.7 WMFP.GetMute 8913
- 190.10 WMFP.GetRate 8916
- 190.11 WMFP.GetState 8917
- 190.21 WMFP.SetFrame 8927
- 190.23 WMFP.SetMute 8929
- 190.27 WMFP.SetTag 8933

### 190.26.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 26th December 2019.



**190.27 WMFP.SetTag**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetTag"; Player; Value )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Value**

The new value.

Get(RecordNumber)

**Result** Returns OK or error.

**Description**

Use the tag to store whatever value you want to associate with the text view. You can later query it using WMFP.GetTag.

**Examples**

Set tag:

```
MBS( "WMFP.SetTag"; $$Player; "Hello")
```

**See also**

- 190.12 WMFP.GetTag 8918
- 190.26 WMFP.SetRate 8932

Created 25th December 2019, last changed 25th December 2019.

## 190.28 WMFP.SetVisible

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	No	No	No

MBS( "WMFP.SetVisible"; Player; Visible )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

#### Visible

The new visible state. Pass 0 to hide or 1 to show.

1

**Result** Returns OK or error.

### Description

By default we create it visible, but you can hide it if it's on a register and the user clicked to other tab.

### Examples

Hide player, e.g. when switching layouts or registers:

```
Set Variable [ $r ; Value: MBS("WMFP.SetVisible"; $$player; 0) ]
```

Show player:

```
Set Variable [ $r ; Value: MBS("WMFP.SetVisible"; $$player; 1) ]
```

### See also

- [190.13 WMFP.GetVisible](#)

8919

### Example Databases

- [Win Only/Windows Player](#)

### 190.28.1 Blog Entries

- [Windows Media Foundation Player for FileMaker](#)

Created 25th December 2019, last changed 25th December 2019.

**190.29 WMFP.SetVolume**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.SetVolume"; Player )

**Parameters****Player**

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

**Description**

Volume is expressed as an attenuation level, where 0.0 indicates silence and 1.0 indicates full volume (no attenuation).

If you call this method before playback starts, the setting is applied after playback starts.

**Examples**

Set to volume to 50% :

Set Variable [ \$r; Value: MBS( "WMFP.SetVolume"; \$\$Player; 0.5 ) ]

**See also**

- 190.14 WMFP.GetVolume

8920

Created 25th December 2019, last changed 26th December 2019.

## 190.30 WMFP.Stop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	Yes, Windows only	No	No

MBS( "WMFP.Stop"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

### Description

#### Examples

Stop video:

```
Set Variable [ $r; Value: MBS( "WMFP.Stop"; $$Player ) ]
```

Play video:

```
Set Variable [ $r; Value: MBS( "WMFP.Play"; $$Player ) ]
```

### See also

- 190.16 WMFP.Play

8922

Created 25th December 2019, last changed 26th December 2019.

## 190.31 WMFP.UpdateVideo

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
190 WMFP	10.0	No	Yes	No	No	No

MBS( "WMFP.UpdateVideo"; Player )

### Parameters

#### Player

The reference number for the Windows Media Foundation Player object.

\$\$Player

**Result** Returns OK or error.

### Description

This function makes sure the video is updated now, not later.

### Examples

Update video now:

Set Variable [ \$r; Value: MBS( "WMFP.UpdateVideo"; \$\$Player ) ]

Created 25th December 2019, last changed 26th December 2019.



# Chapter 191

## WMIQuery

Query Windows Management Interface to learn about hardware and system configuration.

### 191.1 WMIQuery.Connect

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

```
MBS( "WMIQuery.Connect"; WMIQueryRef; NetworkResource { ; UserName; Password; Locale; Authority } )
```

#### Parameters

##### WMIQueryRef

The reference to the query. Create it with `WMIQuery.New` and destroy them with `WMIQuery.Release`.  
\$ref

##### NetworkResource

The path of the correct WMI namespace to connect to. For local access to the default namespace, use a simple object path: `"root\default"` or `"\\.\\.\root\default"`. For access to the default namespace on a remote computer using COM or Microsoft-compatible networking, include the computer name: `"\\myserver\root\default"`. The computer name also can be a DNS name or IP address. Starting with Windows Vista, Connect can connect with computers running IPv6 using an IPv6 address.

`"ROOT\CimV2"`

##### UserName

Optional

The user name you need for a connection. An empty value indicates the current security context. If the user name is from a domain different from the current domain, the string may contain the domain name and user name separated by a backslash.

##### Password

**Optional**

The password you need for a connection. An empty value indicates the current security context. A blank string "" specifies a valid zero-length password.

**Locale****Optional**

If empty, the current locale is used. If not empty, this parameter indicates the correct locale for information retrieval. For Microsoft locale identifiers, the format of the string is "MS\_XXX", where XXX is a string in hexadecimal form that indicates the Local Identification (LCID), for example, American English would appear as "MS\_409". If an invalid locale is specified, then the method returns "Invalid Parameter". Windows 7: If an invalid locale is specified, then the default locale of the server is used unless there is a server-supported locale provided by the user application.

**Authority****Optional**

This parameter contains the name of the domain of the user to authenticate. Authority can have the following values: Empty: If you leave this parameter blank, NTLM authentication is used and the NTLM domain of the current user is used. If the domain is specified in strUser, which is the recommended location, then it must not be specified here. Specifying the domain in both parameters results in an invalid parameter error. Kerberos:<principal name>Kerberos authentication is used and this parameter should contain a Kerberos principal name. NTLMDOMAIN:<domain name>NT LAN Manager authentication is used and this parameter should contain an NTLM domain name.

**Result** Returns OK or error.

**Description**

Connects through DCOM to a WMI namespace on the computer specified in the strNetworkResource parameter.

**Examples**

Connect locally:

```
MBS( "WMIQuery.Connect"; "ROOT\CimV2" )
```

Connect and Query:

```
Set Variable [ $q; Value:MBS("WMIQuery.New") ]
If [ MBS("IsError") = 0 ]
Set Field [ WMI Query::QueryID; $q ]
# connect to server
Set Variable [ $r; Value:MBS("WMIQuery.Connect"; $q; WMI Query::NetworkResource; WMI Query::User;
WMI Query::Password; WMI Query::Locale; WMI Query::Authority) ]
If [ MBS("IsError") = 0 ]
# run query
Set Variable [ $r; Value:MBS("WMIQuery.Query"; $q; WMI Query::Query) ]
If [ MBS("IsError") = 0 ]
# show result
Go to Related Record [ Show only related records; From table: "Result"; Using layout: "Result" (Result) ]
Go to Layout [ "Result" (Result) ]
```



```

Delete All Records [ No dialog ]
Loop
Set Variable [ $r; Value:MBS("WMIQuery.Next"; $q) ]
Exit Loop If [ $r "OK" ]
# show properties
Set Variable [ $Names; Value:MBS("WMIQuery.PropertyNames"; $q) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Query Error"; $r ]
Exit Script [ ]
Else
# loop properties
Set Variable [ $count; Value:ValueCount ( $Names ) ]
Set Variable [ $index; Value:1 ]
Loop
# property name, type and value
Set Variable [ $name; Value:GetValue($Names; $index) ]
Set Variable [ $type; Value:MBS("WMIQuery.PropertyType"; $q; $name) ]
Set Variable [ $value; Value:MBS("WMIQuery.PropertyValue"; $q; $name) ]
New Record/Request
Set Field [ Result::Name; $name ]
Set Field [ Result::Type; $type ]
Set Field [ Result::Text; $value ]
Set Field [ Result::QueryID; $q ]
Commit Records/Requests [ No dialog ]
# next
Set Variable [ $index; Value:$index +1 ]
Exit Loop If [ $index >$count ]
End Loop
End If
End Loop
Else
Show Custom Dialog [ "Query Error"; $r ]
End If
Else
Show Custom Dialog [ "Connect Error"; $r ]
End If
# cleanup
Set Variable [ $r; Value:MBS("WMIQuery.Release"; $q) ]
End If

```

**See also**

- 127.6 IsError 6374
- 191.2 WMIQuery.New 8943
- 191.3 WMIQuery.Next 8944
- 191.4 WMIQuery.PropertyNames 8945

- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948
- 191.8 WMIQuery.Release 8950

**Example Databases**

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 29th February 2016.

**191.2 WMIQuery.New**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.New" )

**Result** Returns reference number or error.

**Description****See also**

- 191.1 WMIQuery.Connect 8939
- 191.3 WMIQuery.Next 8944
- 191.4 WMIQuery.PropertyNames 8945
- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948
- 191.8 WMIQuery.Release 8950

**Example Databases**

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

### 191.3 WMIQuery.Next

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.Next"; WMIQueryRef )

#### Parameters

##### WMIQueryRef

The reference to the query. Create it with WMIQuery.New and destroy them with WMIQuery.Release.  
\$ref

**Result** Returns OK, End of list or error.

#### Description

Returns OK if we have a next one or "End of list" in case of end.

#### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.8 WMIQuery.Release 8950

#### Example Databases

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

## 191.4 WMIQuery.PropertyNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.PropertyNames"; WMIQueryRef )

### Parameters

#### WMIQueryRef

The reference to the query. Create it with WMIQuery.New and destroy them with WMIQuery.Release.  
\$ref

**Result** Returns list or error.

### Description

You can than use those names to query property types and values.

#### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.8 WMIQuery.Release 8950

### Example Databases

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

## 191.5 WMIQuery.PropertyType

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.PropertyType"; WMIQueryRef; Name )

### Parameters

#### WMIQueryRef

The reference to the query. Create it with WMIQuery.New and destroy them with WMIQuery.Release.  
\$ref

#### Name

The name of the property to query.  
"test"

**Result** Returns OK or error.

### Description

The type can be prefixed with "Array" for arrays.  
Common types include Null, Empty, Int32, Float64, Text and Boolean.

### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.4 WMIQuery.PropertyNames 8945
- 191.6 WMIQuery.PropertyValue 8947
- 191.8 WMIQuery.Release 8950

### Example Databases

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

## 191.6 WMIQuery.PropertyValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.PropertyValue"; WMIQueryRef; Name )

### Parameters

#### WMIQueryRef

The reference to the query. Create it with WMIQuery.New and destroy them with WMIQuery.Release.  
\$ref

#### Name

The name of the property to query.  
"test"

**Result** Returns OK or error.

### Description

The plugin returns text and number types as text or numbers.

Other data types are tried to convert to text.

A special handling is added for Arrays of Int32 and Text to return them as lists.

If you find an unsupported property type, please tell us, so we can add it here.

#### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.4 WMIQuery.PropertyNames 8945
- 191.5 WMIQuery.PropertyType 8946
- 191.8 WMIQuery.Release 8950

### Example Databases

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

## 191.7 WMIQuery.Query

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.Query"; WMIQueryRef; Query )

### Parameters

#### WMIQueryRef

The reference to the query. Create it with WMIQuery.New and destroy them with WMIQuery.Release.  
\$ref

#### Query

The query to run.

"SELECT \* FROM Win32\_Processor"

**Result** Returns OK or error.

### Description

Works in FileMaker 14, but fails in FileMaker 15/16 as MBS Plugin can't upgrade security to administrator and most system queries need permissions.

see also

[https://msdn.microsoft.com/en-us/library/aa392902\(v=vs.85\).aspx](https://msdn.microsoft.com/en-us/library/aa392902(v=vs.85).aspx)

### Examples

Query network adapters:

MBS( "WMIQuery.Query"; \$WMIQueryRef; "Select \* from Win32\_NetworkAdapter" )

Query details about operation system:

MBS( "WMIQuery.Query"; \$WMIQueryRef; "Select \* from Win32\_OperatingSystem" )

Query event log:

MBS( "WMIQuery.Query"; \$WMIQueryRef; "Select \* from Win32\_NTEventLogFile" )

### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.8 WMIQuery.Release 8950

### Example Databases



- *Win Only/WMI Query*

Created 22nd June 2015, last changed 19th October 2017.

## 191.8 WMIQuery.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
191 WMIQuery	5.2	No	Yes	Yes, Windows only	No	No

MBS( "WMIQuery.Release"; WMIQueryRef )

### Parameters

#### WMIQueryRef

The reference to the query. Create it with WMIQuery.New.  
\$ref

**Result** Returns OK or error.

### Description

#### See also

- 191.1 WMIQuery.Connect 8939
- 191.2 WMIQuery.New 8943
- 191.3 WMIQuery.Next 8944
- 191.4 WMIQuery.PropertyNames 8945
- 191.5 WMIQuery.PropertyType 8946
- 191.6 WMIQuery.PropertyValue 8947
- 191.7 WMIQuery.Query 8948

### Example Databases

- [Win Only/WMI Query](#)

Created 22nd June 2015, last changed 22nd June 2015.

# Chapter 192

## WordFile

Modify Word files.

Load a word file, replace tags with real values and save file.

### 192.1 WordFile.AddMediaFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	9.1	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.AddMediaFile"; WordFile; Name; Image )

#### Parameters

##### WordFile

The reference number of the open word file.

\$wordFile

##### Name

The name of the item to add.

"image1.jpeg"

##### Image

The container value with the image.

Test::MyImage

**Result** Returns OK or error.

#### Description

You can use this function to add a new image.

You need to add the reference in XML yourself to let the image appear somewhere in the document.

**See also**

- 192.8 WordFile.GetMediaFile 8960
- 192.11 WordFile.MediaFiles 8963
- 192.22 WordFile.SetMediaFile 8979

### 192.1.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr6](#)

Created 6th March 2019, last changed 6th March 2019.

## 192.2 WordFile.Append

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.Append"; WordFile; Other WordFile { ; AddPageBreak } )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Other WordFile

The reference number of the second word file.

\$wordFile2

#### AddPageBreak

Optional

Available in MBS FileMaker Plugin 9.2 or newer.

Whether to add a page break.

1

**Result** Returns OK or error.

### Description

This function takes document part from other word file and copies it's xml nodes to the current document. Please only copy from one document to other if they both are made from same template, so internal IDs for styles match.

### See also

- [192.3 WordFile.AppendTableRow](#) 8954
- [192.4 WordFile.DuplicateTableRow](#) 8956

### 192.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr4](#)
- [MBS FileMaker Plugin, version 7.5pr9](#)

Created 22nd November 2017, last changed 19th April 2019.

## 192.3 WordFile.AppendTableRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.AppendTableRow"; WordFile; Placeholder )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Placeholder

The name of the placeholder.

"City"

**Result** Returns OK or error.

### Description

If you have tables in your template word file and you like to duplicate rows and add them to the end of the table, just call this function with a placeholder field in that row. The place holder in the document must start with « and end with » characters.

Use WordFile.AppendTableRow to add new row to the end or WordFile.DuplicateTableRow to add it after the referenced one.

### Examples

Add two lines and remove template line:

```
# load from container
Set Variable [ $wordfile ; Value: MBS( "WordFile.OpenContainer"; WordFile::Input ) ]
If [ MBS("ISError") ]
Show Custom Dialog [ "Error" ; $wordFile ]
Exit Script [ Text Result: ]
End If
#
# add table row and fill in data
Set Variable [ $r ; Value: MBS( "WordFile.AppendTableRow"; $WordFile; "TName" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "TName"; "Brochure 123" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "TDescription"; "Restaurant Recommendations" ) ]
#
# add table row and fill in data
Set Variable [ $r ; Value: MBS( "WordFile.AppendTableRow"; $WordFile; "TName" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "TName"; "Brochure 456" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "TDescription"; "Hotel Recommendations" ) ]
#
```

```

# remove last row left
Set Variable [ $r ; Value: MBS( "WordFile.RemoveTableRow"; $WordFile; "TName" ) ]
#
# write to desktop
Set Variable [ $DesktopPath ; Value: MBS("Folders.UserDesktop") ]
Set Variable [ $FilePath ; Value: MBS( "Path.AddPathComponent"; $DesktopPath; "test output.docx" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.WriteFile"; $WordFile; $FilePath ) ]
Set Variable [ $r ; Value: MBS( "Files.LaunchFile"; $FilePath ) ]
# clean up
Set Variable [ $r ; Value: MBS("WordFile.Release"; $WordFile) ]

```

**See also**

- [79.35 Files.Launch](#) 3877
- [79.36 Files.LaunchFile](#) 3880
- [82.8 Folders.UserDesktop](#) 4235
- [127.6 IsError](#) 6374
- [124.1 Path.AddPathComponent](#) 6243
- [192.2 WordFile.Append](#) 8953
- [192.4 WordFile.DuplicateTableRow](#) 8956
- [192.12 WordFile.OpenContainer](#) 8964
- [192.17 WordFile.RemoveTableRow](#) 8971
- [192.18 WordFile.ReplaceTag](#) 8973

**Example Databases**

- [WordFile/WordFile](#)

**192.3.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.1pr1](#)

## 192.4 WordFile.DuplicateTableRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.DuplicateTableRow"; WordFile; Placeholder )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Placeholder

The name of the placeholder.

"City"

**Result** Returns OK or error.

### Description

If you have tables in your template word file and you like to duplicate rows in place, just call this function with a placeholder field in that row.

Use WordFile.AppendTableRow to add new row to the end or WordFile.DuplicateTableRow to add it after the referenced one.

### See also

- 192.2 WordFile.Append 8953
- 192.3 WordFile.AppendTableRow 8954

### 192.4.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 26th January 2017, last changed 26th January 2017.



## 192.5 WordFile.FieldNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.FieldNames"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.  
\$wordFile

**Result** Returns list or error.

### Description

This looks for form fields in a word file.

### Example Databases

- [WordFile/WordFile Fields](#)

### 192.5.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr8](#)

Created 15th November 2017, last changed 15th November 2017.

## 192.6 WordFile.GetCaseless

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.GetCaseless"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.  
\$wordFile

**Result** Returns 1, 0 or error.

### Description

### See also

- 192.19 WordFile.SetCaseless

8976

### 192.6.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 18th August 2017, last changed 18th August 2017.

## 192.7 WordFile.GetFieldText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.GetFieldText"; WordFile; FieldName )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### FieldName

The name of the field.

"Name"

**Result** Returns text or error.

### Description

The plugin looks for the field with given name and queries it's text.

Returns true if field was found.

### See also

- [192.20 WordFile.SetFieldText](#)

8977

### Example Databases

- [WordFile/WordFile Fields](#)

### 192.7.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr8](#)

Created 15th November 2017, last changed 15th November 2017.

## 192.8 WordFile.GetMediaFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.GetMediaFile"; WordFile; Name )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Name

The name of the item to query.

"image1.jpeg"

**Result** Returns container value or error.

### Description

Returns the images, so you can put them into a container.

### Examples

Extract image from word file:

```
Set Variable [ $w; Value:MBS( "WordFile.OpenContainer"; WordTest::wordfile ) ]
Set Variable [ $r; Value:MBS( "WordFile.GetMediaFile"; $w; "image1.jpeg" ) ]
Set Field [ WordTest::image; $r ]
Set Variable [ $r; Value:MBS( "WordFile.Release"; $w ) ]
```

### See also

- [192.1 WordFile.AddMediaFile](#) 8951
- [192.11 WordFile.MediaFiles](#) 8963
- [192.12 WordFile.OpenContainer](#) 8964
- [192.16 WordFile.Release](#) 8970
- [192.22 WordFile.SetMediaFile](#) 8979

### 192.8.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr6](#)

Created 6th July 2016, last changed 6th July 2016.

## 192.9 WordFile.GetXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.GetXML"; WordFile { ; Part } )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Part

Optional

The name of the part to query. See WordFile.Parts for a list of parts. if no part is given, we use the document.

"document"

**Result** Returns xml text or error.

### Description

Getting the raw xml allows you to make modification yourself like adding paragraphs or a table.

### Examples

Query XML of first footer:

```
MBS( "WordFile.GetXML"; $wordFile; "footer1" )
```

Query document relations:

```
MBS( "WordFile.GetXML"; $WordFile; "document.xml.rels")
```

### See also

- [192.15 WordFile.Parts](#) 8969
- [192.18 WordFile.ReplaceTag](#) 8973
- [192.23 WordFile.SetXML](#) 8981

### 192.9.1 Blog Entries

- [MBS FileMaker Plugin, version 9.5pr7](#)
- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 15th March 2016, last changed 6th November 2019.

## 192.10 WordFile.HasTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.HasTag"; WordFile; Placeholder )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Placeholder

The name of the placeholder.

"City"

**Result** Returns 1 or 0 or error.

### Description

The place holder in the document must start with « and end with » characters. The place holder you pass here, should not have those quotes.

If you change font or style of the text within the marker, it will not be recognized. So please keep all text between and including the « and » markers (or whatever is configured) within the same font style.

### Examples

Checks for a tag city:

```
Set Variable [ $r; Value:MBS("WordFile.HasTag"; $WordFile; "City") ]
```

Created 5th November 2015, last changed 2nd May 2018.

## 192.11 WordFile.MediaFiles

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.MediaFiles"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

**Result** Returns list or error.

### Description

This may include jpeg and png files.

### Examples

Check what media files exist in a word file:

```
Set Variable [ $w; Value:MBS( "WordFile.OpenContainer"; WordTest::wordfile ) ]
```

```
Set Variable [ $r; Value:MBS( "WordFile.MediaFiles"; $w ) ]
```

```
Set Variable [ $r; Value:MBS( "WordFile.Release"; $w ) ]
```

### See also

- [192.1 WordFile.AddMediaFile](#) 8951
- [192.8 WordFile.GetMediaFile](#) 8960
- [192.12 WordFile.OpenContainer](#) 8964
- [192.16 WordFile.Release](#) 8970
- [192.22 WordFile.SetMediaFile](#) 8979

### Example Databases

- [WordFile/WordFile Image](#)

#### 192.11.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr6](#)

Created 6th July 2016, last changed 6th July 2016.

## 192.12 WordFile.OpenContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.OpenContainer"; Container )

### Parameters

#### Container

The container value containing the word file.

MyTable::MyContainerField

**Result** Returns reference number or error.

### Description

Can be a docx or a xml file.

Reference numbers for WordFiles start at 46000.

Does not work for old .doc files!

May break if newer versions of Microsoft Word or Office change the docx file format.

### Examples

Open from container:

```
# load from container
Set Variable [ $wordfile; Value:MBS( "WordFile.OpenContainer"; WordFile::Input ) ]
# later clean up
Set Variable [ $r; Value:MBS("WordFile.Release"; $WordFile) ]
```

Open word file and extract text:

```
Set Variable [ $w; Value:MBS( "WordFile.OpenContainer"; Extract text from Word file::WordFile ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to read word file"; $w ]
Exit Script [ ]
End If
Set Field [ Extract text from Word file::Text; MBS( "WordFile.Texts"; $w ) ]
Set Variable [ $r; Value:MBS( "WordFile.Release"; $w ) ]
```

### See also

- 127.6 IsError 6374
- 136.18 QTMovie.OpenContainer 6709
- 54.23 UnZipFile.OpenContainer 1534
- 192.3 WordFile.AppendTableRow 8954



<i>192.12. WORDFILE.OPENCONTAINER</i>	8965
• 192.8 WordFile.GetMediaFile	8960
• 192.11 WordFile.MediaFiles	8963
• 192.16 WordFile.Release	8970
• 192.18 WordFile.ReplaceTag	8973
• 192.22 WordFile.SetMediaFile	8979
• 192.24 WordFile.Texts	8982

### **Example Databases**

- [WordFile/Extract text from Word file](#)
- [WordFile/WordFile Fields](#)
- [WordFile/WordFile Image](#)
- [WordFile/WordFile](#)

#### **192.12.1 FileMaker Magazin**

- Ausgabe 6/2016, Seite 38

Created 5th November 2015, last changed 16th November 2019.

## 192.13 WordFile.OpenFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.OpenFile"; Path )

### Parameters

#### Path

The file path for the word file.

"C:\test\test.docx"

**Result** Returns reference number or error.

### Description

Can be a docx or a xml file.

Reference numbers for WordFiles start at 46000.

Does not work for old .doc files!

May break if newer versions of Microsoft Word or Office change the docx file format.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Opens file:

```
Set Variable [ $WordFile; Value:MBS("WordFile.OpenFile"; "/Users/cs/Desktop/Test1.xml") ]
```

Opens a docx file:

```
Set Variable [ $WordFile; Value:MBS("WordFile.OpenFile"; "/Users/cs/Desktop/Test.docx") ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 54.24 UnZipFile.OpenFile 1535
- 192.14 WordFile.OpenText 8968
- 192.25 WordFile.WriteFile 8984

### 192.13.1 FileMaker Magazin

- Ausgabe 6/2016, Seite 38

Created 5th November 2015, last changed 16th November 2019.

## 192.14 WordFile.OpenText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.OpenText"; XML )

### Parameters

#### XML

The xml text.

**Result** Returns reference number or error.

### Description

Can be a xml file stored in a text.

Reference numbers for WordFiles start at 46000.

May break if newer versions of Microsoft Word or Office change the docx file format.

### See also

- 192.13 WordFile.OpenFile

8966

Created 5th November 2015, last changed 16th November 2019.

## 192.15 WordFile.Parts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.Parts"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

**Result** Returns list or error.

### Description

This may tell you how many headers/footers we found in a docx file.

### Examples

Query parts of document:

MBS( "WordFile.Parts"; \$wordFile )

### See also

- [192.9 WordFile.GetXML](#) 8961
- [192.23 WordFile.SetXML](#) 8981
- [192.24 WordFile.Texts](#) 8982

### 192.15.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr4](#)

Created 6th April 2016, last changed 6th April 2016.

## 192.16 WordFile.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.Release"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

**Result** Returns OK or error.

### Description

### Examples

Releases a word file:

```
Set Variable [ $r; Value:MBS("WordFile.Release"; $WordFile) ]
```

### See also

- 192.3 WordFile.AppendTableRow 8954
- 192.8 WordFile.GetMediaFile 8960
- 192.11 WordFile.MediaFiles 8963
- 192.12 WordFile.OpenContainer 8964
- 192.18 WordFile.ReplaceTag 8973
- 192.22 WordFile.SetMediaFile 8979
- 192.24 WordFile.Texts 8982

### Example Databases

- [WordFile/Extract text from Word file](#)
- [WordFile/WordFile Fields](#)
- [WordFile/WordFile Image](#)
- [WordFile/WordFile](#)

### 192.16.1 FileMaker Magazin

- Ausgabe 6/2016, Seite 39

Created 5th November 2015, last changed 5th November 2015.

## 192.17 WordFile.RemoveTableRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.RemoveTableRow"; WordFile; Placeholder )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Placeholder

The name of the placeholder.

"City"

**Result** Returns OK or error.

### Description

If you have tables in your template word file and you only fill some rows, you can remove superfluous rows using this function.

### Examples

Remove extra rows

```
Set Variable [ $index; Value:5 ]
```

```
Loop
```

```
Set Variable [ $r; Value:MBS( "WordFile.RemoveTableRow"; $WordFile; "Bst_Menge_" & If($index <10; "0"; "") & $index) ]
```

```
Set Variable [ $r; Value:MBS( "WordFile.RemoveTableRow"; $WordFile; "Bst_Bemerkung_" & If($index <10; "0"; "") & $index) ]
```

```
Set Variable [ $index; Value:$index + 1 ]
```

```
Exit Loop If [ $index >20 ]
```

```
End Loop
```

### See also

- [192.3 WordFile.AppendTableRow](#)

8954

### Example Databases

- [WordFile/WordFile](#)

#### 192.17.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 20th December 2016, last changed 20th December 2016.



## 192.18 WordFile.ReplaceTag

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.ReplaceTag"; WordFile; Placeholder { ; Text; All } )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Placeholder

The name of the placeholder.

In plugin version 7.4 and newer case insensitive for ASCII characters.

"City"

#### Text

Optional

The new text. Should not contain newline characters.

"New York"

#### All

Optional

Pass 1 to replace all placeholders with same text.

1

**Result** Returns OK or error.

### Description

The place holder in the document must start with « and end with » characters. The place holder you pass here, should not have those quotes.

If you need to replace multi line text like addresses, please use several placeholders, at least one per line. Or for newer plugin pass text with new lines, but that will only work for main text and not headers.

If you need to insert multiple entries, you can do this:

Ask the plugin for the XML of the document via WordFile.GetXML. Split the XML into the part before your template line, the template and the xml after. Your line probably is wrapped between a <p>and </p>. Now you can build a new XML with your content and repeat the template part with new text as often as needed. Than pass back the XML to the plugin via WordFile.SetXML.

Version 7.0 and newer can handle multi line text better for normal paragraphs. It creates for you new paragraphs for each line in the new text.

If you change font or style of the text within the marker, it will not be recognized. So please keep all text between and including the « and » markers (or whatever is configured) within the same font style.

**Examples**

Replaces placeholder with text:

```
Set Variable [ $r; Value:MBS("WordFile.ReplaceTag"; $WordFile; "City"; "Nickenich") ]
```

Replaces all placeholder with text:

```
Set Variable [ $r; Value:MBS("WordFile.ReplaceTag"; $WordFile; "City"; "Nickenich"; 1) ]
```

Replace some tags:

```
# load from container
Set Variable [ $wordfile ; Value: MBS( "WordFile.OpenContainer"; WordFile::Input ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $wordFile ]
Exit Current Script [ Result: ]
End If
# replace placeholders from one record
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "FG_Nr"; WordFile::FG_Nr.) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "P_Name"; WordFile::P_Name) ]
Set Variable [ $r ; Value: MBS( "WordFile.ReplaceTag"; $WordFile; "P_Vorname"; WordFile::P_Vorname) ]
]
# write to desktop
Set Variable [ $DesktopPath ; Value: MBS("Folders.UserDesktop") ]
Set Variable [ $FilePath ; Value: MBS( "Path.AddPathComponent"; $DesktopPath; "test output.docx" ) ]
Set Variable [ $r ; Value: MBS( "WordFile.WriteFile"; $WordFile; $FilePath ) ]
Set Variable [ $r ; Value: MBS( "Files.LaunchFile"; $FilePath ) ]
# clean up
Set Variable [ $r ; Value: MBS("WordFile.Release"; $WordFile) ]
```

**See also**

- 79.35 Files.Launch 3877
- 79.36 Files.LaunchFile 3880
- 82.8 Folders.UserDesktop 4235
- 127.6 IsError 6374
- 124.1 Path.AddPathComponent 6243
- 192.3 WordFile.AppendTableRow 8954
- 192.12 WordFile.OpenContainer 8964
- 192.16 WordFile.Release 8970
- 192.23 WordFile.SetXML 8981

192.18. WORDFILE.REPLACETAG

8975

- 192.25 WordFile.WriteFile

8984

## Example Databases

- [WordFile/WordFile](#)

### 192.18.1 Blog Entries

- [MBS FileMaker Plugin, version 9.4pr5](#)
- [MBS FileMaker Plugin, version 9.2pr2](#)
- [MBS FileMaker Plugin, version 7.4pr3](#)
- [MBS FileMaker Plugin, version 7.2pr1](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)

### 192.18.2 FileMaker Magazin

- Ausgabe 6/2016, Seite 39

Created 5th November 2015, last changed 6th September 2019.

## 192.19 WordFile.SetCaseless

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.SetCaseless"; WordFile; Mode )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Mode

The new mode. Pass 1 to compare caseless. Pass 0 to compare case insensitive. (Default)

1

**Result** Returns OK or error.

### Description

This enables you to make the text comparison case insensitive for comparing ASCII characters.

### Examples

Set case insensitive:

MBS( "WordFile.SetCaseless"; \$WordFile; 1 )

### See also

- 192.6 WordFile.GetCaseless 8958
- 192.21 WordFile.SetMarkers 8978

### 192.19.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr3](#)

Created 18th August 2017, last changed 18th August 2017.

## 192.20 WordFile.SetFieldText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	7.5	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.SetFieldText"; WordFile; FieldName; FieldText )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### FieldName

The name of the field.

"Name"

#### FieldText

The new field text.

"Hello"

**Result** Returns OK or error.

### Description

The plugin looks for the field with given name and sets it's text.

Returns true if field was found.

### Examples

Set a field value:

```
Set Variable [ $r; Value: MBS( "WordFile.SetFieldText"; $WordFile; "subject"; "Hello World" ) ]
```

### See also

- [192.7 WordFile.GetFieldText](#)

8959

### Example Databases

- [WordFile/WordFile Fields](#)

### 192.20.1 Blog Entries

- [MBS FileMaker Plugin, version 7.5pr8](#)

Created 15th November 2017, last changed 25th November 2019.

## 192.21 WordFile.SetMarkers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.SetMarkers"; WordFile; OpenMarker; CloseMarker )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### OpenMarker

The new marker to search before tag.

"«"

#### CloseMarker

The new end marker.

"»"

**Result** Returns 1, 0 or error.

### Description

Default are « and ».

Should be different and not empty.

Returns 1 on success or 0 on failure.

Please don't use < or > for markers as those conflict with XML structure.

### See also

- 192.19 WordFile.SetCaseless

8976

### 192.21.1 Blog Entries

- [MBS FileMaker Plugin, version 9.2pr1](#)

Created 23th June 2016, last changed 31st December 2016.

## 192.22 WordFile.SetMediaFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.3	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.SetMediaFile"; WordFile; Name; Image )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Name

The name of the item to change.

"image1.jpeg"

#### Image

The container value with the image.

Test::MyImage

**Result** Returns OK or error.

### Description

You can use this function to replace a placeholder image with a new image.

Please make sure the new image has same dimensions and same file type as the original one.

### Examples

Replace image:

```
Set Variable [ $w; Value:MBS( "WordFile.OpenContainer"; WordTest::wordfile ) ]
Set Variable [ $r; Value:MBS( "WordFile.SetMediaFile"; $w; "image1.jpeg"; WordTest::image ) ]
Set Variable [ $r; Value:MBS( "WordFile.WriteFile"; $w; "/Users/cs/Desktop/output.docx" ) ]
Set Variable [ $r; Value:MBS( "WordFile.Release"; $w ) ]
```

### See also

- 192.1 WordFile.AddMediaFile 8951
- 192.8 WordFile.GetMediaFile 8960
- 192.11 WordFile.MediaFiles 8963
- 192.12 WordFile.OpenContainer 8964
- 192.16 WordFile.Release 8970
- 192.25 WordFile.WriteFile 8984

### Example Databases

- [WordFile/WordFile Image](#)

### 192.22.1 Blog Entries

- [MBS FileMaker Plugin, version 6.3pr6](#)

Created 6th July 2016, last changed 6th March 2019.



## 192.23 WordFile.SetXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.SetXML"; WordFile; XML { ; Part } )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### XML

The XML content for the word file.

#### Part

Optional

The name of the part to query. See WordFile.Parts for a list of parts. if no part is given, we use the document.

"document"

**Result** Returns OK or error.

### Description

#### See also

- 192.9 WordFile.GetXML 8961
- 192.15 WordFile.Parts 8969
- 192.18 WordFile.ReplaceTag 8973

### 192.23.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr1](#)

Created 15th March 2016, last changed 6th April 2016.

## 192.24 WordFile.Texts

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.Texts"; WordFile )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

**Result** Returns text or error.

### Description

Plugin inserts a few newline characters for detected line ends.

May not give all text. If you miss something, please send us test files.

### Examples

Extracts text:

```
Set Field [ WordFiles::Texts; MBS("WordFile.Texts"; $WordFile) ]
```

Open word file and extract text:

```
Set Variable [ $w; Value:MBS( "WordFile.OpenContainer"; Extract text from Word file::WordFile ) ]
If [ MBS("iserror") ]
Show Custom Dialog [ "Failed to read word file"; $w ]
Exit Script [ ]
End If
Set Field [ Extract text from Word file::Text; MBS( "WordFile.Texts"; $w ) ]
Set Variable [ $r; Value:MBS( "WordFile.Release"; $w ) ]
```

### See also

- 127.6 IsError 6374
- 141.22 RichText.Text 6855
- 192.12 WordFile.OpenContainer 8964
- 192.15 WordFile.Parts 8969
- 192.16 WordFile.Release 8970

### Example Databases

- [WordFile/Extract text from Word file](#)

### 192.24.1 FileMaker Magazin

- Ausgabe 6/2016, Seite 38

Created 5th November 2015, last changed 19th January 2018.

## 192.25 WordFile.WriteFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
192 WordFile	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "WordFile.WriteFile"; WordFile; Path )

### Parameters

#### WordFile

The reference number of the open word file.

\$wordFile

#### Path

The native file path.

"C:\Test\test.docx"

**Result** Returns OK or error.

### Description

File extension should be correct, either docx or xml depending on what you loaded. May break if newer versions of Microsoft Word or Office change the docx file format.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Writes a DocX file:

```
Set Variable [ $r; Value:MBS("WordFile.WriteFile"; $WordFile; "/Users/cs/Desktop/TestOutput.docx") ]
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 192.3 WordFile.AppendTableRow 8954
- 192.13 WordFile.OpenFile 8966
- 192.18 WordFile.ReplaceTag 8973
- 192.22 WordFile.SetMediaFile 8979
- 54.41 ZipFile.WriteFile 1557

### Example Databases

- [WordFile/WordFile Fields](#)

- [WordFile/WordFile Image](#)
- [WordFile/WordFile](#)

### **192.25.1 FileMaker Magazin**

- Ausgabe 6/2016, Seite 39

Created 5th November 2015, last changed 16th November 2019.



# Chapter 193

## XL

Read and Write Excel files.

You can import or export data from/to XML files in old (xls) or new format (xlsx). Requires LibXL License (not included in MBS Plugin license)

### 193.1 XL.Book.AddCustomNumFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.AddCustomNumFormat"; bookRef; format )

#### Parameters

##### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

##### format

The format string.  
"# .000"

**Result** Returns number or error.

#### Description

The format string customNumFormat indicates how to format and render the numeric value of a cell. Returns the custom format identifier. It's used in XL.Format\_setNumFormat.

Read website for details:

<http://www.libxl.com/custom-format.html>

#### Examples

Create Excel file with some date value:

```

# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create date format
Set Variable [ $dateFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $dateFormatID; Value:MBS( "XL.Book.AddCustomNumFormat"; $book; "mmmm\d\,yyyy" ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $dateFormat; $dateFormatID ) ]
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
# Write date
Set Variable [ $d; Value:MBS( "XL.Date.Pack"; $book; 2013; 10; 21 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 4; 4; $d; $dateFormat ) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]

```

Add american phone number formatting:

```

Set Variable [ $f; Value:MBS( "XL.Book.AddCustomNumFormat"; $book; " [ <=9999999 ] # # # \-# # # # ;\(# # # \)\# # # \-# # # # " ) ]

```

Add dollar amount formatting:

```

Set Variable [ $f; Value:MBS( "XL.Book.AddCustomNumFormat"; $book; "_($ # # # 0.00_);_($ (# # # 0.00);_($* -??_);_(@)" ) ]

```

Add a custom format with condition:

```

# define custom number format
#
Set Variable [ $customFormat ; Value: MBS( "XL.Book.AddCustomNumFormat"; $book; " [ Red ] # [ <=100 ] ; [ Blue ] # [ >100 ] " ) ]
#
# make format
#
Set Variable [ $textFormat ; Value: MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetNumFormat"; $book; $textFormat; $customFormat ) ]
#
# add sheet and use format:
#
Set Variable [ $sheet ; Value: MBS( "XL.book.AddSheet"; $book; "" ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 8; 1; 90; $textFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 8; 1; 110; $textFormat ) ]

```

Format dollar with CAD before:

```

MBS( "XL.Book.AddCustomNumFormat"; $book; "\"CAD\"$# ,## 0.00;\\"CAD-$\"# ,## 0.00;\\"CAD

```



193.1. *XL.BOOK.ADDCUSTOMNUMFORMAT* 8989  
\$\"0.00;@")

**See also**

- 193.3 *XL.Book.AddFormat* 8992
- 193.6 *XL.Book.AddSheet* 8998
- 193.8 *XL.Book.CustomNumFormat* 9001
- 193.27 *XL.Book.Release* 9022
- 193.29 *XL.Book.Save* 9025
- 193.48 *XL.Date.Pack* 9051
- 193.111 *XL.Format.SetNumFormat* 9133
- 193.119 *XL.LoadBook* 9150
- 193.121 *XL.NewBook* 9155
- 193.174 *XL.Sheet.CellWriteNumber* 9243

**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 12nd June 2018.

## 193.2 XL.Book.AddFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.AddFont"; bookRef { ; initFont } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### initFont

Optional

The index of an existing font which you want to use as a template.

0

**Result** Returns new font index or error.

### Description

### Examples

Create a font:

```
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
```

### See also

- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.62 XL.Font.SetName 9069
- 193.64 XL.Font.SetSize 9072
- 193.91 XL.Format.SetAlignH 9100
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.177 XL.Sheet.CellWriteText 9250
- 193.258 XL.Sheet.SetCellFormats 9345

### Example Databases

- *XL/Sheet with colored text*
- *XL/Writing data*

Created 18th August 2014, last changed 5th May 2016.

## 193.3 XL.Book.AddFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

```
MBS( "XL.Book.AddFormat"; bookRef { ; initFormat } )
```

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### initFormat

Optional

The index of an existing format which you want to use as a template.

0

**Result** Returns index of new format or error.

### Description

### Examples

Writes sheet with red font:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create fonts
Set Variable [ $redColor; Value:MBS( "XL.Color.Pack"; $book; 255; 0; 0 ) ]
Set Variable [ $redFont; Value:MBS( "XL.Book.AddFont"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $redFont; $redColor ) ]
#
# create formats
Set Variable [ $redFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $redFormat; $redFont ) ]
#
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
#
# add number in red
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $redFormat ) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]
```

Use a number format:

```
# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $book ) ]
```

```
# use existing number format
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $format; 7) ]
# and use format
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $format) ]
```

Apply a new format to a column:

```
# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $BookRef ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $BookRef; $format; 7) ]
# set as format for column
Set Variable [ $r; Value:MBS( "XL.Sheet.SetColumn"; $BookRef; 0; 6; 6; 50 ; $format; 0 ) ]
# loop over all rows
Set Variable [ $lastRow; Value:MBS( "XL.Sheet.GetLastRow"; $BookRef; $sheet ) ]
Set Variable [ $row; Value:1 ]
Loop
Set Variable [ $r; Value:MBS( "XL.Sheet.SetCellFormat"; $BookRef; $sheet; $row; 6; $format ) ]
# next
Set Variable [ $row; Value:$row + 1 ]
Exit Loop If [ $row >$lastRow ]
End Loop
```

Create header row:

```
#
# define a font:
#
Set Variable [ $headerFont ; Value: MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetSize"; $book; $headerFont; 12) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetName"; $book; $headerFont; "Century Gothic") ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $book; $headerFont; 1) ]
#
# define a format:
#
Set Variable [ $headerFormat ; Value: MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $book; $headerFormat; $headerFont) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFillPattern"; $book; $headerFormat; 1) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $headerFormat; MBS(
"XL.Color.Pack"; $book; 200; 200; 200) ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetAlignH"; $book; $headerFormat; 2 /* center */ ) ]
#
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetRow"; $book; $sheet; $row ; 20 ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 0; "Account" ; $headerFor-
mat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 1; "Account Group" ;
$headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 2; "Report Name" ; $head-
```

```

erFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 3; "Date TS" ; $headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 4; "Text" ; $headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 5; "Text2" ; $headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 6; "Text3" ; $headerFormat ) ]

```

**See also**

- 193.110 XL.Format.SetLocked 9131
- 193.111 XL.Format.SetNumFormat 9133
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.116 XL.Format.SetWrap 9142
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.209 XL.Sheet.GetLastRow 9288
- 193.258 XL.Sheet.SetCellFormats 9345
- 193.261 XL.Sheet.SetColumn 9351
- 193.290 XL.Sheet.SetRow 9391

**Example Databases**

- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

Created 18th August 2014, last changed 7th February 2020.

## 193.4 XL.Book.AddPictureContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.AddPictureContainer"; bookRef; container )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### container

The container value with the image inside.

\$container

**Result** Returns image number or error.

### Description

Returns a picture identifier. Supports BMP, DIB, PNG, JPG and WMF picture formats.

Use picture identifier with XL\_Sheet\_setPicture function.

### Examples

Add a picture to excel sheet:

```
# add picture to file
Set Variable [ $logoID; Value:MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
# position with size:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithSize"; $book; $sheet; 2; 1; $logoID; 100; 100) ]
# or with factor:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithScale"; $book; $sheet; 2; 1; $logoID; .2) ]
```

Adds picture with proportional scaled image:

```
Set Variable [ $image ; Value: MBS( "GMImage.NewFromContainer"; Writing data::Logo ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $destWidth ; Value: 120 ]
Set Variable [ $destHeight ; Value: 120 ]
Set Variable [ $width ; Value: MBS( "GMImage.GetWidth"; $image ) ]
Set Variable [ $height ; Value: MBS( "GMImage.GetHeight"; $image ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $image ) ]
Set Variable [ $factor ; Value: Min ( $destheight / $height; $destwidth / $width ) ]
Set Variable [ $dwidth ; Value: $width * $factor ]
Set Variable [ $dheight ; Value: $height * $factor ]
#
Set Variable [ $logoID ; Value: MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetPictureWithSize"; $book; $sheet; 2; 1; $logoID; $dwidth;
```

```
$dheight) ]  
End If  
End If
```

**See also**

- 87.123 GImage.GetHeight 4563
- 87.191 GImage.New 4642
- 87.193 GImage.NewFromContainer 4646
- 87.214 GImage.Release 4674
- 127.6 IsError 6374
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.259 XL.Sheet.SetCol 9347
- 193.278 XL.Sheet.SetPictureWithScale 9374
- 193.279 XL.Sheet.SetPictureWithSize 9376

**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 25th July 2019.



## 193.5 XL.Book.AddPictureFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.AddPictureFile"; bookRef; filepath )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### filepath

The native file path to the image file to include.

"c:\test.jpg"

**Result** Returns image number or error.

### Description

Returns a picture identifier. Supports BMP, DIB, PNG, JPG and WMF picture formats.

Use picture identifier with XL\_Sheet\_setPicture function.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 193.18 XL.Book.GetPictureType 9013
- 193.119 XL.LoadBook 9150
- 193.278 XL.Sheet.SetPictureWithScale 9374
- 193.279 XL.Sheet.SetPictureWithSize 9376

### 193.5.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr2](#)

Created 18th August 2014, last changed 5th September 2014.

## 193.6 XL.Book.AddSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.AddSheet"; bookRef; Name { ; InitSheet } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Name

The name for the new sheet.

"Taxsheet"

#### InitSheet

Optional

The index of an existing sheet to use as template.

0

**Result** Returns new sheet index or error message.

### Description

Use initSheet parameter if you wish to copy an existing sheet.

Note initSheet must be only from this book.

### Examples

Writes sheet with red font:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create fonts
Set Variable [ $redColor; Value:MBS( "XL.Color.Pack"; $book; 255; 0; 0 ) ]
Set Variable [ $redFont; Value:MBS( "XL.Book.AddFont"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $redFont; $redColor ) ]
#
# create formats
Set Variable [ $redFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $redFormat; $redFont ) ]
#
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
#
# add number in red
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $redFormat ) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book ) ]
```

193.6. *XL.BOOK.ADDSHEET* 8999

#### See also

- 193.1 *XL.Book.AddCustomNumFormat* 8987
- 193.2 *XL.Book.AddFont* 8990
- 193.25 *XL.Book.MoveSheet* 9020
- 193.27 *XL.Book.Release* 9022
- 193.29 *XL.Book.Save* 9025
- 193.40 *XL.Book.Sheets* 9038
- 193.48 *XL.Date.Pack* 9051
- 193.119 *XL.LoadBook* 9150
- 193.174 *XL.Sheet.CellWriteNumber* 9243
- 193.259 *XL.Sheet.SetCol* 9347

#### Example Databases

- [XL/AutoFilter](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

#### 193.6.1 Blog Entries

- [Use formatted text in Excel files with FileMaker and LibXL](#)
- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 9th July 2015.

## 193.7 XL.Book.BiffVersion

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.BiffVersion"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns version or error.

### Description

Used for xls format only.

### See also

- 193.41 XL.Book.Version 9039
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.8 XL.Book.CustomNumFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.CustomNumFormat"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns format string or error.

### Description

Read website for details:  
<http://www.libxl.com/custom-format.html>

#### See also

- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.9 XL.Book.DeleteSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.DeleteSheet"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet to delete. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK on success.

### Description

If the sheet to delete is referenced by other sheets, this may cause problems.

### Examples

Remove all sheets but the second one:

```
# Find libXL and load it
If [ MBS("XL.IsInitialized") = 1 ]
Perform Script [ "InitXL" ]
End If
# Load template excel file
Set Variable [ $bookRef; Value:MBS( "XL.LoadBook"; "/Users/cs/Desktop/Test.xlsx" ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error"; $bookRef ]
Exit Script [ ]
End If
# remove all but second sheet
Set Variable [ $c; Value:MBS( "XL.Book.SheetCount"; $bookRef ) ]
If [ $c >= 2 ]
If [ $c > 2 ]
Set Variable [ $i; Value:2 ]
Loop
Set Variable [ $r; Value:MBS( "XL.Book.DeleteSheet"; $bookRef; $i ) ]
Set Variable [ $i; Value:$i + 1 ]
Exit Loop If [ $c = $i ]
End Loop
End If
Set Variable [ $r; Value:MBS( "XL.Book.DeleteSheet"; $bookRef; 0 ) ]
End If
# Save to container and cleanup
Set Variable [ $r; Value:MBS("XL.Book.SaveToFile"; $bookRef; "/Users/cs/Desktop/output.xlsx" ) ]
```

Set Variable [ \$r; Value:MBS( "XL.Book.Release"; \$bookRef) ]

Preprocess file before import in FileMaker by removing a row and a sheet:

```
# Find libXL and load it
If [ MBS("XL.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitXL" ; Parameter: ]
End If
#
# path to xls or xlsx file
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "test.xls"
) ]
#
# Load template excel file
Set Variable [ $bookRef ; Value: MBS( "XL.LoadBook"; $path) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $bookRef ]
Exit Script [ Text Result: ]
End If
#
# Remove first row of first sheet
Set Variable [ $r ; Value: MBS( "XL.Sheet.RemoveRow"; $BookRef; 0 /* sheet index */; 0 /* row index */ )
]
#
# Remove second sheet
Set Variable [ $r ; Value: MBS( "XL.Book.DeleteSheet"; $bookRef; 1 /* sheet index */ ) ]
#
# Save to file and cleanup
Set Field [ XL::OutputFile ; MBS("XL.Book.SaveToFile"; $bookRef; $path) ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $bookRef) ]
#
# now let FileMaker import file
```

### See also

- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 193.10 XL.Book.DeleteSheetsExcept 9005
- 193.22 XL.Book.InsertSheet 9017
- 193.25 XL.Book.MoveSheet 9020
- 193.27 XL.Book.Release 9022
- 193.29 XL.Book.Save 9025
- 193.118 XL.IsInitialized 9148

9004

*CHAPTER 193. XL*

- 193.119 XL.LoadBook 9150
- 193.253 XL.Sheet.RemoveRow 9337

Created 18th August 2014, last changed 13th February 2020.



## 193.10 XL.Book.DeleteSheetsExcept

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.DeleteSheetsExcept"; bookRef; Name )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Name

The name of the sheet to keep.

"People"

**Result** Returns OK or error.

### Description

Returns error if sheet name is not found.

On success, the book has only one sheet left.

If the sheet to delete is referenced by other sheets, this may cause problems.

### Examples

Delete all sheets except one:

```
Set Variable [ $r; Value:MBS("XL.Book.DeleteSheetsExcept"; $bookRef; "Reiter 2") ]
```

### See also

- 193.9 XL.Book.DeleteSheet 9002
- 193.119 XL.LoadBook 9150

### 193.10.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 4th November 2015, last changed 4th November 2015.

## 193.11 XL.Book.FontCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.FontCount"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns number or error.

### Description

#### Examples

Query font count:

```
Set Variable [ $FontCount; Value: MBS( "XL.Book.FontCount"; $book ) ]
```

### See also

- 193.12 XL.Book.FormatCount 9007
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 19th April 2020.

**193.12 XL.Book.FormatCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.FormatCount"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns number or error.

**Description****Examples**

Query format count:

Set Variable [ \$FormatCount; Value: MBS( "XL.Book.FormatCount"; \$book ) ]

**See also**

- 193.11 XL.Book.FontCount 9006
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 19th April 2020.

## 193.13 XL.Book.GetActiveSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetActiveSheet"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns index or error.

### Description

#### See also

- 193.31 XL.Book.SetActiveSheet 9029
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.14 XL.Book.GetCalcMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetCalcMode"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns number or error.

### Description

Can be 0 for manual, 1 for auto and 2 for auto without data tables.

### See also

- 193.19 XL.Book.GetRGBMode 9014
- 193.32 XL.Book.SetCalcMode 9030
- 193.35 XL.Book.SetRGBMode 9033
- 193.119 XL.LoadBook 9150

### 193.14.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

## 193.15 XL.Book.GetDefaultFontName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetDefaultFontName"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns font name.

### Description

May return empty string in case of error.

### See also

- 193.16 XL.Book.GetDefaultFontSize 9011
- 193.34 XL.Book.SetDefaultFont 9032
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.16 XL.Book.GetDefaultFontSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetDefaultFontSize"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns size or error.

**Description**

May return zero in case of error.

**See also**

- 193.15 XL.Book.GetDefaultFontName 9010
- 193.34 XL.Book.SetDefaultFont 9032
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.17 XL.Book.GetPicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetPicture"; bookRef; index )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### index

The index of the picture from 0 to XL.Book.PictureCount-1.  
0

**Result** Returns image or error.

### Description

Returns container value with file, jpeg, tiff or png.

Please use XL.Book.GetPictureType to know the picture type before or Container.GetName and Container.GetTypes after.

### See also

- 56.17 Container.GetName 1664
- 56.22 Container.GetType 1672
- 56.24 Container.GetTypes 1676
- 193.18 XL.Book.GetPictureType 9013
- 193.26 XL.Book.PictureCount 9021
- 193.119 XL.LoadBook 9150
- 193.218 XL.Sheet.GetPicture 9299

Created 18th August 2014, last changed 18th August 2014.



**193.18 XL.Book.GetPictureType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetPictureType"; bookRef; index )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**index**

The index of the picture from 0 to XL.Book.PictureCount-1.  
0

**Result** Returns picture type or error.

**Description**

Types are: PNG, JPEG, WMF, DIB, EMF and TIFF.

**See also**

- 193.5 XL.Book.AddPictureFile 8997
- 193.17 XL.Book.GetPicture 9012
- 193.26 XL.Book.PictureCount 9021
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.19 XL.Book.GetRGBMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetRGBMode"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns 0 for index mode or 1 for RGB mode or error.

### Description

### Examples

Sets the fore color to red:

```
If [ MBS( "XL.Book.GetRGBMode"; $book ) = 0 ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; 10) ]
Else
Set Variable [ $c; Value: MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; $c) ]
End If
Set Variable [ $r; Value: MBS( "XL.Format.SetFillPattern"; $book; $format; 1 ) ]
```

### See also

- 193.14 XL.Book.GetCalcMode 9009
- 193.32 XL.Book.SetCalcMode 9030
- 193.35 XL.Book.SetRGBMode 9033
- 193.42 XL.Color.Pack 9040
- 193.106 XL.Format.SetFillPattern 9125
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.20 **XL.Book.GetRefR1C1**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetRefR1C1"; bookRef )

### Parameters

#### **bookRef**

The reference to the workbook. Please use `XL.LoadBook` to load a file.  
\$ref

**Result** Returns value or error.

### Description

#### See also

- 193.36 `XL.Book.SetRefR1C1` 9034
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.21 XL.Book.GetText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.GetText"; bookRef { ; formulas } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### formulas

Optional

Whether to return formulas as text. If you pass 1 here, the formulas will be returned instead of their result.

0

**Result** Returns text of workbook.

### Description

Numbers are formatted as floating point numbers with dot as decimal separator.

Boolean values are returned as FALSE or TRUE.

This function will not calculate formulas.

### See also

- 193.119 XL.LoadBook

9150

### Example Databases

- [XL/XL](#)

Created 18th August 2014, last changed 19th April 2016.

**193.22 XL.Book.InsertSheet**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.InsertSheet"; bookRef; Index; Name { ; InitSheet } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Index**

The index where to insert the sheet.  
0

**Name**

The name for the new sheet.  
"Taxsheet"

**InitSheet**

Optional  
The index of an existing sheet to use as template.  
0

**Result** Returns new sheet index or error message.

**Description**

Use initSheet parameter if you wish to copy an existing sheet.  
Note initSheet must be only from this book.

**See also**

- 193.9 XL.Book.DeleteSheet 9002
- 193.25 XL.Book.MoveSheet 9020
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 9th July 2015.

## 193.23 XL.Book.IsDate1904

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.IsDate1904"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns boolean or error.

### Description

#### See also

- 193.33 XL.Book.SetDate1904 9031
- 193.119 XL.LoadBook 9150

Created 22nd April 2017, last changed 22nd April 2017.

**193.24 XL.Book.IsTemplate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.IsTemplate"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns OK or error.

**Description****See also**

- 193.37 XL.Book.SetTemplate 9035
- 193.119 XL.LoadBook 9150

Created 22nd April 2017, last changed 22nd April 2017.

## 193.25 XL.Book.MoveSheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.MoveSheet"; bookRef; SourceIndex; DestIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### SourceIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### DestIndex

The destination index of the sheet.  
0

**Result** Returns OK or error.

### Description

Takes a sheet with SourceIndex and insert it in front of a sheet with DestIndex.  
Returns OK on success and error on failure.

### See also

- 193.6 XL.Book.AddSheet 8998
- 193.9 XL.Book.DeleteSheet 9002
- 193.22 XL.Book.InsertSheet 9017
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

### 193.25.1 Blog Entries

- [MBS FileMaker Plugin, version 7.2pr5](#)

Created 27th April 2017, last changed 27th April 2017.



**193.26 XL.Book.PictureCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.PictureCount"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns number or error.

**Description****Examples**

Query picture count:

Set Variable [ \$PictureCount; Value: MBS( "XL.Book.PictureCount"; \$book ) ]

**See also**

- 193.17 XL.Book.GetPicture 9012
- 193.18 XL.Book.GetPictureType 9013
- 193.119 XL.LoadBook 9150
- 193.246 XL.Sheet.PictureCount 9328

Created 18th August 2014, last changed 19th April 2020.

## 193.27 XL.Book.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.Release"; BookRef )

### Parameters

#### BookRef

The reference to the Workbook you want to release.

\$ref

**Result** Returns OK on success.

### Description

You need to call this method when you are done with a workbook in order to prevent out of memory situations.

#### See also

- 193.41 XL.Book.Version 9039
- 193.42 XL.Color.Pack 9040
- 193.45 XL.CopyRow 9046
- 193.48 XL.Date.Pack 9051
- 193.120 XL.LoadBookPartially 9153
- 193.121 XL.NewBook 9155
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.177 XL.Sheet.CellWriteText 9250
- 193.253 XL.Sheet.RemoveRow 9337
- 193.259 XL.Sheet.SetCol 9347

### Example Databases

- [XL/AutoFilter](#)
- [XL/Change Column Names](#)
- [XL/Converter](#)
- [XL/Edit Sheet](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)
- [XL/XL](#)

### 193.27.1 **Blog Entries**

- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 19th April 2016.

## 193.28 XL.Book.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.ReleaseAll" )

**Result** Returns OK or error.

### Description

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### Examples

Release all objects:

Set Variable [ \$r; Value: MBS( "XL.Book.ReleaseAll" ) ]

### See also

- 193.27 XL.Book.Release

9022

### 193.28.1 Blog Entries

- [MBS FileMaker Plugin, version 10.0pr8](#)

Created 9th January 2020, last changed 19th April 2020.

**193.29 XL.Book.Save**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.Save"; bookRef { ; filename } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**filename**

Optional

The new file name for the container value.  
"sheet.xls"

**Result** Returns container value or error message.

**Description****See also**

- 193.6 XL.Book.AddSheet 8998
- 193.9 XL.Book.DeleteSheet 9002
- 193.30 XL.Book.SaveToFile 9027
- 193.42 XL.Color.Pack 9040
- 193.48 XL.Date.Pack 9051
- 193.60 XL.Font.SetColor 9065
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.253 XL.Sheet.RemoveRow 9337
- 193.259 XL.Sheet.SetCol 9347

**Example Databases**

- [XL/AutoFilter](#)
- [XL/Change Column Names](#)
- [XL/Converter](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

### 193.29.1 Blog Entries

- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 9th July 2015.

## 193.30 XL.Book.SaveToFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SaveToFile"; bookRef; path )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### path

The native path to write the file to.

"C:\test.xls"

**Result** Returns OK or error message.

### Description

Returns error on failure or OK on result.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Preprocess file before import in FileMaker by removing a row and a sheet:

```
# Find libXL and load it
If [ MBS("XL.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitXL" ; Parameter: ]
End If
#
# path to xls or xlsx file
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "test.xls"
) ]
#
# Load template excel file
Set Variable [ $bookRef ; Value: MBS( "XL.LoadBook"; $path ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $bookRef ]
Exit Script [ Text Result: ]
End If
#
# Remove first row of first sheet
Set Variable [ $r ; Value: MBS( "XL.Sheet.RemoveRow"; $BookRef; 0 /* sheet index */; 0 /* row index */ ) ]
#
```

```
# Remove second sheet
Set Variable [ $r ; Value: MBS( "XL.Book.DeleteSheet"; $bookRef; 1 /* sheet index */ ) ]
#
# Save to file and cleanup
Set Field [ XL::OutputFile ; MBS("XL.Book.SaveToFile"; $bookRef; $path) ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $bookRef) ]
#
# now let FileMaker import file
```

**See also**

- 82.8 Folders.UserDesktop 4235
- 127.6 IsError 6374
- 124.1 Path.AddPathComponent 6243
- 124.2 Path.FileMakerPathToNativePath 6247
- 193.9 XL.Book.DeleteSheet 9002
- 193.27 XL.Book.Release 9022
- 193.29 XL.Book.Save 9025
- 193.118 XL.IsInitialized 9148
- 193.119 XL.LoadBook 9150
- 193.253 XL.Sheet.RemoveRow 9337

Created 18th August 2014, last changed 13th February 2020.



**193.31 XL.Book.SetActiveSheet**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetActiveSheet"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet to activate. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK or error.

**Description****See also**

- 193.13 XL.Book.GetActiveSheet 9008
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 4th November 2014.

## 193.32 XL.Book.SetCalcMode

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetCalcMode"; bookRef; Mode )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Mode

The new calculation mode. Can be 0 for manual, 1 for auto and 2 for auto without data tables.

1

**Result** Returns OK or error.

### Description

### Examples

Sets calculation mode to auto:

```
Set Variable [ $r ; Value: MBS( "XL.Book.SetCalcMode"; $bookRef; 1 ) ]
```

### See also

- 193.14 XL.Book.GetCalcMode 9009
- 193.19 XL.Book.GetRGBMode 9014
- 193.35 XL.Book.SetRGBMode 9033
- 193.119 XL.LoadBook 9150

### 193.32.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.33 XL.Book.SetDate1904**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetDate1904"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns OK or error.

**Description**

Pass 1 for 1904 date system, 0 for 1900 date system (default).In the 1900 date base system, the lower limit is January 1, 1900, which has serial value 1.In the 1904 date base system, the lower limit is January 1, 1904, which has serial value 0.

**See also**

- 193.23 XL.Book.IsDate1904 9018
- 193.119 XL.LoadBook 9150

Created 22nd April 2017, last changed 22nd April 2017.

## 193.34 XL.Book.SetDefaultFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetDefaultFont"; bookRef; name; size )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### name

The font name.

"Arial"

#### size

The font size.

12

**Result** Returns OK or error.

### Description

#### See also

- 193.15 XL.Book.GetDefaultFontName 9010
- 193.16 XL.Book.GetDefaultFontSize 9011
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.35 XL.Book.SetRGBMode**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetRGBMode"; bookRef; value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**value**

The new setting. Pass 0 or 1.

0

**Result** Returns OK or error.

**Description**

1: RGB mode, 0: Index mode (default).

In RGB mode use XL.ColorPack and XL.ColorUnpack methods for getting/setting colors.

**See also**

- 193.14 XL.Book.GetCalcMode 9009
- 193.19 XL.Book.GetRGBMode 9014
- 193.32 XL.Book.SetCalcMode 9030
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.36 XL.Book.SetRefR1C1

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetRefR1C1"; bookRef; Value )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Value

The new setting.

0

**Result** Returns OK or error.

### Description

#### See also

- 193.20 XL.Book.GetRefR1C1 9015
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.37 XL.Book.SetTemplate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SetTemplate"; bookRef )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns OK or error.

**Description**

Pass 1 for workbook is template, 0 for workbook is not template (default).It allows to change type of file from a template file (xlt and xltx) to a regular file (xls and xlsx) and vice versa.

**See also**

- 193.24 XL.Book.IsTemplate 9019
- 193.119 XL.LoadBook 9150

Created 22nd April 2017, last changed 22nd April 2017.

## 193.38 XL.Book.SheetCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SheetCount"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Result** Returns number of sheets.

### Description

### Examples

Query sheet count:

```
Set Variable [ $SheetCount; Value: MBS( "XL.Book.SheetCount"; $book ) ]
```

### See also

- 193.9 XL.Book.DeleteSheet 9002
- 193.12 XL.Book.FormatCount 9007
- 193.287 XL.Sheet.SetProtect 9387
- 193.288 XL.Sheet.SetProtectEx 9388
- 193.291 XL.Sheet.SetRowHidden 9393
- 193.292 XL.Sheet.SetTabColor 9394
- 193.293 XL.Sheet.SetTabColorRGB 9395
- 193.297 XL.Sheet.SetZoom 9399
- 193.300 XL.Sheet.Table 9402
- 193.301 XL.Sheet.TableSize 9403

Created 18th August 2014, last changed 19th April 2020.



**193.39 XL.Book.SheetIndexForName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.SheetIndexForName"; bookRef; Name )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Name**

The name of the sheet to keep.

"People"

**Result** Returns number or error.

**Description**

Returns empty result if not found.

**Examples**

Shows index for a sheet:

Show Custom Dialog [ "Sheets"; MBS("XL.Book.SheetIndexForName"; \$bookRef; "Reiter 2") ]

**See also**

- 193.119 XL.LoadBook

9150

**193.39.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 4th November 2015, last changed 4th November 2015.

## 193.40 XL.Book.Sheets

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.Sheets"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns list or error.

### Description

#### Examples

Shows list of sheets:

```
Show Custom Dialog [ "Sheets"; MBS("XL.Book.Sheets"; $bookRef) ]
```

### See also

- 193.6 XL.Book.AddSheet 8998
- 193.119 XL.LoadBook 9150

### 193.40.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 4th November 2015, last changed 4th November 2015.

## 193.41 XL.Book.Version

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Book.Version"; bookRef )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Result** Returns number or error.

### Description

### Examples

Query version of LibXL:

```
Set Variable [ $book ; Value: MBS( "XL.NewBook" ) ]
Set Variable [ $version ; Value: MBS( "XL.Book.Version"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $book ) ]
Show Custom Dialog [ "Version" ; $version ]
```

### See also

- 127.62 Version 6446
- 193.7 XL.Book.BiffVersion 9000
- 193.27 XL.Book.Release 9022
- 193.119 XL.LoadBook 9150
- 193.121 XL.NewBook 9155

### 193.41.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 22nd April 2017, last changed 25th June 2019.

## 193.42 XL.Color.Pack

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Color.Pack"; bookRef; red; green; blue )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### red

The red color value from 0 to 255.  
255

#### green

The green color value from 0 to 255.  
255

#### blue

The blue color value from 0 to 255.  
255

**Result** Returns color value.

### Description

#### Examples

Checks what color value to use for 100% red:

```
MBS( "XL.Color.Pack"; $$book; 255; 0; 0)
// shows 10 in indexed color mode
// shows 16711680 in RGB mode
```

Writes sheet with red font:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create fonts
Set Variable [ $redColor; Value:MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]
Set Variable [ $redFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $redFont; $redColor) ]
#
# create formats
Set Variable [ $redFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $redFormat; $redFont) ]
#
# create sheet
```

### 193.42. *XL.COLOR.PACK*

9041

```
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
#
# add number in red
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $redFormat) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]
```

#### See also

- 193.3 *XL.Book.AddFormat* 8992
- 193.19 *XL.Book.GetRGBMode* 9014
- 193.27 *XL.Book.Release* 9022
- 193.43 *XL.Color.UnPack* 9042
- 193.60 *XL.Font.SetColor* 9065
- 193.106 *XL.Format.SetFillPattern* 9125
- 193.119 *XL.LoadBook* 9150
- 193.121 *XL.NewBook* 9155
- 193.174 *XL.Sheet.CellWriteNumber* 9243
- 193.177 *XL.Sheet.CellWriteText* 9250

#### Example Databases

- [XL/Sheet with colored text](#)

Created 18th August 2014, last changed 23th June 2015.

## 193.43 XL.Color.UnPack

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Color.UnPack"; bookRef; value; selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### value

The packed color value.

255

#### selector

The selector on what to return. Can be red, green or blue.

"red"

**Result** Returns color component value or error.

### Description

### Examples

Extracts color in RGB mode:

```
$r = MBS( "XL.Color.UnPack"; $$book; 16711680; "red")
$g = MBS( "XL.Color.UnPack"; $$book; 16711680; "green")
$b = MBS( "XL.Color.UnPack"; $$book; 16711680; "blue")
```

### See also

- 193.42 XL.Color.Pack 9040
- 193.52 XL.Font.GetColor 9056
- 193.70 XL.Format.GetBorderBottomColor 9079
- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.86 XL.Format.GetPatternBackgroundColor 9095
- 193.87 XL.Format.GetPatternForegroundColor 9096

193.43. *XL.COLOR.UNPACK*

9043

- 193.119 XL.LoadBook

9150

Created 18th August 2014, last changed 18th August 2014.

## 193.44 XL.CopyContent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.CopyContent"; bookRef; otherBookRef { ; Options } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### otherBookRef

The reference to the second workbook. Please use XL.NewBook to create a file.

\$ref2

#### Options

Optional

Which items to skip when copying content.

””

**Result** Returns OK or error.

### Description

The plugin loops through all sheets and creates matching sheets on new book. Formats and fonts are created on the fly.

This allows you to convert from XLS to XLSX or back.

Please report if something is not copied. Of course plugin can only copy what libXL supports, so things like movies or diagrams are not copied. And if you use demo mode, only a small part is copied with values. Rest will be blank.

Option	Description.
SkipPictures	Don't copy pictures.
SkipMerges	Don't copy merged cells.
SkipNamedRanges	Don't copy named ranges.
SkipPrintArea	Don't copy print area.
SkipPrintRepeat	Don'T copy print repeat
SkipPrintFit	Don't copy print fit.
SkipHorPageBreak	Don't copy horizontal page breaks.
SkipComments	Don't copy cell comments.
SkipFormats	Don't copy formats.
SkipRowHidden	Don't copy hidden rows.
SkipColHidden	Don't copy hidden columns.



193.44. *XL.COPYCONTENT*

9045

**See also**

- 193.119 *XL.LoadBook* 9150
- 193.121 *XL.NewBook* 9155

**Example Databases**

- [XL/Converter](#)

**193.44.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.0pr7](#)
- [MBS FileMaker Plugin, version 9.0pr6](#)
- [MBS FileMaker Plugin, version 5.1pr1](#)

Created 11st March 2015, last changed 2nd January 2019.

## 193.45 XL.CopyRow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.CopyRow"; bookRef1; bookRef2; sheetIndex1; sheetIndex2; SourceRow; DestRow { ; Options } )

### Parameters

#### bookRef1

The reference to the source workbook. Please use XL.LoadBook to load a file.

\$ref

#### bookRef2

The reference to the destination workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex1

The source index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### sheetIndex2

The destination index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### SourceRow

The source row index.

\$srow

#### DestRow

The destination row index.

\$drow

#### Options

Optional

Which items to skip when copying content.

””

**Result** Returns OK or error.

### Description

Source and destination can be in different sheets/books.

This copies most properties and all cells.

If something is missing, please let us know.

### Examples

Copy row:

```
# load one from container
```

Option	Description.
SkipPictures	Don't copy pictures.
SkipMerges	Don't copy merged cells.
SkipNamedRanges	Don't copy named ranges.
SkipPrintArea	Don't copy print area.
SkipPrintRepeat	Don'T copy print repeat
SkipPrintFit	Don't copy print fit.
SkipHorPageBreak	Don't copy horizontal page breaks.
SkipComments	Don't copy cell comments.
SkipFormats	Don't copy formats.
SkipRowHidden	Don't copy hidden rows.
SkipColHidden	Don't copy hidden columns.

```

Set Variable [ $bookRef; Value:MBS( "XL.LoadBook"; XL::ExcelFile ) ]
# load one from file
Set Variable [ $bookRef2; Value:MBS( "XL.LoadBook"; "/Users/cs/Desktop/Format2.xls" ) ]
# copy a row from first sheet. Source row 2 to dest row 10.
Set Variable [ $r; Value:MBS( "XL.CopyRow"; $bookRef2; $bookRef; 0; 0; 2; 10 ) ]
# Save to container and cleanup
Set Field [ XL::OutputFile; MBS("XL.Save"; $bookRef; "test.xls" ) ]
Set Variable [ $r; Value:MBS( "XL.Book.Release"; $bookRef ) ]
Set Variable [ $r; Value:MBS( "XL.Book.Release"; $bookRef2 ) ]
Set Field [ XL::Result; $r ]

```

### See also

- 193.27 XL.Book.Release 9022
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

### 193.45.1 Blog Entries

- [MBS FileMaker Plugin, version 9.0pr7](#)
- [MBS FileMaker Plugin, version 9.0pr6](#)
- [MBS FileMaker Plugin, version 6.5pr10](#)

Created 7th December 2016, last changed 31st December 2018.

## 193.46 XL.CopySheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.CopySheet"; bookRef1; bookRef2; sheetIndex { ; Options } )

### Parameters

#### bookRef1

The reference to the source workbook. Please use XL.LoadBook to load a file.

\$ref

#### bookRef2

The reference to the destination workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

### Options

Optional

Which items to skip when copying content.

””

**Result** Returns OK or error.

### Description

This copies most properties and all cells.

If something is missing, please let us know.

Option	Description.
SkipPictures	Don't copy pictures.
SkipMerges	Don't copy merged cells.
SkipNamedRanges	Don't copy named ranges.
SkipPrintArea	Don't copy print area.
SkipPrintRepeat	Don'T copy print repeat
SkipPrintFit	Don't copy print fit.
SkipHorPageBreak	Don't copy horizontal page breaks.
SkipComments	Don't copy cell comments.
SkipFormats	Don't copy formats.
SkipRowHidden	Don't copy hidden rows.
SkipColHidden	Don't copy hidden columns.

**See also**

193.46. <i>XL.COPYSHEET</i>	9049
• 193.38 XL.Book.SheetCount	9036
• 193.119 XL.LoadBook	9150

### **193.46.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.0pr7](#)
- [MBS FileMaker Plugin, version 9.0pr6](#)
- [MBS FileMaker Plugin, version 6.5pr10](#)

Created 7th December 2016, last changed 31st December 2018.

## 193.47 XL.Date.DoubleToTimeStamp

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Date.DoubleToTimeStamp"; bookRef; timeStamp )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### timeStamp

The time, date or time stamp to convert.  
40579.413796

**Result** Returns value or error.

### Description

This uses current time zone.

### Examples

Convert a timestamp number:

```
MBS( "XL.Date.DoubleToTimeStamp"; $bookRef; 40579.413796)
```

### See also

- 193.119 XL.LoadBook

9150

### 193.47.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 6th February 2015, last changed 6th February 2015.

**193.48 XL.Date.Pack**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Date.Pack"; bookRef; year; month; day { ; hour; minute; second; msec } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**year**

The year value.

2013

**month**

The month value from 1 to 12.

10

**day**

The day value.

18

**hour**

Optional

The hour value from 0 to 23.

11

**minute**

Optional

The minute value from 0 to 59.

1

**second**

Optional

The second value from 0 to 59.

5

**msec**

Optional

The millisecond value from 0 to 999.

0

**Result** Returns timestamp number or error.

**Description****Examples**

Build a date:

```
MBS( "XL.Date.Pack"; $$book; 2013; 10; 21; 19; 55; 13)
// shows 41568.83001157407125
```

Build a date without time:

```
MBS( "XL.Date.Pack"; $$book; 2013; 10; 21)
```

Create Excel file with some date value:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create date format
Set Variable [ $dateFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $dateFormatID; Value:MBS( "XL.Book.AddCustomNumFormat"; $book; "mmmm\d\, \yyyy")
]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $dateFormat; $dateFormatID ) ]
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
# Write date
Set Variable [ $d; Value:MBS( "XL.Date.Pack"; $book; 2013; 10; 21 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 4; 4; $d; $dateFormat ) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]
```

### See also

- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.3 XL.Book.AddFormat 8992
- 193.6 XL.Book.AddSheet 8998
- 193.27 XL.Book.Release 9022
- 193.29 XL.Book.Save 9025
- 193.50 XL.Date.UnPack 9054
- 193.111 XL.Format.SetNumFormat 9133
- 193.119 XL.LoadBook 9150
- 193.121 XL.NewBook 9155
- 193.174 XL.Sheet.CellWriteNumber 9243

Created 18th August 2014, last changed 9th July 2015.



## 193.49 XL.Date.TimeStampToDouble

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Date.TimeStampToDouble"; bookRef; timeStamp )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### timeStamp

The time, date or time stamp to convert.  
Get ( CurrentTimeStamp )

**Result** Returns value or error.

### Description

This uses current time zone.

### Examples

Convert current timestamp:

```
MBS( "XL.Date.TimeStampToDouble"; $bookRef; Get ( CurrentTimeStamp ))
```

### See also

- 193.119 XL.LoadBook

9150

### 193.49.1 Blog Entries

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 6th February 2015, last changed 6th February 2015.

## 193.50 XL.Date.UnPack

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Date.UnPack"; bookRef; value; selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### value

The timestamp number.

\$t

#### selector

Which component to return. Can be year, month, day, hour, minute, second or millisecond.

"year"

**Result** Returns number or error.

### Description

### Examples

Unpacks a date:

```
$year = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "year")
$month = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "month")
$day = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "day")
$hour = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "hour")
$minute = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "minute")
$second = MBS( "XL.Date.UnPack"; $$book; 41568,83001157407125; "second")
```

### See also

- 193.48 XL.Date.Pack 9051
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.51 XL.Font.GetBold**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetBold"; book; Font )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description****Examples**

Try bold property for font:

```
Set Variable [ $font ; Value: MBS( "XL.Book.AddFont"; $bookRef ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $bookRef; $font; 1 ) ]
Show Custom Dialog [ "bold flag" ; MBS( "XL.Font.GetBold"; $bookRef; $font ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $bookRef; $font; 0 ) ]
Show Custom Dialog [ "bold flag" ; MBS( "XL.Font.GetBold"; $bookRef; $font ) ]
```

**See also**

- 193.2 XL.Book.AddFont 8990
- 193.52 XL.Font.GetColor 9056
- 193.54 XL.Font.GetName 9058
- 193.56 XL.Font.GetSize 9060
- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 19th April 2020.

## 193.52 XL.Font.GetColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetColor"; book; Font )

### Parameters

#### book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Font

The index of the font in the book to target.

0

**Result** Returns value or error.

### Description

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

### See also

- 193.43 XL.Color.UnPack 9042
- 193.51 XL.Font.GetBold 9055
- 193.59 XL.Font.SetBold 9063
- 193.60 XL.Font.SetColor 9065
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.53 XL.Font.GetItalic**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetItalic"; book; Font )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description****Examples**

Check italic property:

```
Set Variable [ $font ; Value: MBS( "XL.Book.AddFont"; $bookRef ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetItalic"; $bookRef; $font; 1 ) ]
Show Custom Dialog [ "Italic flag" ; MBS( "XL.Font.GetItalic"; $bookRef; $font ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetItalic"; $bookRef; $font; 0 ) ]
Show Custom Dialog [ "Italic flag" ; MBS( "XL.Font.GetItalic"; $bookRef; $font ) ]
```

**See also**

- 193.2 XL.Book.AddFont 8990
- 193.61 XL.Font.SetItalic 9068
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 19th April 2020.

## 193.54 XL.Font.GetName

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetName"; book; Font )

### Parameters

#### book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Font

The index of the font in the book to target.

0

**Result** Returns value or error.

### Description

### Examples

Add a font, set name and query it:

```
Set Variable [ $font ; Value: MBS( "XL.Book.AddFont"; $bookRef ) ]
```

```
Set Variable [ $r ; Value: MBS( "XL.Font.SetName"; $bookRef; $font; "Helvetica" ) ]
```

```
Show Custom Dialog [ "font name" ; MBS( "XL.Font.GetName"; $bookRef; $font ) ]
```

# shows Helvetica

### See also

- 193.2 XL.Book.AddFont 8990
- 193.51 XL.Font.GetBold 9055
- 193.56 XL.Font.GetSize 9060
- 193.62 XL.Font.SetName 9069
- 193.64 XL.Font.SetSize 9072
- 193.119 XL.LoadBook 9150
- 193.215 XL.Sheet.GetName 9295

Created 18th August 2014, last changed 19th April 2020.

**193.55 XL.Font.GetScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetScript"; book; Font )

**Parameters****book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description**

Value is 0 for normal, 1 for Superscript and 2 for Subscript.

**See also**

- 193.56 `XL.Font.GetSize` 9060
- 193.57 `XL.Font.GetStrikeOut` 9061
- 193.63 `XL.Font.SetScript` 9071
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

**193.56 XL.Font.GetSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetSize"; book; Font )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.51 XL.Font.GetBold 9055
- 193.54 XL.Font.GetName 9058
- 193.55 XL.Font.GetScript 9059
- 193.62 XL.Font.SetName 9069
- 193.64 XL.Font.SetSize 9072
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.57 XL.Font.GetStrikeOut**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetStrikeOut"; book; Font )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.55 XL.Font.GetScript 9059
- 193.65 XL.Font.SetStrikeOut 9074
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.58 XL.Font.GetUnderline**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.GetUnderline"; book; Font )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Result** Returns value or error.

**Description**

Values:

- 0 No underline
- 1 Single underline
- 2 Double underline
- 33 Single ACC
- 34 Double ACC

**See also**

- 193.66 XL.Font.SetUnderline 9075
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.59 XL.Font.SetBold**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetBold"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Font**

The index of the font in the book to target.  
0

**Value**

The new setting. Pass 1 for bold and 0 for normal.  
0

**Result** Returns OK or error.

**Description****Examples**

Make a font bold:

```
MBS( "XL.Font.SetBold"; $book; $font10; 1 )
```

Create a format for bold font:

```
# create a font
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetBold"; $book; $textfont; 1) ]
# create format
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $textFormat; $textFont) ]
```

Writes a formula with bold font format:

```
# add a bold font based on another font
Set Variable [ $textFontBold ; Value: MBS( "XL.Book.AddFont"; $book; $textFont) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $book; $textFontBold; 1) ]
# add format based on other format
Set Variable [ $dollarFormatBold ; Value: MBS( "XL.Book.AddFormat"; $book; $dollarFormat) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $book; $dollarFormatBold; $textFontBold) ]
# use format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteFormula"; $book; $sheet; 38; 4; "SUM(E16:E38)";
$dollarFormatBold) ]
```

**See also**

- 193.51 XL.Font.GetBold 9055
- 193.52 XL.Font.GetColor 9056
- 193.60 XL.Font.SetColor 9065
- 193.62 XL.Font.SetName 9069
- 193.64 XL.Font.SetSize 9072
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254

Created 18th August 2014, last changed 12nd November 2018.

**193.60 XL.Font.SetColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetColor"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Font**

The index of the font in the book to target.  
0

**Value**

The new font color.  
255

**Result** Returns OK or error.

**Description**

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described below.

Color values if not in RGB Mode:

**Examples**

Make a font blue in non RGB mode:

```
MBS( "XL.Font.SetColor"; $book; $font10; 12 )
```

Writes sheet with red font:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create fonts
Set Variable [ $redColor; Value:MBS( "XL.Color.Pack"; $book; 255; 0; 0 ) ]
Set Variable [ $redFont; Value:MBS( "XL.Book.AddFont"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $redFont; $redColor ) ]
#
# create formats
Set Variable [ $redFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $redFormat; $redFont ) ]
#
# create sheet
```

```

Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
#
# add number in red
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $redFormat) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]

```

Create font with color 22:

```

Set Variable [ $titleFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $titlefont; 22) ]

```

### See also

- 193.51 XL.Font.GetBold 9055
- 193.52 XL.Font.GetColor 9056
- 193.59 XL.Font.SetBold 9063
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.107 XL.Format.SetFont 9127
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.121 XL.NewBook 9155

### Example Databases

- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

Created 18th August 2014, last changed 5th May 2016.

Black	8
White	9
Red	10
Brightgreen	11
Blue	12
Yellow	13
Pink	14
Turquoise	15
Darkred	16
Green	17
Darkblue	18
Darkyellow	19
Violet	20
Teal	21
Gray25	22
Gray50	23
Periwinkle Cf	24
Plum Cf	25
Ivory Cf	26
Lightturquoise Cf	27
Darkpurple Cf	28
Coral Cf	29
Oceanblue Cf	30
Iceblue Cf	31
Darkblue Cl	32
Pink Cl	33
Yellow Cl	34
Turquoise Cl	35
Violet Cl	36
Darkred Cl	37
Teal Cl	38
Blue Cl	39
Skyblue	40
Lightturquoise	41
Lightgreen	42
Lightyellow	43
Paleblue	44
Rose	45
Lavender	46
Tan	47
Lightblue	48
Aqua	49
Lime	50
Gold	51
Lightorange	52
Orange	53
Bluegray	54
Gray40	55
Darkteal	56
Seagreen	57
Darkgreen	58
Olivegreen	59
Brown	60
Plum	61
Indigo	62
Gray80	63
Default Foreground	64
Default Background	65

**193.61 XL.Font.SetItalic**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetItalic"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Value**

The new font italic setting. Pass 1 for italic and 0 for normal.

0

**Result** Returns OK or error.

**Description**

If italic doesn't show, maybe check whether the chosen font supports italic.

**Examples**

Make a font italic:

```
MBS( "XL.Font.SetItalic"; $book; $font10; 1 )
```

**See also**

- 193.53 XL.Font.GetItalic 9057
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 23th April 2020.



**193.62 XL.Font.SetName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetName"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Value**

The new font name.

"Arial"

**Result** Returns OK or error.

**Description**

Default name is "Arial".

**Examples**

Create a font:

```
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
```

**See also**

- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.54 XL.Font.GetName 9058
- 193.56 XL.Font.GetSize 9060
- 193.59 XL.Font.SetBold 9063
- 193.64 XL.Font.SetSize 9072
- 193.92 XL.Format.SetAlignV 9103
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150

- 193.177 XL.Sheet.CellWriteText

### Example Databases

- [XL/Writing data](#)

Created 18th August 2014, last changed 5th May 2016.

**193.63 XL.Font.SetScript**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetScript"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Value**

The new font script.

0

**Result** Returns OK or error.

**Description**

Value is 0 for normal, 1 for Superscript and 2 for Subscript.

**See also**

- 193.55 `XL.Font.GetScript` 9059
- 193.64 `XL.Font.SetSize` 9072
- 193.65 `XL.Font.SetStrikeOut` 9074
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.64 XL.Font.SetSize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetSize"; book; Font; Value )

### Parameters

#### book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Font

The index of the font in the book to target.

0

#### Value

The new font size.

12

**Result** Returns OK or error.

### Description

### Examples

Create a font:

```
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
```

### See also

- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.56 XL.Font.GetSize 9060
- 193.59 XL.Font.SetBold 9063
- 193.62 XL.Font.SetName 9069
- 193.91 XL.Format.SetAlignH 9100
- 193.92 XL.Format.SetAlignV 9103
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150

193.64. *XL.FONT.SETSIZE*

9073

- 193.177 XL.Sheet.CellWriteText

9250

### **Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 5th May 2016.

**193.65 XL.Font.SetStrikeOut**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetStrikeOut"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Value**

The new font setting for strikethrough. Pass 1 or 0.

0

**Result** Returns OK or error.

**Description****See also**

- 193.57 XL.Font.GetStrikeOut 9061
- 193.63 XL.Font.SetScript 9071
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.66 XL.Font.SetUnderline**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Font.SetUnderline"; book; Font; Value )

**Parameters****book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Font**

The index of the font in the book to target.

0

**Value**

The new font underline setting.

0

**Result** Returns OK or error.

**Description**

Values:

0	No underline
1	Single underline
2	Double underline
33	Single ACC
34	Double ACC

**Examples**

Make a font underlined:

MBS( "XL.Font.SetUnderline"; \$book; \$font10; 1 )

**See also**

- 193.58 XL.Font.GetUnderline 9062
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 23th January 2015.

## 193.67 XL.Format.GetAlignH

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetAlignH"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

Possible values:

- 0 general
- 1 left
- 2 center
- 3 right
- 4 full
- 5 justify
- 6 merge
- 7 distributed

### See also

- 193.68 XL.Format.GetAlignV 9077
- 193.81 XL.Format.GetFont 9090
- 193.83 XL.Format.GetIndent 9092
- 193.91 XL.Format.SetAlignH 9100
- 193.92 XL.Format.SetAlignV 9103
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.68 XL.Format.GetAlignV**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetAlignV"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description**

Possible values:

- 0 Top
- 1 Center
- 2 Bottom
- 3 Jusity
- 4 Distributed

**See also**

- 193.67 `XL.Format.GetAlignH` 9076
- 193.81 `XL.Format.GetFont` 9090
- 193.83 `XL.Format.GetIndent` 9092
- 193.91 `XL.Format.SetAlignH` 9100
- 193.92 `XL.Format.SetAlignV` 9103
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.69 XL.Format.GetBorderBottom

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderBottom"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

#### See also

- 193.76 XL.Format.GetBorderRight 9085
- 193.78 XL.Format.GetBorderTop 9087
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.94 XL.Format.SetBorderBottom 9107
- 193.96 XL.Format.SetBorderColor 9110
- 193.100 XL.Format.SetBorderLeft 9116
- 193.102 XL.Format.SetBorderRight 9119
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.70 XL.Format.GetBorderBottomColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderBottomColor"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description**

If book is in RGB mode, you need to use `XL.Color.Unpack` to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see `XL.Font.SetColor`).

**See also**

- 193.60 `XL.Font.SetColor` 9065
- 193.75 `XL.Format.GetBorderLeftColor` 9084
- 193.77 `XL.Format.GetBorderRightColor` 9086
- 193.79 `XL.Format.GetBorderTopColor` 9088
- 193.95 `XL.Format.SetBorderBottomColor` 9109
- 193.96 `XL.Format.SetBorderColor` 9110
- 193.98 `XL.Format.SetBorderDiagonalColor` 9114
- 193.101 `XL.Format.SetBorderLeftColor` 9118
- 193.103 `XL.Format.SetBorderRightColor` 9121
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.71 XL.Format.GetBorderDiagonal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderDiagonal"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

Possible values:

- 0 No digital border
- 1 Down
- 2 Up
- 3 Both

### See also

- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.73 XL.Format.GetBorderDiagonalStyle 9082
- 193.76 XL.Format.GetBorderRight 9085
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.102 XL.Format.SetBorderRight 9119
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.72 XL.Format.GetBorderDiagonalColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderDiagonalColor"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description**

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

**See also**

- 193.43 XL.Color.UnPack 9042
- 193.71 XL.Format.GetBorderDiagonal 9080
- 193.73 XL.Format.GetBorderDiagonalStyle 9082
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.73 XL.Format.GetBorderDiagonalStyle

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderDiagonalStyle"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### Format

The index of the format in the book to target.  
0

**Result** Returns value or error.

### Description

#### See also

- 193.71 XL.Format.GetBorderDiagonal 9080
- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.74 XL.Format.GetBorderLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderLeft"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.76 XL.Format.GetBorderRight 9085
- 193.78 XL.Format.GetBorderTop 9087
- 193.94 XL.Format.SetBorderBottom 9107
- 193.96 XL.Format.SetBorderColor 9110
- 193.100 XL.Format.SetBorderLeft 9116
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.104 XL.Format.SetBorderTop 9122
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.75 XL.Format.GetBorderLeftColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderLeftColor"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

### See also

- 193.43 XL.Color.UnPack 9042
- 193.60 XL.Font.SetColor 9065
- 193.70 XL.Format.GetBorderBottomColor 9079
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.96 XL.Format.SetBorderColor 9110
- 193.100 XL.Format.SetBorderLeft 9116
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.76 XL.Format.GetBorderRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderRight"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.74 `XL.Format.GetBorderLeft` 9083
- 193.77 `XL.Format.GetBorderRightColor` 9086
- 193.78 `XL.Format.GetBorderTop` 9087
- 193.94 `XL.Format.SetBorderBottom` 9107
- 193.96 `XL.Format.SetBorderColor` 9110
- 193.97 `XL.Format.SetBorderDiagonal` 9112
- 193.102 `XL.Format.SetBorderRight` 9119
- 193.103 `XL.Format.SetBorderRightColor` 9121
- 193.104 `XL.Format.SetBorderTop` 9122
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.77 XL.Format.GetBorderRightColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderRightColor"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

### See also

- 193.60 XL.Font.SetColor 9065
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.76 XL.Format.GetBorderRight 9085
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.78 XL.Format.GetBorderTop**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderTop"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.74 `XL.Format.GetBorderLeft` 9083
- 193.76 `XL.Format.GetBorderRight` 9085
- 193.79 `XL.Format.GetBorderTopColor` 9088
- 193.93 `XL.Format.SetBorder` 9105
- 193.94 `XL.Format.SetBorderBottom` 9107
- 193.96 `XL.Format.SetBorderColor` 9110
- 193.100 `XL.Format.SetBorderLeft` 9116
- 193.104 `XL.Format.SetBorderTop` 9122
- 193.105 `XL.Format.SetBorderTopColor` 9124
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.79 XL.Format.GetBorderTopColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetBorderTopColor"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

### See also

- 193.43 XL.Color.UnPack 9042
- 193.60 XL.Font.SetColor 9065
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.104 XL.Format.SetBorderTop 9122
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.80 **XL.Format.GetFillPattern**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetFillPattern"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

#### See also

- 193.106 `XL.Format.SetFillPattern` 9125
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.81 XL.Format.GetFont

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetFont"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

If no font is defined, the result is empty.

#### See also

- 193.67 XL.Format.GetAlignH 9076
- 193.68 XL.Format.GetAlignV 9077
- 193.83 XL.Format.GetIndent 9092
- 193.84 XL.Format.GetLocked 9093
- 193.90 XL.Format.GetWrap 9099
- 193.107 XL.Format.SetFont 9127
- 193.109 XL.Format.SetIndent 9130
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.82 XL.Format.GetHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetHidden"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.83 XL.Format.GetIndent 9092
- 193.84 XL.Format.GetLocked 9093
- 193.93 XL.Format.SetBorder 9105
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130
- 193.119 XL.LoadBook 9150
- 193.204 XL.Sheet.GetHidden 9283

Created 18th August 2014, last changed 18th August 2014.

## 193.83 XL.Format.GetIndent

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetIndent"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

#### See also

- 193.67 XL.Format.GetAlignH 9076
- 193.68 XL.Format.GetAlignV 9077
- 193.81 XL.Format.GetFont 9090
- 193.82 XL.Format.GetHidden 9091
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.84 XL.Format.GetLocked**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetLocked"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.81 XL.Format.GetFont 9090
- 193.82 XL.Format.GetHidden 9091
- 193.93 XL.Format.SetBorder 9105
- 193.110 XL.Format.SetLocked 9131
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.85 XL.Format.GetNumFormat

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetNumFormat"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

#### See also

- 193.111 XL.Format.SetNumFormat 9133
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.86 XL.Format.GetPatternBackgroundColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetPatternBackgroundColor"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description**

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

**See also**

- 193.43 XL.Color.UnPack 9042
- 193.60 XL.Font.SetColor 9065
- 193.87 XL.Format.GetPatternForegroundColor 9096
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.87 XL.Format.GetPatternForegroundColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetPatternForegroundColor"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

If book is in RGB mode, you need to use XL.Color.Unpack to get red, green and blue color components from the returned number. If book is not in RGB mode, you receive a color number (see XL.Font.SetColor).

### See also

- 193.43 XL.Color.UnPack 9042
- 193.60 XL.Font.SetColor 9065
- 193.86 XL.Format.GetPatternBackgroundColor 9095
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.88 **XL.Format.GetRotation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetRotation"; Book; Format )

### Parameters

#### Book

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

**Result** Returns value or error.

### Description

#### See also

- 193.114 `XL.Format.SetRotation` 9140
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

**193.89 XL.Format.GetShrinkToFit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetShrinkToFit"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.115 XL.Format.SetShrinkToFit 9141
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.90 XL.Format.GetWrap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.GetWrap"; Book; Format )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Result** Returns value or error.

**Description****See also**

- 193.81 XL.Format.GetFont 9090
- 193.107 XL.Format.SetFont 9127
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.91 XL.Format.SetAlignH

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetAlignH"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

Possible values:

- 0 general
- 1 left
- 2 center
- 3 right
- 4 full
- 5 justify
- 6 merge
- 7 distributed

### Examples

Create left aligned format with specific font:

```
# create a font
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
# create format
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $textFormat; $textFont) ]
```



```
Set Variable [ $r; Value:MBS( "XL.Format.SetAlignH"; $book; $textFormat; 1) // left ]
```

Create header row:

```
#
# define a font:
#
Set Variable [ $headerFont ; Value: MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetSize"; $book; $headerFont; 12) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetName"; $book; $headerFont; "Century Gothic") ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $book; $headerFont; 1) ]
#
# define a format:
#
Set Variable [ $headerFormat ; Value: MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $book; $headerFormat; $headerFont) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFillPattern"; $book; $headerFormat; 1) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $headerFormat; MBS(
"XL.Color.Pack"; $book; 200; 200; 200) ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetAlignH"; $book; $headerFormat; 2 /* center */ ) ]
#
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetRow"; $book; $sheet; $row ; 20 ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 0; "Account" ; $headerFor-
mat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 1; "Account Group" ;
$headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 2; "Report Name" ; $head-
erFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 3; "Date TS" ; $headerFor-
mat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 4; "Text" ; $headerFormat
) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 5; "Text2" ; $headerFormat
) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 6; "Text3" ; $headerFormat
) ]
```

### See also

- 193.59 XL.Font.SetBold 9063
- 193.62 XL.Font.SetName 9069
- 193.67 XL.Format.GetAlignH 9076
- 193.68 XL.Format.GetAlignV 9077
- 193.106 XL.Format.SetFillPattern 9125

9102

*CHAPTER 193. XL*

- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.177 XL.Sheet.CellWriteText 9250
- 193.259 XL.Sheet.SetCol 9347

### **Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 7th February 2020.

**193.92 XL.Format.SetAlignV**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetAlignV"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Possible values:

- 0 Top
- 1 Center
- 2 Bottom
- 3 Jusity
- 4 Distributed

**Examples**

Create left aligned format with specific font:

```
# create a font
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
# create format
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $textFormat; $textFont) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetAlignH"; $book; $textFormat; 1) // left ]
Set Variable [ $r; Value:MBS( "XL.Format.SetAlignV"; $book; $textFormat; 0) // top ]
```

**See also**

- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.62 XL.Font.SetName 9069
- 193.64 XL.Font.SetSize 9072
- 193.67 XL.Format.GetAlignH 9076
- 193.68 XL.Format.GetAlignV 9077
- 193.91 XL.Format.SetAlignH 9100
- 193.107 XL.Format.SetFont 9127
- 193.109 XL.Format.SetIndent 9130
- 193.119 XL.LoadBook 9150

**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 27th November 2017.

**193.93 XL.Format.SetBorder**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorder"; Book; Format { ; Value } )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

Optional

The new border style. Default value is 1.

\$value

**Result** Returns OK or error.

**Description**

Available styles:

- 0 None
- 1 Thin
- 2 Medium
- 3 Dashed
- 4 Dotted
- 5 Thick,
- 6 Double
- 7 Hair
- 8 Medium dashed
- 9 Dash dot
- 10 Medium dash dot
- 11 Dash Dot Dot
- 12 Medium dash dot dot
- 13 Slant dash dot

**Examples**

Create border format:

```
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
```

```
Set Variable [ $r; Value:MBS( "XL.Format.SetBorder"; $book; $textFormat; 1) // thin ]
```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.84 XL.Format.GetLocked 9093
- 193.96 XL.Format.SetBorderColor 9110
- 193.100 XL.Format.SetBorderLeft 9116
- 193.102 XL.Format.SetBorderRight 9119
- 193.108 XL.Format.SetHidden 9129
- 193.109 XL.Format.SetIndent 9130
- 193.110 XL.Format.SetLocked 9131
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150

### Example Databases

- [XL/Writing data](#)

Created 18th August 2014, last changed 27th November 2017.

**193.94 XL.Format.SetBorderBottom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderBottom"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Available styles:

0 None

1 Thin

2 Medium

3 Dashed

4 Dotted

5 Thick,

6 Double

7 Hair

8 Medium dashed

9 Dash dot

10 Medium dash dot

11 Dash Dot Dot

12 Medium dash dot dot

13 Slant dash dot

**See also**

- 193.69 XL.Format.GetBorderBottom 9078
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112

9108

*CHAPTER 193. XL*

- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.95 XL.Format.SetBorderBottomColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderBottomColor"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

**See also**

- 193.60 XL.Font.SetColor 9065
- 193.70 XL.Format.GetBorderBottomColor 9079
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.96 XL.Format.SetBorderColor 9110
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.96 XL.Format.SetBorderColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### Format

The index of the format in the book to target.  
0

#### Value

The new setting.  
\$value

**Result** Returns OK or error.

### Description

Color values if not in RGB Mode:

### See also

- 193.79 XL.Format.GetBorderTopColor 9088
- 193.94 XL.Format.SetBorderBottom 9107
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.100 XL.Format.SetBorderLeft 9116
- 193.102 XL.Format.SetBorderRight 9119
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

### Example Databases

- [XL/Writing data](#)

Created 18th August 2014, last changed 18th August 2014.

Black	8
White	9
Red	10
Brightgreen	11
Blue	12
Yellow	13
Pink	14
Turquoise	15
Darkred	16
Green	17
Darkblue	18
Darkyellow	19
Violet	20
Teal	21
Gray25	22
Gray50	23
Periwinkle Cf	24
Plum Cf	25
Ivory Cf	26
Lightturquoise Cf	27
Darkpurple Cf	28
Coral Cf	29
Oceanblue Cf	30
Iceblue Cf	31
Darkblue Cl	32
Pink Cl	33
Yellow Cl	34
Turquoise Cl	35
Violet Cl	36
Darkred Cl	37
Teal Cl	38
Blue Cl	39
Skyblue	40
Lightturquoise	41
Lightgreen	42
Lightyellow	43
Paleblue	44
Rose	45
Lavender	46
Tan	47
Lightblue	48
Aqua	49
Lime	50
Gold	51
Lightorange	52
Orange	53
Bluegray	54
Gray40	55
Darkteal	56
Seagreen	57
Darkgreen	58
Olivegreen	59
Brown	60
Plum	61
Indigo	62
Gray80	63
Default Foreground	64
Default Background	65

## 193.97 XL.Format.SetBorderDiagonal

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderDiagonal"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

Possible values:

- 0 No digital border
- 1 Down
- 2 Up
- 3 Both

### See also

- 193.71 XL.Format.GetBorderDiagonal 9080
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.94 XL.Format.SetBorderBottom 9107
- 193.96 XL.Format.SetBorderColor 9110
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.99 XL.Format.SetBorderDiagonalStyle 9115
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.102 XL.Format.SetBorderRight 9119

<i>193.97. XL.FORMAT.SETBORDERDIAGONAL</i>	9113
• 193.103 XL.Format.SetBorderRightColor	9121
• 193.119 XL.LoadBook	9150

Created 18th August 2014, last changed 18th August 2014.

## 193.98 XL.Format.SetBorderDiagonalColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderDiagonalColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### Format

The index of the format in the book to target.  
0

#### Value

The new setting.  
\$value

**Result** Returns OK or error.

### Description

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

### See also

- 193.60 XL.Font.SetColor 9065
- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.73 XL.Format.GetBorderDiagonalStyle 9082
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.105 XL.Format.SetBorderTopColor 9124

Created 18th August 2014, last changed 18th August 2014.

**193.99 XL.Format.SetBorderDiagonalStyle**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderDiagonalStyle"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Format**

The index of the format in the book to target.  
0

**Value**

The new setting.  
\$value

**Result** Returns OK or error.

**Description****See also**

- 193.71 XL.Format.GetBorderDiagonal 9080
- 193.72 XL.Format.GetBorderDiagonalColor 9081
- 193.73 XL.Format.GetBorderDiagonalStyle 9082
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.100 XL.Format.SetBorderLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderLeft"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Available styles:

0 None

1 Thin

2 Medium

3 Dashed

4 Dotted

5 Thick,

6 Double

7 Hair

8 Medium dashed

9 Dash dot

10 Medium dash dot

11 Dash Dot Dot

12 Medium dash dot dot

13 Slant dash dot

**See also**

- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.76 XL.Format.GetBorderRight 9085
- 193.78 XL.Format.GetBorderTop 9087
- 193.93 XL.Format.SetBorder 9105
- 193.94 XL.Format.SetBorderBottom 9107



<i>193.100. XL.FORMAT.SETBORDERLEFT</i>	9117
• 193.96 XL.Format.SetBorderColor	9110
• 193.101 XL.Format.SetBorderLeftColor	9118
• 193.102 XL.Format.SetBorderRight	9119
• 193.104 XL.Format.SetBorderTop	9122
• 193.119 XL.LoadBook	9150

Created 18th August 2014, last changed 18th August 2014.

## 193.101 XL.Format.SetBorderLeftColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderLeftColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

### See also

- 193.60 XL.Font.SetColor 9065
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.100 XL.Format.SetBorderLeft 9116
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.105 XL.Format.SetBorderTopColor 9124

Created 18th August 2014, last changed 18th August 2014.

**193.102 XL.Format.SetBorderRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderRight"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Available styles:

0 None

1 Thin

2 Medium

3 Dashed

4 Dotted

5 Thick,

6 Double

7 Hair

8 Medium dashed

9 Dash dot

10 Medium dash dot

11 Dash Dot Dot

12 Medium dash dot dot

13 Slant dash dot

**See also**

- 193.76 `XL.Format.GetBorderRight` 9085
- 193.77 `XL.Format.GetBorderRightColor` 9086
- 193.93 `XL.Format.SetBorder` 9105
- 193.94 `XL.Format.SetBorderBottom` 9107
- 193.96 `XL.Format.SetBorderColor` 9110

- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.100 XL.Format.SetBorderLeft 9116
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.103 XL.Format.SetBorderRightColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderRightColor"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

**See also**

- 193.60 XL.Font.SetColor 9065
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.77 XL.Format.GetBorderRightColor 9086
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.95 XL.Format.SetBorderBottomColor 9109
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.98 XL.Format.SetBorderDiagonalColor 9114
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.105 XL.Format.SetBorderTopColor 9124
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

## 193.104 XL.Format.SetBorderTop

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderTop"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

Available styles:

- 0 None
- 1 Thin
- 2 Medium
- 3 Dashed
- 4 Dotted
- 5 Thick,
- 6 Double
- 7 Hair
- 8 Medium dashed
- 9 Dash dot
- 10 Medium dash dot
- 11 Dash Dot Dot
- 12 Medium dash dot dot
- 13 Slant dash dot

### See also

- 193.74 XL.Format.GetBorderLeft 9083
- 193.76 XL.Format.GetBorderRight 9085
- 193.78 XL.Format.GetBorderTop 9087
- 193.93 XL.Format.SetBorder 9105
- 193.94 XL.Format.SetBorderBottom 9107

<i>193.104. XL.FORMAT.SETBORDERTOP</i>	9123
• 193.96 XL.Format.SetBorderColor	9110
• 193.100 XL.Format.SetBorderLeft	9116
• 193.102 XL.Format.SetBorderRight	9119
• 193.105 XL.Format.SetBorderTopColor	9124
• 193.119 XL.LoadBook	9150

Created 18th August 2014, last changed 18th August 2014.

## 193.105 XL.Format.SetBorderTopColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetBorderTopColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

### See also

- 193.60 XL.Font.SetColor 9065
- 193.75 XL.Format.GetBorderLeftColor 9084
- 193.79 XL.Format.GetBorderTopColor 9088
- 193.94 XL.Format.SetBorderBottom 9107
- 193.96 XL.Format.SetBorderColor 9110
- 193.97 XL.Format.SetBorderDiagonal 9112
- 193.101 XL.Format.SetBorderLeftColor 9118
- 193.103 XL.Format.SetBorderRightColor 9121
- 193.104 XL.Format.SetBorderTop 9122
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.106 XL.Format.SetFillPattern**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetFillPattern"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**Format**

The index of the format in the book to target.  
0

**Value**

The new setting.  
\$value

**Result** Returns OK or error.

**Description**

None	0
Solid	1
50% Gray	2
75% Gray	3
25% Gray	4
Horizontal Stripes	5
Vertical Stripes	6
Reverse Diagonal Stripes	7
Diagonal Stripes	8
Diagonal Cross Hatch	9
Thick Diagonal Stripe	9
Thin Horizontal Stripe	11
Thin Vertical Stripe	12
Thin Reverse Diagonal Stripe	13
Thin Diagonal Stripe	14
Thin Horizontal Cross Hatch	15
Thin Diagonal Cross Hatch	16
Gray 12P5	17
Gray 6P25	18

see table of fill patterns here:

<http://www.libxl.com/format.html#borderStyleTable#setFillPattern>

**Examples**

Sets the fore color to red:

```
If [ MBS( "XL.Book.GetRGBMode"; $book) = 0 ]  
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; 10) ]  
Else  
Set Variable [ $c; Value: MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]  
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; $c) ]  
End If  
Set Variable [ $r; Value: MBS( "XL.Format.SetFillPattern"; $book; $format; 1 ) ]
```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.19 XL.Book.GetRGBMode 9014
- 193.42 XL.Color.Pack 9040
- 193.80 XL.Format.GetFillPattern 9089
- 193.91 XL.Format.SetAlignH 9100
- 193.112 XL.Format.SetPatternBackgroundColor 9136
- 193.113 XL.Format.SetPatternForegroundColor 9138
- 193.119 XL.LoadBook 9150
- 193.177 XL.Sheet.CellWriteText 9250

Created 18th August 2014, last changed 17th February 2015.

**193.107 XL.Format.SetFont**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetFont"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new font index.

\$value

**Result** Returns OK or error.

**Description**

You can use XL.Book.AddFont to create a new font.

**Examples**

Create left aligned format with specific font:

```
# create a font
Set Variable [ $textFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetSize"; $book; $textfont; 8) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetName"; $book; $textfont; "Century Gothic") ]
# create format
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $textFormat; $textFont) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetAlignH"; $book; $textFormat; 1) // left ]
```

**See also**

- 193.64 XL.Font.SetSize 9072
- 193.81 XL.Format.GetFont 9090
- 193.83 XL.Format.GetIndent 9092
- 193.90 XL.Format.GetWrap 9099
- 193.92 XL.Format.SetAlignV 9103
- 193.93 XL.Format.SetBorder 9105

9128

CHAPTER 193. XL

- 193.110 XL.Format.SetLocked 9131
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.169 XL.Sheet.CellWriteFormula 9232

### Example Databases

- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

Created 18th August 2014, last changed 5th May 2016.

**193.108 XL.Format.SetHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetHidden"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description****Examples**

Create hidden format:

```
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
```

```
Set Variable [ $r; Value:MBS( "XL.Format.SetHidden"; $book; $textFormat; 1) // hidden ]
```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.82 XL.Format.GetHidden 9091
- 193.83 XL.Format.GetIndent 9092
- 193.93 XL.Format.SetBorder 9105
- 193.109 XL.Format.SetIndent 9130
- 193.110 XL.Format.SetLocked 9131
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 27th November 2017.

**193.109 XL.Format.SetIndent**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetIndent"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Must be less than or equal to 15.

**See also**

- 193.81 XL.Format.GetFont 9090
- 193.82 XL.Format.GetHidden 9091
- 193.83 XL.Format.GetIndent 9092
- 193.91 XL.Format.SetAlignH 9100
- 193.92 XL.Format.SetAlignV 9103
- 193.93 XL.Format.SetBorder 9105
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.110 XL.Format.SetLocked**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetLocked"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Needs to be used together with XL.Sheet.SetProtect or XL.Sheet.SetProtectEx function to prevent editing in locked cells.

**Examples**

Create locked format:

```
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
```

```
Set Variable [ $r; Value:MBS( "XL.Format.SetLocked"; $book; $textFormat; 1) // locked ]
```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.84 XL.Format.GetLocked 9093
- 193.93 XL.Format.SetBorder 9105
- 193.107 XL.Format.SetFont 9127
- 193.108 XL.Format.SetHidden 9129
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.259 XL.Sheet.SetCol 9347
- 193.287 XL.Sheet.SetProtect 9387

- 193.288 XL.Sheet.SetProtectEx

Created 18th August 2014, last changed 11st February 2020.



**193.111 XL.Format.SetNumFormat**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetNumFormat"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

The identifier must be a valid built-in number format identifier or the identifier of a custom number format.

To create a custom format use Xl.Book.addCustomNumFormat.

See built-in values in the table on this page:

<http://www.libxl.com/format.html>

Constant	Value	Description	Example
NUMFORMAT_GENERAL	0	general format	
NUMFORMAT_NUMBER	1	general number	1000
NUMFORMAT_NUMBER_D2	2	number with decimal point	1000.00
NUMFORMAT_NUMBER_SEP	3	number with thousands separator	100,000
NUMFORMAT_NUMBER_SEP_D2	4	number with decimal point and thousands separator	100,000.00
NUMFORMAT_CURRENCY_NEGBRA	5	monetary value, negative in brackets	(1000\$)
NUMFORMAT_CURRENCY_NEGBRAED	6	monetary value, negative is red in brackets	(1000\$)
NUMFORMAT_CURRENCY_D2_NEGBRA	7	monetary value with decimal point, negative in brackets	(\$1000.00)
NUMFORMAT_CURRENCY_D2_NEGBRAED	8	monetary value with decimal point, negative is red in brackets	(\$1000.00)
NUMFORMAT_PERCENT	9	percent value, multiply the cell value by 100	75%
NUMFORMAT_PERCENT_D2	10	percent value with decimal point, multiply the cell value by 100	75.00%
NUMFORMAT_SCIENTIFIC_D2	11	scientific value with E character and decimal point	10.00E+1
NUMFORMAT_FRACTION_ONEDIG	12	fraction value, one digit	10 1/2
NUMFORMAT_FRACTION_TWODIG	13	fraction value, two digits	10 23/95
NUMFORMAT_DATE	14	date value, depends on OS settings	3/11/2009
NUMFORMAT_CUSTOM_D_MON_YY	15	custom date value	11-Mar-09
NUMFORMAT_CUSTOM_D_MON	16	custom date value	11-Mar
NUMFORMAT_CUSTOM_MON_YY	17	custom date value	Mar-09
NUMFORMAT_CUSTOM_HMM_AM	18	custom date value	8:30 AM
NUMFORMAT_CUSTOM_HMSS_AM	19	custom date value	8:30:00 AM
NUMFORMAT_CUSTOM_HMM	20	custom date value	8:30
NUMFORMAT_CUSTOM_HMSS	21	custom date value	8:30:00
NUMFORMAT_CUSTOM_MDYYYY_HMM	22	custom datetime value	3/11/2009 8:30
NUMFORMAT_NUMBER_SEP_NEGBRA	37	number with thousands separator, negative in brackets	(4,000)
NUMFORMAT_NUMBER_SEP_NEGBRAED	38	number with thousands separator, negative is red in brackets	(4,000)
NUMFORMAT_NUMBER_D2_SEP_NEGBRA	39	number with thousands separator and decimal point, negative in brackets	(4,000.00)
NUMFORMAT_NUMBER_D2_SEP_NEGBRAED	40	number with thousands separator and decimal point, negative is red in brackets	(4,000.00)
NUMFORMAT_ACCOUNT	41	account value	5,000
NUMFORMAT_ACCOUNTCUR	42	account value with currency symbol	\$5,000
NUMFORMAT_ACCOUNT_D2	43	account value with decimal point	5,000.00
NUMFORMAT_ACCOUNT_D2_CUR	44	account value with currency symbol and decimal point	\$5,000.00
NUMFORMAT_CUSTOM_MMSS	45	custom time value	30:55
NUMFORMAT_CUSTOM_H0MSS	46	custom time value	20:30:55
NUMFORMAT_CUSTOM_MMSS0	47	custom time value	30:55.0
NUMFORMAT_CUSTOM_000P0E_PLUS0	48	custom value	15.2E+3
NUMFORMAT_TEXT	49	text value	any text

**Examples**

Use a number format:

```
# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $book) ]
# use existing number format
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $format; 7) ]
# and use format
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $format) ]
```

Apply a new format to a column:

```
# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $BookRef ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $BookRef; $format; 7) ]
# set as format for column
Set Variable [ $r; Value:MBS( "XL.Sheet.SetColumn"; $BookRef; 0; 6; 6; 50 ; $format; 0 ) ]
# loop over all rows
Set Variable [ $lastRow; Value:MBS( "XL.Sheet.GetLastRow"; $BookRef; $sheet ) ]
Set Variable [ $row; Value:1 ]
Loop
Set Variable [ $r; Value:MBS( "XL.Sheet.SetCellFormat"; $BookRef; $sheet; $row; 6; $format ) ]
# next
Set Variable [ $row; Value:$row + 1 ]
Exit Loop If [ $row >$lastRow ]
End Loop
```

### See also

- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.3 XL.Book.AddFormat 8992
- 193.48 XL.Date.Pack 9051
- 193.85 XL.Format.GetNumFormat 9094
- 193.119 XL.LoadBook 9150
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.209 XL.Sheet.GetLastRow 9288
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.259 XL.Sheet.SetCol 9347
- 193.261 XL.Sheet.SetColumn 9351

### Example Databases

- [XL/Writing data](#)

193.111. *XL.FORMAT.SETNUMFORMAT*

9135

Created 18th August 2014, last changed 19th March 2018.

## 193.112 XL.Format.SetPatternBackgroundColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetPatternBackgroundColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

This is the background color for the pattern, you can put in the background of a cell. If your pattern is stripes, the one color is the foreground one and the other the background one.

### Examples

Sets the fore color to red:

```
If [ MBS( "XL.Book.GetRGBMode"; $book) = 0 ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternBackgroundColor"; $book; $format; 10) ]
Else
Set Variable [ $c; Value: MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternBackgroundColor"; $book; $format; $c) ]
End If
Set Variable [ $r; Value: MBS( "XL.Format.SetFillPattern"; $book; $format; 1 ) ]
```

### See also

- 193.19 XL.Book.GetRGBMode 9014
- 193.42 XL.Color.Pack 9040
- 193.60 XL.Font.SetColor 9065
- 193.86 XL.Format.GetPatternBackgroundColor 9095

<i>193.112. XL.FORMAT.SETPATTERNBACKGROUND</i>	9137
• 193.87 XL.Format.GetPatternForegroundColor	9096
• 193.106 XL.Format.SetFillPattern	9125
• 193.113 XL.Format.SetPatternForegroundColor	9138
• 193.119 XL.LoadBook	9150

Created 18th August 2014, last changed 14th June 2017.

## 193.113 XL.Format.SetPatternForegroundColor

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetPatternForegroundColor"; Book; Format; Value )

### Parameters

#### Book

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### Format

The index of the format in the book to target.

0

#### Value

The new setting.

\$value

**Result** Returns OK or error.

### Description

If you set value and book is in RGB mode you can use XL.ColorPack function to get a numeric value for color components. If the book is not in RGB mode, you can use color values as described in XL.Font.SetColor.

This is the foreground color for the pattern, you can put in the background of a cell. If your pattern is stripes, the one color is the foreground one and the other the background one. Setting no foreground color and using a pattern, can lead to use of the default color (black).

### Examples

Sets the fore color to red:

```
If [ MBS( "XL.Book.GetRGBMode"; $book ) = 0 ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; 10) ]
Else
Set Variable [ $c; Value: MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]
Set Variable [ $r; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $format; $c) ]
End If
Set Variable [ $r; Value: MBS( "XL.Format.SetFillPattern"; $book; $format; 1 ) ]
```

### See also

- 193.3 XL.Book.AddFormat 8992
- 193.19 XL.Book.GetRGBMode 9014
- 193.42 XL.Color.Pack 9040

<i>193.113. XL.FORMAT.SETPATTERNFOREGROUNDCOLOR</i>	9139
• 193.86 XL.Format.GetPatternBackgroundColor	9095
• 193.87 XL.Format.GetPatternForegroundColor	9096
• 193.91 XL.Format.SetAlignH	9100
• 193.106 XL.Format.SetFillPattern	9125
• 193.112 XL.Format.SetPatternBackgroundColor	9136
• 193.119 XL.LoadBook	9150
• 193.177 XL.Sheet.CellWriteText	9250

Created 18th August 2014, last changed 14th June 2017.

**193.114 XL.Format.SetRotation**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetRotation"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description**

Must be a value from the following table:

Value	Meaning
0 - 90	Text rotated counterclockwise 0 to 90 degrees
91 - 180	Text rotated clockwise 1 to 90 degrees
255	Vertical text

**See also**

- 193.88 XL.Format.GetRotation 9097
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.



**193.115 XL.Format.SetShrinkToFit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetShrinkToFit"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting.

\$value

**Result** Returns OK or error.

**Description****See also**

- 193.89 `XL.Format.GetShrinkToFit` 9098
- 193.119 `XL.LoadBook` 9150

Created 18th August 2014, last changed 18th August 2014.

**193.116 XL.Format.SetWrap**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Format.SetWrap"; Book; Format; Value )

**Parameters****Book**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Format**

The index of the format in the book to target.

0

**Value**

The new setting. Pass 1 to enable wrap and 0 to disable.

\$value

**Result** Returns OK or error.

**Description****Examples**

Create wrapping format:

```
Set Variable [ $textFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetWrap"; $book; $textFormat; 1 ) ]
```

Write two lines with adjusting the row height:

```
# create format with wrap
#
Set Variable [ $textFormat ; Value: MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetWrap"; $book; $textFormat; 1 ) ]
#
# put in text with Char(10) for new line
#
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 1; "First line" & Char(10)
& "Second line"; $textFormat ) ]
#
# make line higher
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetRow"; $book; $sheet; $row; 20 ) ]
```

Create sheet with column format:

```
# create new xls file
Set Variable [ $book ; Value: MBS( "XL.NewBook"; 1 ) ]
```

```

# load logo picture
Set Variable [ $logoID ; Value: MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
# create fonts
# create format for column
Set Variable [ $colFormat ; Value: MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetWrap"; $book; $colFormat; 1) // enable wrap ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetAlignH"; $book; $colFormat; 1) // left ]
#
# create specialized format for one cell with lock
Set Variable [ $lockFormat ; Value: MBS( "XL.Book.AddFormat"; $book; $colFormat) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetLocked"; $book; $lockFormat; 1) // on ]
#
# create sheet
Set Variable [ $sheet ; Value: MBS( "XL.Book.AddSheet"; $book; "Sales Receipt") ]
# set default format for whole column
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetCol"; $book; $sheet; 1; 1; 12; $colFormat ) ]
#
# put some text in using column format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; 2; 1; "Long text wraps due to
column format") ]
#
# and locked format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; 3; 1; "And this is locked"; $lock-
Format) ]
#
# save and export
Set Field [ Writing data::Output ; MBS("XL.Book.Save"; $book; "test.xlsx") ]
Set Variable [ $r ; Value: MBS("XL.Book.Release"; $book) ]
#
Export Field Contents [ Writing data::Output ; Create folders: On ]

```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.4 XL.Book.AddPictureContainer 8995
- 193.29 XL.Book.Save 9025
- 193.91 XL.Format.SetAlignH 9100
- 193.93 XL.Format.SetBorder 9105
- 193.107 XL.Format.SetFont 9127
- 193.110 XL.Format.SetLocked 9131
- 193.119 XL.LoadBook 9150
- 193.177 XL.Sheet.CellWriteText 9250

- 193.290 XL.Sheet.SetRow

Created 18th August 2014, last changed 11st February 2020.

**193.117 XL.Initialize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Initialize"; LibPath; LicenseName; LicenseKey )

**Parameters****LibPath**

Native path to the DLL on Windows or Dylib file on MacOS. Can be empty for default file name with file in same folder as plugin.

"C:\libxl\libxl.dll"

**LicenseName**

The name of your libXL license.

""

**LicenseKey**

The license key of your libXL license.

""

**Result** Returns OK on success.

**Description**

You can keep the library in a database field and export it at runtime to a known location and load it from there.

If you have no license yet, you can test this function by passing empty strings for name and key.

For getting a license key, please visit the libXL website:

<https://www.monkeybreadsoftware.com/filemaker/libxl.shtml>

Starting with version 4.4, you can pass just the filename of library and the plugin finds it in the Extensions folder or in FileMaker's application folder.

Windows error 193 means that 64-bit FileMaker tried to load 32-bit library or 32-bit FileMaker tried to load 64-bit library. The bit level must match between app and library. For Mac OS X the error message will tell you about wrong architecture.

Starting version 9.5, the plugin will look into the same folder for the DLL as the plugin resides. And we still look for 32/64 suffixes to DLL name. If no name is provided, we look for libxl.dll/dylib/so files.

If you get a crash here on MacOS, please check if crash report says Code Signature Invalid. Then you may need to code sign the dylib yourself to match the code signature of your runtime application. The dylib from MBS is normally code signed already and should work as is.

This function requires a native path. Use `Path.FileMakerPathToNativePath` to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use `FileDialog` functions. For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Initialize XL:

```
MBS( "XL.Initialize"; "/Library/FileMaker Server/Extensions/libxl.dylib"; "Test User"; "mac-43567890..." )
```

Initialize when needed:

```
# Initialize XL
If [ MBS( "XL.IsInitialized" ) = 1 ]
If [ Get ( SystemPlatform ) = -3 ]
# iOS
Exit Script [ ]
Else If [ Get ( SystemPlatform ) = -2 ]
# Windows
Set Variable [ $path; Value: "libxl.dll" ]
Set Variable [ $key; Value: "win-32213..." ]
Else
# Mac
Set Variable [ $path; Value: "libxl.dylib" ]
Set Variable [ $key; Value: "mac-32213..." ]
End If
Set Variable [ $r; Value: MBS( "XL.Initialize"; $path; "test"; $key ) ]
If [ $r = "OK" ]
Show Custom Dialog [ "LibXL failed to initialize"; $r ]
End If
End If
```

Initialize with license key on Windows with Server:

```
MBS( "XL.Initialize"; "C:\Program Files\FileMaker\FileMaker Server\Database Server\Extensions\libxl.dll";
"Test User"; "win-43567890..." )
```

Initialize automatically and look in same folder as plugin for the DLL/dylib/so file:

```
MBS("XL.Initialize"; "" ; $LicenseName; $LicenseKey)
```

### See also

- 123.9 `OCR.Initialize` 6227
- 124.2 `Path.FileMakerPathToNativePath` 6247
- 184.12 `WIA.Initialize` 8647
- 193.118 `XL.IsInitialized` 9148

193.117. *XL.INITIALIZE*

9147

- 193.303 *XL.Uninitialize*

9405

### **Example Databases**

- [XL/AutoFilter](#)
- [XL/Change Column Names](#)
- [XL/Converter](#)
- [XL/Edit Sheet](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)
- [XL/XL](#)

#### **193.117.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.5pr6](#)
- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 29th November 2019.

**193.118 XL.IsInitialized**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.IsInitialized" )

**Result** Returns 1 or 0.

**Description**

If value is 1, everything is okay.

If value is zero, the library is not initialized and you need to call XL.Initialize function.

On a hosted database this function is better than using a global variable, as the variable can't see if initialization was made on server or client side.

**Examples**

Initialize when needed:

```
# Initialize XL
If [ MBS( "XL.IsInitialized" ) = 1 ]
If [ Get ( SystemPlatform ) = -3 ]
# iOS
Exit Script [ ]
Else If [ Get ( SystemPlatform ) = -2 ]
# Windows
Set Variable [ $path; Value: "libxl.dll" ]
Set Variable [ $key; Value: "win-32213..." ]
Else
# Mac
Set Variable [ $path; Value: "libxl.dylib" ]
Set Variable [ $key; Value: "mac-32213..." ]
End If
Set Variable [ $r; Value: MBS( "XL.Initialize"; $path; "test"; $key ) ]
If [ $r = "OK" ]
Show Custom Dialog [ "LibXL failed to initialize"; $r ]
End If
End If
```

**See also**

- 123.10 OCR.IsInitialized 6229
- 126.7 PHP.IsInitialized 6363
- 134.3 Proj.IsInitialized 6660
- 166.22 TAPI.IsInitialized 7877
- 193.9 XL.Book.DeleteSheet 9002



<i>193.118. XL.ISINITIALIZED</i>	9149
• 193.30 XL.Book.SaveToFile	9027
• 193.117 XL.Initialize	9145
• 193.119 XL.LoadBook	9150
• 193.253 XL.Sheet.RemoveRow	9337
• 193.303 XL.Uninitialize	9405

### **Example Databases**

- [XL/AutoFilter](#)
- [XL/Change Column Names](#)
- [XL/Converter](#)
- [XL/Edit Sheet](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)
- [XL/XL](#)

### **193.118.1 Blog Entries**

- [How to use XL functions with MBS FileMaker Plugin](#)
- [MBS Filemaker Plugin, version 4.2pr6](#)

Created 18th August 2014, last changed 11st March 2016.

## 193.119 XL.LoadBook

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "XL.LoadBook"; Data { ; Type } )

### Parameters

#### Data

Either text with file path or container value which contains the Excel file data.

"C:\test\test.xls"

#### Type

Optional

Which type of file this is. Pass 0 for unknown, 1 to try xml format (xlsx) and 2 to try binary format (xls).

0

**Result** Returns book reference number on success.

### Description

Works with both XML based xlsx files and older xls files.

Book reference numbers are starting at 19000 and counting up for each new book.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Load file from container with auto detect:

```
Set Variable [ $book; Value: MBS( "XL.LoadBook"; MyTable::myFileContainer; 0 ) ]
```

Preprocess file before import in FileMaker by removing a row and a sheet:

```
# Find libXL and load it
If [ MBS("XL.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitXL" ; Parameter: ]
End If
#
# path to xls or xlsx file
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "test.xls"
) ]
#
# Load template excel file
Set Variable [ $bookRef ; Value: MBS( "XL.LoadBook"; $path ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $bookRef ]
Exit Script [ Text Result: ]
```

```

End If
#
# Remove first row of first sheet
Set Variable [ $r ; Value: MBS( "XL.Sheet.RemoveRow"; $BookRef; 0 /* sheet index */; 0 /* row index */ ) ]
#
# Remove second sheet
Set Variable [ $r ; Value: MBS( "XL.Book.DeleteSheet"; $bookRef; 1 /* sheet index */ ) ]
#
# Save to file and cleanup
Set Field [ XL::OutputFile ; MBS("XL.Book.SaveToFile"; $bookRef; $path) ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $bookRef) ]
#
# now let FileMaker import file

```

**See also**

- 82.8 Folders.UserDesktop 4235
- 124.2 Path.FileMakerPathToNativePath 6247
- 193.45 XL.CopyRow 9046
- 193.118 XL.IsInitialized 9148
- 193.120 XL.LoadBookPartially 9153
- 193.177 XL.Sheet.CellWriteText 9250
- 193.253 XL.Sheet.RemoveRow 9337
- 193.296 XL.Sheet.SetVerPageBreak 9398
- 193.297 XL.Sheet.SetZoom 9399
- 193.302 XL.Sheet.Type 9404

**Example Databases**

- [XL/Change Column Names](#)
- [XL/Converter](#)
- [XL/Edit Sheet](#)
- [XL/XL](#)

**193.119.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.4pr8](#)
- [MBS Filemaker Plugin, version 4.4pr5](#)

Created 18th August 2014, last changed 13th February 2020.

## 193.120 XL.LoadBookPartially

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.LoadBookPartially"; Data; SheetIndex; FirstRow; LastRow { ; Type } )

### Parameters

#### Data

Either text with file path or container value which contains the Excel file data.

"C:\test\test.xls"

#### SheetIndex

The index of the sheet to delete. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### FirstRow

The first row index to load. Starts with 0 for first one.

0

#### LastRow

The last row index to load.

100

#### Type

Optional

Which type of file this is. Pass 0 for unknown, 1 to try xml format (xlsx) and 2 to try binary format (xls).

0

**Result** Returns book reference number on success.

### Description

Loads a file only with specified sheet index and row range into memory.

Works with both XML based xlsx files and older xls files.

Book reference numbers are starting at 19000 and counting up for each new book.

### Examples

Try partial loading:

```
# Load second sheet
Set Variable [ $bookRef ; Value: MBS( "XL.LoadBookPartially"; XL::ExcelFile; 1; 0; 100) ]
Set Field [ XL::Result ; $bookRef ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $bookRef ]
Exit Script [ Text Result: ]
End If
# First row
# Save to container and cleanup
Set Field [ XL::OutputFile ; MBS("XL.Save"; $bookRef; "test.xlsx") ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $bookRef) ]
```

Set Field [ XL::Result ; \$r ]

**See also**

- 127.6 IsError 6374
- 193.27 XL.Book.Release 9022
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

**193.120.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr7](#)

Created 10th January 2018, last changed 20th March 2018.

**193.121 XL.NewBook**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	2.9	Yes	Yes	Yes	Yes	Yes

MBS( "XL.NewBook"; XML )

**Parameters****XML**

Pass 1 to create a new XML bases Excel file (xlsx). Else pass 0 for an old style file (xls). Default is 0.  
0

**Result** Returns book reference number.

**Description**

Please call XL.Book.Release later to free memory.

Book reference numbers are starting at 19000 and counting up for each new book.

**Examples**

Create a new book in xls format (older):

```
$book = MBS( "XL.NewBook"; 0 )
```

Create a new book in xlsx format (newer):

```
$book = MBS( "XL.NewBook"; 1 )
```

**See also**

- 193.1 XL.Book.AddCustomNumFormat 8987
- 193.3 XL.Book.AddFormat 8992
- 193.6 XL.Book.AddSheet 8998
- 193.27 XL.Book.Release 9022
- 193.42 XL.Color.Pack 9040
- 193.44 XL.CopyContent 9044
- 193.60 XL.Font.SetColor 9065
- 193.116 XL.Format.SetWrap 9142
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.259 XL.Sheet.SetCol 9347

**Example Databases**

- [XL/AutoFilter](#)
- [XL/Converter](#)
- [XL/Export records](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

### 193.121.1 Blog Entries

- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 17th March 2020.



**193.122 XL.Sheet.AddHyperlink**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AddHyperlink"; bookRef; sheetIndex; HyperLink; rowFirst; rowLast; colFirst; colLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**HyperLink**

The text for the hyperlink.

"http://www.mbsplugins.de/"

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area. First row has index 0.

\$row

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column+1

**Result** Returns OK or error.

**Description****Examples**

Add a link to cell B16:

MBS( "XL.Sheet.AddHyperlink"; \$book; \$sheet; "http://www.heise.de/"; 15; 15; 1; 1)

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

9158

*CHAPTER 193. XL*

- 193.183 XL.Sheet.DelHyperlink 9260
- 193.238 XL.Sheet.Hyperlink 9320

Created 18th August 2014, last changed 19th November 2017.

## 193.123 XL.Sheet.AddIgnoredError

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AddIgnoredError"; bookRef; sheetIndex; rowFirst; colFirst; rowLast; colLast; ignoreErrors )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### rowFirst

The first row for the area. First row has index 0.

\$row

#### colFirst

The first column for the area. First column has index 0.

\$column

#### rowLast

The last row for the area. First row has index 0.

\$row

#### colLast

The last column for the area. First column has index 0.

\$column

#### ignoreErrors

The combination of errors to ignore.

"InconsistRange\$EvalError"

**Result** Returns OK or error.

### Description

It allows to hide green triangles on left sides of cells. For example, if a cell is formatted as text but contains a numeric value, this is considered to be a potential error because the number won't be treated as a number, for example, in calculations. It is possible to combine a few IgnoredError values as list.

Returns error message on failure.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

IgnoredError value	Description
NoError	No errors
EvalError	Ignore errors when cells contain formulas that result in an error.
EmptyCellRef	Ignore errors when formulas refer to empty cells.
NumberStoredAsText	Ignore errors when numbers are formatted as text or are preceded by an apostrophe.
InconsistRange	Ignore errors when formulas omit certain cells in a region.
InconsistFormula	Ignore errors when a formula in a region of your worksheet differs from other formulas in the same region.
TwoDigTextYear	Ignore errors when formulas contain text formatted cells with years represented as 2 digits.
UnlockFormula	Ignore errors when unlocked cells contain formulas.
DataValidation	Ignore errors when a cell's value in a Table does not comply with the Data Validation rules specified.

Created 22nd April 2017, last changed 22nd April 2017.

**193.124 XL.Sheet.AddrToRowCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AddrToRowCol"; bookRef; sheetIndex; Address; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Address**

The address to convert.

"A1"

**Selector**

Which value to return: row, column, rowRelative, colRelative or address.

"row"

**Result** Returns value or error.

**Description****Examples**

Query row number:

MBS( "XL.Sheet.AddrToRowCol"; \$book; 0; "C10"; "row" )

Example result: 9

Query column number:

MBS( "XL.Sheet.AddrToRowCol"; \$book; 0; "C10"; "column" )

Example result: 2

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 14th May 2019.

## 193.125 XL.Sheet.ApplyFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.ApplyFilter"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165

### Example Databases

- [XL/AutoFilter](#)

Created 22nd April 2017, last changed 22nd April 2017.

**193.126 XL.Sheet.AutoFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK or error.

**Description**

Creates it if it doesn't exist.

**Examples**

Create auto filter:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.AutoFilter"; $book; $sheet) ]
Set Variable [ $r; Value: MBS( "XL.Sheet.AutoFilter.SetRef"; $book; $sheet; 2; 10; 1; 4) ]
Set Variable [ $r; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "Japan") ]
Set Variable [ $r; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "USA") ]
Set Variable [ $r; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "Switzerland") ]
Set Variable [ $r; Value: MBS( "XL.Sheet.ApplyFilter"; $book; $sheet) ]
```

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.125 XL.Sheet.ApplyFilter 9162
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.133 XL.Sheet.AutoFilter.GetCustomFilter 9173
- 193.138 XL.Sheet.AutoFilter.SetCustomFilter 9178
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183

- [193.250 XL.Sheet.RemoveFilter](#)

### Example Databases

- [XL/AutoFilter](#)

### 193.126.1 Blog Entries

- [MBS FileMaker Plugin, version 8.6pr4](#)

Created 22nd April 2017, last changed 13th March 2020.



**193.127 XL.Sheet.AutoFilter.AddFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.AddFilter"; bookRef; sheetIndex; FilterColumnIndex; Filter )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Filter**

The filter value.

**Result** Returns OK or error.

**Description****Examples**

Add filters:

```
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "Japan" ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "USA" ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; "Switzerland" ) ]
```

Add filter with a list of values:

```
# AUTO FILTER: :: Applies the AutoFilter to the sheet
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter"; $book; $sheet ) ]
#
# Select Cells :: Sets the cell range of AutoFilter with header.
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter.SetRef"; $book; $sheet; $headerRow; $lastRow; 4; 4
) ]
#
# Add Filter :: Adds the filter values from a values list.
Set Variable [ $filterCount ; Value: ValueCount ( $FilterValues ) ]
Set Variable [ $filterIndex ; Value: 1 ]
Loop
Set Variable [ $filterValue ; Value: GetValue($filterValues; $filterIndex) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.AutoFilter.AddFilter"; $book; $sheet; 0; $filterValue ) ]
```

```
#  
# next  
Set Variable [ $filterIndex ; Value: $filterIndex + 1 ]  
Exit Loop If [ $filterIndex >$filterCount ]  
End Loop  
#  
# Apply Filter :: Applies the AutoFilter to the sheet  
Set Variable [ $r ; Value: MBS( "XL.Sheet.ApplyFilter"; $book; $sheet) ]
```

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.125 XL.Sheet.ApplyFilter 9162
- 193.126 XL.Sheet.AutoFilter 9163
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 1st July 2017, last changed 16th March 2020.

**193.128 XL.Sheet.AutoFilter.Clear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.Clear"; bookRef; sheetIndex; FilterColumnIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 1st July 2017, last changed 1st July 2017.

**193.129 XL.Sheet.AutoFilter.ColumnSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.ColumnSize"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.133 XL.Sheet.AutoFilter.GetCustomFilter 9173
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177
- 193.138 XL.Sheet.AutoFilter.SetCustomFilter 9178
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183

Created 22nd April 2017, last changed 22nd April 2017.

**193.130 XL.Sheet.AutoFilter.Filter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.Filter"; bookRef; sheetIndex; FilterColumnIndex; FilterIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**FilterIndex**

The index of the filter. Range from 0 to XL.Sheet.AutoFilter.FilterSize-1.

\$FilterIndex

**Result** Returns text or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 1st July 2017, last changed 1st July 2017.

**193.131 XL.Sheet.AutoFilter.FilterSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.FilterSize"; bookRef; sheetIndex; FilterColumnIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 1st July 2017, last changed 1st July 2017.

**193.132 XL.Sheet.AutoFilter.FilterType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.FilterType"; bookRef; sheetIndex; FilterColumnIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Result** Returns type or error.

**Description**

Filter value	Description
Value	Filter by specified values.
Top10	The top N (percent or number of items) to filter by.
Custom	Custom filter with specified criteria.
Dynamic	Specifies dynamic filter criteria.
Color	Specifies the color to filter by.
Icon	Specifies the icon to filter by.
Ext	Defines flexible storage extensions.
Not set	No filter.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170

9172

*CHAPTER 193. XL*

- 193.137 XL.Sheet.AutoFilter.GetTop10

9177

- 193.141 XL.Sheet.AutoFilter.SetTop10

9183

Created 1st July 2017, last changed 16th March 2020.



**193.133 XL.Sheet.AutoFilter.GetCustomFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.GetCustomFilter"; bookRef; sheetIndex; FilterColumnIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Selector**

What value to return. Can be operator1, operator2, andOperator, value1 and value2.

"value1"

**Result** Returns value or error.

**Description**

Operator1: operator used by the filter comparison in the first filter criteria;Value1: value used in the first filter criteria;Operator2: operator used by the filter comparison in the second filter criteria;Value2: value used in the second filter criteria;AndOperator: Flag indicating whether the two criteria have an "and" relationship.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.138 XL.Sheet.AutoFilter.SetCustomFilter 9178

Created 1st July 2017, last changed 13th July 2017.

**193.134 XL.Sheet.AutoFilter.GetRef**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.GetRef"; bookRef; sheetIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Selector**

Which value to return. Can be rowFirst, rowLast, colFirst or colLast.  
"rowFirst"

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183

Created 22nd April 2017, last changed 22nd April 2017.

**193.135 XL.Sheet.AutoFilter.GetSort**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.GetSort"; bookRef; sheetIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Selector**

Which value to return. Can be columnIndex or descending.

"columnIndex"

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.136 XL.Sheet.AutoFilter.GetSortRange 9176
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183

Created 22nd April 2017, last changed 22nd April 2017.

## 193.136 XL.Sheet.AutoFilter.GetSortRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.GetSortRange"; bookRef; sheetIndex; Selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Selector

Which value to return. Can be rowFirst, rowLast, colFirst or colLast.

"rowFirst"

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 22nd April 2017, last changed 22nd April 2017.

**193.137 XL.Sheet.AutoFilter.GetTop10**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.GetTop10"; bookRef; sheetIndex; FilterColumnIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Selector**

Which value to return. Can be value for number of items; top to get top items if 1 otherwise bottom items if 0;percent for using percent instead of number items.

"Value"

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.136 XL.Sheet.AutoFilter.GetSortRange 9176
- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.141 XL.Sheet.AutoFilter.SetTop10 9183

Created 1st July 2017, last changed 1st July 2017.

## 193.138 XL.Sheet.AutoFilter.SetCustomFilter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.SetCustomFilter"; bookRef; sheetIndex; FilterColumnIndex; Operator1; Value1 { ; Operator2; Value2; AndOperator } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### FilterColumnIndex

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

#### Operator1

The operator used by the filter comparison in the first filter criteria. Can be =, , <, , > or

"="

#### Value1

value used in the first filter criteria

10

#### Operator2

Optional

The operator used by the filter comparison in the second filter criteria. Can be =, , <, , > or

"="

#### Value2

Optional

The value used in the second filter criteria.

"20"

#### AndOperator

Optional

Flag indicating whether the two criterias have an "and" relationship. Pass "And" or "Or".

"And"

**Result** Returns OK or error.

### Description

Operator1: operator used by the filter comparison in the first filter criteria; Value1: value used in the first filter criteria; Operator2: operator used by the filter comparison in the second filter criteria; Value2: value used in the second filter criteria; AndOperator: Flag indicating whether the two criteria have an "and"

*193.138. XL.SHEET.AUTOFILTER.SETCUSTOMFILTER* 9179

relationship.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.133 XL.Sheet.AutoFilter.GetCustomFilter 9173

Created 1st July 2017, last changed 1st July 2017.

**193.139 XL.Sheet.AutoFilter.SetRef**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.SetRef"; bookRef; sheetIndex; rowFirst; rowLast; colFirst; colLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area. First row has index 0.

\$row

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column+1

**Result** Returns OK or error.

**Description****Examples**

Set area:

Set Variable [ \$r ; Value: MBS( "XL.Sheet.AutoFilter.SetRef"; \$book; \$sheet; 2; 10; 1; 4 ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165



<i>193.139. XL.SHEET.AUTOFILTER.SETREF</i>	9181
• 193.128 XL.Sheet.AutoFilter.Clear	9167
• 193.130 XL.Sheet.AutoFilter.Filter	9169
• 193.134 XL.Sheet.AutoFilter.GetRef	9174
• 193.135 XL.Sheet.AutoFilter.GetSort	9175
• 193.137 XL.Sheet.AutoFilter.GetTop10	9177
• 193.141 XL.Sheet.AutoFilter.SetTop10	9183

Created 22nd April 2017, last changed 1st July 2017.

## 193.140 XL.Sheet.AutoFilter.SetSort

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.SetSort"; bookRef; sheetIndex; columnIndex { ; descending } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### columnIndex

The zero based column index.

0

#### descending

Optional

Whether to sort descending. Pass 0 for ascending and 1 for descending. Default is descending.

0

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.127 XL.Sheet.AutoFilter.AddFilter 9165
- 193.128 XL.Sheet.AutoFilter.Clear 9167
- 193.130 XL.Sheet.AutoFilter.Filter 9169
- 193.131 XL.Sheet.AutoFilter.FilterSize 9170
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.136 XL.Sheet.AutoFilter.GetSortRange 9176
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177

Created 22nd April 2017, last changed 22nd April 2017.

**193.141 XL.Sheet.AutoFilter.SetTop10**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.AutoFilter.SetTop10"; bookRef; sheetIndex; FilterColumnIndex; Value; Top; Percent )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**FilterColumnIndex**

The column index of the filter. Range from 0 to XL.Sheet.AutoFilter.ColumnSize-1.

\$FilterColumn

**Value**

Number of items

**Top**

Pass 1 to get top items or 0 for bottom items.

1

**Percent**

Pass 1 for percent values.

1

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.129 XL.Sheet.AutoFilter.ColumnSize 9168
- 193.132 XL.Sheet.AutoFilter.FilterType 9171
- 193.134 XL.Sheet.AutoFilter.GetRef 9174
- 193.135 XL.Sheet.AutoFilter.GetSort 9175
- 193.137 XL.Sheet.AutoFilter.GetTop10 9177

- 193.139 XL.Sheet.AutoFilter.SetRef 9180
- 193.140 XL.Sheet.AutoFilter.SetSort 9182

Created 1st July 2017, last changed 1st July 2017.

**193.142 XL.Sheet.CellsDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellsDate"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns 1 if cell is a time or date, 0 if normal cell or error message.

**Description****Examples**

Read whether cell contains date:

Set Variable [ \$b; Value: MBS( "XL.Sheet.CellsDate"; \$bookRef; \$sheetIndex; \$Row; \$Column ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.150 XL.Sheet.CellReadDate 9196
- 193.151 XL.Sheet.CellReadDates 9198
- 193.159 XL.Sheet.CellType 9213
- 193.166 XL.Sheet.CellWriteDate 9226

Created 18th August 2014, last changed 19th April 2020.

**193.143 XL.Sheet.CellsFormula**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellsFormula"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Row**

The row for the cell. First row has index 0.  
\$row

**Column**

The column for the cell. First column has index 0.  
\$column

**Result** Returns 1 if a formula cell, 0 if normal cell or error message.

**Description**

See also XL.Sheet.CellReadFormula and XL.Sheet.CellWriteFormula.

**Examples**

Read whether cell has formula:

Set Variable [ \$b; Value: MBS( "XL.Sheet.CellsFormula"; \$bookRef; \$sheetIndex; \$Row; \$Column ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.152 XL.Sheet.CellReadFormula 9200
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.173 XL.Sheet.CellWriteFormulas 9241

Created 18th August 2014, last changed 19th April 2020.

**193.144 XL.Sheet.CellsStyledText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellsStyledText"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns 1, 0 or error.

**Description**

Returns 1 for styled text or zero for plain text.

**Examples**

Read whether cell has styled text:

Set Variable [ \$b; Value: MBS( "XL.Sheet.CellsStyledText"; \$bookRef; \$sheetIndex; \$Row; \$Column ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.156 XL.Sheet.CellReadStyledText 9207
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.177 XL.Sheet.CellWriteText 9250

**193.144.1 Blog Entries**

- [Use formatted text in Excel files with FileMaker and LibXL](#)

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.



**193.145 XL.Sheet.CellReadBlank**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadBlank"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns 0, 1 or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.146 XL.Sheet.CellReadBoolean 9190
- 193.147 XL.Sheet.CellReadBooleans 9191
- 193.148 XL.Sheet.CellReadComment 9193
- 193.150 XL.Sheet.CellReadDate 9196
- 193.151 XL.Sheet.CellReadDates 9198
- 193.158 XL.Sheet.CellReadTexts 9211
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.161 XL.Sheet.CellWriteBlanks 9216

Created 18th August 2014, last changed 18th August 2014.

**193.146 XL.Sheet.CellReadBoolean**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadBoolean"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns 0, 1 or error message.

**Description****See also**

- 193.119 XL.LoadBook 9150
- 193.147 XL.Sheet.CellReadBooleans 9191
- 193.151 XL.Sheet.CellReadDates 9198
- 193.152 XL.Sheet.CellReadFormula 9200
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.154 XL.Sheet.CellReadNumber 9204
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.157 XL.Sheet.CellReadText 9209
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.163 XL.Sheet.CellWriteBooleans 9220

Created 18th August 2014, last changed 18th August 2014.

**193.147 XL.Sheet.CellReadBooleans**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadBooleans"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

**Description**

If one cell can't be read a boolean, the value in the result will be empty.

**See also**

- 193.119 XL.LoadBook

- 193.145 XL.Sheet.CellReadBlank 9189
- 193.146 XL.Sheet.CellReadBoolean 9190
- 193.149 XL.Sheet.CellReadComments 9194
- 193.151 XL.Sheet.CellReadDates 9198
- 193.152 XL.Sheet.CellReadFormula 9200
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.163 XL.Sheet.CellWriteBooleans 9220

### 193.147.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.148 XL.Sheet.CellReadComment**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadComment"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns comment text or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.149 XL.Sheet.CellReadComments 9194
- 193.152 XL.Sheet.CellReadFormula 9200
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.158 XL.Sheet.CellReadTexts 9211
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.248 XL.Sheet.RemoveComment 9330

Created 18th August 2014, last changed 18th August 2014.

## 193.149 XL.Sheet.CellReadComments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadComments"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

#### Row Delimiter

Optional

The row delimiter for the result. Default is new line character.

"§"

#### Column Delimiter

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

### Description

If one cell can't be read or has no comment, the value in the result will be empty.

### See also

- 193.38 XL.Book.SheetCount

<i>193.149. XL.SHEET.CELLREADCOMMENTS</i>	9195
• 193.119 XL.LoadBook	9150
• 193.148 XL.Sheet.CellReadComment	9193
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.154 XL.Sheet.CellReadNumber	9204
• 193.155 XL.Sheet.CellReadNumbers	9205
• 193.157 XL.Sheet.CellReadText	9209
• 193.164 XL.Sheet.CellWriteComment	9222
• 193.165 XL.Sheet.CellWriteComments	9224
• 193.249 XL.Sheet.RemoveComments	9332

### **193.149.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.150 XL.Sheet.CellReadDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadDate"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns timestamp or error message.

**Description****Examples**

Read cell as date:

```
MBS( "XL.Sheet.CellReadDate"; $bookRef; 0; $row; 0)
```

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.145 XL.Sheet.CellReadBlank 9189
- 193.146 XL.Sheet.CellReadBoolean 9190
- 193.151 XL.Sheet.CellReadDates 9198
- 193.154 XL.Sheet.CellReadNumber 9204
- 193.157 XL.Sheet.CellReadText 9209
- 193.158 XL.Sheet.CellReadTexts 9211



<i>193.150. XL.SHEET.CELLREADDATE</i>	9197
• 193.166 XL.Sheet.CellWriteDate	9226
• 193.167 XL.Sheet.CellWriteDates	9228

### **193.150.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 6th February 2015, last changed 6th February 2015.

**193.151 XL.Sheet.CellReadDates**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193.XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadDates"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

**Description**

If one cell can't be read as date, the value in the result will be empty.

**See also**

- 193.38 XL.Book.SheetCount

<i>193.151. XL.SHEET.CELLREADDATES</i>	9199
• 193.119 XL.LoadBook	9150
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.154 XL.Sheet.CellReadNumber	9204
• 193.157 XL.Sheet.CellReadText	9209
• 193.158 XL.Sheet.CellReadTexts	9211
• 193.167 XL.Sheet.CellWriteDates	9228

### **193.151.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

## 193.152 XL.Sheet.CellReadFormula

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadFormula"; bookRef; sheetIndex; Row; Column )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

**Result** Returns formula or error message.

### Description

See also XL.Sheet.CellIsFormula and XL.Sheet.CellWriteFormula.

### Examples

Read formula:

Set Variable [ \$b; Value: MBS( "XL.Sheet.CellReadFormula"; \$bookRef; \$sheetIndex; \$Row; \$Column ) ]

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.143 XL.Sheet.CellIsFormula 9186
- 193.146 XL.Sheet.CellReadBoolean 9190
- 193.148 XL.Sheet.CellReadComment 9193
- 193.153 XL.Sheet.CellReadFormulas 9202
- 193.154 XL.Sheet.CellReadNumber 9204
- 193.155 XL.Sheet.CellReadNumbers 9205

*193.152. XL.SHEET.CELLREADFORMULA*

9201

- 193.169 XL.Sheet.CellWriteFormula

9232

- 193.173 XL.Sheet.CellWriteFormulas

9241

Created 18th August 2014, last changed 19th April 2020.

## 193.153 XL.Sheet.CellReadFormulas

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadFormulas"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

#### Row Delimiter

Optional

The row delimiter for the result. Default is new line character.

"§"

#### Column Delimiter

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

### Description

If one cell can't be read as formula, the value in the result will be empty.

### See also

- 193.38 XL.Book.SheetCount

<i>193.153. XL.SHEET.CELLREADFORMULAS</i>	9203
• 193.119 XL.LoadBook	9150
• 193.143 XL.Sheet.CellIsFormula	9186
• 193.147 XL.Sheet.CellReadBooleans	9191
• 193.148 XL.Sheet.CellReadComment	9193
• 193.149 XL.Sheet.CellReadComments	9194
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.155 XL.Sheet.CellReadNumbers	9205
• 193.169 XL.Sheet.CellWriteFormula	9232
• 193.173 XL.Sheet.CellWriteFormulas	9241

### **193.153.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

## 193.154 XL.Sheet.CellReadNumber

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadNumber"; bookRef; sheetIndex; Row; Column )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

**Result** Returns number or error message.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.148 XL.Sheet.CellReadComment 9193
- 193.149 XL.Sheet.CellReadComments 9194
- 193.150 XL.Sheet.CellReadDate 9196
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.157 XL.Sheet.CellReadText 9209
- 193.158 XL.Sheet.CellReadTexts 9211
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246

Created 18th August 2014, last changed 18th August 2014.



**193.155 XL.Sheet.CellReadNumbers**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadNumbers"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

**Description**

If one cell can't be read as number, the value in the result will be empty.

**See also**

- 193.38 XL.Book.SheetCount

• 193.149 XL.Sheet.CellReadComments	9194
• 193.150 XL.Sheet.CellReadDate	9196
• 193.151 XL.Sheet.CellReadDates	9198
• 193.152 XL.Sheet.CellReadFormula	9200
• 193.153 XL.Sheet.CellReadFormulas	9202
• 193.157 XL.Sheet.CellReadText	9209
• 193.158 XL.Sheet.CellReadTexts	9211
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.175 XL.Sheet.CellWriteNumbers	9246

### 193.155.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.156 XL.Sheet.CellReadStyledText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadStyledText"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns text or error.

**Description****Examples**

Read styled text:

```
Set Variable [ $sheet ; Value: 0 ]
```

```
Set Variable [ $row ; Value: 2 ]
```

```
Set Variable [ $col ; Value: 3 ]
```

```
Set Variable [ $text ; Value: MBS( "XL.Sheet.CellReadStyledText"; $bookRef; $sheet; $row; $col ) ]
```

```
Set Field [ XL::StyledText ; $text ]
```

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.144 XL.Sheet.CellIsStyledText 9187
- 193.157 XL.Sheet.CellReadText 9209
- 193.176 XL.Sheet.CellWriteStyledText 9248

**193.156.1 Blog Entries**

- [Use formatted text in Excel files with FileMaker and LibXL](#)
- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.157 XL.Sheet.CellReadText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadText"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns text or error message.

**Description****Examples**

Reads text from first cell in first sheet:

MBS( "XL.Sheet.CellReadText"; \$book; 0; 0; 0 )

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.148 XL.Sheet.CellReadComment 9193
- 193.149 XL.Sheet.CellReadComments 9194
- 193.150 XL.Sheet.CellReadDate 9196
- 193.151 XL.Sheet.CellReadDates 9198
- 193.154 XL.Sheet.CellReadNumber 9204
- 193.156 XL.Sheet.CellReadStyledText 9207

9210

*CHAPTER 193. XL*

- 193.158 XL.Sheet.CellReadTexts

9211

- 193.178 XL.Sheet.CellWriteTexts

9254

Created 18th August 2014, last changed 23th August 2016.

**193.158 XL.Sheet.CellReadTexts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellReadTexts"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

**Description**

If one cell can't be read as text, the value in the result will be empty.

**Examples**

Read area of cells:

MBS( "XL.Sheet.CellReadTexts"; \$bookRef; \$sheet; 0; 5; 0; 5)

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.147 XL.Sheet.CellReadBooleans 9191
- 193.148 XL.Sheet.CellReadComment 9193
- 193.149 XL.Sheet.CellReadComments 9194
- 193.150 XL.Sheet.CellReadDate 9196
- 193.151 XL.Sheet.CellReadDates 9198
- 193.155 XL.Sheet.CellReadNumbers 9205
- 193.157 XL.Sheet.CellReadText 9209
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254

### 193.158.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.



**193.159 XL.Sheet.CellType**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellType"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns type or error message.

**Description**

Types can be empty, number, text, boolean, blank or error.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.142 XL.Sheet.CellsIsDate 9185

Created 18th August 2014, last changed 19th April 2016.

**193.160 XL.Sheet.CellWriteBlank**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteBlank"; bookRef; sheetIndex; Row; Column { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.161 XL.Sheet.CellWriteBlanks 9216
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.168 XL.Sheet.CellWriteError 9230
- 193.174 XL.Sheet.CellWriteNumber 9243

193.160. *XL.SHEET.CELLWRITEBLANK*

9215

- 193.177 *XL.Sheet.CellWriteText*

9250

### **Example Databases**

- *XL/Writing data*

Created 18th August 2014, last changed 22nd April 2017.

## 193.161 XL.Sheet.CellWriteBlanks

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteBlanks"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### First row

The first row to process. First row has index 0.  
3

#### Last row

The last row to process. First row has index 0.  
6

#### First column

The first column to process. First column has index 0.  
2

#### Last column

The last column to process. First column has index 0.  
4

#### Column Delimiter

Optional  
The column delimiter for the result. Default is tab character.  
char(9)

**Result** Returns number of errors or error.

### Description

Returns number of errors occurred, so on success you get back zero.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.163 XL.Sheet.CellWriteBooleans 9220

<i>193.161. XL.SHEET.CELLWRITEBLANKS</i>	9217
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.168 XL.Sheet.CellWriteError	9230
• 193.173 XL.Sheet.CellWriteFormulas	9241
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.175 XL.Sheet.CellWriteNumbers	9246
• 193.178 XL.Sheet.CellWriteTexts	9254

### **193.161.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

## 193.162 XL.Sheet.CellWriteBoolean

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteBoolean"; bookRef; SheetIndex; Row; Column; Value { ; Format } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### SheetIndex

The index of the sheet to delete. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

#### Value

The new boolean value.

1

#### Format

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.166 XL.Sheet.CellWriteDate 9226
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.169 XL.Sheet.CellWriteFormula 9232

<i>193.162. XL.SHEET.CELLWRITEBOOLEAN</i>	9219
• 193.170 XL.Sheet.CellWriteFormulaBoolean	9235
• 193.173 XL.Sheet.CellWriteFormulas	9241
• 193.174 XL.Sheet.CellWriteNumber	9243

Created 18th August 2014, last changed 22nd April 2017.

## 193.163 XL.Sheet.CellWriteBooleans

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteBooleans"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

#### Values

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

"1"

#### Row Delimiter

Optional

The row delimiter for the result. Default is new line character.

"§"

#### Column Delimiter

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

### Description



193.163. *XL.SHEET.CELLWRITEBOOLEANS* 9221

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

**See also**

- 193.38 *XL.Book.SheetCount* 9036
- 193.119 *XL.LoadBook* 9150
- 193.160 *XL.Sheet.CellWriteBlank* 9214
- 193.162 *XL.Sheet.CellWriteBoolean* 9218
- 193.165 *XL.Sheet.CellWriteComments* 9224
- 193.167 *XL.Sheet.CellWriteDates* 9228
- 193.173 *XL.Sheet.CellWriteFormulas* 9241
- 193.174 *XL.Sheet.CellWriteNumber* 9243
- 193.175 *XL.Sheet.CellWriteNumbers* 9246
- 193.178 *XL.Sheet.CellWriteTexts* 9254

### 193.163.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

## 193.164 XL.Sheet.CellWriteComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteComment"; bookRef; sheetIndex; Row; Column; Comment; Author; Width; Height )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

#### Comment

The comment to write.

"Hello World"

#### Author

The author for the comment.

"Christian"

#### Width

Width of text box in pixels.

200

#### Height

Height of text box in pixels.

150

**Result** Returns OK or error message.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.166 XL.Sheet.CellWriteDate 9226

<i>193.164. XL.SHEET.CELLWRITECOMMENT</i>	9223
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.169 XL.Sheet.CellWriteFormula	9232
• 193.173 XL.Sheet.CellWriteFormulas	9241
• 193.172 XL.Sheet.CellWriteFormulaText	9239
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.177 XL.Sheet.CellWriteText	9250
• 193.178 XL.Sheet.CellWriteTexts	9254

Created 18th August 2014, last changed 18th August 2014.

## 193.165 XL.Sheet.CellWriteComments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteComments"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

#### Values

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

"Test"

#### Row Delimiter

Optional

The row delimiter for the result. Default is new line character.

"§"

#### Column Delimiter

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

### Description

193.165. *XL.SHEET.CELLWRITECOMMENTS* 9225

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254

### 193.165.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.166 XL.Sheet.CellWriteDate**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteDate"; bookRef; sheetIndex; Row; Column; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Value**

The new value to write.

Get(CurrentTimeStamp)

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

**Description****Examples**

Write date value:

MBS( "XL.Sheet.CellWriteDate"; \$bookRef; 0; \$row; 0; Get ( CurrentTimeStamp ))

**See also**

- 193.119 XL.LoadBook 9150
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.161 XL.Sheet.CellWriteBlanks 9216
- 193.162 XL.Sheet.CellWriteBoolean 9218

<i>193.166. XL.SHEET.CELLWRITEDATE</i>	9227
• 193.164 XL.Sheet.CellWriteComment	9222
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.175 XL.Sheet.CellWriteNumbers	9246
• 193.177 XL.Sheet.CellWriteText	9250
• 193.178 XL.Sheet.CellWriteTexts	9254

### **193.166.1 Blog Entries**

- [MBS FileMaker Plugin, version 5.0pr10](#)

Created 6th February 2015, last changed 9th July 2015.

**193.167 XL.Sheet.CellWriteDates**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteDates"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Values**

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

\$Date

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

**Description**



193.167. *XL.SHEET.CELLWRITEDATES* 9229

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

**See also**

- 193.38 *XL.Book.SheetCount* 9036
- 193.119 *XL.LoadBook* 9150
- 193.161 *XL.Sheet.CellWriteBlanks* 9216
- 193.163 *XL.Sheet.CellWriteBooleans* 9220
- 193.164 *XL.Sheet.CellWriteComment* 9222
- 193.165 *XL.Sheet.CellWriteComments* 9224
- 193.168 *XL.Sheet.CellWriteError* 9230
- 193.174 *XL.Sheet.CellWriteNumber* 9243
- 193.175 *XL.Sheet.CellWriteNumbers* 9246
- 193.178 *XL.Sheet.CellWriteTexts* 9254

### 193.167.1 **Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.168 XL.Sheet.CellWriteError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteError"; bookRef; SheetIndex; Row; Column; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**SheetIndex**

The index of the sheet to delete. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Value**

The new error number.

1

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

**Description**

If format is empty then format is ignored.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.160 XL.Sheet.CellWriteBlank 9214
- 193.161 XL.Sheet.CellWriteBlanks 9216
- 193.166 XL.Sheet.CellWriteDate 9226
- 193.167 XL.Sheet.CellWriteDates 9228

<i>193.168. XL.SHEET.CELLWRITEERROR</i>	9231
• 193.174 XL.Sheet.CellWriteNumber	9243
• 193.175 XL.Sheet.CellWriteNumbers	9246
• 193.177 XL.Sheet.CellWriteText	9250
• 193.178 XL.Sheet.CellWriteTexts	9254

Created 22nd April 2017, last changed 22nd April 2017.

**193.169 XL.Sheet.CellWriteFormula**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteFormula"; bookRef; sheetIndex; Row; Column; Formula { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Formula**

The new formula to write.

"1+2"

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

**Description**

As LibXL does not calculate the result of the formula, it will not encode the result in the Excel file. It does only store the formula, so an app opening the file will have to do the calculation. But QuickLook on Mac OS X does not calculate, so results do not show there.

See also XL.Sheet.CellReadFormula and XL.Sheet.CellsIsFormula.

Examples for formulas are: "TODAY()", "IF(C1>0;ABS(C1\*D1);"""")", "SUM(E16:E38)" or "E39+E39\*E40".

**Examples**

Loads book, writes some cells and saves back to container field:

```
# Load template excel file
Set Variable [ $bookRef; Value:MBS( "XL.LoadBook"; XL::ExcelFile) ]
Set Variable [ $sheet; Value:0 ]
# First row
Set Variable [ $row; Value:4 ]
```

```

Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 1 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Cherries" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 5 ) ]
# Second row
Set Variable [ $row; Value:5 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 2 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Banana" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 3,5 ) ]
# Third row
Set Variable [ $row; Value:6 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 3 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Oranges" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 6,25 ) ]
# Last row
Set Variable [ $row; Value:13 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteFormula"; $BookRef; $sheet; $row; 2; "SUM(C5:C13)" ) ]
]
# Save to container and cleanup
Set Field [ XL::OutputFile; MBS("XL.Save"; $bookRef; "test.xls" ) ]
Set Variable [ $r; Value:MBS( "XL.Book.Release"; $bookRef ) ]
Set Field [ XL::Result; $r ]

```

Writes a formula with bold font format:

```

# add a bold font based on another font
Set Variable [ $textFontBold ; Value: MBS( "XL.Book.AddFont"; $book; $textFont ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $book; $textFontBold; 1 ) ]
# add format based on other format
Set Variable [ $dollarFormatBold ; Value: MBS( "XL.Book.AddFormat"; $book; $dollarFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $book; $dollarFormatBold; $textFontBold ) ]
# use format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteFormula"; $book; $sheet; 38; 4; "SUM(E16:E38)";
$dollarFormatBold ) ]

```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150
- 193.143 XL.Sheet.CellsFormula 9186
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.168 XL.Sheet.CellWriteError 9230

- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235
- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.173 XL.Sheet.CellWriteFormulas 9241

**Example Databases**

- [XL/Edit Sheet](#)
- [XL/Writing data](#)

Created 18th August 2014, last changed 12nd November 2018.

**193.170 XL.Sheet.CellWriteFormulaBoolean**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteFormulaBoolean"; bookRef; sheetIndex; Row; Column; Formula; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Formula**

The new formula to write.

"1=2"

**Value**

The boolean value to put in cell.

0

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

**Description**

The value should be the current result, so there is something to display without calculating.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.169 XL.Sheet.CellWriteFormula 9232

- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.172 XL.Sheet.CellWriteFormulaText 9239

### 193.170.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr2](#)

Created 7th October 2016, last changed 22nd April 2017.



**193.171 XL.Sheet.CellWriteFormulaNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteFormulaNumber"; bookRef; sheetIndex; Row; Column; Formula; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Formula**

The new formula to write.

"1+2"

**Value**

The number value to put in cell.

3

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

**Description**

The value should be the current result, so there is something to display without calculating.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235

- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.172 XL.Sheet.CellWriteFormulaText 9239
- 193.174 XL.Sheet.CellWriteNumber 9243

### **193.171.1 Blog Entries**

- [MBS FileMaker Plugin, version 6.5pr2](#)

Created 7th October 2016, last changed 22nd April 2017.

**193.172 XL.Sheet.CellWriteFormulaText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteFormulaText"; bookRef; sheetIndex; Row; Column; Formula; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Formula**

The new formula to write.

"1+2"

**Value**

The text value to put in cell.

"3"

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

**Description**

The value should be the current result, so there is something to display without calculating.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.169 XL.Sheet.CellWriteFormula 9232

- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235
- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.173 XL.Sheet.CellWriteFormulas 9241
- 193.176 XL.Sheet.CellWriteStyledText 9248

### 193.172.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr2](#)

Created 7th October 2016, last changed 22nd April 2017.

**193.173 XL.Sheet.CellWriteFormulas**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteFormulas"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Values**

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

"1+2"

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

**Description**

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.163 XL.Sheet.CellWriteBooleans 9220
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.170 XL.Sheet.CellWriteFormulaBoolean 9235
- 193.171 XL.Sheet.CellWriteFormulaNumber 9237
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.175 XL.Sheet.CellWriteNumbers 9246

### 193.173.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.174 XL.Sheet.CellWriteNumber**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteNumber"; bookRef; sheetIndex; Row; Column; Value { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Value**

The new value to write.

123

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

**Description****Examples**

Create Excel file with some date value:

```
# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create date format
Set Variable [ $dateFormat; Value:MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $dateFormatID; Value:MBS( "XL.Book.AddCustomNumFormat"; $book; "mmm\ddd\,yy" ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $dateFormat; $dateFormatID ) ]
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt" ) ]
# Write date
```

```

Set Variable [ $d; Value:MBS( "XL.Date.Pack"; $book; 2013; 10; 21) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 4; 4; $d; $dateFormat) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]

```

Writes sheet with red font:

```

# create new xls file
Set Variable [ $book; Value:MBS( "XL.NewBook"; 0 ) ]
# create fonts
Set Variable [ $redColor; Value:MBS( "XL.Color.Pack"; $book; 255; 0; 0) ]
Set Variable [ $redFont; Value:MBS( "XL.Book.AddFont"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Font.SetColor"; $book; $redFont; $redColor) ]
#
# create formats
Set Variable [ $redFormat; Value:MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetFont"; $book; $redFormat; $redFont) ]
#
# create sheet
Set Variable [ $sheet; Value:MBS( "XL.Book.AddSheet"; $book; "Sales Receipt") ]
#
# add number in red
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $redFormat) ]
#
Set Field [ Writing data::Output; MBS("XL.Book.Save"; $book; "test.xls") ]
Set Variable [ $r; Value:MBS("XL.Book.Release"; $book) ]

```

Use a number format:

```

# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $book) ]
# use existing number format
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $book; $format; 7) ]
# and use format
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $book; $sheet; 5; 3; 123; $format) ]

```

Write to a time formatted cell a time value:

```
MBS("XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; $col; GetAsNumber(ExcelTest::TimeField)/(24*60*60))
```

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.48 XL.Date.Pack 9051
- 193.60 XL.Font.SetColor 9065



<i>193.174. XL.SHEET.CELLWRITENUMBER</i>	9245
• 193.107 XL.Format.SetFont	9127
• 193.111 XL.Format.SetNumFormat	9133
• 193.119 XL.LoadBook	9150
• 193.166 XL.Sheet.CellWriteDate	9226
• 193.167 XL.Sheet.CellWriteDates	9228
• 193.168 XL.Sheet.CellWriteError	9230
• 193.173 XL.Sheet.CellWriteFormulas	9241

### **Example Databases**

- [XL/AutoFilter](#)
- [XL/Edit Sheet](#)
- [XL/Sheet with colored text](#)
- [XL/Writing data](#)

Created 18th August 2014, last changed 11st August 2017.

## 193.175 XL.Sheet.CellWriteNumbers

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteNumbers"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

#### Values

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

"123"

#### Row Delimiter

Optional

The row delimiter for the result. Default is new line character.

"§"

#### Column Delimiter

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

### Description

193.175. *XL.SHEET.CELLWRITENUMBERS* 9247

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.166 XL.Sheet.CellWriteDate 9226
- 193.168 XL.Sheet.CellWriteError 9230
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254

### 193.175.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

## 193.176 XL.Sheet.CellWriteStyledText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteStyledText"; bookRef; sheetIndex; Row; Column; Text { ; Format } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

#### Text

The new text to write.

"hello"

#### Format

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

### Description

For alignment, please use the format parameter.

### Examples

Write colored text:

```
Set Variable [ $sheet ; Value: 0 ]
```

```
Set Variable [ $row ; Value: 2 ]
```

```
Set Variable [ $col ; Value: 3 ]
```

```
Set Variable [ $text ; Value: TextColor ( "red"; RGB ( 255 ; 0 ; 0 ) ) & " " & TextColor ( "blue"; RGB ( 0 ; 0 ; 255 ) ) ]
```

```
#
```

```
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteStyledText"; $BookRef; $sheet; $row; $col; $text ) ]
```

### See also

<i>193.176. XL.SHEET.CELLWRITESTYLEDTEXT</i>	9249
• 193.38 XL.Book.SheetCount	9036
• 193.119 XL.LoadBook	9150
• 193.144 XL.Sheet.CellIsStyledText	9187
• 193.156 XL.Sheet.CellReadStyledText	9207
• 193.172 XL.Sheet.CellWriteFormulaText	9239
• 193.177 XL.Sheet.CellWriteText	9250

### **193.176.1 Blog Entries**

- [Use formatted text in Excel files with FileMaker and LibXL](#)
- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.177 XL.Sheet.CellWriteText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteText"; bookRef; sheetIndex; Row; Column; Text { ; Format } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Text**

The new text to write.

"hello"

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error message.

**Description****Examples**

Loads book, writes some cells and saves back to container field:

```
# Load template excel file
Set Variable [ $bookRef; Value:MBS( "XL.LoadBook"; XL::ExcelFile ) ]
Set Variable [ $sheet; Value:0 ]
# First row
Set Variable [ $row; Value:4 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 1 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Cherries" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 5 ) ]
# Second row
Set Variable [ $row; Value:5 ]
```

```

Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 2 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Banana" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 3,5 ) ]
# Third row
Set Variable [ $row; Value:6 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 0; 3 ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $BookRef; $sheet; $row; 1; "Oranges" ) ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteNumber"; $BookRef; $sheet; $row; 2; 6,25 ) ]
# Last row
Set Variable [ $row; Value:13 ]
Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteFormula"; $BookRef; $sheet; $row; 2; "SUM(C5:C13)" ) ]
]
# Save to container and cleanup
Set Field [ XL::OutputFile; MBS("XL.Save"; $bookRef; "test.xls") ]
Set Variable [ $r; Value:MBS( "XL.Book.Release"; $bookRef ) ]
Set Field [ XL::Result; $r ]

```

Write text with two lines in one cell:

```

Set Variable [ $r; Value:MBS( "XL.Sheet.CellWriteText"; $book; $sheet; 16; 1; "Bananas$Apple"; $myFormat ) ]

```

Write two lines with adjusting the row height:

```

# create format with wrap
#
Set Variable [ $textFormat ; Value: MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetWrap"; $book; $textFormat; 1 ) ]
#
# put in text with Char(10) for new line
#
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 1; "First line" & Char(10)
& "Second line"; $textFormat ) ]
#
# make line higher
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetRow"; $book; $sheet; $row; 20 ) ]

```

Create header row:

```

#
# define a font:
#
Set Variable [ $headerFont ; Value: MBS( "XL.Book.AddFont"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetSize"; $book; $headerFont; 12 ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetName"; $book; $headerFont; "Century Gothic" ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $book; $headerFont; 1 ) ]
#

```

```

# define a format:
#
Set Variable [ $headerFormat ; Value: MBS( "XL.Book.AddFormat"; $book ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $book; $headerFormat; $headerFont ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFillPattern"; $book; $headerFormat; 1 ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetPatternForegroundColor"; $book; $headerFormat; MBS(
"XL.Color.Pack"; $book; 200; 200; 200 ) ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetAlignH"; $book; $headerFormat; 2 /* center */ ) ]
#
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetRow"; $book; $sheet; $row ; 20 ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 0; "Account" ; $headerFor-
mat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 1; "Account Group" ;
$headerFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 2; "Report Name" ; $head-
erFormat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 3; "Date TS" ; $headerFor-
mat ) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 4; "Text" ; $headerFormat
) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 5; "Text2" ; $headerFormat
) ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; $row; 6; "Text3" ; $headerFormat
) ]

```

### See also

- 193.119 XL.LoadBook 9150
- 193.162 XL.Sheet.CellWriteBoolean 9218
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.165 XL.Sheet.CellWriteComments 9224
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.168 XL.Sheet.CellWriteError 9230
- 193.169 XL.Sheet.CellWriteFormula 9232
- 193.174 XL.Sheet.CellWriteNumber 9243
- 193.176 XL.Sheet.CellWriteStyledText 9248
- 193.290 XL.Sheet.SetRow 9391

### Example Databases

- [XL/AutoFilter](#)



- [XL/Change Column Names](#)
- [XL/Edit Sheet](#)
- [XL/Export records](#)
- [XL/Writing data](#)

### **193.177.1 Blog Entries**

- [How to use XL functions with MBS FileMaker Plugin](#)

Created 18th August 2014, last changed 7th February 2020.

**193.178 XL.Sheet.CellWriteTexts**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CellWriteTexts"; bookRef; sheetIndex; First row; Last row; First column; Last column; Values { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Values**

The values to use. Can be separated with row and column delimiter to give each row and column a different value. But you can also use same value for all rows or for all columns.

"Test"

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

**Description**

You can write one value or multiple values to a given range of cells.  
Returns number of errors occurred, so on success you get back zero.

### Examples

Write 4 cells in one call

```
MBS( "XL.Sheet.CellWriteTexts"; $book; $sheet; 1; 1; 1; 4; "A,B,C,D"; §; ", " )
```

Write bold row and data rows:

```
# create bold font & format
Set Variable [ $boldFont ; Value: MBS( "XL.Book.AddFont"; $bookRef ) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $bookRef; $boldFont; 1 ) ]
Set Variable [ $boldFormat ; Value: MBS( "XL.Book.AddFormat"; $bookRef ) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $bookRef; $boldFormat; $boldFont ) ]
# Write a title row
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteTexts"; $bookRef; $sheet; 1; 1; 1; 4; "A,B,C,D"; §; ", " ) ]
# Make it bold
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetCellFormats"; $bookRef; $sheet; 1; 1; 1; 4; $boldFormat ) ]
# and write data
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteTexts"; $bookRef; $sheet; 2; 5; 1; 4; $data; §; ", " ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.59 XL.Font.SetBold 9063
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150
- 193.164 XL.Sheet.CellWriteComment 9222
- 193.167 XL.Sheet.CellWriteDates 9228
- 193.168 XL.Sheet.CellWriteError 9230
- 193.177 XL.Sheet.CellWriteText 9250
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.258 XL.Sheet.SetCellFormats 9345

### 193.178.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr3](#)
- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.179 XL.Sheet.Clear**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Clear"; bookRef; sheetIndex { ; rowFirst; rowLast; colFirst; colLast } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

Optional

The first row for the area. Default is 0. First row has index 0.

\$row

**rowLast**

Optional

The last row for the area. Default is 65535.

\$row

**colFirst**

Optional

The first column for the area. Default is 0. First column has index 0.

\$column

**colLast**

Optional

The last column for the area. Default is 255.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 9th July 2015.

**193.180 XL.Sheet.ClearPrintArea**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.ClearPrintArea"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.280 XL.Sheet.SetPrintArea 9379

Created 18th August 2014, last changed 18th August 2014.

## 193.181 XL.Sheet.ClearPrintRepeats

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.ClearPrintRepeats"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.180 XL.Sheet.ClearPrintArea 9257
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.283 XL.Sheet.SetPrintRepeatCols 9383
- 193.284 XL.Sheet.SetPrintRepeatRows 9384

Created 18th August 2014, last changed 18th August 2014.

**193.182 XL.Sheet.CopyCell**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.CopyCell"; bookRef; sheetIndex; rowSource; ColumnSource; rowDest; ColumnDest )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowSource**

The source row for the cell. First row has index 0.

1

**ColumnSource**

The source column for the cell. First column has index 0.

1

**rowDest**

The destination row for the cell.

2

**ColumnDest**

The destination column for the cell.

2

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

Created 18th August 2014, last changed 18th August 2014.

**193.183 XL.Sheet.DelHyperlink**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.DelHyperlink"; bookRef; sheetIndex; index )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**index**

The index of the hyperlink. From 0 to XL.Sheet.HyperlinkSize-1.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.122 XL.Sheet.AddHyperlink 9157
- 193.238 XL.Sheet.Hyperlink 9320
- 193.239 XL.Sheet.HyperlinkSize 9321

Created 18th August 2014, last changed 18th August 2014.



**193.184 XL.Sheet.DelMergeByIndex**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.DelMergeByIndex"; bookRef; sheetIndex; index )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**index**

The index of the hyperlink. From 0 to XL.Sheet.MergeSize-1.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.242 XL.Sheet.Merge 9324
- 193.243 XL.Sheet.MergeSize 9325

Created 18th August 2014, last changed 18th August 2014.

**193.185 XL.Sheet.DeleteMerge**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.DeleteMerge"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.214 XL.Sheet.GetMerge 9293
- 193.274 XL.Sheet.SetMerge 9367

Created 18th August 2014, last changed 18th August 2014.

**193.186 XL.Sheet.DeleteNamedRange**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.DeleteNamedRange"; bookRef; sheetIndex; name )

(old name: XL.Sheet.DeleteNameRange)

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**name**

The name of the named range.  
"test"

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.216 XL.Sheet.GetNamedRange 9296
- 193.276 XL.Sheet.SetNamedRange 9370

Created 18th August 2014, last changed 21st April 2018.

**193.187 XL.Sheet.GetCellError**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetCellError"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns error code or error.

**Description**

Possible errors:

ErrorType value	Description
0	# NULL!
7	# DIV/0!
15	# VALUE!
23	# REF!
29	# NAME?
36	# NUM!
42	# N/A
255	no error

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.188 XL.Sheet.GetCellErrors 9265
- 193.189 XL.Sheet.GetCellFormat 9267
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.257 XL.Sheet.SetCellFormat 9343

Created 18th August 2014, last changed 18th August 2014.

**193.188 XL.Sheet.GetCellErrors**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetCellErrors"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns list of values or error.

**Description**

If one cell can't be read as error, the value in the result will be empty.

**See also**

- 193.38 XL.Book.SheetCount

- 193.119 XL.LoadBook 9150
- 193.187 XL.Sheet.GetCellError 9264
- 193.189 XL.Sheet.GetCellFormat 9267
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.258 XL.Sheet.SetCellFormats 9345

### 193.188.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.189 XL.Sheet.GetCellFormat**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetCellFormat"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns format index or error.

**Description**

It can be changed by user.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.187 XL.Sheet.GetCellError 9264
- 193.188 XL.Sheet.GetCellErrors 9265
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.258 XL.Sheet.SetCellFormats 9345

Created 18th August 2014, last changed 3th March 2015.

**193.190 XL.Sheet.GetCellFormats**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetCellFormats"; bookRef; sheetIndex; First row; Last row; First column; Last column { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**First row**

The first row to process. First row has index 0.  
3

**Last row**

The last row to process. First row has index 0.  
6

**First column**

The first column to process. First column has index 0.  
2

**Last column**

The last column to process. First column has index 0.  
4

**Row Delimiter**

Optional  
The row delimiter for the result. Default is new line character.  
"§"

**Column Delimiter**

Optional  
The column delimiter for the result. Default is tab character.  
char(9)

**Result** Returns list of values or error.

**Description**

If one cell has no format defined, the value in the result will be empty.

**See also**

- 193.38 XL.Book.SheetCount



<i>193.190. XL.SHEET.GETCELLFORMATS</i>	9269
• 193.119 XL.LoadBook	9150
• 193.187 XL.Sheet.GetCellError	9264
• 193.188 XL.Sheet.GetCellErrors	9265
• 193.189 XL.Sheet.GetCellFormat	9267
• 193.257 XL.Sheet.SetCellFormat	9343
• 193.258 XL.Sheet.SetCellFormats	9345

### **193.190.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 15th January 2018.

**193.191 XL.Sheet.GetColHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetColHidden"; bookRef; sheetIndex; Col )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Col**

The column index to query.

0

**Result** Return 1 if column is hidden, 0 if column is visible or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.192 XL.Sheet.GetColWidth 9271
- 193.204 XL.Sheet.GetHidden 9283
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.260 XL.Sheet.SetColHidden 9350
- 193.291 XL.Sheet.SetRowHidden 9393

Created 18th August 2014, last changed 18th August 2014.

**193.192 XL.Sheet.GetColWidth**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetColWidth"; bookRef; sheetIndex; Col )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Col**

The column index to query.

0

**Result** Returns column width.

**Description**

If you need pixel width, please use XL.Sheet.GetColWidthPixel instead.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.191 XL.Sheet.GetColHidden 9270
- 193.193 XL.Sheet.GetColWidthPixel 9272
- 193.260 XL.Sheet.SetColHidden 9350

Created 18th August 2014, last changed 19th April 2020.

## 193.193 XL.Sheet.GetColWidthPixel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetColWidthPixel"; bookRef; sheetIndex; Col )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Col

The column index to query.

0

**Result** Returns number or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.192 XL.Sheet.GetColWidth 9271
- 193.228 XL.Sheet.GetRowHeightPixel 9310

### 193.193.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.194 XL.Sheet.GetDisplayGridlines**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetDisplayGridlines"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Return 1 if gridlines are visible and 0 if they aren't.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.221 XL.Sheet.GetPrintGridlines 9303
- 193.262 XL.Sheet.SetDisplayGridlines 9353

Created 18th August 2014, last changed 18th August 2014.

**193.195 XL.Sheet.GetFirstCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetFirstCol"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.208 XL.Sheet.GetLastCol 9287
- 193.209 XL.Sheet.GetLastRow 9288
- 193.224 XL.Sheet.GetPrintRow 9306

Created 18th August 2014, last changed 18th August 2014.

**193.196 XL.Sheet.GetFirstRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetFirstRow"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.195 XL.Sheet.GetFirstCol 9274
- 193.208 XL.Sheet.GetLastCol 9287
- 193.209 XL.Sheet.GetLastRow 9288
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.285 XL.Sheet.SetPrintRow 9385

Created 18th August 2014, last changed 18th August 2014.

**193.197 XL.Sheet.GetFooter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetFooter"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns text or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.218 XL.Sheet.GetPicture 9299
- 193.226 XL.Sheet.GetProtect 9308
- 193.232 XL.Sheet.GetVCenter 9314
- 193.235 XL.Sheet.GetZoom 9317
- 193.263 XL.Sheet.SetFooter 9354
- 193.267 XL.Sheet.SetHeader 9359
- 193.277 XL.Sheet.SetPaper 9372
- 193.287 XL.Sheet.SetProtect 9387

Created 18th August 2014, last changed 18th August 2014.



**193.198 XL.Sheet.GetFooterMargin**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetFooterMargin"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns the margin value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.203 XL.Sheet.GetHeaderMargin 9282

Created 18th August 2014, last changed 18th August 2014.

## 193.199 XL.Sheet.GetGroupSummaryBelow

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetGroupSummaryBelow"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Result** Returns value or error.

### Description

Returns true if summary is below and false if isn't.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.200 XL.Sheet.GetGroupSummaryRight 9279
- 193.264 XL.Sheet.SetGroupSummaryBelow 9356
- 193.265 XL.Sheet.SetGroupSummaryRight 9357

Created 18th August 2014, last changed 18th August 2014.

**193.200 XL.Sheet.GetGroupSummaryRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetGroupSummaryRight"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value or error.

**Description**

Returns true if summary is right and false if isn't.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.199 XL.Sheet.GetGroupSummaryBelow 9278
- 193.264 XL.Sheet.SetGroupSummaryBelow 9356
- 193.265 XL.Sheet.SetGroupSummaryRight 9357

Created 18th August 2014, last changed 18th August 2014.

**193.201 XL.Sheet.GetHCenter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHCenter"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current setting, 1 for yes or 0 for no.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.202 XL.Sheet.GetHeader 9281
- 193.204 XL.Sheet.GetHidden 9283
- 193.214 XL.Sheet.GetMerge 9293
- 193.232 XL.Sheet.GetVCenter 9314
- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.295 XL.Sheet.SetVCenter 9397

Created 18th August 2014, last changed 18th August 2014.

**193.202 XL.Sheet.GetHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHeader"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns text or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.201 XL.Sheet.GetHCenter 9280
- 193.204 XL.Sheet.GetHidden 9283
- 193.232 XL.Sheet.GetVCenter 9314
- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.277 XL.Sheet.SetPaper 9372
- 193.295 XL.Sheet.SetVCenter 9397

Created 18th August 2014, last changed 18th August 2014.

## 193.203 XL.Sheet.GetHeaderMargin

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHeaderMargin"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns the margin value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.198 XL.Sheet.GetFooterMargin 9277

Created 18th August 2014, last changed 18th August 2014.

**193.204 XL.Sheet.GetHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHidden"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns boolean or error message.

**Description**

Value is 1 if sheet is hidden and 0 if sheet is visible.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.191 XL.Sheet.GetColHidden 9270
- 193.197 XL.Sheet.GetFooter 9276
- 193.201 XL.Sheet.GetHCenter 9280
- 193.202 XL.Sheet.GetHeader 9281
- 193.214 XL.Sheet.GetMerge 9293
- 193.217 XL.Sheet.GetPaper 9297
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.291 XL.Sheet.SetRowHidden 9393

Created 18th August 2014, last changed 18th August 2014.

## 193.205 XL.Sheet.GetHorPageBreak

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHorPageBreak"; bookRef; sheetIndex; Index )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Index

The index of the page break from 0 to XL.Sheet.GetHorPageBreakCount-1.

0

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.206 XL.Sheet.GetHorPageBreakCount 9285
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.268 XL.Sheet.SetHorPageBreak 9361
- 193.296 XL.Sheet.SetVerPageBreak 9398

Created 18th August 2014, last changed 18th August 2014.



**193.206 XL.Sheet.GetHorPageBreakCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetHorPageBreakCount"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.268 XL.Sheet.SetHorPageBreak 9361

Created 18th August 2014, last changed 18th August 2014.

**193.207 XL.Sheet.GetLandscape**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetLandscape"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns 1 for landscape mode, 0 for portrait mode or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.269 XL.Sheet.SetLandscape 9362

Created 18th August 2014, last changed 18th August 2014.

**193.208 XL.Sheet.GetLastCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetLastCol"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.195 XL.Sheet.GetFirstCol 9274
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.209 XL.Sheet.GetLastRow 9288

Created 18th August 2014, last changed 18th August 2014.

**193.209 XL.Sheet.GetLastRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetLastRow"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value.

**Description****See also**

- 193.3 XL.Book.AddFormat 8992
- 193.38 XL.Book.SheetCount 9036
- 193.111 XL.Format.SetNumFormat 9133
- 193.119 XL.LoadBook 9150
- 193.195 XL.Sheet.GetFirstCol 9274
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.208 XL.Sheet.GetLastCol 9287
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.285 XL.Sheet.SetPrintRow 9385

Created 18th August 2014, last changed 18th August 2014.

**193.210 XL.Sheet.GetMarginBottom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetMarginBottom"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current margin value or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.

## 193.211 XL.Sheet.GetMarginLeft

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetMarginLeft"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current margin value or error message.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.

**193.212 XL.Sheet.GetMarginRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetMarginRight"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current margin value or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.

**193.213 XL.Sheet.GetMarginTop**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetMarginTop"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current margin value or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.



**193.214 XL.Sheet.GetMerge**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetMerge"; bookRef; sheetIndex; Row; Column; selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**selector**

Which value to return: rowFirst, rowLast, colFirst or colLast.

"colLast"

**Result** Returns value or error.

**Description**

Result is returned for selector values: rowFirst, rowLast, colFirst, colLast.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.201 XL.Sheet.GetHCenter 9280
- 193.202 XL.Sheet.GetHeader 9281
- 193.204 XL.Sheet.GetHidden 9283
- 193.215 XL.Sheet.GetName 9295
- 193.217 XL.Sheet.GetPaper 9297
- 193.232 XL.Sheet.GetVCenter 9314
- 193.242 XL.Sheet.Merge 9324

- 193.274 XL.Sheet.SetMerge

Created 18th August 2014, last changed 18th August 2014.

**193.215 XL.Sheet.GetName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetName"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns name or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.54 XL.Font.GetName 9058
- 193.119 XL.LoadBook 9150
- 193.202 XL.Sheet.GetHeader 9281
- 193.214 XL.Sheet.GetMerge 9293
- 193.217 XL.Sheet.GetPaper 9297
- 193.230 XL.Sheet.GetText 9312
- 193.235 XL.Sheet.GetZoom 9317
- 193.275 XL.Sheet.SetName 9369
- 193.277 XL.Sheet.SetPaper 9372

Created 18th August 2014, last changed 18th August 2014.

## 193.216 XL.Sheet.GetNamedRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetNamedRange"; bookRef; sheetIndex; name; selector { ; ScopeID } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### name

The name of the named range.

"test"

#### selector

Which value to return: rowFirst, rowLast, colFirst, colLast, name.

"rowFirst"

#### ScopeID

Optional

The scope ID to use for search. Can be -2 for undefined, -1 for workbook or positive number for other IDs. Default is undefined.

-1

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.186 XL.Sheet.DeleteNamedRange 9263
- 193.244 XL.Sheet.NamedRange 9326
- 193.276 XL.Sheet.SetNamedRange 9370

### 193.216.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 18th August 2014, last changed 16th March 2018.

**193.217 XL.Sheet.GetPaper**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPaper"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns paper format.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.202 XL.Sheet.GetHeader 9281
- 193.214 XL.Sheet.GetMerge 9293
- 193.215 XL.Sheet.GetName 9295
- 193.218 XL.Sheet.GetPicture 9299
- 193.226 XL.Sheet.GetProtect 9308
- 193.232 XL.Sheet.GetVCenter 9314
- 193.263 XL.Sheet.SetFooter 9354
- 193.277 XL.Sheet.SetPaper 9372

Created 18th August 2014, last changed 6th October 2015.

Paper	Value	Description
PAPER_DEFAULT	0	Default paper size
PAPER_LETTER	1	US Letter 8 1/2 x 11 in
PAPER_LETTERSMALL	2	US Letter Small 8 1/2 x 11 in
PAPER_TABLOID	3	US Tabloid 11 x 17 in
PAPER_LEDGER	4	US Ledger 17 x 11 in
PAPER_LEGAL	5	US Legal 8 1/2 x 14 in
PAPER_STATEMENT	6	US Statement 5 1/2 x 8 1/2 in
PAPER_EXECUTIVE	7	US Executive 7 1/4 x 10 1/2 in
PAPER_A3	8	A3 297 x 420 mm
PAPER_A4	9	A4 210 x 297 mm
PAPER_A4SMALL	10	A4 Small 210 x 297 mm
PAPER_A5	11	A5 148 x 210 mm
PAPER_B4	12	B4 (JIS) 250 x 354
PAPER_B5	13	B5 (JIS) 182 x 257 mm
PAPER_FOLIO	14	Folio 8 1/2 x 13 in
PAPER_QUATRO	15	Quarto 215 x 275 mm
PAPER_10x14	16	10 x 14 in
PAPER_10x17	17	11 x 17 in
PAPER_NOTE	18	US Note 8 1/2 x 11 in
PAPER_ENVELOPE_9	19	US Envelope # 9 3 7/8 x 8 7/8
PAPER_ENVELOPE_10	20	US Envelope # 10 4 1/8 x 9 1/2
PAPER_ENVELOPE_11	21	US Envelope # 11 4 1/2 x 10 3/8
PAPER_ENVELOPE_12	22	US Envelope # 12 4 3/4 x 11
PAPER_ENVELOPE_14	23	US Envelope # 14 5 x 11 1/2
PAPER_C_SIZE	24	C size sheet
PAPER_D_SIZE	25	D size sheet
PAPER_E_SIZE	26	E size sheet
PAPER_ENVELOPE_DL	27	Envelope DL 110 x 220mm
PAPER_ENVELOPE_C5	28	Envelope C5 162 x 229 mm
PAPER_ENVELOPE_C3	29	Envelope C3 324 x 458 mm
PAPER_ENVELOPE_C4	30	Envelope C4 229 x 324 mm
PAPER_ENVELOPE_C6	31	Envelope C6 114 x 162 mm
PAPER_ENVELOPE_C65	32	Envelope C65 114 x 229 mm
PAPER_ENVELOPE_B4	33	Envelope B4 250 x 353 mm
PAPER_ENVELOPE_B5	34	Envelope B5 176 x 250 mm
PAPER_ENVELOPE_B6	35	Envelope B6 176 x 125 mm
PAPER_ENVELOPE	36	Envelope 110 x 230 mm
PAPER_ENVELOPE_MONARCH	37	US Envelope Monarch 3.875 x 7.5 in
PAPER_US_ENVELOPE	38	US Envelope 3 5/8 x 6 1/2 in
PAPER_FANFOLD	39	US Std Fanfold 14 7/8 x 11 in
PAPER_GERMAN_STD_FANFOLD	40	German Std Fanfold 8 1/2 x 12 in
PAPER_GERMAN_LEGAL_FANFOLD	41	German Legal Fanfold 8 1/2 x 13 in

**193.218 XL.Sheet.GetPicture**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPicture"; bookRef; sheetIndex; Index; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Index**

The image index from 0 to XL.Sheet.PictureCount-1.

\$index

**Selector**

Which value to return. Can be id, rowTop, colLeft, rowBottom, colRight, width, height, offsetX or offsetY.  
"id"

**Result** Returns value or error.

**Description**

Output parameters:

(rowTop, colLeft) - top left position of picture;

(rowBottom, colRight) - bottom right position of picture;

width - width of picture in pixels;

height - height of picture in pixels;

offsetX - horizontal offset of picture in pixels;

offsetY - vertical offset of picture in pixels.

Use XL.Book.GetPicture for extracting binary data of picture by workbook picture index.

**See also**

- 193.17 XL.Book.GetPicture 9012
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.226 XL.Sheet.GetProtect 9308

9300

*CHAPTER 193. XL*

- 193.246 XL.Sheet.PictureCount 9328
- 193.251 XL.Sheet.RemovePicture 9335
- 193.280 XL.Sheet.SetPrintArea 9379

Created 18th August 2014, last changed 17th October 2017.



**193.219 XL.Sheet.GetPrintArea**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintArea"; bookRef; sheetIndex; selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**selector**

The value to query: rowFirst, rowLast, colFirst, colLast.

"rowFirst"

**Result** Returns OK or error.

**Description**

Returns error if print area isn't found.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.180 XL.Sheet.ClearPrintArea 9257
- 193.218 XL.Sheet.GetPicture 9299
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386

Created 6th May 2015, last changed 6th May 2015.

**193.220 XL.Sheet.GetPrintFit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintFit"; bookRef; sheetIndex; selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**selector**

Which value to return. Can be Enabled, hPages or vPages.

"Enabled"

**Result** Returns value or error.

**Description**

wPages: number of pages the sheet width is fit to;

hPages: number of pages the sheet height is fit to.

Enabled: 1 if enabled or 0 if disabled.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.218 XL.Sheet.GetPicture 9299
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.226 XL.Sheet.GetProtect 9308
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386
- 193.287 XL.Sheet.SetProtect 9387

Created 18th August 2014, last changed 18th August 2014.

**193.221 XL.Sheet.GetPrintGridlines**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintGridlines"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Return 1 if gridlines are printed and 0 if they aren't.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.194 XL.Sheet.GetDisplayGridlines 9273
- 193.282 XL.Sheet.SetPrintGridliens 9382

Created 18th August 2014, last changed 18th August 2014.

## 193.222 XL.Sheet.GetPrintRepeatCols

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintRepeatCols"; bookRef; sheetIndex; Selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### Selector

Which value to return. Can be "colFirst" or "colLast".  
"colFirst"

**Result** Returns value or error.

### Description

Returns error if repeated columns aren't found.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.283 XL.Sheet.SetPrintRepeatCols 9383
- 193.284 XL.Sheet.SetPrintRepeatRows 9384

Created 6th May 2015, last changed 6th May 2015.

**193.223 XL.Sheet.GetPrintRepeatRows**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintRepeatRows"; bookRef; sheetIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Selector**

Which value to return. Can be "rowFirst" or "rowLast".

"rowFirst"

**Result** Returns value or error.

**Description**

Returns error if repeated rows aren't found.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.283 XL.Sheet.SetPrintRepeatCols 9383
- 193.284 XL.Sheet.SetPrintRepeatRows 9384

Created 6th May 2015, last changed 6th May 2015.

**193.224 XL.Sheet.GetPrintRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintRow"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.226 XL.Sheet.GetProtect 9308
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386

Created 18th August 2014, last changed 18th August 2014.

**193.225 XL.Sheet.GetPrintZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetPrintZoom"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns zoom level.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386

Created 18th August 2014, last changed 18th August 2014.

**193.226 XL.Sheet.GetProtect**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetProtect"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns boolean or error message.

**Description**

Value is 1 if sheet is protected and 0 if sheet is not protected.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.217 XL.Sheet.GetPaper 9297
- 193.218 XL.Sheet.GetPicture 9299
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.263 XL.Sheet.SetFooter 9354
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.288 XL.Sheet.SetProtectEx 9388

Created 18th August 2014, last changed 18th August 2014.



**193.227 XL.Sheet.GetRowHeight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetRowHeight"; bookRef; sheetIndex; Row )

**Parameters****bookRef**

The reference to the workbook. Please use `XL.LoadBook` to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to `XL.Book.SheetCount-1`.

0

**Row**

The row index to query.

0

**Result** Returns row height.

**Description**

If you need the height in pixels, please use `XL.Sheet.GetRowHeightPixel` instead.

**See also**

- 193.38 `XL.Book.SheetCount` 9036
- 193.119 `XL.LoadBook` 9150
- 193.228 `XL.Sheet.GetRowHeightPixel` 9310
- 193.229 `XL.Sheet.GetRowHidden` 9311
- 193.291 `XL.Sheet.SetRowHidden` 9393

Created 18th August 2014, last changed 19th April 2020.

## 193.228 XL.Sheet.GetRowHeightPixel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetRowHeightPixel"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.193 XL.Sheet.GetColWidthPixel 9272
- 193.227 XL.Sheet.GetRowHeight 9309

### 193.228.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.229 XL.Sheet.GetRowHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetRowHidden"; bookRef; sheetIndex; Row )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row index to query.

0

**Result** Return 1 if row is hidden, 0 if row is visible or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.191 XL.Sheet.GetColHidden 9270
- 193.204 XL.Sheet.GetHidden 9283
- 193.227 XL.Sheet.GetRowHeight 9309
- 193.260 XL.Sheet.SetColHidden 9350
- 193.291 XL.Sheet.SetRowHidden 9393

Created 18th August 2014, last changed 18th August 2014.

**193.230 XL.Sheet.GetText**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193.XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetText"; bookRef; Index { ; formulas } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**Index**

The index of the sheet you want to query text. Value can be 0 to XL.Book.SheetCount-1.

\$index

**formulas**

Optional

Whether to return formulas as text. If you pass 1 here, the formulas will be returned instead of their result.

0

**Result** Returns text of sheet.

**Description**

Numbers are formatted as floating point numbers with dot as decimal separator.

Boolean values are returned as FALSE or TRUE.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.214 XL.Sheet.GetMerge 9293
- 193.215 XL.Sheet.GetName 9295
- 193.235 XL.Sheet.GetZoom 9317

Created 18th August 2014, last changed 19th April 2016.

**193.231 XL.Sheet.GetTopLeftView**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetTopLeftView"; bookRef; sheetIndex; Selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Selector**

Which value to return. Can be "row" or "column".

"row"

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.294 XL.Sheet.SetTopLeftView 9396

Created 18th August 2014, last changed 18th August 2014.

**193.232 XL.Sheet.GetVCenter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetVCenter"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns current setting, 1 for yes or 0 for no.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.202 XL.Sheet.GetHeader 9281
- 193.214 XL.Sheet.GetMerge 9293
- 193.217 XL.Sheet.GetPaper 9297
- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.295 XL.Sheet.SetVCenter 9397

Created 18th August 2014, last changed 18th August 2014.

**193.233 XL.Sheet.GetVerPageBreak**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetVerPageBreak"; bookRef; sheetIndex; Index )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Index**

The index of the page break from 0 to XL.Sheet.GetVerPageBreakCount-1.

0

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.206 XL.Sheet.GetHorPageBreakCount 9285
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.268 XL.Sheet.SetHorPageBreak 9361
- 193.296 XL.Sheet.SetVerPageBreak 9398

Created 18th August 2014, last changed 18th August 2014.

## 193.234 XL.Sheet.GetVerPageBreakCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetVerPageBreakCount"; bookRef; sheetIndex )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.206 XL.Sheet.GetHorPageBreakCount 9285
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.296 XL.Sheet.SetVerPageBreak 9398

Created 18th August 2014, last changed 18th August 2014.



**193.235 XL.Sheet.GetZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GetZoom"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns zoom level.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.215 XL.Sheet.GetName 9295
- 193.230 XL.Sheet.GetText 9312
- 193.259 XL.Sheet.SetCol 9347
- 193.290 XL.Sheet.SetRow 9391
- 193.297 XL.Sheet.SetZoom 9399

Created 18th August 2014, last changed 18th August 2014.

**193.236 XL.Sheet.GroupCols**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GroupCols"; bookRef; sheetIndex; colFirst; colLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.237 XL.Sheet.GroupRows 9319

Created 18th August 2014, last changed 18th August 2014.

**193.237 XL.Sheet.GroupRows**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.GroupRows"; bookRef; sheetIndex; rowFirst; rowLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area. First row has index 0.

\$row

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.236 XL.Sheet.GroupCols 9318

Created 18th August 2014, last changed 18th August 2014.

**193.238 XL.Sheet.Hyperlink**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Hyperlink"; bookRef; sheetIndex; Index; selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Index**

The index of the hyperlink from 0 to XL.Sheet.HyperlinkSize-1.

0

**selector**

The value to query: rowFirst, rowLast, colFirst, colLast or link.

"link"

**Result** Returns value.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.122 XL.Sheet.AddHyperlink 9157
- 193.183 XL.Sheet.DelHyperlink 9260
- 193.239 XL.Sheet.HyperlinkSize 9321

Created 18th August 2014, last changed 18th August 2014.

**193.239 XL.Sheet.HyperlinkSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.HyperlinkSize"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.183 XL.Sheet.DelHyperlink 9260
- 193.238 XL.Sheet.Hyperlink 9320

Created 18th August 2014, last changed 18th August 2014.

**193.240 XL.Sheet.InsertCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.InsertCol"; bookRef; sheetIndex; colFirst; colLast { ; KeepRanges } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column

**KeepRanges**

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

If 1, the ranges are kept and not updated. Default is 0 to update ranges.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.241 XL.Sheet.InsertRow 9323
- 193.259 XL.Sheet.SetCol 9347

Created 18th August 2014, last changed 18th April 2020.

**193.241 XL.Sheet.InsertRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.InsertRow"; bookRef; sheetIndex; rowFirst; rowLast { ; KeepRanges } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area. First row has index 0.

\$row

**KeepRanges**

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

If 1, the ranges are kept and not updated. Default is 0 to update ranges.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.240 XL.Sheet.InsertCol 9322
- 193.290 XL.Sheet.SetRow 9391

Created 18th August 2014, last changed 18th April 2020.

## 193.242 XL.Sheet.Merge

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Merge"; bookRef; sheetIndex; Index; selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Index

The index of the hyperlink from 0 to XL.Sheet.MergeSize-1.

0

#### selector

The value to query: rowFirst, rowLast, colFirst, colLast.

"rowFirst"

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.184 XL.Sheet.DelMergeByIndex 9261
- 193.214 XL.Sheet.GetMerge 9293
- 193.243 XL.Sheet.MergeSize 9325
- 193.274 XL.Sheet.SetMerge 9367
- 193.300 XL.Sheet.Table 9402

Created 18th August 2014, last changed 18th August 2014.



**193.243 XL.Sheet.MergeSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.MergeSize"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.184 XL.Sheet.DelMergeByIndex 9261
- 193.242 XL.Sheet.Merge 9324
- 193.301 XL.Sheet.TableSize 9403

Created 18th August 2014, last changed 18th August 2014.

## 193.244 XL.Sheet.NamedRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.NamedRange"; bookRef; sheetIndex; Index; selector { ; ScopeID } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### Index

The index of the named range from 0 to XL.Sheet.NamedRangeCount.  
0

#### selector

What information to return: rowFirst, rowLast, colFirst, colLast and name.  
"name"

#### ScopeID

Optional

The scope ID to use for search. Can be -2 for undefined, -1 for workbook or positive number for other IDs.  
Default is undefined.  
-1

**Result** Returns value or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.216 XL.Sheet.GetNamedRange 9296
- 193.245 XL.Sheet.NamedRangeCount 9327
- 193.276 XL.Sheet.SetNamedRange 9370

### 193.244.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 18th August 2014, last changed 16th March 2018.

**193.245 XL.Sheet.NamedRangeCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.NamedRangeCount"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.244 XL.Sheet.NamedRange 9326

Created 18th August 2014, last changed 18th August 2014.

**193.246 XL.Sheet.PictureCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.PictureCount"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

**Description****See also**

- 193.26 XL.Book.PictureCount 9021
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.218 XL.Sheet.GetPicture 9299

Created 18th August 2014, last changed 18th August 2014.

**193.247 XL.Sheet.RemoveCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemoveCol"; bookRef; sheetIndex; colFirst; colLast { ; KeepRanges } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column

**KeepRanges**

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

If 1, the ranges are kept and not updated. Default is 0 to update ranges.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.248 XL.Sheet.RemoveComment 9330
- 193.250 XL.Sheet.RemoveFilter 9334
- 193.253 XL.Sheet.RemoveRow 9337

Created 18th August 2014, last changed 18th April 2020.

## 193.248 XL.Sheet.RemoveComment

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	6.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemoveComment"; bookRef; sheetIndex; Row; Column )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

**Result** Returns OK or error.

### Description

### Examples

Remove comment from a cell:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.RemoveComment"; $book; $sheet; $row; $column ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.148 XL.Sheet.CellReadComment 9193
- 193.247 XL.Sheet.RemoveCol 9329
- 193.249 XL.Sheet.RemoveComments 9332
- 193.250 XL.Sheet.RemoveFilter 9334

### 193.248.1 Blog Entries

- [MBS FileMaker Plugin, version 6.5pr2](#)

193.248. *XL.SHEET.REMOVECOMMENT*

9331

Created 7th October 2016, last changed 19th April 2020.

## 193.249 XL.Sheet.RemoveComments

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemoveComments"; bookRef; sheetIndex; First row; Last row; First column; Last column )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### First row

The first row to process. First row has index 0.

3

#### Last row

The last row to process. First row has index 0.

6

#### First column

The first column to process. First column has index 0.

2

#### Last column

The last column to process. First column has index 0.

4

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.149 XL.Sheet.CellReadComments 9194
- 193.248 XL.Sheet.RemoveComment 9330

### 193.249.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr8](#)



193.249. *XL.SHEET.REMOVECOMMENTS*

9333

Created 15th January 2018, last changed 15th January 2018.

**193.250 XL.Sheet.RemoveFilter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemoveFilter"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.126 XL.Sheet.AutoFilter 9163
- 193.247 XL.Sheet.RemoveCol 9329
- 193.248 XL.Sheet.RemoveComment 9330
- 193.251 XL.Sheet.RemovePicture 9335

Created 22nd April 2017, last changed 22nd April 2017.

## 193.251 XL.Sheet.RemovePicture

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemovePicture"; bookRef; sheetIndex; Row; Column )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### Row

The row for the cell. First row has index 0.  
\$row

#### Column

The column for the cell. First column has index 0.  
\$column

**Result** Returns OK or error.

### Description

### Examples

Remove picture from a cell:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.RemovePicture"; $book; $sheet; $row; $column ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.218 XL.Sheet.GetPicture 9299
- 193.250 XL.Sheet.RemoveFilter 9334
- 193.252 XL.Sheet.RemovePictureByIndex 9336

### 193.251.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

## 193.252 XL.Sheet.RemovePictureByIndex

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemovePictureByIndex"; bookRef; sheetIndex; Index )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

#### Index

The index of the picture. First one starts with zero.  
0

**Result** Returns OK or error.

### Description

#### Examples

Remove a picture by index:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.RemovePictureByIndex"; $book; 0; $imageIndex ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.251 XL.Sheet.RemovePicture 9335

### 193.252.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr4](#)

Created 18th April 2020, last changed 19th April 2020.

**193.253 XL.Sheet.RemoveRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RemoveRow"; bookRef; sheetIndex; rowFirst; rowLast { ; KeepRanges } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area.

\$row+1

**KeepRanges**

Optional

Available in MBS FileMaker Plugin 10.2 or newer.

If 1, the ranges are kept and not updated. Default is 0 to update ranges.

0

**Result** Returns OK or error.

**Description****Examples**

Preprocess file before import in FileMaker by removing a row and a sheet:

```
# Find libXL and load it
If [ MBS("XL.IsInitialized") 1 ]
Perform Script [ Specified: From list ; "InitXL" ; Parameter: ]
End If
#
# path to xls or xlsx file
Set Variable [ $path ; Value: MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ); "test.xls"
) ]
#
# Load template excel file
Set Variable [ $bookRef ; Value: MBS( "XL.LoadBook"; $path ) ]
If [ MBS("IsError") ]
Show Custom Dialog [ "Error" ; $bookRef ]
```

```

Exit Script [ Text Result: ]
End If
#
# Remove first row of first sheet
Set Variable [ $r ; Value: MBS( "XL.Sheet.RemoveRow"; $BookRef; 0 /* sheet index */; 0 /* row index */ ) ]
#
# Remove second sheet
Set Variable [ $r ; Value: MBS( "XL.Book.DeleteSheet"; $bookRef; 1 /* sheet index */ ) ]
#
# Save to file and cleanup
Set Field [ XL::OutputFile ; MBS("XL.Book.SaveToFile"; $bookRef; $path) ]
Set Variable [ $r ; Value: MBS( "XL.Book.Release"; $bookRef) ]
#
# now let FileMaker import file

```

**See also**

- 82.8 Folders.UserDesktop 4235
- 127.6 IsError 6374
- 124.1 Path.AddPathComponent 6243
- 193.9 XL.Book.DeleteSheet 9002
- 193.27 XL.Book.Release 9022
- 193.29 XL.Book.Save 9025
- 193.30 XL.Book.SaveToFile 9027
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.247 XL.Sheet.RemoveCol 9329

Created 18th August 2014, last changed 18th April 2020.

**193.254 XL.Sheet.RightToLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RightToLeft"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns boolean or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.289 XL.Sheet.SetRightToLeft 9390

Created 22nd April 2017, last changed 22nd April 2017.

## 193.255 XL.Sheet.RowColToAddr

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.RowColToAddr"; bookRef; sheetIndex; Row; Column; rowRelative; colRelative )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Row

The row for the cell. First row has index 0.

\$row

#### Column

The column for the cell. First column has index 0.

\$column

#### rowRelative

Whether to use relative row. Pass 1 for relative and 0 for absolute.

1

#### colRelative

Whether to use relative column. Pass 1 for relative and 0 for absolute.

1

**Result** Returns address value or error.

### Description

#### Examples

Calculates address and returns "\$D\$18":

```
MBS( "XL.Sheet.RowColToAddr"; $book; $sheet; 17; 3; 0; 0)
```

Calculates address and returns "D18":

```
MBS( "XL.Sheet.RowColToAddr"; $book; $sheet; 17; 3)
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150



193.255. *XL.SHEET.ROWCOLTOADDR*

9341

Created 18th August 2014, last changed 18th August 2014.

## 193.256 XL.Sheet.SetAutoFitArea

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	5.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetAutoFitArea"; bookRef; sheetIndex; rowFirst; colFirst; rowLast; colLast )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### rowFirst

The first row for the area. First row has index 0.

\$row

#### colFirst

The first column for the area. First column has index 0.

\$column

#### rowLast

The last row for the area. First row has index 0.

\$row

#### colLast

The last column for the area. First column has index 0.

\$column

**Result** Returns OK or error.

### Description

The method XL.Sheet.SetCol with -1 width value will affect only to the specified limited area.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.259 XL.Sheet.SetCol 9347
- 193.280 XL.Sheet.SetPrintArea 9379

Created 6th May 2015, last changed 6th May 2015.

**193.257 XL.Sheet.SetCellFormat**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetCellFormat"; bookRef; sheetIndex; Row; Column; Format )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Format**

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Result** Returns OK or error.

**Description****Examples**

Apply a new format to a column:

```
# create new format
Set Variable [ $format; Value:MBS( "XL.Book.AddFormat"; $BookRef ) ]
Set Variable [ $r; Value:MBS( "XL.Format.SetNumFormat"; $BookRef; $format; 7 ) ]
# set as format for column
Set Variable [ $r; Value:MBS( "XL.Sheet.SetColumn"; $BookRef; 0; 6; 6; 50 ; $format; 0 ) ]
# loop over all rows
Set Variable [ $lastRow; Value:MBS( "XL.Sheet.GetLastRow"; $BookRef; $sheet ) ]
Set Variable [ $row; Value:1 ]
Loop
Set Variable [ $r; Value:MBS( "XL.Sheet.SetCellFormat"; $BookRef; $sheet; $row; 6; $format ) ]
# next
Set Variable [ $row; Value:$row + 1 ]
Exit Loop If [ $row >$lastRow ]
End Loop
```

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.187 XL.Sheet.GetCellError 9264
- 193.189 XL.Sheet.GetCellFormat 9267
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.258 XL.Sheet.SetCellFormats 9345
- 193.259 XL.Sheet.SetCol 9347
- 193.261 XL.Sheet.SetColumn 9351

Created 18th August 2014, last changed 24th March 2016.

**193.258 XL.Sheet.SetCellFormats**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	8.0	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetCellFormats"; bookRef; sheetIndex; First row; Last row; First column; Last column; Formats { ; Row Delimiter; Column Delimiter } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**First row**

The first row to process. First row has index 0.

3

**Last row**

The last row to process. First row has index 0.

6

**First column**

The first column to process. First column has index 0.

2

**Last column**

The last column to process. First column has index 0.

4

**Formats**

The format to use. Can be separated with row and column delimiter to give each row and column a different format. But you can also use same format for all rows or for all columns.

\$dollarFormat

**Row Delimiter**

Optional

The row delimiter for the result. Default is new line character.

"§"

**Column Delimiter**

Optional

The column delimiter for the result. Default is tab character.

char(9)

**Result** Returns number of errors or error.

**Description**

**Examples**

Write bold row and data rows:

```
# create bold font & format
Set Variable [ $boldFont ; Value: MBS( "XL.Book.AddFont"; $bookRef) ]
Set Variable [ $r ; Value: MBS( "XL.Font.SetBold"; $bookRef; $boldFont; 1) ]
Set Variable [ $boldFormat ; Value: MBS( "XL.Book.AddFormat"; $bookRef) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetFont"; $bookRef; $boldFormat; $boldFont) ]
# Write a title row
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteTexts"; $bookRef; $sheet; 1; 1; 1; 4; "A,B,C,D"; $; ", " ) ]
# Make it bold
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetCellFormats"; $bookRef; $sheet; 1; 1; 1; 4; $boldFormat ) ]
# and write data
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteTexts"; $bookRef; $sheet; 2; 5; 1; 4; $data; $; ", " ) ]
```

**See also**

- 193.2 XL.Book.AddFont 8990
- 193.3 XL.Book.AddFormat 8992
- 193.38 XL.Book.SheetCount 9036
- 193.107 XL.Format.SetFont 9127
- 193.119 XL.LoadBook 9150
- 193.177 XL.Sheet.CellWriteText 9250
- 193.178 XL.Sheet.CellWriteTexts 9254
- 193.189 XL.Sheet.GetCellFormat 9267
- 193.190 XL.Sheet.GetCellFormats 9268
- 193.257 XL.Sheet.SetCellFormat 9343

**193.258.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.0pr8](#)

Created 15th January 2018, last changed 28th May 2018.

**193.259 XL.Sheet.SetCol**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetCol"; bookRef; sheetIndex; ColFirst; ColLast; Width { ; Format; Hidden } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**ColFirst**

The first column.

0

**ColLast**

The last column.

0

**Width**

The new column width measured as the number of characters of the maximum digit width of the numbers 0, 1, 2, ..., 9 as rendered in the normal style's font. Value -1 is used for autofit column widths.

10

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Hidden**

Optional

Whether to hide columns.

0

**Result** Returns OK or error message.

**Description**

If format equals 0 then format is ignored. Columns may be hidden.

**Examples**

Create sheet with column format:

```
# create new xls file
```

```
Set Variable [ $book ; Value: MBS( "XL.NewBook"; 1 ) ]
```

```
# load logo picture
```

```
Set Variable [ $logoID ; Value: MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
```

```

# create fonts
# create format for column
Set Variable [ $colFormat ; Value: MBS( "XL.Book.AddFormat"; $book) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetWrap"; $book; $colFormat; 1) // enable wrap ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetAlignH"; $book; $colFormat; 1) // left ]
#
# create specialized format for one cell with lock
Set Variable [ $lockFormat ; Value: MBS( "XL.Book.AddFormat"; $book; $colFormat) ]
Set Variable [ $r ; Value: MBS( "XL.Format.SetLocked"; $book; $lockFormat; 1) // on ]
#
# create sheet
Set Variable [ $sheet ; Value: MBS( "XL.Book.AddSheet"; $book; "Sales Receipt") ]
# set default format for whole column
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetCol"; $book; $sheet; 1; 1; 12; $colFormat ) ]
#
# put some text in using column format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; 2; 1; "Long text wraps due to
column format") ]
#
# and locked format
Set Variable [ $r ; Value: MBS( "XL.Sheet.CellWriteText"; $book; $sheet; 3; 1; "And this is locked"; $lock-
Format) ]
#
# save and export
Set Field [ Writing data::Output ; MBS("XL.Book.Save"; $book; "test.xlsx") ]
Set Variable [ $r ; Value: MBS("XL.Book.Release"; $book) ]
#
Export Field Contents [ Writing data::Output ; Create folders: On ]

```

### See also

- 193.29 XL.Book.Save 9025
- 193.38 XL.Book.SheetCount 9036
- 193.91 XL.Format.SetAlignH 9100
- 193.119 XL.LoadBook 9150
- 193.121 XL.NewBook 9155
- 193.177 XL.Sheet.CellWriteText 9250
- 193.235 XL.Sheet.GetZoom 9317
- 193.256 XL.Sheet.SetAutoFitArea 9342
- 193.290 XL.Sheet.SetRow 9391
- 193.297 XL.Sheet.SetZoom 9399



**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 11st February 2020.

**193.260 XL.Sheet.SetColHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetColHidden"; bookRef; sheetIndex; Col; Hidden )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Col**

The column index to query.

0

**Hidden**

Pass 1 to hide row or 0 to show row.

1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.191 XL.Sheet.GetColHidden 9270
- 193.192 XL.Sheet.GetColWidth 9271
- 193.204 XL.Sheet.GetHidden 9283
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.261 XL.Sheet.SetColumn 9351
- 193.291 XL.Sheet.SetRowHidden 9393

Created 18th August 2014, last changed 18th August 2014.

**193.261 XL.Sheet.SetColumn**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetColumn"; bookRef; sheetIndex; colFirst; colLast; width { ; format; hidden } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**colFirst**

The first column. First column has index 0.

\$column

**colLast**

The last column.

\$column

**width**

The width of the column. Value -1 is used for autofit column widths.

5

**format**

Optional

The format index to use. You can use XL.Book.AddFormat to create new formats.

\$format

**hidden**

Optional

Whether to hide column. Default is 0.

0

**Result** Returns OK or error.

**Description**

Column width measured as the number of characters of the maximum digit width of the numbers 0, 1, 2, ..., 9 as rendered in the normal style's font. Columns may be hidden.

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.38 XL.Book.SheetCount 9036
- 193.111 XL.Format.SetNumFormat 9133

9352

*CHAPTER 193. XL*

- 193.119 XL.LoadBook 9150
- 193.257 XL.Sheet.SetCellFormat 9343
- 193.259 XL.Sheet.SetCol 9347
- 193.260 XL.Sheet.SetColHidden 9350
- 193.263 XL.Sheet.SetFooter 9354
- 193.297 XL.Sheet.SetZoom 9399

Created 18th August 2014, last changed 26th July 2019.

**193.262 XL.Sheet.SetDisplayGridlines**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetDisplayGridlines"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Value**

The new setting. Pass 1 to have gridlines visible or 0 to hide gridlines.  
1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.194 XL.Sheet.GetDisplayGridlines 9273

**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 18th August 2014.

## 193.263 XL.Sheet.SetFooter

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetFooter"; bookRef; sheetIndex; Text { ; Margin } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Text

The new footer text.

"test"

#### Margin

Optional

The margin to use.

0.5

**Result** Returns OK or error message.

### Description

The footer text appears at the bottom of every page when printed. The length of the text must be less than or equal to 255. The footer text can contain special commands, for example a placeholder for the page number, current date or text formatting attributes. See XL.SetHeader for details. Margin is specified in inches.

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.232 XL.Sheet.GetVCenter 9314
- 193.261 XL.Sheet.SetColumn 9351
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.277 XL.Sheet.SetPaper 9372
- 193.287 XL.Sheet.SetProtect 9387
- 193.295 XL.Sheet.SetVCenter 9397

193.263. *XL.SHEET.SETFOOTER*

9355

- 193.297 XL.Sheet.SetZoom

9399

Created 18th August 2014, last changed 11st July 2016.

**193.264 XL.Sheet.SetGroupSummaryBelow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetGroupSummaryBelow"; bookRef; sheetIndex; below )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**below**

The new setting.

0

**Result** Returns OK or error.

**Description**

Pass 1 for below, 0 for above.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.199 XL.Sheet.GetGroupSummaryBelow 9278
- 193.200 XL.Sheet.GetGroupSummaryRight 9279
- 193.265 XL.Sheet.SetGroupSummaryRight 9357

Created 18th August 2014, last changed 18th August 2014.



**193.265 XL.Sheet.SetGroupSummaryRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetGroupSummaryRight"; bookRef; sheetIndex; right )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**right**

The new setting.

1

**Result** Returns OK or error.

**Description**

Pass 1 for right, false for left.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.199 XL.Sheet.GetGroupSummaryBelow 9278
- 193.200 XL.Sheet.GetGroupSummaryRight 9279
- 193.264 XL.Sheet.SetGroupSummaryBelow 9356

Created 18th August 2014, last changed 18th August 2014.

**193.266 XL.Sheet.SetHCenter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetHCenter"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new setting. Pass 1 for yes, 0 for no.

0

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.201 XL.Sheet.GetHCenter 9280
- 193.202 XL.Sheet.GetHeader 9281
- 193.232 XL.Sheet.GetVCenter 9314
- 193.263 XL.Sheet.SetFooter 9354
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.277 XL.Sheet.SetPaper 9372
- 193.295 XL.Sheet.SetVCenter 9397

Created 18th August 2014, last changed 18th August 2014.

**193.267 XL.Sheet.SetHeader**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetHeader"; bookRef; sheetIndex; Text { ; Margin } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.  
\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.  
0

**Text**

The new header text.  
"test"

**Margin**

Optional  
The margin to use.  
0.5

**Result** Returns OK or error message.

**Description**

The text appears at the top of every page when printed. The length of the text must be less than or equal to 255. The header text can contain special commands, for example a placeholder for the page number, current date or text formatting attributes. Special commands are represented by single letter with a leading ampersand ("& "). Margin is specified in inches.

**Examples**

Set sheet name:

MBS( "XL.Sheet.SetHeader"; \$book; 0; "My Report 2019" )

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.214 XL.Sheet.GetMerge 9293
- 193.217 XL.Sheet.GetPaper 9297
- 193.232 XL.Sheet.GetVCenter 9314

Code	Description
& L	specifies the beginning of the left section
& P	specifies the current page number
& N	specifies the total number of pages
& \d { 1,3 }	specifies the text font size, where font size is measured in points, for example: & 9 or & 36
& S	specifies whether the strikethrough text style is on or off
& X	specifies whether the superscript text style is on or off
& Y	specifies whether the subscript text style is on or off
& C	specifies the beginning of the center section
& D	specifies a date
& T	specifies a time
& G	specifies a picture
& U	specifies whether the single underline text style is on or off
& E	specifies whether the double underline text style is on or off
& R	specifies the beginning of the right section
& Z	specifies a workbook file path
& F	specifies a workbook file name
& A	specifies a sheet name
& "fontname"	specifies the text font, for example: & "Comic Sans MS"
& B	specifies whether the bold text style is on or off
& I	specifies whether the italic text style is on or off
& &	specifies an ampersand character (& )

- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.275 XL.Sheet.SetName 9369
- 193.277 XL.Sheet.SetPaper 9372
- 193.295 XL.Sheet.SetVCenter 9397

**193.268 XL.Sheet.SetHorPageBreak**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetHorPageBreak"; bookRef; sheetIndex; Row { ; Pagebreak } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Pagebreak**

Optional

Whether to break or not. Default is 1 for a break.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.206 XL.Sheet.GetHorPageBreakCount 9285
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.296 XL.Sheet.SetVerPageBreak 9398

Created 18th August 2014, last changed 9th July 2015.

## 193.269 XL.Sheet.SetLandscape

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetLandscape"; bookRef; sheetIndex; Value )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Value

Pass 1 so pages are printed using landscape mode or 0 so pages are printed using portrait mode.

1

**Result** Returns OK or error message.

### Description

#### Examples

Put first sheet on landscape:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.SetLandscape"; $book; 0; 1 ) ]
```

Put first sheet on portrait:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.SetLandscape"; $book; 0; 0 ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.207 XL.Sheet.GetLandscape 9286

### 193.269.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 18th August 2014, last changed 19th April 2020.

**193.270 XL.Sheet.SetMarginBottom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetMarginBottom"; bookRef; sheetIndex; Margin )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Margin**

The new margin value.

0.1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.

**193.271 XL.Sheet.SetMarginLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetMarginLeft"; bookRef; sheetIndex; Margin )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Margin**

The new margin value.

0.1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.272 XL.Sheet.SetMarginRight 9365
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.



**193.272 XL.Sheet.SetMarginRight**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetMarginRight"; bookRef; sheetIndex; Margin )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Margin**

The new margin value.

0.1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.273 XL.Sheet.SetMarginTop 9366

Created 18th August 2014, last changed 18th August 2014.

**193.273 XL.Sheet.SetMarginTop**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetMarginTop"; bookRef; sheetIndex; Margin )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Margin**

The new margin value.

0.1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.210 XL.Sheet.GetMarginBottom 9289
- 193.211 XL.Sheet.GetMarginLeft 9290
- 193.212 XL.Sheet.GetMarginRight 9291
- 193.213 XL.Sheet.GetMarginTop 9292
- 193.270 XL.Sheet.SetMarginBottom 9363
- 193.271 XL.Sheet.SetMarginLeft 9364
- 193.272 XL.Sheet.SetMarginRight 9365

Created 18th August 2014, last changed 18th August 2014.

## 193.274 XL.Sheet.SetMerge

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetMerge"; bookRef; sheetIndex; rowFirst; rowLast; colFirst; colLast )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### rowFirst

The first row for the area. First row has index 0.

\$row

#### rowLast

The last row for the area. First row has index 0.

\$row

#### colFirst

The first column for the area. First column has index 0.

\$column

#### colLast

The last column for the area. First column has index 0.

\$column+1

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.185 XL.Sheet.DeleteMerge 9262
- 193.214 XL.Sheet.GetMerge 9293
- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.275 XL.Sheet.SetName 9369

9368

CHAPTER 193. XL

- 193.277 XL.Sheet.SetPaper

9372

- 193.295 XL.Sheet.SetVCenter

9397

### Example Databases

- [XL/Writing data](#)

Created 18th August 2014, last changed 18th August 2014.

**193.275 XL.Sheet.SetName**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetName"; bookRef; sheetIndex; Name )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Name**

The new name for the sheet.

"First Sheet"

**Result** Returns OK or error message.

**Description****Examples**

Set sheet name:

MBS( "XL.Sheet.SetName"; \$book; 0; "MyReport" )

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.62 XL.Font.SetName 9069
- 193.119 XL.LoadBook 9150
- 193.215 XL.Sheet.GetName 9295
- 193.217 XL.Sheet.GetPaper 9297
- 193.259 XL.Sheet.SetCol 9347
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.290 XL.Sheet.SetRow 9391
- 193.297 XL.Sheet.SetZoom 9399

Created 18th August 2014, last changed 16th May 2019.

## 193.276 XL.Sheet.SetNamedRange

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetNamedRange"; bookRef; sheetIndex; name; rowFirst; rowLast; colFirst; colLast { ; scopeId } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### name

The name to use for the named range.

"test"

#### rowFirst

The first row for the area. First row has index 0.

\$row

#### rowLast

The last row for the area. First row has index 0.

\$row+1

#### colFirst

The first column for the area. First column has index 0.

\$column

#### colLast

The last column for the area. First column has index 0.

\$column+1

#### scopeId

Optional

The scope ID to use. Can be -2 for undefined, -1 for workbook or positive number for other IDs. Default is undefined.

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150

<i>193.276. XL.SHEET.SETNAMEDRANGE</i>	9371
• 193.186 XL.Sheet.DeleteNamedRange	9263
• 193.216 XL.Sheet.GetNamedRange	9296
• 193.244 XL.Sheet.NamedRange	9326

### **193.276.1 Blog Entries**

- [MBS FileMaker Plugin, version 8.2pr4](#)

Created 18th August 2014, last changed 21st April 2018.

## 193.277 XL.Sheet.SetPaper

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPaper"; bookRef; sheetIndex; Value )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Value

The new paper format.

1

**Result** Returns OK or error message.

### Description

See XL.Sheet.GetPaper for a list of paper formats.

### Examples

Set paper to A4:

```
Set Variable [ $r; Value: MBS( "XL.Sheet.SetPaper"; $book; 0; 9 ) ]
```

### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.202 XL.Sheet.GetHeader 9281
- 193.215 XL.Sheet.GetName 9295
- 193.217 XL.Sheet.GetPaper 9297
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.275 XL.Sheet.SetName 9369
- 193.287 XL.Sheet.SetProtect 9387
- 193.295 XL.Sheet.SetVCenter 9397



## 193.277.1 Blog Entries

- [MBS Filemaker Plugin, version 4.3pr8](#)

Created 18th August 2014, last changed 19th April 2020.

**193.278 XL.Sheet.SetPictureWithScale**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPictureWithScale"; bookRef; sheetIndex; Row; Column; pictureId; scale { ; X; Y; pos } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**pictureId**

The picture identifier number.

\$pictureID

**scale**

The scale factor.

1.0

**X**

Optional

Relative offset.

0

**Y**

Optional

Relative offset.

0

**pos**

Optional

The positioning. 0 = Move and Size, 1 = Move, 2 = Absolute.

0

**Result** Returns OK or error.

**Description**

Use XL.Book.AddPictureFile or XL.Book.AddPictureContainer for getting picture identifier.

**Examples**

Add a picture to excel sheet:

```
# add picture to file
Set Variable [ $logoID; Value:MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
# position with size:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithSize"; $book; $sheet; 2; 1; $logoID; 100; 100) ]
# or with factor:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithScale"; $book; $sheet; 2; 1; $logoID; .2) ]
```

**See also**

- 193.4 XL.Book.AddPictureContainer 8995
- 193.5 XL.Book.AddPictureFile 8997
- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.279 XL.Sheet.SetPictureWithSize 9376

**Example Databases**

- [XL/Writing data](#)

Created 18th August 2014, last changed 27th July 2018.

**193.279 XL.Sheet.SetPictureWithSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPictureWithSize"; bookRef; sheetIndex; Row; Column; pictureId; width; height { ; X; Y; pos } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**pictureId**

The picture identifier number.

\$pictureID

**width**

The picture width to use. Can be -1 or empty for automatic size.

400

**height**

The picture height to use. Can be -1 or empty for automatic size.

300

**X**

Optional

Relative offset.

0

**Y**

Optional

Relative offset.

0

**pos**

Optional

The positioning. 0 = Move and Size, 1 = Move, 2 = Absolute.

0

**Result** Returns OK or error.

### Description

Use XL.Book.AddPictureFile or XL.Book.AddPictureContainer for getting a picture identifier.

Width and height can be -1 (or empty) for default size of picture.

### Examples

Add a picture to excel sheet:

```
# add picture to file
Set Variable [ $logoID; Value:MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
# position with size:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithSize"; $book; $sheet; 2; 1; $logoID; 100; 100) ]
# or with factor:
Set Variable [ $r; Value:MBS( "XL.Sheet.SetPictureWithScale"; $book; $sheet; 2; 1; $logoID; .2) ]
```

Adds picture with proportional scaled image:

```
Set Variable [ $image ; Value: MBS( "GMImage.NewFromContainer"; Writing data::Logo ) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $destWidth ; Value: 120 ]
Set Variable [ $destHeight ; Value: 120 ]
Set Variable [ $width ; Value: MBS( "GMImage.GetWidth"; $image ) ]
Set Variable [ $height ; Value: MBS( "GMImage.GetHeight"; $image ) ]
Set Variable [ $r ; Value: MBS( "GMImage.Release"; $image ) ]
Set Variable [ $factor ; Value: Min ( $destheight / $height; $destwidth / $width ) ]
Set Variable [ $dwidth ; Value: $width * $factor ]
Set Variable [ $dheight ; Value: $height * $factor ]
#
Set Variable [ $logoID ; Value: MBS( "XL.Book.AddPictureContainer"; $book; Writing data::Logo) ]
If [ MBS("IsError") = 0 ]
Set Variable [ $r ; Value: MBS( "XL.Sheet.SetPictureWithSize"; $book; $sheet; 2; 1; $logoID; $dwidth; $dheight) ]
End If
End If
```

### See also

- 87.123 GMImage.GetHeight 4563
- 87.169 GMImage.GetWidth 4612
- 87.191 GMImage.New 4642
- 87.193 GMImage.NewFromContainer 4646
- 87.214 GMImage.Release 4674

9378

CHAPTER 193. XL

- 127.6 IsError 6374
- 193.4 XL.Book.AddPictureContainer 8995
- 193.5 XL.Book.AddPictureFile 8997
- 193.38 XL.Book.SheetCount 9036
- 193.278 XL.Sheet.SetPictureWithScale 9374

### Example Databases

- [XL/Writing data](#)

Created 18th August 2014, last changed 29th July 2019.

**193.280 XL.Sheet.SetPrintArea**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintArea"; bookRef; sheetIndex; rowFirst; rowLast; colFirst; colLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rowFirst**

The first row for the area. First row has index 0.

\$row

**rowLast**

The last row for the area. First row has index 0.

\$row

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area. First column has index 0.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.180 XL.Sheet.ClearPrintArea 9257
- 193.218 XL.Sheet.GetPicture 9299
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307

9380

*CHAPTER 193. XL*

- 193.285 XL.Sheet.SetPrintRow

9385

- 193.286 XL.Sheet.SetPrintZoom

9386

Created 18th August 2014, last changed 18th August 2014.



**193.281 XL.Sheet.SetPrintFit**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintFit"; bookRef; sheetIndex { ; wPages; hPages } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**wPages**

Optional

The number of pages horizontally. Default is 1.

1

**hPages**

Optional

The number of pages vertically. Default is 1.

1

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.226 XL.Sheet.GetProtect 9308
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.286 XL.Sheet.SetPrintZoom 9386
- 193.287 XL.Sheet.SetProtect 9387

Created 18th August 2014, last changed 9th July 2015.

**193.282 XL.Sheet.SetPrintGridliens**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintGridliens"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new setting. Pass 1 to have gridlines printed or 0 to hide gridlines on printing.

1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.221 XL.Sheet.GetPrintGridlines 9303

Created 18th August 2014, last changed 18th August 2014.

**193.283 XL.Sheet.SetPrintRepeatCols**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintRepeatCols"; bookRef; sheetIndex; colFirst; colLast )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**colFirst**

The first column for the area. First column has index 0.

\$column

**colLast**

The last column for the area.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.284 XL.Sheet.SetPrintRepeatRows 9384

Created 18th August 2014, last changed 18th August 2014.

## 193.284 XL.Sheet.SetPrintRepeatRows

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintRepeatRows"; bookRef; sheetIndex; rowFirst; rowLast )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### rowFirst

The first row. First row has index 0.

\$row

#### rowLast

The last row.

\$row

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.181 XL.Sheet.ClearPrintRepeats 9258
- 193.222 XL.Sheet.GetPrintRepeatCols 9304
- 193.223 XL.Sheet.GetPrintRepeatRows 9305
- 193.283 XL.Sheet.SetPrintRepeatCols 9383

Created 18th August 2014, last changed 18th August 2014.

**193.285 XL.Sheet.SetPrintRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintRow"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new setting.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.196 XL.Sheet.GetFirstRow 9275
- 193.209 XL.Sheet.GetLastRow 9288
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.286 XL.Sheet.SetPrintZoom 9386
- 193.287 XL.Sheet.SetProtect 9387

Created 18th August 2014, last changed 18th August 2014.

**193.286 XL.Sheet.SetPrintZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetPrintZoom"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new zoom level.

150

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.219 XL.Sheet.GetPrintArea 9301
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.224 XL.Sheet.GetPrintRow 9306
- 193.225 XL.Sheet.GetPrintZoom 9307
- 193.280 XL.Sheet.SetPrintArea 9379
- 193.281 XL.Sheet.SetPrintFit 9381
- 193.285 XL.Sheet.SetPrintRow 9385

Created 18th August 2014, last changed 18th August 2014.

**193.287 XL.Sheet.SetProtect**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetProtect"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new setting.

1

**Result** Returns OK or error message.

**Description****Examples**

Protect the 3rd sheet:

MBS( "XL.Sheet.SetProtect"; \$book; 2; 1)

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.110 XL.Format.SetLocked 9131
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.220 XL.Sheet.GetPrintFit 9302
- 193.226 XL.Sheet.GetProtect 9308
- 193.263 XL.Sheet.SetFooter 9354
- 193.277 XL.Sheet.SetPaper 9372
- 193.285 XL.Sheet.SetPrintRow 9385
- 193.288 XL.Sheet.SetProtectEx 9388

Created 18th August 2014, last changed 18th August 2014.

**193.288 XL.Sheet.SetProtectEx**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetProtectEx"; bookRef; sheetIndex; protect; Password; ProtectEx )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**protect**

Whether to protect. Pass 1 to enable protection and 0 to disable.

1

**Password**

The password to use.

**ProtectEx**

The new protection setting. This can be a list of several options or a number.

"default"

**Result** Returns OK or error.

**Description**

It is possible to combine a few Enhanced Protection values.

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.110 XL.Format.SetLocked 9131
- 193.119 XL.LoadBook 9150
- 193.226 XL.Sheet.GetProtect 9308
- 193.287 XL.Sheet.SetProtect 9387

Created 22nd April 2017, last changed 22nd April 2017.



Enhanced Protection value	Description
default	Default protection.
all	Nothing is allowed except cell selections.
Objects	Objects are locked when the sheet is protected.
Scenarios	Scenarios are locked when the sheet is protected.
FormatCells	Formatting cells is allowed when the sheet is protected.
FormatColumns	Formatting columns is allowed when the sheet is protected.
FormatRows	Formatting rows is allowed when the sheet is protected.
InsertColumns	Inserting columns is allowed when the sheet is protected.
InsertRows	Inserting rows is allowed when the sheet is protected.
InsertHyperlinks	Inserting hyperlinks is allowed when the sheet is protected.
DeleteColumns	Deleting columns is allowed when the sheet is protected.
DeleteRows	Deleting rows is allowed when the sheet is protected.
SelLockedCells	Selection of locked cells is locked when the sheet is protected.
Sort	Sorting is allowed when the sheet is protected.
AutoFilter	Autofilters are allowed when the sheet is protected.
PivotTables	Pivot tables are allowed when the sheet is protected.
SelUnlockedCells	Selection of unlocked cells is locked when the sheet is protected.

**193.289 XL.Sheet.SetRightToLeft**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetRightToLeft"; bookRef; sheetIndex; rightToLeft )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**rightToLeft**

The new value.

1

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.254 XL.Sheet.RightToLeft 9339

Created 22nd April 2017, last changed 22nd April 2017.

**193.290 XL.Sheet.SetRow**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetRow"; bookRef; sheetIndex; Row; Height { ; Format; Hidden } )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row index to set.

0

**Height**

The new row height measured in point size.

20

**Format**

Optional

The format for the cell. This is index from 0 to XL.GetFormatCount-1 in the book's list of formats.

0

**Hidden**

Optional

Whether to hide columns.

0

**Result** Returns OK or error message.

**Description**

Row may be hidden.

Height is in points. If you want to convert from pixels to points you can use this calculation: points = pixels \* 72 / 96. So for a height of 72 pixel, you pass 54 points.

**See also**

- 193.3 XL.Book.AddFormat 8992
- 193.91 XL.Format.SetAlignH 9100
- 193.116 XL.Format.SetWrap 9142
- 193.119 XL.LoadBook 9150
- 193.177 XL.Sheet.CellWriteText 9250

9392

*CHAPTER 193. XL*

- 193.235 XL.Sheet.GetZoom 9317
- 193.241 XL.Sheet.InsertRow 9323
- 193.259 XL.Sheet.SetCol 9347
- 193.275 XL.Sheet.SetName 9369
- 193.297 XL.Sheet.SetZoom 9399

### **193.290.1 Blog Entries**

- [MBS Filemaker Plugin, version 4.3pr11](#)

Created 18th August 2014, last changed 10th July 2016.

**193.291 XL.Sheet.SetRowHidden**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetRowHidden"; bookRef; sheetIndex; Row; Hidden )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row index to set.

0

**Hidden**

Pass 1 to hide row or 0 to show row.

1

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.191 XL.Sheet.GetColHidden 9270
- 193.204 XL.Sheet.GetHidden 9283
- 193.227 XL.Sheet.GetRowHeight 9309
- 193.229 XL.Sheet.GetRowHidden 9311
- 193.260 XL.Sheet.SetColHidden 9350

Created 18th August 2014, last changed 18th August 2014.

**193.292 XL.Sheet.SetTabColor**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetTabColor"; bookRef; sheetIndex; Color )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Color**

The color value to use.

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.293 XL.Sheet.SetTabColorRGB 9395

Created 22nd April 2017, last changed 22nd April 2017.

**193.293 XL.Sheet.SetTabColorRGB**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetTabColorRGB"; bookRef; sheetIndex; Red; Green; Blue )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Red**

The red color value. Range 0 to 255.

0

**Green**

The green color value. Range 0 to 255.

0

**Blue**

The blue color value. Range 0 to 255.

0

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.292 XL.Sheet.SetTabColor 9394

**193.293.1 Blog Entries**

- [MBS FileMaker Plugin, version 9.1pr3](#)

Created 22nd April 2017, last changed 22nd April 2017.

**193.294 XL.Sheet.SetTopLeftView**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetTopLeftView"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.231 XL.Sheet.GetTopLeftView 9313

Created 18th August 2014, last changed 18th August 2014.



**193.295 XL.Sheet.SetVCenter**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetVCenter"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new setting. Pass 1 for yes, 0 for no.

0

**Result** Returns OK or error message.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.197 XL.Sheet.GetFooter 9276
- 193.201 XL.Sheet.GetHCenter 9280
- 193.232 XL.Sheet.GetVCenter 9314
- 193.263 XL.Sheet.SetFooter 9354
- 193.266 XL.Sheet.SetHCenter 9358
- 193.267 XL.Sheet.SetHeader 9359
- 193.274 XL.Sheet.SetMerge 9367
- 193.277 XL.Sheet.SetPaper 9372

Created 18th August 2014, last changed 18th August 2014.

## 193.296 XL.Sheet.SetVerPageBreak

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetVerPageBreak"; bookRef; sheetIndex; Column { ; Pagebreak } )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Column

The column for the cell. First column has index 0.

\$column

#### Pagebreak

Optional

Whether to break or not. Default is 1 for a break.

0

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.205 XL.Sheet.GetHorPageBreak 9284
- 193.233 XL.Sheet.GetVerPageBreak 9315
- 193.234 XL.Sheet.GetVerPageBreakCount 9316
- 193.268 XL.Sheet.SetHorPageBreak 9361

Created 18th August 2014, last changed 9th July 2015.

**193.297 XL.Sheet.SetZoom**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SetZoom"; bookRef; sheetIndex; Value )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Value**

The new zoom level.

150

**Result** Returns OK or error message.

**Description**

100 is a usual view.

**Examples**

Set first sheet to 150% :

Set Variable [ \$r; Value: MBS( "XL.Sheet.SetZoom"; \$book; 0; 150 ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.235 XL.Sheet.GetZoom 9317
- 193.259 XL.Sheet.SetCol 9347
- 193.261 XL.Sheet.SetColumn 9351
- 193.263 XL.Sheet.SetFooter 9354
- 193.275 XL.Sheet.SetName 9369
- 193.290 XL.Sheet.SetRow 9391

Created 18th August 2014, last changed 19th April 2020.

**193.298 XL.Sheet.Split**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	3.5	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Split"; bookRef; sheetIndex; Row; Column )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Row**

The row for the cell. First row has index 0.

\$row

**Column**

The column for the cell. First column has index 0.

\$column

**Result** Returns OK or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.299 XL.Sheet.SplitInfo 9401

Created 18th August 2014, last changed 18th August 2014.

**193.299 XL.Sheet.SplitInfo**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	4.3	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.SplitInfo"; bookRef; sheetIndex; selector )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**selector**

Which value to query. Can be row or col.

"row"

**Result** Returns value or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.298 XL.Sheet.Split 9400

Created 18th August 2014, last changed 18th August 2014.

## 193.300 XL.Sheet.Table

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Table"; bookRef; sheetIndex; Index; Selector )

### Parameters

#### bookRef

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

#### sheetIndex

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

#### Index

The index of the table to query.

0

#### Selector

Which value to query. Can be rowFirst, rowLast, colFirst, colLast, headerRowCount (the number of header rows showing at the top of the table. 0 means that the header row is not shown), totalsRowCount (the number of totals rows that shall be shown at the bottom of the table. 0 means that the totals row is not shown) or name.

"rowFirst"

**Result** Returns OK or error.

### Description

#### See also

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.242 XL.Sheet.Merge 9324
- 193.301 XL.Sheet.TableSize 9403
- 193.302 XL.Sheet.Type 9404

Created 22nd April 2017, last changed 22nd April 2017.

**193.301 XL.Sheet.TableSize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.TableSize"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns number or error.

**Description****See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.243 XL.Sheet.MergeSize 9325
- 193.300 XL.Sheet.Table 9402

Created 22nd April 2017, last changed 22nd April 2017.

**193.302 XL.Sheet.Type**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	7.2	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Sheet.Type"; bookRef; sheetIndex )

**Parameters****bookRef**

The reference to the workbook. Please use XL.LoadBook to load a file.

\$ref

**sheetIndex**

The index of the sheet. This number ranges from 0 to XL.Book.SheetCount-1.

0

**Result** Returns text or error.

**Description**

Type is Sheet, Chart or Unknown.

**Examples**

Query type of first sheet:

Set Variable [ \$type; Value: MBS( "XL.Sheet.Type"; \$book; 0 ) ]

**See also**

- 193.38 XL.Book.SheetCount 9036
- 193.119 XL.LoadBook 9150
- 193.300 XL.Sheet.Table 9402

Created 22nd April 2017, last changed 19th April 2020.



**193.303 XL.Uninitialize**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
193 XL	10.1	Yes	Yes	Yes	Yes	Yes

MBS( "XL.Uninitialize" )

**Result** Returns OK or error.

**Description**

This will clear all XLBook objects, clear all function pointers and free the library. You only need to call this if you like to replace the Library file and load another version. The library is automatically unloaded when FileMaker quits.

**See also**

- 193.117 XL.Initialize 9145
- 193.118 XL.IsInitialized 9148

**193.303.1 Blog Entries**

- [MBS FileMaker Plugin, version 10.1pr6](#)

Created 28th February 2020, last changed 28th February 2020.



# Chapter 194

## XML

Functions for working on XML text.

With XPath queries you can query values or lists from XML.

### 194.1 Dictionary.ToXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
66 Dictionary 194 XML	6.1	Yes	Yes	Yes	Yes	Yes

MBS( "Dictionary.ToXML"; DictionaryRef { ; Format } )

#### Parameters

##### DictionaryRef

The reference number to the dictionary as returned by Dictionary.Create function.  
\$dic

##### Format

Optional

If 1, we format pretty. Pass 0 to get compact xml.

1

**Result** Returns OK or error.

#### Description

#### Examples

Test exporting dictionaries:

```
#  
#  
# Create new Dictionary
```

```

#
Set Variable [ $param; Value:MBS( "Dictionary.Create" ) ]
#
# Fill in values
#
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "text"; Pass Parameters with Dictionary::TextField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "number"; Pass Parameters with Dictionary::NumberField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "date"; Pass Parameters with Dictionary::DateField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "time"; Pass Parameters with Dictionary::TimeField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "timestamp"; Pass Parameters with Dictionary::TimeStampField ) ]
Set Variable [ $r; Value:MBS( "Dictionary.SetValueForKey"; $param; "container"; Pass Parameters with Dictionary::ContainerField ) ]
#
# Call save xml, json and text
#
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToXML"; $param; 1); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.xml"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToText"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.txt"); "UTF8" ) ]
Set Variable [ $r; Value:MBS( "Text.WriteTextFile"; MBS("Dictionary.ToJSON"; $param); MBS( "Path.AddPathComponent"; MBS( "Folders.UserDesktop" ) ; "dictionary.json.txt"); "UTF8" ) ]
#
# free memory
#
Set Variable [ $r; Value:MBS("Dictionary.Release"; $param) ]

```

### See also

- 66.6 Dictionary.Count 2448
- 66.7 Dictionary.Create 2449
- 66.14 Dictionary.Release 2459
- 66.19 Dictionary.SetValueForKey 2465
- 102.1 Dictionary.ToJSON 5303
- 66.22 Dictionary.ToText 2471
- 82.8 Folders.UserDesktop 4235
- 124.1 Path.AddPathComponent 6243
- 167.68 Text.WriteTextFile 7999

### 194.1.1 **Blog Entries**

- [MBS FileMaker Plugin, version 6.1pr3](#)

Created 25th February 2016, last changed 20th February 2018.

## 194.2 XML.ApplyStylesheet

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ApplyStylesheet"; XML; StyleSheet { ; Parameters } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### StyleSheet

The XML of the style sheet. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

### Parameters

Optional

The list of parameters to pass to the engine. Pass a list with key=value format.

"id=123&test=2"

**Result** Returns text or error.

### Description

Performs a XSLT transformation on the input document.

The output may be a non-wellformed output XML wise!

Returns various errors if XML is not well formed or style sheet is invalid.

Based on LibXSLT, so it provides an implementation of XSLT 1.0, plus most of the EXSLT set of processor-portable extensions functions and some of Saxon's evaluate and expressions extensions.

### Examples

Apply a stylesheet:

```
Set Variable [ $InputXML; Value:XSLT::InputXML ]
```

```
Set Variable [ $StyleSheet; Value:XSLT::StyleSheet ]
```

```
Set Variable [ $Output; Value:MBS("XML.ApplyStylesheet"; $InputXML; $StyleSheet) ]
```

```
Set Field [ XSLT::OutputXML; $Output ]
```

### See also

- 194.26 XML.Parse

9446

### Example Databases

- [XML/XSLT](#)

### 194.2.1 Blog Entries

- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 9.5pr4](#)
- [Custom context menu commands for FileMaker ScriptWorkspace](#)
- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.4pr5](#)
- [Playing with LibXSLT](#)

Created 22nd August 2018, last changed 23th August 2019.

## 194.3 XML.Canonical

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Canonical"; XML { ; Flags; Mode } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 2 to include comments.

3

#### Mode

Optional

The output mode. Can be 0 for Original C14N 1.0 spec, 1 for Exclusive C14N 1.0 spec or 2 for C14N 1.1 spec.

0

**Result** Returns XML or error.

### Description

#### Examples

Make canonical:

MBS("XML.Canonical"; Canonical XML::Input XML; 3)

### See also

- 194.26 XML.Parse

9446

### Example Databases

- [XML/Canonical XML](#)
- [XML/XML Test](#)

### 194.3.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr10](#)





## 194.4 XML.ClearVariables

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ClearVariables"; VariableList )

### Parameters

#### VariableList

The list of variables.

"test"

**Result** Returns OK or error.

### Description

Pass the list returned from XML.SetVariables to clear the variables list.

### See also

- [194.34 XML.SetVariables](#)

9460

### Example Databases

- [XML/XML Test](#)

### 194.4.1 Blog Entries

- [New XML Functions in MBS FileMaker Plugin](#)

### 194.4.2 FileMaker Magazin

- [Ausgabe 3/2017, Seite 27](#)

Created 26th December 2016, last changed 26th December 2016.

## 194.5 XML.Colorize

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Colorize"; XML )

### Parameters

#### XML

The XML text to process.

"<test>Hello</test>"

**Result** Returns formatted text or error.

### Description

This colorizes an existing XML text to show to user. Keys get blue, text value black, attributes in purple.

Text is returned only with colors. You can apply text font and font size with normal FileMaker functions. Processing time is linear to length, so should be faster than custom functions.

### Examples

Colorize a field:

Set Field [ Data::XML ; MBS("XML.Colorize"; Data::XML) ]

Line numbers, color and format:

MBS( "Text.AddLineNumbers"; MBS( "XML.Colorize"; MBS( "XML.Format"; Buckets::Listing)))

### See also

- [167.1 Text.AddLineNumbers](#) 7895
- [194.9 XML.Format](#) 9422

### Example Databases

- [CURL/Amazon S3 Buckets](#)
- [DynaPDF/List XFA Streams](#)
- [Mac only/Script Workspace Context Menu Commands](#)
- [XML/XML Colored](#)
- [XML/XML to JSON](#)

### 194.5.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [Colorize JSON or XML in FileMaker with line numbers](#)
- [MBS FileMaker Plugin, version 8.2pr5](#)
- [MBS FileMaker Plugin, version 8.2pr2](#)
- [Colorize XML in FileMaker](#)

Created 8th April 2018, last changed 12nd November 2018.

## 194.6 XML.Compact

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	10.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Compact"; XML; Flags )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Flags

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier.

0

**Result** Returns XML text or error.

### Description

Removes spaces and returns to make compact representation to save network bandwidth for transmitting or disk space for storage.

### Examples

Compact the document:

```
MBS("XML.Compact"; XML::Input XML; 1)
```

### See also

- [194.9 XML.Format](#) 9422
- [194.26 XML.Parse](#) 9446

### 194.6.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr6](#)

Created 27th April 2020, last changed 11st May 2020.

## 194.7 XML.DeletePath

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.DeletePath"; XML; Path { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

```
"<test>Hello</test>"
```

#### Path

The path to the node or attribute to query.

```
"name"
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 4 to format returned XML. Add 32 to return result as XML.

```
0
```

**Result** Returns OK or error.

### Description

This function uses a path notation like the JSON functions in FileMaker to describe paths.

You can use name of a node followed by option index in square brackets. On the end you can use # followed by a name of an attribute to select only the attribute.

Delimiter between items can be dot like FileMaker or newline.

If you pass in a XML reference number and you do not pass Flag value 32 for returning as XML, we just modify the XML reference in memory. This avoids performance hit for outputting and parsing xml for each change.

### Examples

Delete node:

```
MBS( "XML.DeletePath"; "<test><node>Hello</node></test>"; "test.node"; 0)
```

```
Example result: <?xml version="1.0" encoding="UTF-8"?>
<test/>
```

Delete attribute:

```
MBS( "XML.DeletePath"; "<test><node id=\"123\">Hello</node></test>"; "test.node# id"; 0)
```

```
Example result: <?xml version="1.0" encoding="UTF-8"?>
<test><node>Hello</node></test>
```

194.7. *XML.DELETEPATH*

9419

**See also**

- 194.26 XML.Parse

9446

### **194.7.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 16th September 2017, last changed 2nd February 2018.

## 194.8 XML.ExtractText

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ExtractText"; XML { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns text or error.

### Description

Returns a list with texts from all sub nodes.

### Examples

Extracts text:

```
MBS( "XML.ExtractText"; "<Person><FirstName>Markus</FirstName><LastName>Müller</LastName><City>New York</City></Person>" )
```

Example result: Markus

Müller

New York

Custom function to get xml value as text:

```
GetXMLValue(xml, name)
```

# returns text of a xml node

```
Let ( [
part = MBS( "XML.SubTree"; xml; name);
result = If( MBS("IsError"); "" ; If(Length(part) = 0; "" ; MBS( "XML.ExtractText"; part)))
] ; Trim( result))
```

### See also

- 127.6 IsError



194.8. XML.EXTRACTTEXT	9421
• 194.26 XML.Parse	9446
• 194.35 XML.SubTree	9462

### Example Databases

- [CURL/WebServices/magento older](#)
- [CURL/WebServices/Sales Force Test](#)
- [XML/XML Test](#)

### 194.8.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.4 - Über 5400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 8.4 - More than 5400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 8.4pr1](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)
- [New XML Functions in MBS FileMaker Plugin](#)

### 194.8.2 FileMaker Magazin

- [Ausgabe 3/2017, Seite 27](#)

Created 26th December 2016, last changed 2nd February 2018.

## 194.9 XML.Format

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	6.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Format"; XML { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier. (new in 6.3)

0

**Result** Returns XML or error.

### Description

Adds intention and new line characters to format XML for showing too human.

See also XML.Compact to reverse the formatting.

### Examples

Format the document:

MBS("XML.Format"; Canonical XML::Input XML; 1)

Format removing namespace:

MBS( "XML.Format"; "<cfdi:Invoice invoiceTotal=\"450.24\"></cfdi:Invoice>" ; 8)

Check if XML is valid:

MBS( "XML.Format"; "<hello></Hello>";0 )

Example result: [ MBS ] Failed to parse XML: Opening and ending tag mismatch: hello line 1 and Hello

### See also

- 167.1 Text.AddLineNumbers 7895
- 194.5 XML.Colorize 9415
- 194.6 XML.Compact 9417
- 194.26 XML.Parse 9446

### Example Databases

- [CURL/Amazon S3 Buckets](#)
- [DynaPDF/List XFA Streams](#)
- [Mac only/Script Workspace Context Menu Commands](#)
- [XML/Canonical XML](#)
- [XML/XML Test](#)
- [XML/XML to JSON](#)

#### 194.9.1 Blog Entries

- [Neues MBS FileMaker Plugin 8.3](#)
- [MBS FileMaker Plugin 8.3 released](#)
- [Colorize JSON or XML in FileMaker with line numbers](#)
- [MBS FileMaker Plugin, version 7.5pr8](#)
- [MBS FileMaker Plugin, version 6.2pr10](#)

#### 194.9.2 FileMaker Magazin

- [Ausgabe 3/2017, Seite 27](#)

Created 20th May 2016, last changed 10th May 2020.

## 194.10 XML.GetAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.GetAttribute"; XML; Name { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Name

The name of the attribute to query.

"name"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns text or error.

### Description

### Examples

Query attribute value:

MBS( "XML.GetAttribute"; "<a href=\"http://mbsplugins.de\">mbsplugins.de</a>"; "href")

Example result: http://mbsplugins.de

### See also

- 194.12 XML.HasAttribute 9427
- 194.23 XML.ListAttributes 9442
- 194.26 XML.Parse 9446

### 194.10.1 Blog Entries

- [New XML Functions in MBS FileMaker Plugin](#)

Created 27th December 2016, last changed 2nd February 2018.

## 194.11 XML.GetPathValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.GetPathValue"; XML; Path { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

```
"<test>Hello</test>"
```

#### Path

The path to the node or attribute to query.

```
"name"
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 2 to return empty text instead of errors. Add 4 to format returned XML. Add 32 to return result as XML, if it's more than just a text.

```
0
```

**Result** Returns text or error.

### Description

This function uses a path notation like the JSON functions in FileMaker to describe paths.

You can use name of a node followed by option index in square brackets. On the end you can use # followed by a name of an attribute to select only the attribute.

Delimiter between items can be dot like FileMaker or newline.

### Examples

Return test node value:

```
MBS( "XML.GetPathValue"; "<test>Hello</test>"; "test"; 0)
```

Example result: "Hello"

Query value of attribute:

```
MBS( "XML.GetPathValue"; "<test id=\"123\">Hello</test>"; "test# id")
```

Example result: "123"

Query value of node:

```
MBS( "XML.GetPathValue"; "<outer><inner>Hello</inner></outer>"; "outer.inner")
```

Example result: "Hello"

Query subtree as XML:

```
MBS( "XML.GetPathValue"; "<outer><middle><inner>Hello</inner></middle></outer>"; "outer.middle"; 32+4)
```

```
Example result: "<?xml version="1.0" encoding="UTF-8"?>
<middle>
<inner>Hello</inner>
</middle>"
```

Query items with index:

```
MBS( "XML.GetPathValue"; "<people><personid>123</personid><personid>456</personid><personid>789</personid></people>"; "people.personid [ 2 ] "; 0)
```

Example result: "789"

Query value from complex XML:

```
MBS("XML.GetPathValue"; XML::BKML_data; "bkml.form106AB.data.line1.realProperty.property [ 0 ] .citystatezip";0)
```

Query items with index in variable:

```
MBS( "XML.GetPathValue"; "<people><personid>123</personid><personid>456</personid><personid>789</personid></people>"; "people.personid [ " & $index & " ] "; 0)
```

### See also

- [194.26 XML.Parse](#) 9446
- [194.32 XML.SetPathValue](#) 9456

### Example Databases

- [CURL/Amazon S3 Upload File](#)

#### 194.11.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr4](#)
- [MBS FileMaker Plugin, version 7.5pr7](#)
- [MBS FileMaker Plugin, version 7.5pr6](#)
- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 15th September 2017, last changed 4th March 2020.

## 194.12 XML.HasAttribute

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.HasAttribute"; XML; Name { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Name

The name of the attribute to query.

"name"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns 1, 0 or error.

### Description

### Examples

Queries whether attribute exists:

MBS( "XML.HasAttribute"; "<a href=\"http://mbsplugins.de\">mbsplugins.de</a>"; "href")

Example result: 1

### See also

- 194.10 XML.GetAttribute 9424
- 194.23 XML.ListAttributes 9442
- 194.26 XML.Parse 9446

Created 27th December 2016, last changed 2nd February 2018.

## 194.13 XML.Import

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import"; XML; InsertFileName { ; TableNamePrefix; Flags } )

### Parameters

#### XML

The XML data to import.

#### InsertFileName

The file name of where the insert table is inside. Can be empty.

Get(FileName)

#### TableNamePrefix

Optional

The prefix to put in front of all tables.

"Import"

#### Flags

Optional

Sum of flags. Pass 1 to ignore errors in xml and continue parsing. Pass 2 to ignore outer XML wrapper nodes. Pass 4 to import flat, so no subtables for included nodes. Pass 8 to convert CDATA to text nodes. CDATA should contain ASCII or UTF-8 text! Pass 16 to trim values.

0

**Result** Returns number or error.

### Description

This function can import any XML into FileMaker tables with all fields and attributes.

Returns number of records to be added. This function prefers the import and runs it later at idle time. In a script please call XML.Import and then loop and do script pauses. Then use XML.Import.Status to check regularly for updates. When you get back Finished as status, the script can continue with other work.

If you have a XML file you need to import regularly into FileMaker and you have no XSLT to transform it for FileMaker, you can use this plugin function. On the first run, it creates for a sample xml file the required tables and fields. Then you can define any layout or script to process values, e.g. copy into your tables. On further runs the plugin may add more fields (if newer xml file has more fields) and import newer records.

All tables have three default fields. `_RecordUUID` is an unique identifier for the record. `_ParentRecordUUID` provides a link to the record one level higher in the XML. This can be used to find child/parent records. The `_CreationTimeStamp` is the creation date, so you can distinguish different imports.

As a lot of records with a lot of data is imported and you may not need everything, you may want to put the imports in an extra FileMaker file. You decide if you clear tables before import or you want to keep history of all imports.



If the XML has errors like a missing < in the xml, you get an error. If you switch on IgnoreError parameter, the plugin reads everything until the error is reached which may give less records than possible.

This function works at idle time which is currently not supported on server. But you can use the function XML.Import.Work to perform the work instead of the idle handler. This enables importing of data, but not table/field creation.

Requires FileMaker 12 or newer.

See also XML.Import.SetBaseFields and XML.Import.SetExtraField.

### Examples

Imports test.xml into FileMaker:

```
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.xml"; "UTF-8") ]
Set Variable [ $r; Value:MBS("XML.Import"; $text; ""; "" ) ]
Set Variable [ $text; Value:"" ]
If [ MBS("IsError") = 0 ]
Set Variable [ $total; Value:MBS("XML.Import.Total") ]
Loop
Set Variable [ $todo; Value:MBS("XML.Import.TODO") ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $s; Value:MBS("XML.Import.Status") ]
Exit Loop If [ $s "Working" ]
End Loop
Show Custom Dialog [ "XML Import"; $r & " " & $s ]
End If
```

Import script with progress bar for importing XML with Windows ANSI encoding:

```
Go to Layout [ "XML Import" (Import2Row) ]
Delete All Records [ No dialog ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetBottomText"; "" ) ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetTopText"; "Importiere XML") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetTitle"; "Import...") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetButtonCaption"; "Abbrechen") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetProgress"; -1) ]
Set Variable [ $r; Value:MBS("ProgressDialog.Show") ]
Pause/Resume Script [ Duration (seconds): ,1 ]
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.xml"; "Windows") ]
Set Variable [ $r; Value:MBS("XML.Import"; $text; ""; "Import2") ]
Set Variable [ $text; Value:"" ]
If [ MBS("IsError") = 0 ]
Set Variable [ $total; Value:MBS("XML.Import.Total") ]
Loop
Set Variable [ $todo; Value:MBS("XML.Import.TODO") ]
Set Variable [ $r; Value:MBS("ProgressDialog.SetProgress"; ($total - $todo) * 100 / $total) ]
```

```

Set Variable [ $r; Value:MBS("ProgressDialog.SetBottomText"; "Schritt " & ($total - $todo) & " von " &
$total) ]
Pause/Resume Script [ Duration (seconds): 1 ]
Set Variable [ $s; Value:MBS("XML.Import.Status") ]
Exit Loop If [ $s "Working" ]
If [ MBS("ProgressDialog.GetCancel") = 1 ]
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]
Set Variable [ $r; Value:MBS("XML.Import.Cancel") ]
Exit Script [ ]
End If
End Loop
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]
Show Custom Dialog [ "XML Import"; $r & " " & $s ]
End If
Set Variable [ $r; Value:MBS("ProgressDialog.Hide") ]

```

Read Database Design Report:

```

# read XML from file in UTF-16
Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.xml"; "UTF-16") ]
# now remove the UTF-16 encoding marker
Set Variable [ $text; Value:Substitute($text; "<?xml version=\\"1.0\\" encoding=\\"UTF-16\\"?>"; "") ]
# read XML from file
Set Variable [ $r; Value:MBS("XML.Import"; $text; ""; "Import") ]

```

### See also

- 133.16 ProgressDialog.SetBottomText 6621
- 133.25 ProgressDialog.SetProgress 6635
- 133.27 ProgressDialog.SetTitle 6639
- 133.30 ProgressDialog.SetTopText 6645
- 133.31 ProgressDialog.Show 6647
- 167.49 Text.ReadTextFile 7971
- 194.14 XML.Import.Cancel 9432
- 194.17 XML.Import.SetBaseFields 9435
- 194.18 XML.Import.SetExtraField 9436
- 194.19 XML.Import.Status 9437

### Example Databases

- [XML/XML Import](#)

### 194.13.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr3](#)
- [MBS FileMaker Plugin, version 8.5pr5](#)
- [MBS FileMaker Plugin, version 7.5pr6](#)
- [MBS FileMaker Plugin 7.1 - Über 4400 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 7.1 - More than 4400 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 7.1pr3](#)
- [MBS FileMaker Plugin, version 7.1pr1](#)
- [MBS FileMaker Plugin, version 6.4pr1](#)
- [MBS FileMaker Plugin, version 6.2pr5](#)
- [MBS FileMaker Plugin, version 6.0pr7](#)

### 194.13.2 FileMaker Magazin

- [Ausgabe 5/2018, Seite 25](#)
- [Ausgabe 5/2018, Seite 24](#)
- [Ausgabe 5/2015, Seite 38](#)

Created 8th September 2015, last changed 21st November 2019.

## 194.14 XML.Import.Cancel

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.Cancel" )

**Result** Returns OK.

**Description**

**See also**

- 102.58 JSON.Import.Cancel 5398
- 194.13 XML.Import 9428

**Example Databases**

- [XML/XML Import](#)

### 194.14.1 Blog Entries

- [MBS FileMaker Plugin, version 6.2pr7](#)

### 194.14.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25

Created 8th September 2015, last changed 26th October 2015.

**194.15 XML.Import.ErrorCount**

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.ErrorCount" )

**Result** Returns number or error.

**Description**

Should be zero if we had no errors while importing.

**See also**

- [102.59 JSON.Import.ErrorCount](#) 5399
- [194.16 XML.Import.Errors](#) 9434

**194.15.1 Blog Entries**

- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 18th June 2019, last changed 18th June 2019.

## 194.16 XML.Import.Errors

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	9.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.Errors" )

**Result** Returns list or error.

### Description

We remove duplicates, so you may not see all errors.

### See also

- [102.60 JSON.Import.Errors](#) 5400
- [194.15 XML.Import.ErrorCount](#) 9433
- [194.19 XML.Import.Status](#) 9437
- [194.22 XML.Import.Work](#) 9440

### 194.16.1 Blog Entries

- [Whats new in MBS FileMaker Plugin version 9.3](#)
- [MBS FileMaker Plugin, version 9.3pr3](#)

Created 18th June 2019, last changed 18th June 2019.

## 194.17 XML.Import.SetBaseFields

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.SetBaseFields"; RecordUUIDFieldName; CreationTimeStampFieldName; ParentRecordUUIDFieldName )

### Parameters

#### RecordUUIDFieldName

The field name for the record UUID field.

"\_RecordUUID"

#### CreationTimeStampFieldName

The name for the time stamp field.

"\_CreationTimeStamp"

#### ParentRecordUUIDFieldName

The name for the parent record UUID field.

"\_ParentRecordUUID"

**Result** Returns OK or error.

### Description

If the names are empty, the field is not created.

### Examples

Disable all fields:

```
MBS("XML.Import.SetBaseFields"; ""; ""; "")
```

Set default names:

```
MBS("XML.Import.SetBaseFields"; "_RecordUUID"; "_CreationTimeStamp"; "_ParentRecordUUID")
```

### See also

- 102.57 JSON.Import 5395
- 194.13 XML.Import 9428
- 194.18 XML.Import.SetExtraField 9436

### 194.17.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 2nd February 2017, last changed 2nd February 2017.

## 194.18 XML.Import.SetExtraField

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.1	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.SetExtraField"; FieldName; FieldValue { ; FieldType } )

### Parameters

#### FieldName

The name of the extra field.

"ImportID"

#### FieldValue

The value for this field. Can be any data type, but must match field type.

1

#### FieldType

Optional

The SQL field type. Default is "VARCHAR" for a text field.

"VARCHAR"

**Result** Returns OK or error.

### Description

Please call before XML.Import.

You can call it again when import loop is done and pass in empty name and value to clear it.

Only one extra field and only added when table is created.

### Examples

Set extra field:

```
Set Variable [ $r ; Value: MBS( "XML.Import.SetExtraField"; "test"; "Hello"; "VARCHAR" ) ]
```

### See also

- 102.57 JSON.Import 5395
- 194.13 XML.Import 9428
- 194.17 XML.Import.SetBaseFields 9435

### 194.18.1 Blog Entries

- [MBS FileMaker Plugin, version 7.1pr1](#)

Created 2nd February 2017, last changed 19th June 2019.



## 194.19 XML.Import.Status

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.Status" )

**Result** Returns status value.

### Description

Returns Working, Finished or Unknown depending of the state.

So before first import, it is unknown. Than with first import it switches to working. Now when it's ready, you get back Finished.

### See also

- [102.61 JSON.Import.Status](#) 5401
- [194.13 XML.Import](#) 9428
- [194.16 XML.Import.Errors](#) 9434
- [194.22 XML.Import.Work](#) 9440

### Example Databases

- [XML/XML Import](#)

### 194.19.1 Blog Entries

- [XML Import for FileMaker](#)

### 194.19.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25
- Ausgabe 5/2018, Seite 24

Created 8th September 2015, last changed 26th October 2015.

## 194.20 XML.Import.TODO

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.TODO" { ; Selector } )

### Parameters

#### Selector

Optional

Which value to return. By default we return number of records to create. You can pass here "Tables" to get number of tables, "Fields" to get number of fields or "Records" to get number of records.

**Result** Returns number.

### Description

#### See also

- 102.62 JSON.Import.TODO 5402
- 194.13 XML.Import 9428
- 194.21 XML.Import.Total 9439
- 194.22 XML.Import.Work 9440

### Example Databases

- [XML/XML Import](#)

#### 194.20.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)
- [XML Import for FileMaker](#)

#### 194.20.2 FileMaker Magazin

- Ausgabe 5/2018, Seite 25

Created 8th September 2015, last changed 10th November 2015.

## 194.21 XML.Import.Total

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.Total" )

**Result** Returns number.

**Description**

**See also**

- 102.63 JSON.Import.Total 5403
- 194.13 XML.Import 9428
- 194.20 XML.Import.TODO 9438
- 194.22 XML.Import.Work 9440

**Example Databases**

- [XML/XML Import](#)

### 194.21.1 FileMaker Magazin

- Ausgabe 5/2018, Seite 25

Created 8th September 2015, last changed 26th October 2015.

## 194.22 XML.Import.Work

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	5.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Import.Work" )

**Result** Returns OK or error.

### Description

Normally we do import on idle while a script pause. But on server this does not work.

You can call this method in a loop to do the inserts for the import.

But it will not create the tables and fields required for import.

### Examples

Import on server:

```

Set Variable [ $text; Value:MBS("Text.ReadTextFile"; "/Users/cs/Desktop/test.xml"; "UTF-8") ]
Set Variable [ $r; Value:MBS("XML.Import"; $text; ""; "") ]
Set Variable [ $text; Value:"" ]
If [ MBS("IsError") = 0 ]
Set Variable [ $total; Value:MBS("XML.Import.Total") ]
Loop
Set Variable [ $work; Value:MBS("XML.Import.Work") ]

Set Variable [ $status; Value:MBS("XML.Import.Status") ]
Exit Loop If [ $status = "Working" ]
End Loop
End If

```

### See also

- 127.6 IsError 6374
- 102.64 JSON.Import.Work 5404
- 167.49 Text.ReadTextFile 7971
- 194.13 XML.Import 9428
- 194.16 XML.Import.Errors 9434
- 194.19 XML.Import.Status 9437
- 194.20 XML.Import.TODO 9438
- 194.21 XML.Import.Total 9439

### Example Databases

- [XML/XML Import](#)

### 194.22.1 Blog Entries

- [MBS FileMaker Plugin, version 5.4pr5](#)

Created 10th November 2015, last changed 27th March 2018.

## 194.23 XML.ListAttributes

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ListAttributes"; XML { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

```
"<img width=\"123\" height=\"456\" alt=\"test\"></img>"
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns list or error.

### Description

#### Examples

Query attribute names:

```
MBS( "XML.ListAttributes"; "<img width=\"123\" height=\"456\" alt=\"test\"></img>" )
```

Example result: width

height

alt

### See also

- 194.10 XML.GetAttribute 9424
- 194.12 XML.HasAttribute 9427
- 194.26 XML.Parse 9446

### 194.23.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr1](#)

Created 27th December 2016, last changed 2nd February 2018.

## 194.24 XML.NodeCount

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.NodeCount"; XML; Name { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

"<test>Hello</test>"

#### Name

The name of the node to query. This can be a list to go over several steps to the target tree part.

"something"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns number or error.

### Description

Only the top nodes in the XML and not sub nodes down the hierarchy.

#### See also

- 194.25 XML.NodeNames 9444
- 194.26 XML.Parse 9446
- 194.35 XML.SubTree 9462

### 194.24.1 Blog Entries

- [MBS FileMaker Plugin, version 7.0pr2](#)

Created 2nd January 2017, last changed 23th January 2020.

## 194.25 XML.NodeNames

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.NodeNames"; XML { ; recursive; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

```
"<test>Hello</test>"
```

#### recursive

Optional

Whether to recurse in sub tree. Pass 1 for recursive or 0 for non-recursive. Default is 0.

```
1
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 16 to ignore empty tags. (new in plugin version 7.1)

```
0
```

**Result** Returns list or error.

### Description

Excludes the root node. The list has no duplicates.

### Examples

Query list of node names:

```
MBS( "XML.NodeNames"; "<Person><FirstName>Markus</FirstName><LastName>Müller</LastName><City>New York</City></Person>" )
```

Example result: FirstName

LastName

City

Create records and fill fields with xml values:

```
Go to Layout [ "XML Parser" ]
```

```
# find the node with all the records we need:
```

```
Set Variable [ $xml; Value:MBS( "XML.SubTree"; XML Parser::Input XML; "Body$GetCategoryProduct-Response" ) ]
```

```
# query number of products
```

```
Set Variable [ $count; Value:MBS( "XML.NodeCount"; $xml; "PRODUCT" ) ]
```

```
# loop over products
```

```
Set Variable [ $index; Value:0 ]
```

```
Loop
```



```

# get a product
Set Variable [ $xml; Value:MBS( "XML.SubTree"; $oxml; "PRODUCT"; $index) ]
# get the names of the XML nodes
Set Variable [ $names; Value:MBS( "XML.NodeNames"; $xml; 0; 16) ]
# loop over the names
Set Variable [ $NameCount; Value:ValueCount ( $names ) ]
Set Variable [ $NameIndex; Value:1 ]
New Record/Request
Loop
# Query a value and put it in a field
Set Variable [ $name; Value:GetValue($names; $NameIndex) ]
Set Field By Name [ "XML Parser::" & $name; GetXMLValue( $xml; $name) ]
Set Variable [ $NameIndex; Value:$NameIndex + 1 ]
Exit Loop If [ $NameIndex = $NameCount ]
End Loop
Commit Records/Requests [ No dialog ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index = $count ]
End Loop

```

**See also**

- 194.24 XML.NodeCount 9443
- 194.26 XML.Parse 9446
- 194.35 XML.SubTree 9462

**Example Databases**

- [XML/XML Test](#)

**194.25.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.1pr1](#)
- [MBS FileMaker Plugin, version 7.0pr1](#)
- [New XML Functions in MBS FileMaker Plugin](#)

## 194.26 XML.Parse

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Parse"; XML { ; Flags } )

### Parameters

#### XML

The XML to process.

"<test>Hello</test>"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier.

0

**Result** Returns XML reference or error.

### Description

The document stays in memory and can be queried several times as needed.

If you need to query a lot of values, please parse once first. Else all XML functions need to parse again on each call.

Please use XML.Release later to free document from memory.

### See also

- 194.2 XML.ApplyStylesheet 9410
- 194.9 XML.Format 9422
- 194.12 XML.HasAttribute 9427
- 194.24 XML.NodeCount 9443
- 194.27 XML.Query 9448
- 194.30 XML.Release 9454
- 194.32 XML.SetPathValue 9456
- 194.34 XML.SetVariables 9460
- 194.35 XML.SubTree 9462
- 194.37 XML.Validate 9466

### Example Databases

- [Utility functions/Trigger Script on Plugin Error](#)

### 194.26.1 Blog Entries

- [MBS FileMaker Plugin, version 9.1pr5](#)
- [MBS FileMaker Plugin 7.3 - Über 4800 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin 7.3 - More than 4800 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 7.3pr7](#)

Created 14th July 2017, last changed 17th September 2017.

## 194.27 XML.Query

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	3.0	Yes	Yes	Yes	Yes	Yes

```
MBS( "XML.Query"; xml; path { ; namespaceList; Flags } )
```

### Parameters

#### xml

The XML you'd like to parse. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

```
"<hello>Hello World</hello>"
```

#### path

The XPath you'd like to query.

```
"/*"
```

#### namespaceList

Optional

List of namespaces. This is a list of known namespaces in "<prefix1>=<href1><prefix2>=<href2>..." format.

```
"SOAP-ENV=http://schemas.xmlsoap.org/soap/envelope/"
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 2 to return a list of xml nodes as text instead of xml. (new in 5.4) Add 4 if you do not like the XML to be formatted. Add 8 to remove all namespaces before query to have queries easier. (new in 6.3)

```
0
```

**Result** Returns xml text.

### Description

Result is either simple text, a xml node or several xml nodes in a result root node. XML is returned formatted.

Please check on the web for XPath manuals and tutorials.

Version 3.4 of the plugins now also return string, number and boolean results instead of just XML nodes.

If the query to find the node is too difficult, you can of course use text functions instead. For example use Text.FindBetween and Text.DecodeFromXML.

See XML Path Language (XPath) specification here:

<https://www.w3.org/TR/1999/REC-xpath-19991116/>

### Examples

Query the Hello World text:

```
MBS( "XML.Query"; "<hello>Hello World</hello>"; "/hello/text()" )
```

Example result: Hello World

Query an attribute of a XML Node:

```
MBS("XML.Query"; "<OrderRequestHeader orderID=\"1629\" orderDate=\"2013-07-26T12:20:27\" type=\"new\"><OrderRequestHeader>"; "/OrderRequestHeader/@orderID" )
```

Example result: <?xml version="1.0" encoding="UTF-8"?>  
orderID="1629"

Query an attribute of a XML Node as string:

```
MBS("XML.Query"; "<OrderRequestHeader orderID=\"1629\" orderDate=\"2013-07-26T12:20:27\" type=\"new\"><OrderRequestHeader>"; "string(/OrderRequestHeader/@orderID)" )
```

Example result: 1629

Query all text from all nodes named reference ignoring namespaces:

```
MBS( "XML.Query"; XML Query::XML; "//*[ local-name()='reference' ] /text()"; "" ; 2 )
```

Finds a Field node where attribute name is "Class":

```
MBS( "XML.Query"; $xml; "/CDETS/Defect/Field [ @name='Class' ] /text()" )
```

Finds second companyname node in xml data with namespace invoice:

```
MBS("XML.Query"; XML Query::XML; "//invoice:companyname [ 2 ] "; "invoice=http://www.forum-datenaustausch.ch/invoice"; 2)
```

Query node without namespaces:

```
MBS( "XML.Query"; "<cfdi:Invoice invoiceTotal=\"450.24\"></cfdi:Invoice>"; "/Invoice/@invoiceTotal"; "" ; 8+2)
```

Example result: 450.24

Query attributes:

```
MBS( "XML.Query"; "<b Guid=\"123\">Entry1</b><b Guid=\"456\">Entry2</b></a>"; "/a/b/@Guid"; "" ; 2 )
```

Example result: 123

456

### See also

- 87.170 GImage.GetXMP

- 167.20 Text.DecodeFromXML 7933
- 167.39 Text.FindBetween 7959
- 194.26 XML.Parse 9446

### Example Databases

- [CURL/WebServices/Swiss Post Addresscheck V4-02-00](#)
- [CURL/WebServices/Swiss Post Addresscheck](#)
- [DynaPDF/List XFA Fields](#)
- [XML/XML Query](#)

### 194.27.1 Blog Entries

- [MBS FileMaker Plugin, version 8.0pr9](#)
- [MBS FileMaker Plugin, version 6.3pr5](#)
- [MBS FileMaker Plugin, version 6.2pr4](#)
- [Swiss Post Webservice to verify addresses](#)
- [MBS FileMaker Plugin, version 5.4pr4](#)
- [MBS FileMaker Plugin, version 5.4pr3](#)
- [MBS FileMaker Plugin, version 5.1pr6](#)
- [MBS Filemaker Plugin, version 3.4pr1](#)
- [MBS FileMaker Plugin 3.0 for OS X/Windows - More than 1300 Functions In One Plugin](#)
- [MBS Filemaker Plugin, version 3.0pr5](#)

### 194.27.2 FileMaker Magazin

- [Ausgabe 3/2017, Seite 27](#)
- [Ausgabe 4/2016, Seite 19](#)

## 194.28 XML.ReadContainer

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ReadContainer"; Container { ; Flags } )

### Parameters

#### Container

The container value to read as XML file.

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier.

0

**Result** Returns XML reference or error.

### Description

The document stays in memory and can be queried several times as needed.

If you need to query a lot of values, please parse once first. Else all XML functions need to parse again on each call.

Please use XML.Release later to free document from memory.

By passing XML directly from file content to XML engine, we avoid any corruption due to wrong encoding or line endings.

### Examples

Read XML from container:

```
MBS( "XML.ReadContainer"; Test::XMLContainer )
```

### See also

- [194.30 XML.Release](#)

9454

### 194.28.1 Blog Entries

- [MBS FileMaker Plugin, version 9.3pr4](#)
- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 17th September 2017, last changed 17th September 2017.

## 194.29 XML.ReadFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ReadFile"; Path { ; Flags } )

### Parameters

#### Path

The file path or URL to read as XML file.

"/Users/cs/Desktop/test.xml"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier.

0

**Result** Returns XML reference or error.

### Description

The document stays in memory and can be queried several times as needed.

If you need to query a lot of values, please parse once first. Else all XML functions need to parse again on each call.

Not limited in file size, so you can read in giga byte big files if you have free memory.

Please use XML.Release later to free document from memory.

By passing XML directly from file content to XML engine, we avoid any corruption due to wrong encoding or line endings.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Read XML file:

```
$xmlRef = MBS( "XML.ReadFile"; "/Users/cs/Desktop/iTunes Library.xml")
```

### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 194.30 XML.Release 9454



### 194.29.1 Blog Entries

- [MBS FileMaker Plugin, version 7.4pr7](#)

Created 17th September 2017, last changed 17th September 2017.

## 194.30 XML.Release

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Release"; XMLRef )

### Parameters

#### XMLRef

A XML reference number.

\$XML

**Result** Returns OK or error.

### Description

#### See also

- 62.149 CURL.Release 2011
- 160.21 SSH.Release 7632
- 190.17 WMFP.Release 8923
- 49.29 X509.Release 1410
- 194.26 XML.Parse 9446
- 194.28 XML.ReadContainer 9451
- 194.29 XML.ReadFile 9452
- 194.31 XML.ReleaseAll 9455

### 194.30.1 Blog Entries

- [MBS FileMaker Plugin, version 7.3pr7](#)

Created 14th July 2017, last changed 14th July 2017.

## 194.31 XML.ReleaseAll

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.3	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ReleaseAll" )

**Result** Returns OK or error.

### Description

Be aware that on a server this may free objects, which are used by other scripts running in parallel!

### See also

- 62.150 CURL.ReleaseAll 2013
- 99.11 Java.ReleaseAll 5246
- 102.68 JSON.ReleaseAll 5411
- 114.24 Menu.ReleaseAll 5988
- 166.29 TAPI.ReleaseAll 7884
- 194.30 XML.Release 9454

Created 14th July 2017, last changed 9th January 2020.

## 194.32 XML.SetPathValue

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.4	Yes	Yes	Yes	Yes	Yes

MBS( "XML.SetPathValue"; XML; Path; Flags; Value )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Path

The path to the node or attribute to query.

"name"

#### Flags

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 4 to format returned XML. Add 32 to return result as XML.

0

#### Value

The new value for node or attribute.

"Hello"

**Result** Returns OK or error.

### Description

If needed, new nodes / attributes are added.

This function uses a path notation like the JSON functions in FileMaker to describe paths.

You can use name of a node followed by option index in square brackets. On the end you can use # followed by a name of an attribute to select only the attribute. Empty brackets or too big index allow you to append new node in v8.1.

Delimiter between items can be dot like FileMaker or newline.

If you pass in a XML reference number and you do not pass Flag value 32 for returning as XML, we just modify the XML reference in memory. This avoids performance hit for outputting and parsing xml for each change.

### Examples

Add a first name:

```
MBS( "XML.SetPathValue"; "<person/>"; "person.firstName"; 0; "Joe" )
```

Example result: "<?xml version="1.0" encoding="UTF-8"?>  
<person><firstName>Joe</firstName></person>"

Add id attribute:

```
MBS( "XML.SetPathValue"; "<person/>"; "person# id"; 0; "123" )
```

```
Example result: "<?xml version="1.0" encoding="UTF-8"?>
<person id="123"/>"
```

Adds a new name node with href number.

```
MBS( "XML.SetPathValue"; "<person></person>"; "person.name href=\"10.00\""; 4; "" )
```

```
Example result: "<?xml version="1.0" encoding="UTF-8"?>
<person>
<name href="10.00"/>
</person>"
```

#### See also

- 194.11 XML.GetPathValue 9425
- 194.26 XML.Parse 9446

#### Example Databases

- [CURL/Amazon S3 Upload File](#)

#### 194.32.1 Blog Entries

- [MBS FileMaker Plugin, version 8.1pr1](#)
- [MBS FileMaker Plugin, version 7.4pr6](#)

Created 16th September 2017, last changed 2nd February 2018.

## 194.33 XML.SetPathXML

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "XML.SetPathXML"; XML; Path; Flags; NewXML )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Path

The path to the node or attribute to query.

"name"

#### Flags

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 4 to format returned XML. Add 32 to return result as XML.

0

#### NewXML

The new xml for node or attribute. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

"<name>Christian</name>"

**Result** Returns OK or error.

### Description

If needed, new nodes / attributes are added.

This function uses a path notation like the JSON functions in FileMaker to describe paths. Please point with path to new node.

You can use name of a node followed by option index in square brackets. On the end you can use # followed by a name of an attribute to select only the attribute. Empty brackets or too big index allow you to append new node.

Delimiter between items can be dot like FileMaker or newline.

If you pass in a XML reference number and you do not pass Flag value 32 for returning as XML, we just modify the XML reference in memory. This avoids performance hit for outputting and parsing xml for each change.

### Examples

Insert new node:

```
MBS("XML.SetPathXML"; "<export><person></person></export>"; "export$person$name"; 0; "<name>Test</name>")
```

Example result: <?xml version="1.0" encoding="UTF-8"?>

```
<export><person><name>Test</name></person></export>
```

Insert second node with index:

```
MBS("XML.SetPathXML"; "<export><person><name>First</name></person></export>"; "export$person$name [ 1 ] "; 0; "<name>Test</name>")
```

Example result: <?xml version="1.0" encoding="UTF-8"?>

```
<export><person><name>First</name><name>Test</name></person></export>
```

Append node:

```
MBS("XML.SetPathXML"; "<export><person><name>First</name></person></export>"; "export$person$name [ ] "; 0; "<name>Test</name>")
```

### See also

- [194.26 XML.Parse](#)

9446

## 194.33.1 Blog Entries

- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr1](#)

Created 2nd February 2018, last changed 2nd February 2018.

## 194.34 XML.SetVariables

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.SetVariables"; XML { ; recursive; Flags; Prefix } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times queries to the XML without parsing it each time.

"<test>Hello</test>"

#### recursive

Optional

Whether to recurse in sub tree. Pass 1 for recursive or 0 for non-recursive. Default is 0.

1

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

#### Prefix

Optional

The prefix to use for the variables names.

""

**Result** Returns list or error.

### Description

Returns list of variable names.

If variables receive multiple values the name in the result comes the highest index in square brackets.

You can call XML.ClearVariables later to clear those variables.

### Examples

Set variables:

```
MBS( "XML.SetVariables"; "<Person><FirstName>Markus</FirstName><LastName>Müller</LastName><City>New York</City></Person>" )
```

Example result: LastName

City

FirstName

### See also

- 123.18 OCR.SetVariable



<i>194.34. XML.SETVARIABLES</i>	9461
• 126.10 PHP.SetVariable	6366
• 194.4 XML.ClearVariables	9414
• 194.26 XML.Parse	9446

### **Example Databases**

- [XML/XML Test](#)

### **194.34.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)
- [New XML Functions in MBS FileMaker Plugin](#)

### **194.34.2 FileMaker Magazin**

- Ausgabe 3/2017, Seite 27

Created 25th December 2016, last changed 2nd February 2018.

## 194.35 XML.SubTree

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	7.0	Yes	Yes	Yes	Yes	Yes

MBS( "XML.SubTree"; XML; Name { ; Flags; Index } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

```
"<test>Hello</test>"
```

#### Name

The name of the node to query. This can be a list to go over several steps to the target tree part.

```
"something"
```

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 4 if you do not like the XML to be formatted. Add 8 to remove all namespaces before query to have queries easier. (new in 6.3)

```
0
```

#### Index

Optional

The index of the item to get. First has index 0 as this counts down how many to skip.

```
0
```

**Result** Returns OK or error.

### Description

You can pass an index to get nth item.

Returns empty result if index is too high, so you can loop until you get empty result.

### Examples

Query person entry:

```
MBS( "XML.SubTree"; "<People><Person><FirstName>Markus</FirstName><LastName>Müller</LastName><City>New York</City></Person></People>"; "Person")
```

Example result: <?xml version="1.0" encoding="UTF-8"?>

```
<Person>
```

```
<FirstName>Markus</FirstName>
```

```
<LastName>Müller</LastName>
```

```
<City>New York</City>
```

```
</Person>
```

Queries values:

```

Set Variable [ $xml; Value:"<a><b>123</b><b>456</b><b>789</b></a>" ]
Show Custom Dialog [ "First item:"; MBS( "XML.ExtractText"; MBS( "XML.SubTree"; $xml; "b"; 0; 0) ) ]
Show Custom Dialog [ "Second item:"; MBS( "XML.ExtractText"; MBS( "XML.SubTree"; $xml; "b"; 0; 1) ) ]
Show Custom Dialog [ "Third item:"; MBS( "XML.ExtractText"; MBS( "XML.SubTree"; $xml; "b"; 0; 2) ) ]

```

Query data in SOAP Webservice response:

```
MBS( "XML.SubTree"; $XML; "Envelope$Body$AddressCheckerResponse$rows")
```

Custom function to get xml value as text:

```
GetXMLValue(xml, name)
```

```
# returns text of a xml node
```

```

Let ( [
part = MBS( "XML.SubTree"; xml; name);
result = If( MBS("IsError"); "" ; If(Length(part) = 0; "" ; MBS( "XML.ExtractText"; part)))
] ; Trim( result))

```

Create records and fill fields with xml values:

```

Go to Layout [ "XML Parser" ]
# find the node with all the records we need:
Set Variable [ $oxml; Value:MBS( "XML.SubTree"; XML Parser::Input XML; "Body$GetCategoryProductsResponse" ) ]
# query number of products
Set Variable [ $count; Value:MBS( "XML.NodeCount"; $oxml; "PRODUCT" ) ]
# loop over products
Set Variable [ $index; Value:0 ]
Loop
# get a product
Set Variable [ $xml; Value:MBS( "XML.SubTree"; $oxml; "PRODUCT"; $index) ]
# get the names of the XML nodes
Set Variable [ $names; Value:MBS( "XML.NodeNames"; $xml; 0; 16) ]
# loop over the names
Set Variable [ $NameCount; Value:ValueCount ( $names ) ]
Set Variable [ $NameIndex; Value:1 ]
New Record/Request
Loop
# Query a value and put it in a field
Set Variable [ $name; Value:GetValue($names; $NameIndex) ]
Set Field By Name [ "XML Parser::" & $name; GetXMLValue( $xml; $name) ]
Set Variable [ $NameIndex; Value:$NameIndex + 1 ]
Exit Loop If [ $NameIndex = $NameCount ]

```

```
End Loop
Commit Records/Requests [ No dialog ]
Set Variable [ $index; Value:$index + 1 ]
Exit Loop If [ $index > $count ]
End Loop
```

**See also**

- [127.6 IsError](#) 6374
- [194.8 XML.ExtractText](#) 9420
- [194.24 XML.NodeCount](#) 9443
- [194.25 XML.NodeNames](#) 9444
- [194.26 XML.Parse](#) 9446

**Example Databases**

- [CURL/WebServices/magento older](#)
- [CURL/WebServices/Sales Force Test](#)
- [XML/XML Test](#)

**194.35.1 Blog Entries**

- [MBS FileMaker Plugin, version 7.0pr1](#)
- [New XML Functions in MBS FileMaker Plugin](#)

**194.35.2 FileMaker Magazin**

- [Ausgabe 3/2017, Seite 27](#)

Created 25th December 2016, last changed 2nd February 2018.

## 194.36 XML.ToJSON

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ToJSON"; XML { ; Flags } )

### Parameters

#### XML

The XML to process.

"<test>Hello</test>"

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read.

0

**Result** Returns JSON or error.

### Description

For nodes in the XML we create objects and key/values.

Attributes are put in @attributes nodes.

### Example Databases

- [XML/XML to JSON](#)

### 194.36.1 Blog Entries

- [Neues MBS FileMaker Plugin 10.0](#)
- [MBS FileMaker Plugin 10.0 - More than 6000 Functions In One Plugin](#)
- [MBS FileMaker Plugin, version 9.6pr2](#)
- [MBS FileMaker Plugin, version 9.5pr8](#)
- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 8.2pr7](#)
- [MBS FileMaker Plugin, version 8.2pr5](#)

Created 27th April 2018, last changed 27th April 2018.

## 194.37 XML.Validate

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.1	Yes	Yes	Yes	Yes	Yes

MBS( "XML.Validate"; XML; Schema { ; Flags } )

### Parameters

#### XML

The XML to process. Can be XML as text or the reference returned by XML.Parse function, so you can make several times changes to the XML without parsing it each time.

"<test>Hello</test>"

#### Schema

The schema definition.

\$schema

#### Flags

Optional

Various Flags. Add 1 to ignore errors in xml and continue parsing. This may lead to not everything in the xml being read. Add 8 to remove all namespaces before query to have queries easier.

0

**Result** Returns OK or error.

### Description

Please pass in XML (or reference number from XML.Parse) and a valid XSD schema.

Version 8.2 or newer will return list of errors, so you see them all.

### Examples

Validate XML:

```
Set Variable [ $result; Value:MBS("XML.Validate"; XML Validation::XML; XML Validation::Schema; 0) ]
```

### See also

- [194.26 XML.Parse](#) 9446
- [194.38 XML.ValidateFile](#) 9468

### Example Databases

- [XML/XML Validation](#)

### 194.37.1 Blog Entries

- [MBS FileMaker Plugin, version 8.2pr1](#)

- [MBS FileMaker Plugin v8.1 with 5100 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.1](#)
- [MBS FileMaker Plugin, version 8.1pr2](#)

Created 6th February 2018, last changed 16th May 2019.

## 194.38 XML.ValidateFile

Component	Version	macOS	Windows	Server	FileMaker Cloud	FileMaker iOS SDK
194 XML	8.2	Yes	Yes	Yes	Yes	Yes

MBS( "XML.ValidateFile"; FilePath; Schema )

### Parameters

#### FilePath

Native file path to the file to check.

"/Users/cs/Desktop/test.xml"

#### Schema

The schema definition as xml text. With version 10.2 can also be file path.

\$schema

**Result** Returns OK or error.

### Description

Please pass in XML file path and a valid XSD schema.

Return list of errors, so you see them all.

If you use Process.SetCurrentDirectory to change current folder for the application process, the library uses this folder to search for referenced xsd files.

Changed with version 10.2 that you can pass schema as file name/path, so we can load it from same folder as the schema and referenced files in same folder are found.

This function requires a native path. Use Path.FileMakerPathToNativePath to convert a FileMaker path to a native path if required. If you like to have the user choose the path, you can use FileDialog functions.

For Server be aware that server has limited permissions and may not be able to access all files on a computer.

### Examples

Validate a file in a folder:

```
Set Variable [ $r ; Value: MBS( "Process.SetCurrentDirectory"; "/Users/cs/Documents/todo/XML Validate/" ) ]
```

```
Set Variable [ $result ; Value: MBS("XML.ValidateFile"; "test.xml"; XML Validation::Schema) ]
```

```
Set Field [ XML Validation::Result ; $result ]
```

Validate all in one folder:

```
# set folder
```

```
Set Variable [ $r ; Value: MBS( "Process.SetCurrentDirectory"; "/Users/cs/Desktop/XML Validate" ) ]
```

```
#
```

```
# validate file
```

```
Set Field [ XML Validation::Result ; MBS("XML.ValidateFile"; "test.xml"; "generalInvoiceRequest_450.xsd")
```

```
]
```



194.38. *XML.VALIDATEFILE*

9469

#

# folder contains xmldsig-core-schema.xsd, xenc-schema.xsd, generalInvoiceRequest\_450.xsd and test.xml

#### See also

- 124.2 Path.FileMakerPathToNativePath 6247
- 132.9 Process.SetCurrentDirectory 6595
- 194.37 XML.Validate 9466

#### 194.38.1 Blog Entries

- [MBS FileMaker Plugin, version 10.2pr5](#)
- [MBS FileMaker Plugin 8.2 - More than 5200 Functions In One Plugin](#)
- [MBS FileMaker Plugin 8.2 - 5200 Funktionen in einem Plugin](#)
- [MBS FileMaker Plugin, version 8.2pr1](#)

Created 6th March 2018, last changed 22nd April 2020.